



# 2009 Washington Statewide Waste Characterization Study

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Clallam County

Grays Harbor County

Whatcom County

Clark County

Lewis County

Kitsap County

Grant County

Yakima County

Spokane County

Walla Walla County

Port Angeles Transfer Station

Aberdeen Central Transfer Station

Regional Disposal Company

West Van Material Recovery Center

Lewis County Central Transfer Station

Olympic View Transfer Station

Ephrata Landfill

Terrace Heights Landfill

Spokane Regional Waste to Energy Facility

Sudbury Road Landfill

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# 1. Introduction

The Washington State Department of Ecology (Ecology) commissioned Cascadia Consulting Group (Cascadia) to conduct a four-season municipal solid waste (MSW) characterization study during 2009–2010. The purpose of this study was to support Ecology’s Beyond Waste Initiative and conduct an in-depth examination of the materials and resources currently being disposed throughout the state.

This study incorporated three additional analysis tasks, specifically:

- A packaging versus product analysis which separated each of the 130 materials examined in this study—with an emphasis on paper, plastic, glass, and metal— into either packaging or product classes, when applicable, or one of six other material categories when packaging and product designations do not apply.
- Detailed composition results for each of the State’s six waste generation areas (WGAs)—Central, East, Northwest, Puget Sound, Southwest, and West.
- A supplementary analysis which combines the 10 county statewide results with prior waste composition studies carried out in three additional Puget Sound Counties.

Ecology will be able to use the data collected in this study to assist municipalities as well as public and private solid waste managers to design targeted recycling and diversion programs. These programs will move beyond material disposal to resource conservation and ultimately to a healthier Washington State.

As a preliminary look at the statewide data, Figure 1 through Figure 5 display the composition estimates, by **Material Class**, for the overall waste stream and each of the four studied waste sectors. As shown disposed **Organics** is considerably higher in the residential waste sector (41%) than in the commercial sector (24%) and makes up nearly 30% of Washington’s overall disposed waste stream. **Paper** (combining products and packaging) and **Plastic** (combining products and packaging) occur in nearly equal proportions between the commercial and residential sectors.

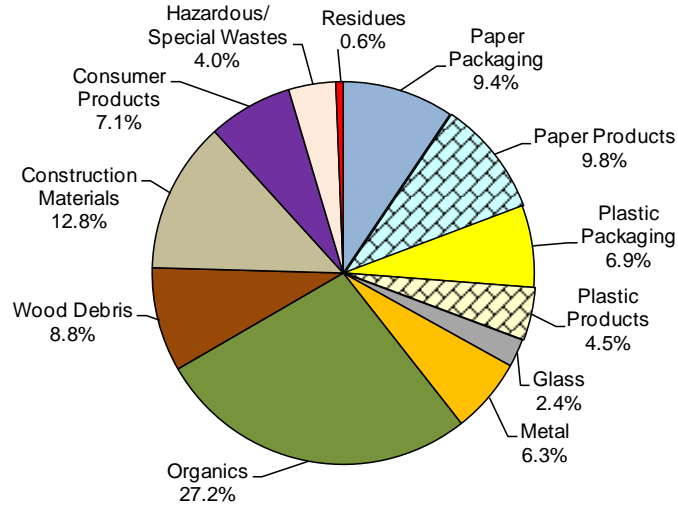
Not surprisingly, **Construction Materials** and **Wood Debris** are found in the highest proportions in the self-hauled C&D waste sector. Among the waste hauled by contracted or municipal vehicles, C&D waste is found in much higher proportions in the commercial sector (13%) than in the residential sector (3%).

A comprehensive analysis of the overall waste stream and the commercial, residential, and self-hauled sectors will be addressed below in Section 3: Statewide Characterization Results.

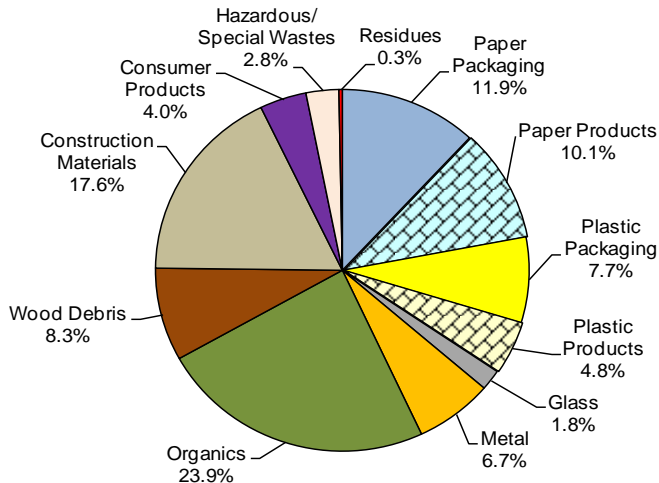
## Classes vs. Types

For the sake of clarity, broad categories such as **Paper Products**, **Glass**, and **Metal** will be bolded and capitalized while material types such as *newspaper*, *clear glass containers*, and *tin cans* will be italicized.

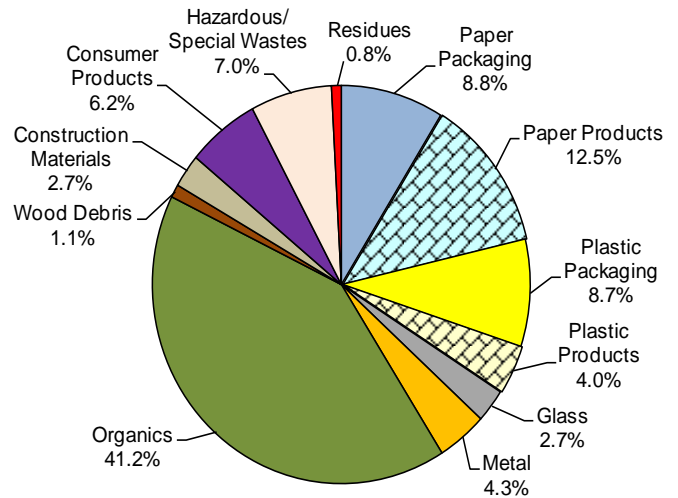
**Figure 1: Overall Statewide Disposed Waste Stream Composition by Material Class, 2009**



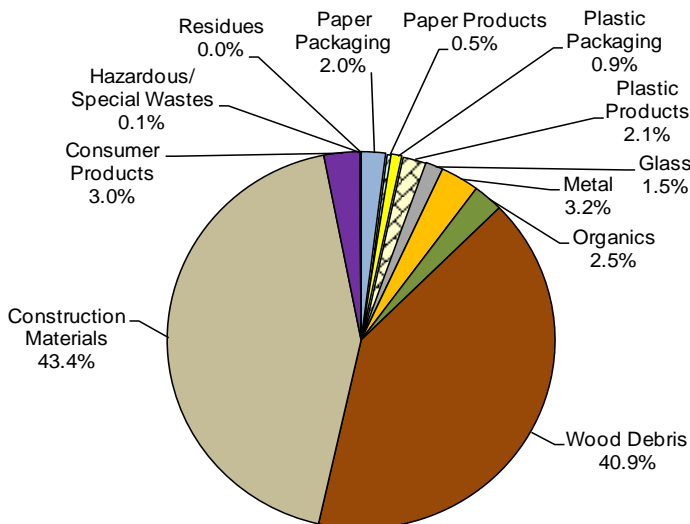
**Figure 2: Commercial Waste Sector**



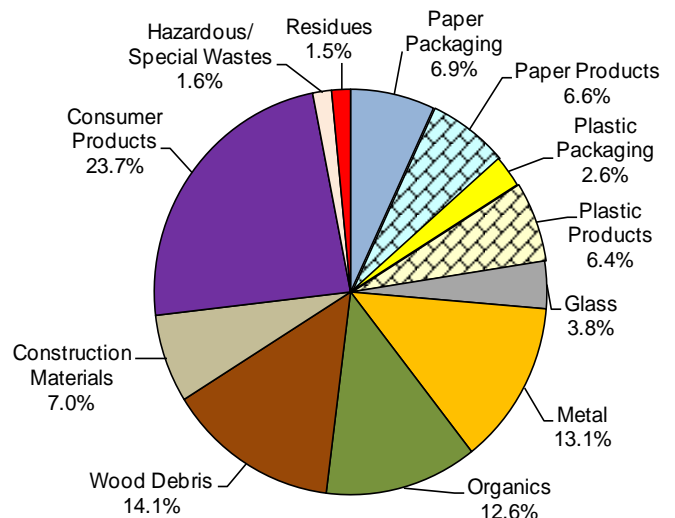
**Figure 3: Residential Waste Sector**



**Figure 4: Self-hauled C&D Waste Sector**



**Figure 5: Self-hauled Other Waste Sector**





## 2. Study Planning and Collection Approach

This section summarizes the planning and data collection approaches used in the 2009 statewide study. The goal of this section is to provide context for understanding and interpreting the statewide characterization results presented in the following section.

Ecology began this study by creating a plan that provided the framework for all subsequent data collection and analysis strategies. This planning stage included:

1. Selecting representative counties across the state to be visited;
2. Scheduling solid waste disposal facilities, statewide, for surveying and sampling;
3. Defining the waste sectors to be examined during the study; and
4. Creating the list of *material types* to be examined throughout the study.

Following the planning stage, Cascadia implemented the data collection and analysis strategies, which included:

5. Determining the composition of the waste stream through sampling and sorting; and
6. Quantifying the waste stream through vehicle and phone surveys.

Each of these six steps is expanded upon below. To gain a more detailed understanding of the methodology used to carry out this study, please see Appendix A: Detailed Methodology.

### Selecting Representative Counties

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Before any discussions of data collection began, Ecology first selected ten counties in which to collect and sort waste samples. These ten counties represent Washington's six WGAs: Central, East, Northwest, Puget Sound, Southwest, and West. The six WGAs combine similar regions and take into account the geographic and economic variation found throughout the state. See Appendix A: Detailed Methodology for a list of counties included in each WGA.

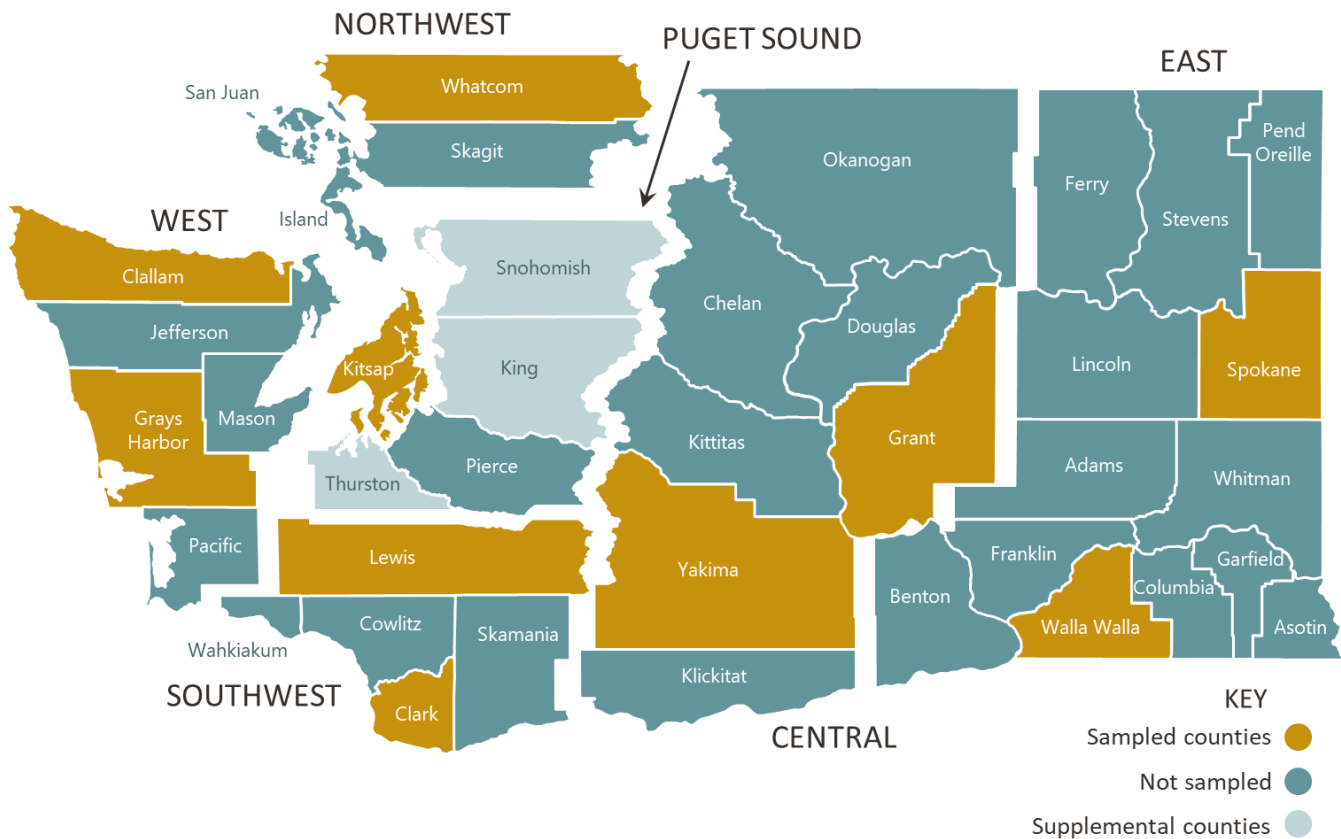
In addition to the ten counties chosen as data collection sites, Ecology planned to conduct a supplementary analysis, combining the 2009 statewide data with existing composition data from three additional Puget Sound counties—King, Snohomish, and Thurston. The ten counties visited and additional three counties analyzed are shown in Table 1 and Figure 6 below.

Composition results for the six Washington WGAs Results as well as the supplementary analysis can be found in Appendix D: Waste Generation Area Composition Results and Appendix E: Supplemental Composition Results.

**Table 1: Waste Generation Areas and Counties Included in the 2009 Statewide Study and Supplemental Analysis**

WASTE GENERATION AREA	COUNTIES VISITED FOR STATEWIDE STUDY	SUPPLEMENTAL COUNTIES ANALYZED <sup>1</sup>
Central	Grant, Yakima	
East	Spokane, Walla Walla	
Northwest	Whatcom	
Puget Sound	Kitsap	King, Snohomish, Thurston
Southwest	Clark, Lewis	
West	Clallam, Grays Harbor	

**Figure 6: Map of Waste Generation Areas and Counties Included**



<sup>1</sup> Composition results utilizing the supplemental analysis can be found in Appendix E: Supplemental Composition Results.

## Scheduling Surveying and Sampling Facilities

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After selecting the ten counties to be visited, Ecology recruited one solid waste facility in each county where waste sampling, sorting, and surveying would occur. Table 2, below, lists the selected counties and corresponding facilities visited.

**Table 2: Counties and Facilities Visited for Sampling and Surveying**

COUNTY	FACILITY
Clallam	Port Angeles Transfer Station
Grays Harbor	Aberdeen Central Transfer Station
Whatcom	Regional Disposal Company
Clark	West Van Material Recovery Center
Lewis	Lewis County Central Transfer Station
Kitsap	Olympic View Transfer Station
Grant	Ephrata Landfill
Yakima	Terrace Heights Landfill
Spokane	Spokane Regional Waste to Energy Facility
Walla Walla	Sudbury Road Landfill

Cascadia conducted sampling and sorting at each facility once per season over the course of four seasons, with the exception of the Spokane Regional Waste to Energy Facility, which was visited twice per season. The spring season began in March 2009, and the study ended with the winter season in January 2010. Seasons were defined as follows:

- Spring: March 24-April 8, 2009
- Summer: May 14-June 1, 2009
- Fall: August 31-September 4, 2009
- Winter: January 18-27, 2010

Cascadia carried out a vehicle survey to collect tonnage information (explained below) during the winter season only.

## Defining Waste Sectors

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Waste characterization data are often used for solid waste and recycling planning and targeting purposes. Therefore, in such studies the overall waste stream is typically separated into multiple subgroups called sectors. Cascadia and Ecology divided Washington's waste stream into the following four waste sectors:

- **Commercial**—defined as waste hauled by contracted or municipally operated vehicles in which 80 percent or more of the waste is from institutional, commercial, or industrial sources, and includes construction and demolition (C&D) materials.<sup>2</sup>
- **Residential**—defined as waste hauled by contracted or municipally operated vehicles in which 80 percent or more of the waste is from single-family and/or multifamily residential sources.
- **Self-hauled Construction and Demolition (C&D)**—defined as waste hauled by vehicles not operated by a franchise or municipality and whose waste was generated as a result of construction or demolition activities.
- **Self-hauled Other**—defined as waste hauled by vehicles not operated by a franchise or municipality and whose waste was not generated as a result of construction or demolition activities.

Table 3 shows how the 530 total samples, determined by Ecology and collected during the 2009 study, were apportioned to each of the four sectors. See Appendix A: Detailed Methodology for a detailed list of planned versus actual samples, by sector and WGA.

**Table 3: Numbers of Waste Samples Characterized, by Sector**

SECTOR	NUMBER OF SAMPLES
Commercial	164
Residential	148
Self-hauled C&D	109
Self-hauled Other	109
<b>Total</b>	<b>530</b>

## Creating the List of Material Types

Cascadia characterized a total of 530 samples during the four seasons, separating waste into one of 130 *material types*. Ecology created the list of 130 *material types* and organized them into 12 **Material Classes**. A thorough list of how the materials were reapportioned into packaging and products can be found in Appendix B: List and Definitions of Material Types. Table 4 shows the number of *material types* in each of the broad **Material Classes**.

<sup>2</sup> While this study was focused on municipal solid waste (MSW) and all facilities visited were MSW disposal facilities, many take C&D waste as accepted materials. Therefore, a commercial vehicle hauling C&D materials could have been randomly chosen for inclusion in the study.

**Table 4: Number of Material Types per Material Class**

MATERIAL CLASSES	NUMBER OF MATERIAL TYPES WITHIN CLASS
Paper Packaging	6
Paper Products	9
Plastic Packaging	15
Plastic Products	11
Glass	6
Metal	9
Organics	9
Wood Wastes	8
Construction Materials	12
Consumer Products	17
Hazardous Wastes	24
Residues	4
<b>Total</b>	<b>130</b>

## Packaging and Product List

Organizing materials into **Material Classes** such as **Paper, Plastic, Glass, and Metal**, similar to those listed in Table 4, are standard from a waste characterization perspective, but when considering waste reduction or product stewardship initiatives, planners will benefit from a more detailed breakdown of products versus packaging in the waste stream. Thus, for the purposes of a packaging and product analysis, the 130 *material types* were reapportioned to one of eight **Material Classes**, as listed in Table 5 below. For example, all materials in both **Paper and Plastic Packaging** fall under **Packaging** for this analysis. The **Glass** class falls away as all *glass containers* are moved under **Packaging**, while *plate glass* and *stoneware* move to **Products**. The remaining **Glass** material, *R/C glass*, is moved to **Residues**.

This reapportioning allows planners to look at the 2009 waste composition results and consider disposed waste with a fresh perspective. Instead of asking, “I wonder how to reduce the amount of merchandise bags, polystyrene clamshells, and aluminum foil in the waste stream?” planners can ask, “I wonder if there is a way to work with the packaging industry as a whole to reduce the amount of material being disposed?”

Table 5: The Eight Material Classes Used for the Packaging and Product Analysis

PACKAGING AND PRODUCT MATERIAL CLASSES	
Packaging	Wood Debris
Products	Construction Materials
Metal	Hazardous/Special Waste
Organics	Residues

A thorough list of how the materials were reapportioned into packaging and products can be found in Appendix B: List and Definitions of Material Types.

## Determining the Composition of the Statewide Waste Stream

Composition data from the statewide 2009 study—the percentage of each material found in the waste stream—were determined by sorting the disposed waste samples into one of 130 *material types*. Samples of disposed waste from each of the sectors—commercial, residential, self-hauled C&D, and self-hauled other—were selected randomly at each facility and sorted by hand. Hand-sorting and weighing every *material type* found in a sample produces accurate measures that can be reliably converted to percentages and then applied to tonnage figures in order to quantify the waste stream.

### What does R/C stand for?

Most of the **Material Classes** created for this study include a *material type* that begins with “R/C” such as *R/C glass*, *R/C metals*, and *R/C organics*. These initials stand for “remainder/composite” and define a material that either cannot be categorized in any other material type or where the material is a composite of more than one material.

Examples of R/C products include Pyrex glassware, insulated wire, and cigarette butts.

## Quantifying the Waste Stream

### Statewide Disposed Tons

The first step in quantifying Washington’s disposed waste stream was to determine the amount of MSW disposed statewide. Ecology provided an annual disposed tonnage figure of 4,978,496 tons.<sup>3</sup>

## Sector Allocations of Waste Disposed

Once the total statewide tonnage figure was known, tonnage figures for each of the four waste sectors were calculated. Cascadia carried out a vehicle survey during the winter season at the ten sampling facilities in order to determine how many tons of disposed waste were associated with each of the waste sectors. This process entailed collecting a load weight from each vehicle disposing waste at a given facility, and apportioning these tons to one of the four waste sectors. To supplement the ten vehicle surveys, Cascadia also collected additional tonnage data, via a phone survey, from 36 more solid waste facilities throughout the state. Compiling these resultant survey weights yielded the “sector split”,

<sup>3</sup> All estimated tons used in this report are based on 2008 disposed waste tonnage figures provided by annual disposal reports from permitted facilities: <http://www.ecy.wa.gov/programs/swfa/solidwastedata/>.



or percent of total waste generated, by weight, by each sector. Please see Appendix A: Detailed Methodology for a detailed account of the surveying and quantification process.

## Combining the Two

Combining the overall annual disposed tonnage data with the sector allocations yielded tonnage figures for each sector. Table 6 shows the estimated disposed tonnages and ratio of those tonnages from each sector of the overall waste stream.

**Table 6: Estimated Tons of Disposed Waste, by Sector**

SECTOR	EST. PERCENTAGE OF DISPOSED WASTE SECTOR	EST. TONS DISPOSED STATEWIDE
Commercial	43.7%	2,174,075
Residential	36.7%	1,826,521
Self-hauled C&D	7.5%	374,386
Self-hauled	12.1%	603,514
<b>Totals</b>	<b>100.0%</b>	<b>4,978,496</b>

The commercial sector disposed the largest amount of waste, composing nearly 44 percent of the state's waste stream—a projected 2.2 million tons. The residential sector represents approximately 37 percent (1.8 million tons) of total waste, and the two self-hauled sectors represent the final 20 percent (980,000 tons). Please see the section entitled Estimating the Composition in Appendix A: Detailed Methodology for a detailed account of the characterization process.

## Interpreting the Results

The next section presents statewide characterization results for Washington's overall disposed waste stream as well as for the commercial, residential, self-hauled C&D, and self-hauled other sectors.

Data are presented in four ways for each of these sectors:

1. A pie chart presents an overview of waste composition by **Material Class**.
2. A second pie chart presents an overview of waste composition arranged into packaging, products, and other material groups. Please refer to Appendix B: List and Definitions of Material Types for a table illustrating how *material types* were grouped into packaging, products, and other material groups.
3. A table shows the 15 most prevalent *material types*, by weight.
4. A detailed table lists the full composition and quantity results for the 130 original *material types*. Please refer to Appendix B: List and Definitions of Material Types for detailed descriptions and definitions of the original **Material Classes** and *material types*.

### Packaging vs. Products?

Grouping material types under the headings of "packaging" or "products," as done in the sector analysis below, gives planners another tool when targeting producers of waste and considering diversion strategies.

## Means and Error Ranges

Cascadia statistically analyzed the data from the sorting process to provide two pieces of information for each of the *material types*:

- The estimated percent-by-weight composition of waste represented by the samples examined in this study.
- The error ranges (+/-) of our composition estimates.

All error ranges (+/-) were calculated at the 90 percent confidence level. The equations used in these calculations appear in Appendix A: Detailed Methodology.

The example below illustrates how the results can be interpreted. The best estimate of the amount of *compostable paper packaging* present in the universe of waste sampled is 1.2 percent (see Table 7). The figure 0.4 percent reflects the precision of the estimate. When calculations are performed at the 90 percent confidence level, we are 90 percent certain that the true mean for *compostable paper packaging* is between 1.2 percent + 0.4 percent and 1.2 percent - 0.4 percent. In other words, we are 90 percent certain that the true mean lies between 0.8 percent and 1.6 percent.

### Error Range (+/-)

An error range is used to measure the spread of values in a collection of data. For instance, if the quantities of *newspaper* were found to be nearly the same in each of the 530 samples collected for this study, then this would result in a very narrow error range. By contrast, if some samples are 75% *newspaper* and others have 0% *newspaper*, there will be a much broader error range.

**Table 7: Example Percentage Composition and Error Range**

MATERIAL	EST.PERCENT	+ / -
Compostable Paper Packaging	1.2%	0.4%

## Rounding

When interpreting the results presented in the tables and figures in this report, it is important to consider the effect of rounding.

To keep the waste composition tables and figures readable, estimated tonnages are rounded to the nearest ton, and estimated percentages are rounded to the nearest tenth of a percent. Due to this rounding, the tonnages presented in the report, when added together, may not exactly match the subtotals and totals shown. Similarly, the percentages, when added together, may not exactly match the subtotals or totals shown. Also, percentages less than 0.05 percent are rounded to 0.0 percent even though there may be weights associated with the material.

### 3. Statewide Characterization Results

This section presents statewide composition results by sector—commercial, residential, self-hauled C&D, and self-hauled other—and the overall characterization results for the 4.98 million tons of disposed MSW statewide.<sup>4</sup>

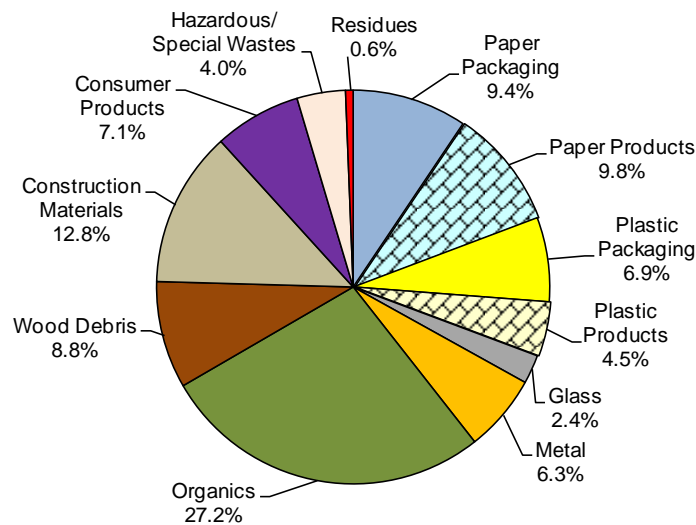
#### Overall Disposed Waste Stream

This section characterizes the overall disposed MSW stream for the entire state of Washington, combining samples from all four waste sectors and all six WGAs considered in this study. Composition and quantity data are generated from data collected from the ten counties visited during the 2009 statewide study and presented using the material list of 130 *material types*.

#### Overview by Material Class

Figure 7 illustrates composition estimates by **Material Class** for the overall statewide disposed waste stream. The largest **Material Class** in the overall waste stream is **Organics**, which accounts for approximately 27 percent of the waste stream, by weight, followed by **Construction Materials** (13 percent) and **Paper Products** (10 percent). See Appendix B: List and Definitions of Material Types for a description of the *material types* included in each **Material Class**.

**Figure 7: Overall Statewide Disposed Waste Stream  
Composition by Material Class, 2009**

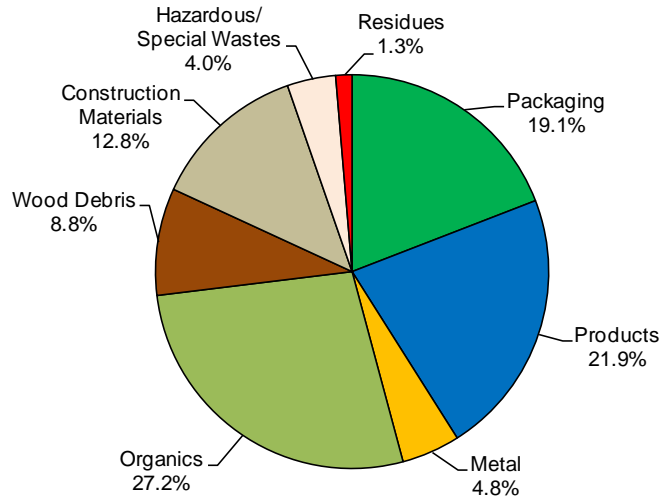


<sup>4</sup> All estimated tons used in this report are based on 2008 disposed waste tonnage figures provided by annual disposal reports from permitted facilities: <http://www.ecy.wa.gov/programs/swfa/solidwastedata/>.

## Overview of Packaging and Product Material Groups

As shown in Figure 8, products account for approximately 22 percent of the waste stream, and packaging materials make up approximately 19 percent of the overall disposed waste. See Appendix B: List and Definitions of Material Types for a description of the *material types* included in packaging, products, and the other *material type* groups shown.

**Figure 8: Overall Statewide Disposed Waste Stream  
Packaging, Products, and Other Material Groups, 2009**



## Fifteen Most Prevalent Materials

The fifteen most prevalent *material types* in the overall waste stream, as shown in Table 8, together account for approximately 55 percent of the waste stream. *Food-vegetative*, *food-non vegetative*, *leaves and grass*, and *compostable paper products* are the four most prevalent *material types*. These materials are all compostable and together account for more than one quarter (27 percent) of the waste stream, by weight.

**Table 8: Overall Statewide Disposed Waste Stream  
Fifteen Most Prevalent Material Types, 2009**

<b>Material</b>	<b>Est. Percent</b>	<b>Cum. Percent</b>	<b>Est. Tons</b>
Food - Vegetative	13.1%	13.1%	654,458
Food - Non-vegetative	5.2%	18.3%	258,823
Leaves & Grass	4.1%	22.4%	203,909
Compostable Paper Products	4.1%	26.5%	201,801
Cardboard/Kraft Paper Packaging	3.7%	30.2%	185,311
Animal Manure	3.2%	33.4%	159,888
Carpet	2.9%	36.3%	145,282
Other Ferrous Metal	2.9%	39.3%	145,220
Disposable Diapers	2.8%	42.1%	140,020
Drywall	2.6%	44.7%	131,475
Mixed/Low Grade Paper Packaging	2.6%	47.3%	130,662
Non-industrial Packaging Film Plastic	2.0%	49.4%	101,092
Furniture	2.0%	51.3%	97,620
Painted Wood	1.9%	53.3%	96,883
Textiles - Organic	1.8%	55.0%	87,471
<b>Total</b>	<b>55.0%</b>		<b>2,739,915</b>

## Detailed Composition

Table 9 lists the composition percentages by weight for each *material type* in Washington's overall disposed waste stream. Total tons of disposed waste are based on 2008 figures from annual reports provided to Ecology by permitted disposal facilities.



**Table 9: Overall Statewide Disposed Waste Stream  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>9.4%</b>		<b>469,574</b>	<b>Paper Products</b>	<b>9.8%</b>		<b>490,049</b>
Newspaper Packaging	0.2%	0.3%	12,088	Newspaper	1.4%	0.4%	70,594
Cardboard/Kraft Paper Packaging	3.7%	0.8%	185,311	Cardboard/Kraft Paper Products	0.1%	0.0%	3,894
Other Groundwood Paper Packaging	0.1%	0.1%	7,344	Magazines	0.9%	0.3%	46,149
Mixed/Low Grade Paper Packaging	2.6%	0.4%	130,662	High-Grade Paper Products	1.0%	0.3%	49,667
Compostable Paper Packaging	1.2%	0.4%	58,191	Other Groundwood Paper Products	0.3%	0.2%	13,874
R/C Paper Packaging	1.5%	0.5%	75,979	Mixed Low Grade Paper Products	1.6%	0.3%	81,068
				Compostable Paper Products	4.1%	0.9%	201,801
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.5%	0.3%	23,003
<b>Plastic Packaging</b>	<b>6.9%</b>		<b>345,235</b>	<b>Plastic Products</b>	<b>4.5%</b>		<b>222,910</b>
#1 PETE Plastic Bottles	0.7%	0.1%	33,344	#1 PETE Plastic Products	0.0%	0.0%	172
#1 PETE Plastic Non-bottles	0.3%	0.1%	14,563	#2 HDPE Plastic Products	0.0%	0.0%	1,883
#2 HDPE Plastic Natural Bottles	0.3%	0.0%	12,547	#3 PVC Plastic Products	0.0%	0.0%	1,109
#2 HDPE Plastic Colored Bottles	0.3%	0.0%	17,017	#4 LDPE Plastic Products	0.0%	0.0%	116
#2 HDPE Plastic Jars & Tubs	0.4%	0.4%	20,020	#5 PP Plastic Products	0.1%	0.1%	3,574
#3 PVC Plastic Packaging	0.0%	0.0%	710	#6 PS Plastic Products	0.1%	0.0%	6,068
#4 LDPE Plastic Packaging	0.0%	0.0%	329	#7 Other Plastic Products	1.3%	0.3%	63,916
#5 PP Plastic Packaging	0.3%	0.0%	16,732	PLA Products	0.0%	0.0%	53
#6 PS Plastic Packaging	0.5%	0.1%	22,579	Plastic Garbage Bags	1.3%	0.2%	64,784
#7 Other Plastic Packaging	0.5%	0.1%	26,282	Plastic Film Products	0.3%	0.1%	13,465
PLA Packaging	0.0%	0.0%	312	R/C Plastic Products	1.4%	0.6%	67,771
Plastic Merchandise Bags	0.5%	0.1%	24,139				
Non-industrial Packaging Film Plastic	2.0%	0.3%	101,092	<b>Consumer Products</b>	<b>7.1%</b>		<b>355,387</b>
Industrial Packaging Film Plastic	0.4%	0.2%	21,911	Televisions - CRT	0.6%	0.6%	29,012
R/C Plastic Packaging	0.7%	0.8%	33,657	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	1,646
<b>Glass</b>	<b>2.4%</b>		<b>117,970</b>	Computer Monitors - CRT	0.0%	0.0%	1,476
Clear Glass Containers	0.9%	0.2%	42,353	Computer Monitors - LCD	0.0%	0.0%	322
Green Glass Containers	0.2%	0.0%	8,592	Computers	0.0%	0.0%	1,292
Brown Glass Containers	0.4%	0.1%	17,490	Computer Peripherals	0.1%	0.1%	3,674
Plate Glass	0.1%	0.1%	5,082	Audio Equipment	0.1%	0.0%	4,109
Stoneware/Kitchen Ceramics/Glassware	0.2%	0.1%	8,893	Gaming Equipment	0.0%	0.0%	742
R/C Glass	0.7%	0.6%	35,560	Other Consumer Electronics	0.6%	0.3%	30,031
				Textiles - Organic	1.8%	0.4%	87,471
<b>Metal</b>	<b>6.3%</b>		<b>315,715</b>	Textiles - Synthetic	1.0%	0.2%	48,869
Aluminum Beverage Cans	0.5%	0.1%	23,031	Shoes, Purses, Belts	0.4%	0.1%	17,931
Aluminum Foil/Containers	0.1%	0.0%	5,426	Tires & Rubber	0.3%	0.1%	15,216
Other Aluminum	0.1%	0.1%	5,166	Furniture	2.0%	1.1%	97,620
Other Nonferrous	0.1%	0.1%	5,854	Mattresses	0.1%	0.1%	5,660
Food Cans - Tinned	0.7%	0.3%	35,772	R/C Consumer Products	0.2%	0.1%	10,317
Food Cans - Coated	0.1%	0.0%	5,054				
White Goods	0.1%	0.1%	7,365	<b>Hazardous/Special Wastes</b>	<b>4.0%</b>		<b>198,588</b>
Other Ferrous Metal	2.9%	1.3%	145,220	Pesticides/Herbicides	0.0%	0.0%	253
R/C Metals	1.7%	0.7%	82,826	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	184
<b>Organics</b>	<b>27.2%</b>		<b>1,356,253</b>	Fluorescent Tubes	0.0%	0.0%	64
Food - Vegetative	13.1%	2.6%	654,458	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	5.2%	1.6%	258,823	Latex Paint	0.1%	0.1%	6,213
Leaves & Grass	4.1%	1.5%	203,909	Solvent-based Glues	0.2%	0.2%	7,990
Prunings	0.5%	0.2%	26,941	Latex-based Glues	0.0%	0.0%	242
Animal Manure	3.2%	1.1%	159,888	Oil-based Paint & Solvent	0.0%	0.0%	2,086
Animal Carcasses	0.3%	0.4%	12,598	Caustic Cleaners	0.0%	0.0%	800
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	1,465
Fruit Waste	0.1%	0.2%	7,395	Wet-cell Batteries	0.0%	0.0%	207
R/C Organics	0.6%	0.2%	32,241	Gasoline/Kerosene	0.0%	0.0%	1,317
				Motor Oil	0.0%	0.0%	513
<b>Wood Debris</b>	<b>8.8%</b>		<b>438,174</b>	Antifreeze	0.0%	0.0%	3
Treated Wood	1.1%	0.7%	56,145	Other Vehicle Fluids	0.0%	0.0%	77
Painted Wood	1.9%	0.7%	96,883	Oil Filters	0.0%	0.0%	1,545
Dimensional Lumber	1.0%	0.4%	51,929	Explosives	0.0%	0.0%	24
Engineered Wood	1.1%	0.5%	54,324	Medical Wastes	0.5%	0.3%	25,067
Pallets & Crates	1.7%	1.0%	86,705	Pharmaceuticals/Vitamins	0.0%	0.0%	1,343
Other Untreated Wood	0.5%	0.5%	26,916	Disposable Diapers	2.8%	0.6%	140,020
Wood By-Products	0.3%	0.1%	12,574	Other Cleaners & Soaps	0.1%	0.1%	6,150
R/C Wood Wastes	1.1%	0.4%	52,698	Other Hazardous	0.0%	0.0%	1,549
				Other Non-hazardous	0.0%	0.0%	1,473
<b>Construction Materials</b>	<b>12.8%</b>		<b>637,619</b>	<b>Residues</b>	<b>0.6%</b>		<b>31,022</b>
Natural Wood	0.1%	0.1%	5,147	Ash	0.2%	0.2%	7,889
Insulation	0.4%	0.4%	22,379	Dust	0.1%	0.0%	4,060
Asphalt Paving	0.2%	0.2%	9,676	Fines	0.3%	0.1%	15,590
Concrete	0.2%	0.1%	10,917	Sludge/Special Industrial	0.1%	0.1%	3,483
Drywall	2.6%	2.0%	131,475				
Carpet	2.9%	1.8%	145,282	<b>Totals</b>	<b>100.0%</b>		<b>4,978,496</b>
Carpet Padding	0.7%	0.8%	33,211	<b>Sample Count</b>	<b>530</b>		
Soil, Rocks, Sand	1.2%	0.6%	58,009				
Asphalt Roofing	1.2%	0.7%	62,215				
Plastic Flooring	0.2%	0.2%	10,054				
Ceramics & Brick	1.4%	1.5%	69,617				
R/C Construction Materials	1.6%	0.7%	79,639				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

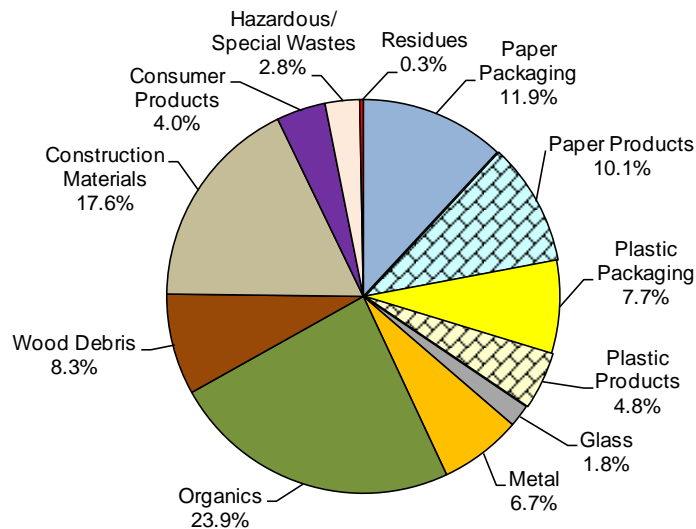
## Commercial Waste

This section characterizes disposed MSW from the commercial sector for the entire State of Washington, combining commercial samples from all six WGAs considered in this study. Composition and quantity data are generated from data collected from the ten counties visited during the 2009 statewide study and are presented using the material list of 130 material types.

### Overview by Material Class

Composition estimates by **Material Class** for the statewide commercial disposed waste sector are illustrated in Figure 9. The largest **Material Class** in this waste sector is **Organics**, which accounts for approximately 24 percent of the waste sector, by weight, followed by **Construction Materials** (18 percent) and **Paper Packaging** (12 percent). See Appendix B: List and Definitions of Material Types for a description of the *material types* included in each **Material Class**.

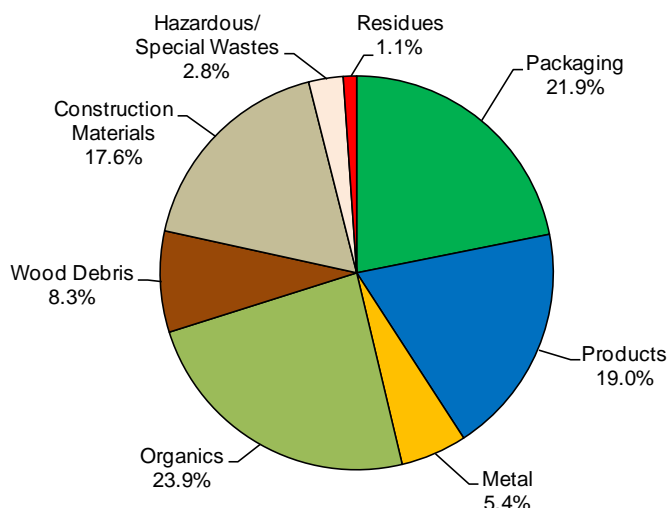
**Figure 9: Commercial Disposed Waste Sector  
Composition by Material Class, 2009**



### Overview of Packaging and Product Material Groups

As shown in Figure 10, packaging materials account for approximately 22 percent of the commercial waste sector, and products for approximately 19 percent of commercial disposed waste. See Appendix B: List and Definitions of Material Types for a description of the *material types* included in packaging, products, and the other *material type* groups shown.

**Figure 10: Commercial Disposed Waste Sector  
Packaging, Products, and Other Material Groups, 2009**



## Fifteen Most Prevalent Materials

The fifteen most prevalent *material types* in the commercial waste sector, as shown in Table 10, combined account for nearly two thirds (60 percent) of the waste sector. As with the overall waste stream, *food-vegetative* and *food-non vegetative* are the most prevalent *material types*, are typically compostable, and together account for nearly one quarter (22 percent) of the waste sector, by weight.

**Table 10: Commercial Disposed Waste Sector  
Fifteen Most Prevalent Material Types, 2009**

Material	Est. Percent	Cum. Percent	Est. Tons
Food - Vegetative	15.1%	15.1%	327,826
Food - Non-vegetative	6.9%	21.9%	149,300
Compostable Paper Products	4.9%	26.8%	105,861
Cardboard/Kraft Paper Packaging	4.6%	31.5%	100,977
Carpet	4.0%	35.5%	87,897
Drywall	3.9%	39.4%	84,346
Other Ferrous Metal	3.0%	42.4%	65,627
Ceramics & Brick	2.8%	45.2%	60,306
Mixed/Low Grade Paper Packaging	2.6%	47.8%	56,570
Non-industrial Packaging Film Plastic	2.4%	50.2%	52,169
R/C Paper Packaging	2.3%	52.5%	50,898
R/C Metals	2.1%	54.6%	44,860
R/C Construction Materials	2.0%	56.6%	43,527
Treated Wood	1.9%	58.5%	42,336
Compostable Paper Packaging	1.8%	60.3%	38,184
<b>Total</b>	<b>60.3%</b>		<b>1,310,684</b>

## Detailed Composition

The composition percentages by weight for each *material type* in Washington's commercial disposed waste sector are listed in Table 11.

**Table 11: Commercial Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>11.9%</b>		<b>259,125</b>	<b>Paper Products</b>	<b>10.1%</b>		<b>219,884</b>
Newspaper Packaging	0.4%	0.6%	9,532	Newspaper	1.0%	0.6%	22,083
Cardboard/Kraft Paper Packaging	4.6%	1.4%	100,977	Cardboard/Kraft Paper Products	0.1%	0.1%	2,632
Other Groundwood Paper Packaging	0.1%	0.1%	2,964	Magazines	0.7%	0.4%	16,108
Mixed/Low Grade Paper Packaging	2.6%	0.9%	56,570	High-Grade Paper Products	1.3%	0.7%	28,671
Compostable Paper Packaging	1.8%	1.0%	38,184	Other Groundwood Paper Products	0.1%	0.1%	2,324
R/C Paper Packaging	2.3%	1.2%	50,898	Mixed Low Grade Paper Products	1.5%	0.5%	31,644
				Compostable Paper Products	4.9%	1.9%	105,861
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.5%	0.2%	10,560
<b>Plastic Packaging</b>	<b>7.7%</b>		<b>166,679</b>	<b>Plastic Products</b>	<b>4.8%</b>		<b>103,415</b>
#1 PETE Plastic Bottles	0.5%	0.1%	10,880	#1 PETE Plastic Products	0.0%	0.0%	107
#1 PETE Plastic Non-bottles	0.3%	0.1%	5,727	#2 HDPE Plastic Products	0.1%	0.1%	1,343
#2 HDPE Plastic Natural Bottles	0.2%	0.0%	3,761	#3 PVC Plastic Products	0.0%	0.0%	353
#2 HDPE Plastic Colored Bottles	0.2%	0.1%	3,723	#4 LDPE Plastic Products	0.0%	0.0%	9
#2 HDPE Plastic Jars & Tubs	0.7%	0.8%	16,189	#5 PP Plastic Products	0.1%	0.1%	1,909
#3 PVC Plastic Packaging	0.0%	0.0%	39	#6 PS Plastic Products	0.2%	0.1%	3,284
#4 LDPE Plastic Packaging	0.0%	0.0%	86	#7 Other Plastic Products	0.9%	0.3%	19,047
#5 PP Plastic Packaging	0.3%	0.1%	5,584	PLA Products	0.0%	0.0%	8
#6 PS Plastic Packaging	0.4%	0.1%	8,813	Plastic Garbage Bags	1.7%	0.5%	37,671
#7 Other Plastic Packaging	0.4%	0.1%	8,614	Plastic Film Products	0.2%	0.1%	3,991
PLA Packaging	0.0%	0.0%	196	R/C Plastic Products	1.6%	1.1%	35,692
Plastic Merchandise Bags	0.2%	0.1%	5,305				
Non-industrial Packaging Film Plastic	2.4%	0.7%	52,169	<b>Consumer Products</b>	<b>4.0%</b>		<b>87,871</b>
Industrial Packaging Film Plastic	0.8%	0.4%	16,376	Televisions - CRT	0.1%	0.1%	2,330
R/C Plastic Packaging	1.3%	1.8%	29,215	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	11
<b>Glass</b>	<b>1.8%</b>		<b>39,933</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	0.6%	0.2%	12,500	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.1%	0.1%	3,212	Computers	0.0%	0.0%	67
Brown Glass Containers	0.2%	0.1%	5,388	Computer Peripherals	0.0%	0.0%	161
Plate Glass	0.0%	0.0%	566	Audio Equipment	0.0%	0.0%	243
Stoneware/Kitchen Ceramics/Glassware	0.0%	0.0%	832	Gaming Equipment	0.0%	0.0%	12
R/C Glass	0.8%	1.2%	17,436	Other Consumer Electronics	0.8%	0.6%	17,329
				Textiles - Organic	1.1%	0.6%	23,852
<b>Metal</b>	<b>6.7%</b>		<b>146,617</b>	Textiles - Synthetic	0.5%	0.2%	10,276
Aluminum Beverage Cans	0.4%	0.3%	9,608	Shoes, Purses, Belts	0.1%	0.1%	2,678
Aluminum Foil/Containers	0.1%	0.1%	1,996	Tires & Rubber	0.2%	0.1%	4,737
Other Aluminum	0.2%	0.2%	3,848	Furniture	1.0%	0.6%	21,447
Other Nonferrous	0.2%	0.1%	3,933	Mattresses	0.1%	0.1%	2,509
Food Cans - Tinned	0.7%	0.7%	16,266	R/C Consumer Products	0.1%	0.1%	2,218
Food Cans - Coated	0.0%	0.0%	456				
White Goods	0.0%	0.0%	22	<b>Hazardous/Special Wastes</b>	<b>2.8%</b>		<b>61,683</b>
Other Ferrous Metal	3.0%	2.2%	65,627	Pesticides/Herbicides	0.0%	0.0%	10
R/C Metals	2.1%	1.6%	44,860	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	0
<b>Organics</b>	<b>23.9%</b>		<b>518,592</b>	Fluorescent Tubes	0.0%	0.0%	52
Food - Vegetative	15.1%	5.8%	327,826	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	6.9%	3.6%	149,300	Latex Paint	0.0%	0.0%	907
Leaves & Grass	0.8%	0.4%	17,569	Solvent-based Glues	0.0%	0.0%	461
Prunings	0.1%	0.2%	2,982	Latex-based Glues	0.0%	0.0%	51
Animal Manure	0.3%	0.3%	7,137	Oil-based Paint & Solvent	0.0%	0.0%	44
Animal Carcasses	0.0%	0.0%	0	Caustic Cleaners	0.0%	0.0%	566
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	342
Fruit Waste	0.3%	0.4%	7,395	Wet-cell Batteries	0.0%	0.0%	35
R/C Organics	0.3%	0.3%	6,383	Gasoline/Kerosene	0.1%	0.1%	1,317
				Motor Oil	0.0%	0.0%	367
<b>Wood Debris</b>	<b>8.3%</b>		<b>180,446</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	1.9%	1.6%	42,336	Other Vehicle Fluids	0.0%	0.0%	56
Painted Wood	1.6%	1.1%	35,207	Oil Filters	0.1%	0.0%	1,232
Dimensional Lumber	0.8%	0.6%	16,942	Explosives	0.0%	0.0%	2
Engineered Wood	0.9%	0.7%	19,203	Medical Wastes	1.0%	0.8%	22,164
Pallets & Crates	1.7%	0.8%	37,997	Pharmaceuticals/Vitamins	0.0%	0.0%	687
Other Untreated Wood	0.1%	0.1%	2,936	Disposable Diapers	1.4%	1.0%	31,424
Wood By-Products	0.1%	0.1%	2,019	Other Cleaners & Soaps	0.0%	0.0%	703
R/C Wood Debris	1.1%	0.7%	23,806	Other Hazardous	0.0%	0.0%	977
				Other Non-hazardous	0.0%	0.0%	285
<b>Construction Materials</b>	<b>17.6%</b>		<b>383,439</b>	<b>Residues</b>	<b>0.3%</b>		<b>6,393</b>
Natural Wood	0.0%	0.0%	122	Ash	0.1%	0.1%	1,746
Insulation	0.8%	0.8%	17,631	Dust	0.0%	0.0%	394
Asphalt Paving	0.2%	0.3%	3,780	Fines	0.2%	0.1%	4,253
Concrete	0.2%	0.2%	5,295	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	3.9%	4.4%	84,346				
Carpet	4.0%	3.9%	87,897	<b>Totals</b>	<b>100.0%</b>		<b>2,174,075</b>
Carpet Padding	1.2%	1.8%	26,773	<b>Sample Count</b>	<b>164</b>		
Soil, Rocks, Sand	1.7%	1.4%	36,201				
Asphalt Roofing	0.4%	0.5%	9,242				
Plastic Flooring	0.4%	0.6%	8,318				
Ceramics & Brick	2.8%	3.3%	60,306				
R/C Construction Materials	2.0%	1.6%	43,527				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

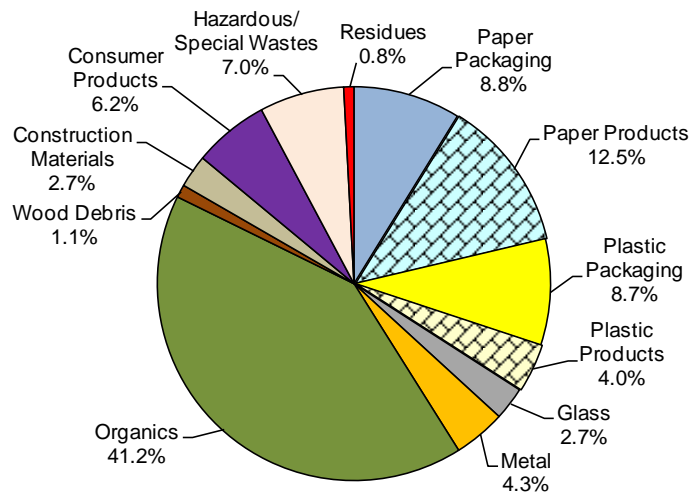
## Residential Waste

This section characterizes disposed *MSW* from the residential sector for the entire State of Washington, combining residential samples from all six WGAs considered in this study. Composition and quantity data are generated from data collected from the ten counties visited during the 2009 statewide study and use the material list of 130 *material types*.

### Overview by Material Class

Composition estimates by **Material Class** for the statewide residential disposed waste sector are illustrated in Figure 11. The largest **Material Class** in this waste sector is **Organics**, which accounts for approximately 41 percent of the waste sector, by weight, followed by **Paper Products** (13 percent) and **Paper Packaging** (9 percent). See Appendix B: List and Definitions of Material Types for a description of the *material types* included in each **Material Class**.

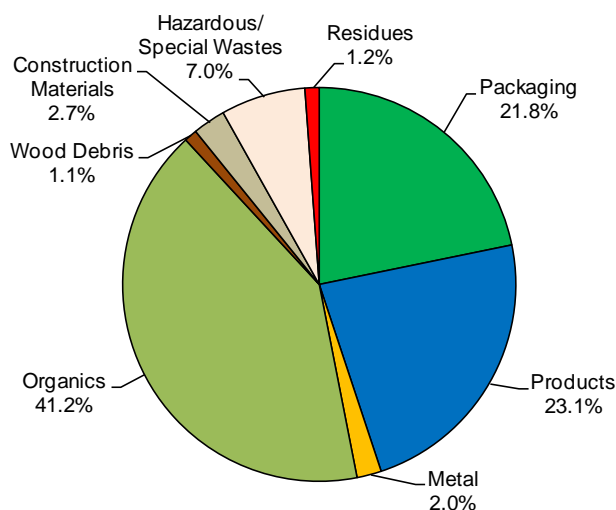
**Figure 11: Residential Disposed Waste Sector  
Composition by Material Class, 2009**



### Overview of Packaging and Product Material Groups

As shown in Figure 12, products account for approximately 23 percent of the residential disposed waste sector and packaging materials make up approximately 22 percent. See Appendix B: List and Definitions of Material Types for a description of the *material types* included in packaging, products, and the other *material type* groups shown.

**Figure 12: Residential Disposed Waste Sector  
Packaging, Products, and Other Material Groups, 2009**



## Fifteen Most Prevalent Materials

*Food-vegetative* is the most prevalent *material type*, comprising approximately 17 percent of residential disposed waste. Approximately 69 percent of residential waste is composed of the 15 *material types* shown in Table 12. *Mixed/low grade paper packaging* is the most prevalent traditionally recyclable *material type*, comprising approximately 4 percent of residential disposed waste.

**Table 12: Residential Disposed Waste Sector  
Fifteen Most Prevalent Material Types, 2009**

Material	Est. Percent	Cum. Percent	Est. Tons
Food - Vegetative	17.0%	17.0%	310,306
Leaves & Grass	8.7%	25.7%	159,278
Animal Manure	7.9%	33.6%	144,994
Disposable Diapers	5.8%	39.5%	106,210
Food - Non-vegetative	5.7%	45.1%	103,700
Compostable Paper Products	5.0%	50.1%	91,023
Mixed/Low Grade Paper Packaging	3.7%	53.8%	67,972
Cardboard/Kraft Paper Packaging	2.5%	56.3%	45,555
Non-industrial Packaging Film Plastic	2.5%	58.8%	45,453
Mixed Low Grade Paper Products	2.5%	61.3%	44,791
Textiles - Organic	2.1%	63.4%	39,166
Newspaper	2.0%	65.4%	36,540
Clear Glass Containers	1.3%	66.8%	24,592
Plastic Garbage Bags	1.3%	68.1%	24,305
Textiles - Synthetic	1.3%	69.4%	24,036
<b>Total</b>	<b>69.4%</b>		<b>1,267,922</b>

## Detailed Composition

The composition percentages, by weight, for each *material type* in Washington's residential disposed waste sector are presented in Table 13.



**Table 13: Residential Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>8.8%</b>		<b>160,982</b>	<b>Paper Products</b>	<b>12.5%</b>		<b>228,478</b>
Newspaper Packaging	0.1%	0.1%	2,103	Newspaper	2.0%	0.6%	36,540
Cardboard/Kraft Paper Packaging	2.5%	0.5%	45,555	Cardboard/Kraft Paper Products	0.0%	0.1%	653
Other Groundwood Paper Packaging	0.2%	0.1%	4,148	Magazines	1.3%	0.4%	23,302
Mixed/Low Grade Paper Packaging	3.7%	0.5%	67,972	High-Grade Paper Products	1.0%	0.3%	18,687
Compostable Paper Packaging	1.0%	0.4%	18,811	Other Groundwood Paper Products	0.6%	0.4%	10,085
R/C Paper Packaging	1.2%	0.1%	22,392	Mixed Low Grade Paper Products	2.5%	0.5%	44,791
				Compostable Paper Products	5.0%	0.7%	91,023
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.2%	0.1%	3,398
<b>Plastic Packaging</b>	<b>8.7%</b>		<b>159,779</b>	<b>Plastic Products</b>	<b>4.0%</b>		<b>73,025</b>
#1 PETE Plastic Bottles	1.1%	0.1%	20,510	#1 PETE Plastic Products	0.0%	0.0%	65
#1 PETE Plastic Non-bottles	0.5%	0.1%	8,496	#2 HDPE Plastic Products	0.0%	0.0%	28
#2 HDPE Plastic Natural Bottles	0.5%	0.1%	8,273	#3 PVC Plastic Products	0.0%	0.0%	482
#2 HDPE Plastic Colored Bottles	0.7%	0.1%	12,187	#4 LDPE Plastic Products	0.0%	0.0%	4
#2 HDPE Plastic Jars & Tubs	0.1%	0.1%	2,257	#5 PP Plastic Products	0.0%	0.0%	355
#3 PVC Plastic Packaging	0.0%	0.0%	605	#6 PS Plastic Products	0.1%	0.1%	2,516
#4 LDPE Plastic Packaging	0.0%	0.0%	182	#7 Other Plastic Products	1.3%	0.6%	23,969
#5 PP Plastic Packaging	0.6%	0.1%	10,216	PLA Products	0.0%	0.0%	41
#6 PS Plastic Packaging	0.7%	0.2%	12,553	Plastic Garbage Bags	1.3%	0.1%	24,305
#7 Other Plastic Packaging	0.9%	0.1%	15,974	Plastic Film Products	0.2%	0.1%	4,485
PLA Packaging	0.0%	0.0%	106	R/C Plastic Products	0.9%	0.8%	16,775
Plastic Merchandise Bags	1.0%	0.1%	17,756				
Non-industrial Packaging Film Plastic	2.5%	0.2%	45,453	<b>Consumer Products</b>	<b>6.2%</b>		<b>113,099</b>
Industrial Packaging Film Plastic	0.1%	0.0%	1,883	Televisions - CRT	1.0%	1.5%	18,402
R/C Plastic Packaging	0.2%	0.1%	3,326	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	74
<b>Glass</b>	<b>2.7%</b>		<b>49,705</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	1.3%	0.4%	24,592	Computer Monitors - LCD	0.0%	0.0%	322
Green Glass Containers	0.3%	0.1%	4,617	Computers	0.0%	0.0%	481
Brown Glass Containers	0.6%	0.2%	10,750	Computer Peripherals	0.1%	0.1%	1,417
Plate Glass	0.0%	0.0%	189	Audio Equipment	0.1%	0.1%	1,442
Stoneware/Kitchen Ceramics/Glassware	0.2%	0.1%	3,448	Gaming Equipment	0.0%	0.0%	509
R/C Glass	0.3%	0.1%	6,110	Other Consumer Electronics	0.3%	0.2%	5,172
				Textiles - Organic	2.1%	0.7%	39,166
<b>Metal</b>	<b>4.3%</b>		<b>77,962</b>	Textiles - Synthetic	1.3%	0.5%	24,036
Aluminum Beverage Cans	0.6%	0.2%	11,784	Shoes, Purses, Belts	0.7%	0.2%	12,416
Aluminum Foil/Containers	0.2%	0.0%	3,264	Tires & Rubber	0.4%	0.2%	7,066
Other Aluminum	0.0%	0.0%	835	Furniture	0.0%	0.0%	763
Other Nonferrous	0.1%	0.0%	1,086	Mattresses	0.0%	0.0%	0
Food Cans - Tinned	1.0%	0.2%	17,999	R/C Consumer Products	0.1%	0.1%	1,834
Food Cans - Coated	0.2%	0.1%	4,143				
White Goods	0.2%	0.4%	3,930	<b>Hazardous/Special Wastes</b>	<b>7.0%</b>		<b>127,136</b>
Other Ferrous Metal	0.9%	0.2%	16,976	Pesticides/Herbicides	0.0%	0.0%	21
R/C Metals	1.0%	0.4%	17,946	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	159
<b>Organics</b>	<b>41.2%</b>		<b>752,542</b>	Fluorescent Tubes	0.0%	0.0%	12
Food - Vegetative	17.0%	1.7%	310,306	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	5.7%	0.9%	103,700	Latex Paint	0.2%	0.1%	2,781
Leaves & Grass	8.7%	3.9%	159,278	Solvent-based Glues	0.4%	0.7%	7,436
Prunings	1.0%	0.4%	17,931	Latex-based Glues	0.0%	0.0%	14
Animal Manure	7.9%	2.9%	144,994	Oil-based Paint & Solvent	0.0%	0.0%	754
Animal Carcasses	0.0%	0.0%	465	Caustic Cleaners	0.0%	0.0%	104
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.1%	0.0%	1,034
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	0.9%	0.2%	15,869	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	146
<b>Wood Debris</b>	<b>1.1%</b>		<b>19,345</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	0.0%	0.0%	708	Other Vehicle Fluids	0.0%	0.0%	8
Painted Wood	0.3%	0.1%	5,321	Oil Filters	0.0%	0.0%	303
Dimensional Lumber	0.1%	0.0%	1,551	Explosives	0.0%	0.0%	9
Engineered Wood	0.1%	0.1%	2,109	Medical Wastes	0.1%	0.1%	2,495
Pallets & Crates	0.0%	0.0%	0	Pharmaceuticals/Vitamins	0.0%	0.0%	645
Other Untreated Wood	0.1%	0.1%	1,389	Disposable Diapers	5.8%	1.3%	106,210
Wood By-Products	0.3%	0.3%	5,476	Other Cleaners & Soaps	0.2%	0.1%	3,550
R/C Wood Debris	0.2%	0.1%	2,791	Other Hazardous	0.0%	0.0%	479
				Other Non-hazardous	0.1%	0.0%	976
<b>Construction Materials</b>	<b>2.7%</b>		<b>49,218</b>	<b>Residues</b>	<b>0.8%</b>		<b>15,249</b>
Natural Wood	0.1%	0.1%	1,792	Ash	0.0%	0.0%	796
Insulation	0.1%	0.1%	1,185	Dust	0.2%	0.1%	3,411
Asphalt Paving	0.0%	0.0%	62	Fines	0.6%	0.2%	11,043
Concrete	0.1%	0.1%	1,525	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	0.1%	0.0%	1,351				
Carpet	0.8%	0.4%	14,222	<b>Totals</b>	<b>100.0%</b>		<b>1,826,521</b>
Carpet Padding	0.1%	0.1%	1,772	<b>Sample Count</b>	<b>148</b>		
Soil, Rocks, Sand	0.7%	0.3%	12,780				
Asphalt Roofing	0.3%	0.4%	4,660				
Plastic Flooring	0.1%	0.0%	965				
Ceramics & Brick	0.1%	0.1%	2,061				
R/C Construction Materials	0.4%	0.2%	6,842				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

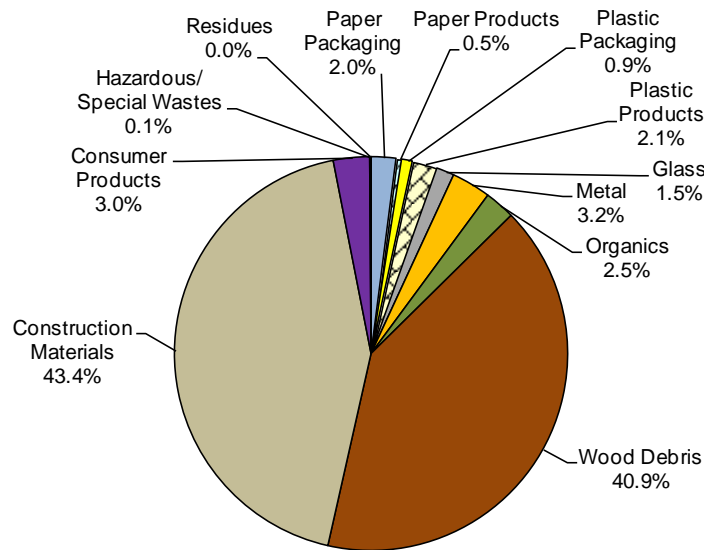
## Self-hauled C&D Waste

This section characterizes disposed MSW from the self-hauled C&D sector for the entire State of Washington, combining self-hauled C&D samples from all six WGAs considered in this study. Composition and quantity data are generated from data collected from the ten counties visited during the 2009 statewide study and use the material list of 130 *material types*.

### Overview by Material Class

Composition estimates by **Material Class** for the statewide self-hauled C&D disposed waste sector are illustrated in Figure 13. The largest **Material Class** in this waste sector is **Construction Materials**, which accounts for approximately 43 percent of the waste sector, by weight, followed by **Wood Debris** (41 percent). The ten remaining **Material Classes** combined comprise approximately 16 percent of the self-hauled C&D disposed waste sector. See Appendix B: List and Definitions of Material Types for a description of the *material types* included in each **Material Class**.

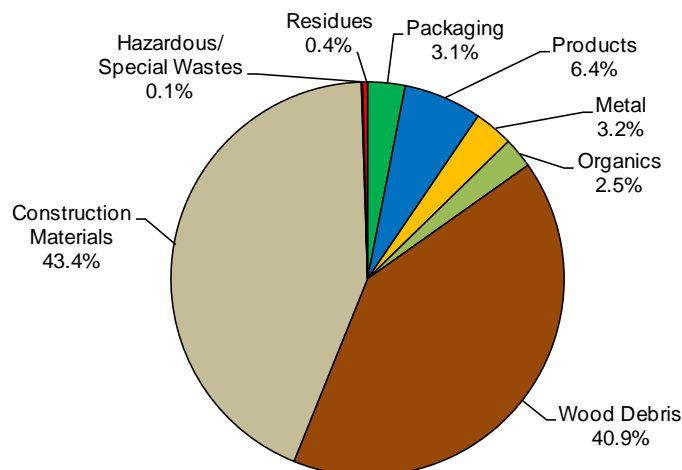
**Figure 13: Self-hauled C&D Disposed Waste Sector  
Composition by Material Class, 2009**



### Overview of Packaging and Product Material Groups

As shown in Figure 14, packaging materials and products combined comprise approximately ten percent of this waste sector. The majority of self-hauled C&D disposed waste is either construction materials (43 percent) or wood debris (41 percent). See Appendix B: List and Definitions of Material Types for a description of the *material types* included in packaging, products, and the other *material type* groups shown.

**Figure 14: Self-hauled C&D Disposed Waste Sector  
Packaging, Products, and Other Material Groups, 2009**



## Fifteen Most Prevalent Materials

When combined, the fifteen most prevalent *material types* in the self-hauled C&D disposed waste sector account for approximately 84 percent of this waste sector, as shown in Table 14. *Asphalt roofing*, *painted wood*, and *drywall* each comprise more than ten percent of the self-hauled C&D disposed waste sector.

**Table 14: Self-hauled C&D Disposed Waste Sector  
Fifteen Most Prevalent Material Types, 2009**

Material	Est. Percent	Cum. Percent	Est. Tons
Asphalt Roofing	12.8%	12.8%	48,000
Painted Wood	11.3%	24.1%	42,304
Drywall	10.4%	34.5%	38,957
Carpet	8.5%	43.1%	31,999
Engineered Wood	8.0%	51.0%	29,846
Dimensional Lumber	7.4%	58.4%	27,632
Other Untreated Wood	5.0%	63.4%	18,554
R/C Construction Materials	4.7%	68.1%	17,706
Pallets & Crates	3.2%	71.3%	11,863
R/C Wood Debris	2.9%	74.2%	10,854
Treated Wood	2.6%	76.8%	9,904
Other Ferrous Metal	2.0%	78.8%	7,491
Furniture	1.9%	80.7%	7,023
Cardboard/Kraft Paper Packaging	1.7%	82.4%	6,481
Asphalt Paving	1.6%	84.0%	5,833
<b>Total</b>	<b>84.0%</b>		<b>314,449</b>

## Detailed Composition

The composition percentages by weight for each *material type* in Washington's self-hauled C&D disposed waste sector are listed in Table 15.

**Table 15: Self-hauled C&D Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>2.0%</b>		<b>7,587</b>	<b>Paper Products</b>	<b>0.5%</b>		<b>1,700</b>
Newspaper Packaging	0.0%	0.0%	106	Newspaper	0.0%	0.0%	14
Cardboard/Kraft Paper Packaging	1.7%	0.7%	6,481	Cardboard/Kraft Paper Products	0.1%	0.2%	468
Other Groundwood Paper Packaging	0.0%	0.0%	4	Magazines	0.1%	0.1%	273
Mixed/Low Grade Paper Packaging	0.1%	0.1%	348	High-Grade Paper Products	0.0%	0.0%	29
Compostable Paper Packaging	0.1%	0.1%	188	Other Groundwood Paper Products	0.0%	0.0%	13
R/C Paper Packaging	0.1%	0.1%	459	Mixed Low Grade Paper Products	0.1%	0.1%	232
				Compostable Paper Products	0.1%	0.1%	393
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.1%	0.0%	278
<b>Plastic Packaging</b>	<b>0.9%</b>		<b>3,320</b>	<b>Plastic Products</b>	<b>2.1%</b>		<b>7,732</b>
#1 PETE Plastic Bottles	0.0%	0.0%	119	#1 PETE Plastic Products	0.0%	0.0%	0
#1 PETE Plastic Non-bottles	0.0%	0.0%	25	#2 HDPE Plastic Products	0.0%	0.0%	9
#2 HDPE Plastic Natural Bottles	0.0%	0.1%	149	#3 PVC Plastic Products	0.0%	0.1%	167
#2 HDPE Plastic Colored Bottles	0.0%	0.0%	20	#4 LDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	0.2%	0.3%	803	#5 PP Plastic Products	0.0%	0.0%	22
#3 PVC Plastic Packaging	0.0%	0.0%	0	#6 PS Plastic Products	0.0%	0.0%	43
#4 LDPE Plastic Packaging	0.0%	0.0%	15	#7 Other Plastic Products	0.9%	0.6%	3,302
#5 PP Plastic Packaging	0.0%	0.0%	88	PLA Products	0.0%	0.0%	5
#6 PS Plastic Packaging	0.0%	0.0%	107	Plastic Garbage Bags	0.2%	0.1%	673
#7 Other Plastic Packaging	0.0%	0.0%	181	Plastic Film Products	0.2%	0.2%	583
PLA Packaging	0.0%	0.0%	0	R/C Plastic Products	0.8%	0.7%	2,929
Plastic Merchandise Bags	0.0%	0.0%	29				
Non-industrial Packaging Film Plastic	0.1%	0.1%	419	<b>Consumer Products</b>	<b>3.0%</b>		<b>11,148</b>
Industrial Packaging Film Plastic	0.3%	0.2%	1,086	Televisions - CRT	0.0%	0.0%	0
R/C Plastic Packaging	0.1%	0.1%	280	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	0
<b>Glass</b>	<b>1.5%</b>		<b>5,490</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	0.1%	0.2%	450	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.0%	0.0%	12	Computers	0.1%	0.1%	253
Brown Glass Containers	0.0%	0.0%	55	Computer Peripherals	0.0%	0.0%	0
Plate Glass	0.9%	0.8%	3,486	Audio Equipment	0.0%	0.0%	17
Stoneware/Kitchen Ceramics/Glassware	0.0%	0.0%	0	Gaming Equipment	0.0%	0.0%	0
R/C Glass	0.4%	0.5%	1,488	Other Consumer Electronics	0.0%	0.0%	34
				Textiles - Organic	0.2%	0.2%	889
<b>Metal</b>	<b>3.2%</b>		<b>12,079</b>	Textiles - Synthetic	0.2%	0.2%	576
Aluminum Beverage Cans	0.0%	0.0%	41	Shoes, Purses, Belts	0.1%	0.1%	383
Aluminum Foil/Containers	0.0%	0.0%	12	Tires & Rubber	0.2%	0.3%	909
Other Aluminum	0.1%	0.1%	226	Furniture	1.9%	2.3%	7,023
Other Nonferrous	0.1%	0.1%	468	Mattresses	0.3%	0.2%	1,031
Food Cans - Tinned	0.0%	0.0%	63	R/C Consumer Products	0.0%	0.0%	34
Food Cans - Coated	0.0%	0.0%	1				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>0.1%</b>		<b>388</b>
Other Ferrous Metal	2.0%	0.9%	7,491	Pesticides/Herbicides	0.0%	0.0%	0
R/C Metals	1.0%	0.6%	3,777	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	22
<b>Organics</b>	<b>2.5%</b>		<b>9,346</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	0.3%	0.3%	958	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	0.1%	0.2%	487	Latex Paint	0.1%	0.1%	273
Leaves & Grass	0.8%	0.6%	2,989	Solvent-based Glues	0.0%	0.0%	6
Prunings	0.2%	0.2%	687	Latex-based Glues	0.0%	0.0%	41
Animal Manure	0.0%	0.0%	93	Oil-based Paint & Solvent	0.0%	0.0%	0
Animal Carcasses	0.0%	0.0%	0	Caustic Cleaners	0.0%	0.0%	0
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	11
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	1.1%	1.1%	4,130	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	0
<b>Wood Debris</b>	<b>40.9%</b>		<b>153,150</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	2.6%	3.0%	9,904	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	11.3%	7.1%	42,304	Oil Filters	0.0%	0.0%	0
Dimensional Lumber	7.4%	3.5%	27,632	Explosives	0.0%	0.0%	0
Engineered Wood	8.0%	5.1%	29,846	Medical Wastes	0.0%	0.0%	0
Pallets & Crates	3.2%	3.2%	11,863	Pharmaceuticals/Vitamins	0.0%	0.0%	5
Other Untreated Wood	5.0%	6.4%	18,554	Disposable Diapers	0.0%	0.0%	1
Wood By-Products	0.6%	0.6%	2,191	Other Cleaners & Soaps	0.0%	0.0%	8
R/C Wood Debris	2.9%	1.6%	10,854	Other Hazardous	0.0%	0.0%	0
				Other Non-hazardous	0.0%	0.0%	22
<b>Construction Materials</b>	<b>43.4%</b>		<b>162,415</b>	<b>Residues</b>	<b>0.0%</b>		<b>30</b>
Natural Wood	0.8%	1.4%	3,138	Ash	0.0%	0.0%	0
Insulation	0.7%	0.4%	2,717	Dust	0.0%	0.0%	0
Asphalt Paving	1.6%	1.9%	5,833	Fines	0.0%	0.0%	30
Concrete	0.5%	0.4%	1,776	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	10.4%	7.8%	38,957				
Carpet	8.5%	8.7%	31,999	<b>Totals</b>	<b>100.0%</b>		<b>374,386</b>
Carpet Padding	0.5%	0.3%	1,823	<b>Sample Count</b>	<b>109</b>		
Soil, Rocks, Sand	1.3%	1.4%	4,841				
Asphalt Roofing	12.8%	8.9%	48,000				
Plastic Flooring	0.1%	0.1%	476				
Ceramics & Brick	1.4%	1.2%	5,149				
R/C Construction Materials	4.7%	2.2%	17,706				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

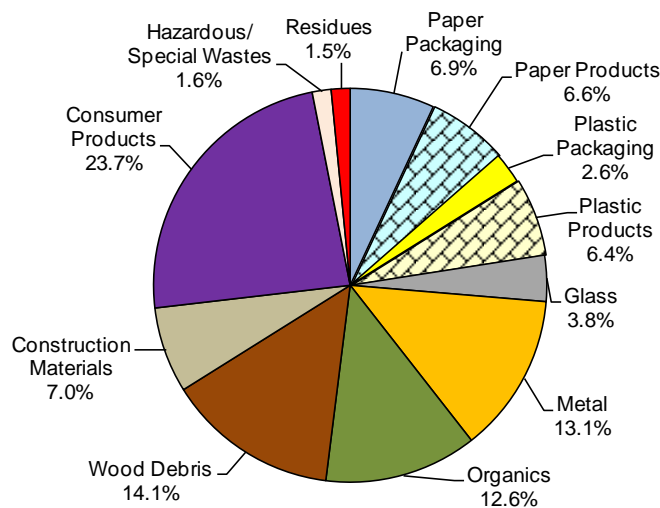
## Self-hauled Other Waste

This section characterizes MSW disposed by the self-hauled other sector for the entire State of Washington, combining self-hauled other samples from all six WGAs considered in this study. Composition and quantity data are generated from data collected from the ten counties visited during the 2009 statewide study and use the material list of 130 *material types*.

### Overview by Material Class

Composition estimates by **Material Class** for the statewide self-hauled other disposed waste sector are illustrated in Figure 15. The largest **Material Class** in this waste sector is **Consumer Products**, which account for approximately 24 percent of the waste sector, by weight, followed by **Wood Debris** (14 percent) and **Metal** (13 percent). See Appendix B: List and Definitions of Material Types for a description of the *material types* included in each **Material Class**.

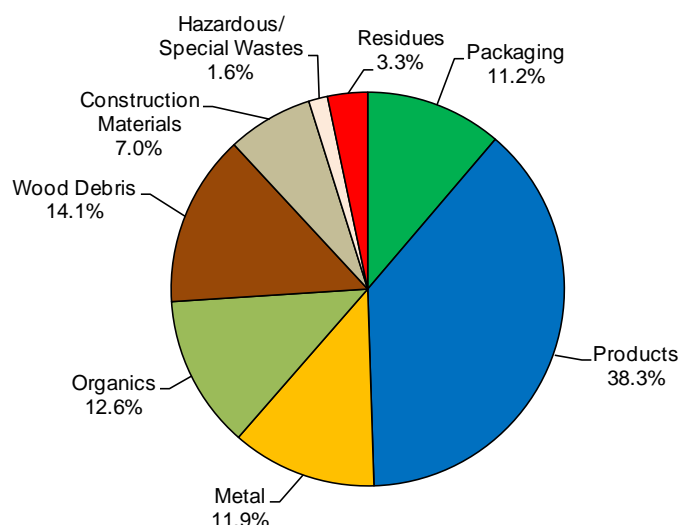
Figure 15: Statewide Self-hauled Other Disposed Waste Sector  
Composition by Material Class, 2009



### Overview of Packaging and Product Material Groups

As shown in Figure 16, products make up approximately 38 percent of the waste sector and are nearly three times more prevalent than wood debris (14 percent), the next largest material group. Packaging materials comprise approximately 11 percent of self-hauled other disposed waste. See Appendix B: List and Definitions of Material Types for a description of the *material types* included in packaging, products, and the other material groups shown.

**Figure 16: Self-hauled Other Disposed Waste Sector  
Packaging, Products, and Other Material Groups, 2009**



## Fifteen Most Prevalent Materials

When combined, the fifteen most prevalent *material types* in the self-hauled other disposed waste sector account for nearly two thirds (61 percent) of the waste sector, as shown in Table 16. *Furniture* (11 percent) and *other ferrous metal* (nine percent) are the two most prevalent materials in the self-hauled other disposed waste sector.

**Table 16: Self-hauled Other Disposed Waste Sector  
Fifteen Most Prevalent Material Types, 2009**

Material	Est. Percent	Cum. Percent	Est. Tons
Furniture	11.3%	11.3%	68,387
Other Ferrous Metal	9.1%	20.5%	55,125
Pallets & Crates	6.1%	26.6%	36,845
Cardboard/Kraft Paper Packaging	5.4%	31.9%	32,297
Leaves & Grass	4.0%	35.9%	24,073
Textiles - Organic	3.9%	39.8%	23,565
#7 Other Plastic Products	2.9%	42.7%	17,598
R/C Metals	2.7%	45.4%	16,242
Food - Vegetative	2.5%	48.0%	15,368
R/C Wood Debris	2.5%	50.5%	15,246
Painted Wood	2.3%	52.8%	14,051
Textiles - Synthetic	2.3%	55.1%	13,980
R/C Plastic Products	2.1%	57.2%	12,375
Animal Carcasses	2.0%	59.2%	12,133
Newspaper	2.0%	61.2%	11,958
<b>Total</b>	<b>61.2%</b>		<b>369,243</b>

## Detailed Composition

The composition percentages by weight for each *material type* in Washington's self-hauled other disposed waste sector are listed in Table 17.



**Table 17: Self-hauled Other Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>6.9%</b>		<b>41,881</b>	<b>Paper Products</b>	<b>6.6%</b>		<b>39,988</b>
Newspaper Packaging	0.1%	0.1%	347	Newspaper	2.0%	2.3%	11,958
Cardboard/Kraft Paper Packaging	5.4%	3.8%	32,297	Cardboard/Kraft Paper Products	0.0%	0.0%	141
Other Groundwood Paper Packaging	0.0%	0.0%	228	Magazines	1.1%	0.8%	6,465
Mixed/Low Grade Paper Packaging	1.0%	0.6%	5,771	High-Grade Paper Products	0.4%	0.2%	2,280
Compostable Paper Packaging	0.2%	0.1%	1,007	Other Groundwood Paper Products	0.2%	0.2%	1,452
R/C Paper Packaging	0.4%	0.2%	2,229	Mixed Low Grade Paper Products	0.7%	0.4%	4,401
				Compostable Paper Products	0.7%	0.4%	4,524
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	1.5%	2.1%	8,767
<b>Plastic Packaging</b>	<b>2.6%</b>		<b>15,457</b>	<b>Plastic Products</b>	<b>6.4%</b>		<b>38,739</b>
#1 PETE Plastic Bottles	0.3%	0.1%	1,835	#1 PETE Plastic Products	0.0%	0.0%	1
#1 PETE Plastic Non-bottles	0.1%	0.0%	315	#2 HDPE Plastic Products	0.1%	0.1%	503
#2 HDPE Plastic Natural Bottles	0.1%	0.0%	364	#3 PVC Plastic Products	0.0%	0.0%	107
#2 HDPE Plastic Colored Bottles	0.2%	0.1%	1,087	#4 LDPE Plastic Products	0.0%	0.0%	103
#2 HDPE Plastic Jars & Tubs	0.1%	0.1%	771	#5 PP Plastic Products	0.2%	0.2%	1,288
#3 PVC Plastic Packaging	0.0%	0.0%	65	#6 PS Plastic Products	0.0%	0.0%	224
#4 LDPE Plastic Packaging	0.0%	0.0%	46	#7 Other Plastic Products	2.9%	1.3%	17,598
#5 PP Plastic Packaging	0.1%	0.1%	844	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.2%	0.1%	1,106	Plastic Garbage Bags	0.4%	0.1%	2,135
#7 Other Plastic Packaging	0.3%	0.1%	1,513	Plastic Film Products	0.7%	0.7%	4,406
PLA Packaging	0.0%	0.0%	10	R/C Plastic Products	2.1%	1.3%	12,375
Plastic Merchandise Bags	0.2%	0.1%	1,049				
Non-industrial Packaging Film Plastic	0.5%	0.2%	3,050	<b>Consumer Products</b>	<b>23.7%</b>		<b>143,269</b>
Industrial Packaging Film Plastic	0.4%	0.3%	2,565	Televisions - CRT	1.4%	1.1%	8,280
R/C Plastic Packaging	0.1%	0.1%	836	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.3%	0.3%	1,561
<b>Glass</b>	<b>3.8%</b>		<b>22,842</b>	Computer Monitors - CRT	0.2%	0.2%	1,476
Clear Glass Containers	0.8%	0.7%	4,811	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.1%	0.1%	751	Computers	0.1%	0.1%	491
Brown Glass Containers	0.2%	0.1%	1,297	Computer Peripherals	0.3%	0.5%	2,097
Plate Glass	0.1%	0.1%	842	Audio Equipment	0.4%	0.4%	2,407
Stoneware/Kitchen Ceramics/Glassware	0.8%	1.1%	4,613	Gaming Equipment	0.0%	0.0%	221
R/C Glass	1.7%	1.8%	10,527	Other Consumer Electronics	1.2%	1.3%	7,496
				Textiles - Organic	3.9%	1.9%	23,565
<b>Metal</b>	<b>13.1%</b>		<b>79,057</b>	Textiles - Synthetic	2.3%	1.0%	13,980
Aluminum Beverage Cans	0.3%	0.2%	1,599	Shoes, Purses, Belts	0.4%	0.3%	2,454
Aluminum Foil/Containers	0.0%	0.0%	153	Tires & Rubber	0.4%	0.2%	2,504
Other Aluminum	0.0%	0.0%	258	Furniture	11.3%	8.9%	68,387
Other Nonferrous	0.1%	0.1%	367	Mattresses	0.4%	0.3%	2,120
Food Cans - Tinned	0.2%	0.1%	1,444	R/C Consumer Products	1.0%	0.9%	6,231
Food Cans - Coated	0.1%	0.1%	455				
White Goods	0.6%	0.6%	3,413	<b>Hazardous/Special Wastes</b>	<b>1.6%</b>		<b>9,381</b>
Other Ferrous Metal	9.1%	7.1%	55,125	Pesticides/Herbicides	0.0%	0.0%	222
R/C Metals	2.7%	1.1%	16,242	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	2
<b>Organics</b>	<b>12.6%</b>		<b>75,773</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	2.5%	1.2%	15,368	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	0.9%	0.5%	5,336	Latex Paint	0.4%	0.4%	2,252
Leaves & Grass	4.0%	2.0%	24,073	Solvent-based Glues	0.0%	0.0%	87
Prunings	0.9%	0.9%	5,340	Latex-based Glues	0.0%	0.0%	137
Animal Manure	1.3%	1.1%	7,664	Oil-based Paint & Solvent	0.2%	0.3%	1,289
Animal Carcasses	2.0%	3.0%	12,133	Caustic Cleaners	0.0%	0.0%	130
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	78
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	172
R/C Organics	1.0%	1.3%	5,858	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	0
<b>Wood Debris</b>	<b>14.1%</b>		<b>85,233</b>	Antifreeze	0.0%	0.0%	3
Treated Wood	0.5%	0.6%	3,198	Other Vehicle Fluids	0.0%	0.0%	12
Painted Wood	2.3%	1.1%	14,051	Oil Filters	0.0%	0.0%	10
Dimensional Lumber	1.0%	0.5%	5,803	Explosives	0.0%	0.0%	13
Engineered Wood	0.5%	0.3%	3,167	Medical Wastes	0.1%	0.1%	409
Pallets & Crates	6.1%	7.7%	36,845	Pharmaceuticals/Vitamins	0.0%	0.0%	7
Other Untreated Wood	0.7%	0.6%	4,036	Disposable Diapers	0.4%	0.3%	2,385
Wood By-Products	0.5%	0.4%	2,888	Other Cleaners & Soaps	0.3%	0.3%	1,889
R/C Wood Debris	2.5%	2.0%	15,246	Other Hazardous	0.0%	0.0%	93
				Other Non-hazardous	0.0%	0.0%	191
<b>Construction Materials</b>	<b>7.0%</b>		<b>42,546</b>	<b>Residues</b>	<b>1.5%</b>		<b>9,350</b>
Natural Wood	0.0%	0.0%	95	Ash	0.9%	1.4%	5,346
Insulation	0.1%	0.1%	845	Dust	0.0%	0.0%	256
Asphalt Paving	0.0%	0.0%	0	Fines	0.0%	0.0%	266
Concrete	0.4%	0.4%	2,321	Sludge/Special Industrial	0.6%	1.0%	3,483
Drywall	1.1%	1.1%	6,820				
Carpet	1.8%	1.1%	11,163	<b>Totals</b>	<b>100.0%</b>		<b>603,514</b>
Carpet Padding	0.5%	0.4%	2,843	<b>Sample Count</b>	<b>109</b>		
Soil, Rocks, Sand	0.7%	0.8%	4,185				
Asphalt Roofing	0.1%	0.0%	313				
Plastic Flooring	0.0%	0.1%	295				
Ceramics & Brick	0.3%	0.3%	2,102				
R/C Construction Materials	1.9%	1.3%	11,564				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

## Appendix A: Detailed Methodology

### Developing a Project Plan

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Prior to carrying out any of the data-collection strategies—sampling, sorting, and surveying—the Department of Ecology developed a waste characterization project plan that provided the framework for all subsequent data collection and analysis strategies.

Ecology's planning stage included:

1. Selecting representative counties across the state to be visited;
2. Scheduling solid waste disposal facilities, statewide, for surveying and sampling;
3. Defining the waste sectors to be examined during the study; and
4. Creating the list of *material types* to be examined throughout the study.

The following methodology presents a detailed list of actions that Cascadia and our partner in field sampling, Sky Valley Associates, took to plan the field data collection process and analyze the data.

### Organizing Data Collection

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#### Coordination with Facilities

Cascadia worked with Ecology to create a questionnaire and conducted a brief interview with the management of each of the ten solid waste facilities recruited by Ecology.

The information collected during these interviews guided us as we scheduled visits, planned a precise data collection strategy for each site, and created vehicle selection forms that allowed for a suitable random selection process. The interviews obtained the following information:

- Contact information for key personnel.
- Days and hours of operation for each facility.
- Approximate numbers of vehicles from each sector (residential, commercial, self-hauled construction and demolition (C&D), and self-hauled other) expected on each day of the week and the likely peak time of day for each type of load.
- Ability and willingness of gatehouse personnel to assist with the vehicle selection process.
- Logistical strategy to determine locations for setting up the work area, taking samples, queuing samples, discarding sorted samples, and other in-process activities.
- Recycling or recovery operations that exist at the facility, and how the study team may obtain samples of waste after any recycling or recovery operations have already been applied to the waste (if applicable).
- Whether the facility is able to provide the use of a loader for obtaining waste samples.
- Unusual conditions (e.g., weather, anomalies in traffic patterns, etc.) that might affect data collection and necessitate special logistical arrangements.
- Facility-specific health and safety procedures and emergency contact numbers.

- Any other concerns that should be addressed prior to sampling.

Consistent and clear communication with the facility management leads to smooth sampling and sorting and to substantial willingness among facility staff to assist us in whatever ways they could. Cascadia contacted the management of each disposal facility two weeks prior to the scheduled visits to address logistical concerns and reiterate any requests for sample collection assistance. A day or two prior to the visit, the Field Manager made a final reminder call to ensure that the facility was ready and to resolve any last minute issues.

## Prepare Data Forms

Customized field forms were developed to correlate to the specific sampling strategy and information needed of this study. These forms included:

A **Vehicle Selection Form** was created for each day and each location of sampling activity. This form listed the sample quotas specific to each day, by sector, and was used to select vehicles entering the facility in a random manner for sampling.

A **Sample Placard** was created to flag vehicles selected for sampling. The sample placard is a brightly colored paper sign that was placed on the windshield of every vehicle entering the facility chosen for sampling. The sample placard has the sample number (Res-1, Com-5, etc.) pre-printed on the front and was easily seen and intercepted by the sorting Field Manager.

A **Waste Sample Tally Sheet** included a list of all materials and cells to record the weights for each material.

Field form applications will be described in more detail below, in Task 4: Sampling and Sorting.

## Preparing the Sorting Crew

### Training

At the outset of each season, the Field Manager and sorting crew familiarized themselves with the materials list, field forms, and any unique sorting protocols that were employed during the season. On site, the Field Manager was present to provide continual support and supervision. Training for the 2009 Washington State study also addressed:

- General facility overviews.
- Facility-specific health and safety requirements.
- Personal protective equipment (PPE) requirements.
- Waste handling techniques.
- Productivity strategies and daily sorting quotas.

The Field Manager ensured that the sorting protocol was followed, along with the health and safety requirements, and closely evaluated each individual sample to ensure that the material categories were understood and were interpreted uniformly by the sorting crew.

## Health and Safety

Our team followed a strict health and safety plan that meets Occupational Safety and Health Administration (OSHA) standards.

## Equipment

The list of equipment utilized for the sampling and sorting is presented below. The Field Manager stocked extra safety equipment to ensure the safety of observers or others present at the sorting site.

### Equipment for sorting:

- Sorting table/stations (1 per sorter)
- 30-50 laundry baskets per waste sector to sort material into
- 1 shovel
- 2 brooms
- 1 digital scale (weighs to 1/10 pound)
- 10-20 tarps
- 4 clipboards
- A 7.1 megapixel standard digital camera
- 2 coolers with cold drinks

### Safety equipment:

- Dust masks (1 per person/day)
- Puncture resistant gloves (1 pair per person)
- Glove liners (1 per person/day)
- Safety glasses (1 per person)
- Reflective safety vests (1 per person)
- Hard hats (1 per person)
- Leather work gloves (1 pair per person)
- Safety/medical kit

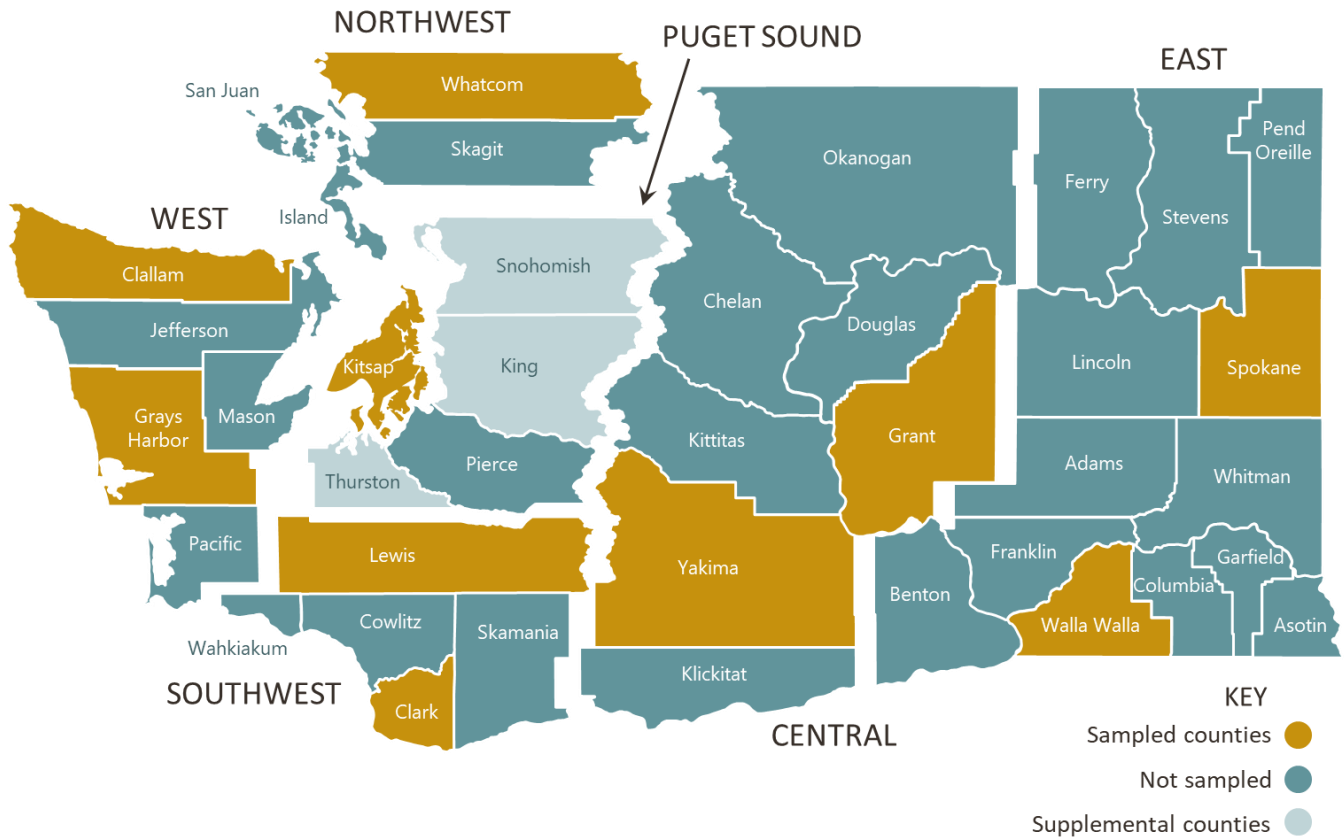
## Statewide Sampling Strategy

After considering the sampling locations (Table 18) chosen and recruited by Ecology and studying a map of the State of Washington, Cascadia developed a sorting strategy that allowed us to cover ten counties in eleven days. During this period, we visited the four eastern facilities during one week and the remaining six western facilities during a second week. The counties where sampling occurred are shown in Figure 17 and Table 19. We repeated this sampling strategy throughout each of the four seasons, making an attempt to vary the days of the week on which each facility was visited to capture variability associated with days of the week.

**Table 18: Counties and Facilities Visited for Sampling**

COUNTY	FACILITY
Clallam	Port Angeles Transfer Station
Grays Harbor	Aberdeen Central Transfer Station
Whatcom	Regional Disposal Company
Clark	West Van Material Recovery Center
Lewis	Lewis County Central Transfer Station
Kitsap	Olympic View Transfer Station
Grant	Ephrata Landfill
Yakima	Terrace Heights Landfill
Spokane	Spokane Regional Waste to Energy Facility
Walla Walla	Sudbury Road Landfill

**Figure 17: Map of Waste Generation Areas and Counties Included**



**Table 19. Counties Included in Each Waste Generation Area**

Central	East	Puget Sound	West
Chelan	Ferry	King	Clallam
Douglas	Lincoln	Kitsap	Grays Harbor
Grant	Pend Oreille	Pierce	Jefferson
Okanogan	Spokane	Snohomish	Mason
Kittitas	Stevens	Thurston	Pacific
Klickitat	Adams		
Yakima	Asotin	<b>Southwest</b>	
	Benton	Clark	Sampled Counties
<b>Northwest</b>	Columbia	Cowlitz	Supplemental Counties
Island	Franklin	Lewis	
San Juan	Garfield	Skamania	
Skagit	Walla Walla	Wahkiakum	
Whatcom	Whitman		

Table 20 and Table 21 below show all four seasons of planned and actual samples, by county.

Table 20: Season One and Two Sampling Allocations: Planned vs. Actual

Season One: March/April								Season Two: May/June				
Waste Generation Area	County representing WGA	Planned/ Actual	Com	Res	SH C&D	SH Other	Total	Com	Res	SH C&D	SH Other	Total
West	Clallam	Planned	2	2	2	2	8	2	2	2	2	8
		Actual	2	2	2	2	8	2	3	2	2	9
	Grays Harbor	Planned	3	3	2	2	10	3	3	2	2	10
		Actual	3	3	2	2	10	3	3	2	2	10
Northwest	Whatcom	Planned	4	4	3	3	14	4	4	3	3	14
		Actual	4	4	3	3	14	4	4	3	3	14
Puget Sound	Kitsap	Planned	2	2	2	2	8	2	2	2	2	8
		Actual	2	2	2	2	8	3	2	2	2	9
Southwest	Clark	Planned	4	4	2	2	12	4	4	2	2	12
		Actual	3	3	3	3	12	4	4	2	2	12
	Lewis	Planned	2	2	2	2	8	2	2	2	2	8
		Actual	2	2	2	2	8	2	2	2	2	8
West Samples Planned			17	17	13	13	60	17	17	13	13	60
West Samples Sampled			16	16	14	14	60	18	18	13	13	62
Central	Yakima	Planned	5	5	3	3	16	5	5	3	3	16
		Actual	6	5	3	3	17	5	5	3	3	16
	Grant	Planned	5	5	3	3	16	5	5	3	3	16
		Actual	3	7	3	3	16	6	4	3	3	16
East	Spokane (day 1)	Planned	4	4	2	2	12	4	4	2	2	12
		Actual	4	3	2	2	11	4	4	2	2	12
	Spokane (day 2)	Planned	4	4	2	2	12	4	4	2	2	12
		Actual	4	5	2	2	13	4	4	2	2	12
	Walla Walla	Planned	5	5	3	3	16	5	5	3	3	16
		Actual	4	5	3	3	15	4	6	3	3	16
East Samples Planned			23	23	13	13	72	23	23	13	13	72
East Samples Sampled			21	25	13	13	72	23	23	13	13	72
Total Samples Planned			40	40	26	26	132	40	40	26	26	132
Total Samples Sampled			37	41	27	27	132	41	41	26	26	134
Total Days of Sampling							11					11

Table 21: Season Three and Four Sampling Allocations: Planned vs. Actual

Season Three: August/September								Season Four: January				
Waste Generation Area	County representing WGA	Planned/ Actual	Com	Res	SH C&D	SH Other	Total	Com	Res	SH C&D	SH Other	Total
West	Clallam	Planned	4	3	3	2	12	4	3	2	3	12
		Actual	4	3	3	2	12	4	3	2	3	12
	Grays Harbor	Planned	4	3	2	3	12	4	3	3	2	12
		Actual	4	3	2	3	12	4	3	3	2	12
Northwest	Whatcom	Planned	4	3	3	2	12	4	3	2	3	12
		Actual	4	3	3	2	12	4	3	2	3	12
Puget Sound	Kitsap	Planned	4	3	2	3	12	4	3	3	2	12
		Actual	4	3	2	3	12	4	3	3	2	12
Southwest	Clark	Planned	4	3	3	2	12	4	3	2	3	12
		Actual	4	3	3	2	12	4	3	2	3	12
	Lewis	Planned	4	3	2	3	12	4	3	3	2	12
		Actual	4	3	2	3	12	4	3	3	2	12
West Samples Planned			24	18	15	15	72	24	18	15	15	72
West Samples Sampled			24	18	15	15	72	24	18	15	15	72
Central	Yakima	Planned	4	3	3	2	12	4	3	2	3	12
		Actual	4	3	3	2	12	4	3	3	3	13
	Grant	Planned	4	3	2	3	12	4	3	3	2	12
		Actual	4	3	2	3	12	2	3	3	3	11
East	Spokane (day 1)	Planned	4	3	3	2	12	4	3	3	2	12
		Actual	4	3	2	3	12	4	3	2	2	11
	Spokane (day 2)	Planned	4	3	2	3	12	4	3	2	3	12
		Actual	4	3	3	2	12	4	3	3	3	13
	Walla Walla	Planned	4	3	3	2	12	4	3	2	3	12
		Actual	4	3	3	2	12	4	3	2	3	12
East Samples Planned			20	15	13	12	60	20	15	12	13	60
East Samples Sampled			20	15	13	12	60	18	15	13	14	60
Total Samples Planned			44	33	28	27	132	44	33	27	28	132
Total Samples Sampled			44	33	28	27	132	42	33	28	29	132
Total Days of Sampling							11					11

## Conducting Fieldwork

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### Obtaining Samples

The Field Manager followed a systematic procedure to select vehicles with commercial, residential, self-hauled C&D, and self-hauled other waste for sampling. To calculate vehicle sampling frequency for each waste sector, the project team established a sampling interval for each day of sampling. Sampling intervals were determined by dividing the total expected number of loads for each sector arriving at the facility on the scheduled day—based on information from the disposal facility questionnaire—by the number of samples needed each day. The resulting number is the sampling frequency, which determines whether, for example, every third vehicle, every sixth vehicle, or every 20<sup>th</sup> vehicle is selected for sampling. This strategy is referred to as “selecting every  $n^{\text{th}}$  vehicle” within a waste sector. A vehicle selection form was created for each day and each location of sampling activity.

In order for a vehicle to be eligible for sampling, the load had to fit clearly within the commercial, residential, self-hauled C&D and self-hauled other definitions, depending on the targeted waste sector. Samples of commercial and residential waste were obtained from major haulers, such as Waste Management or Allied, or from municipal haulers.

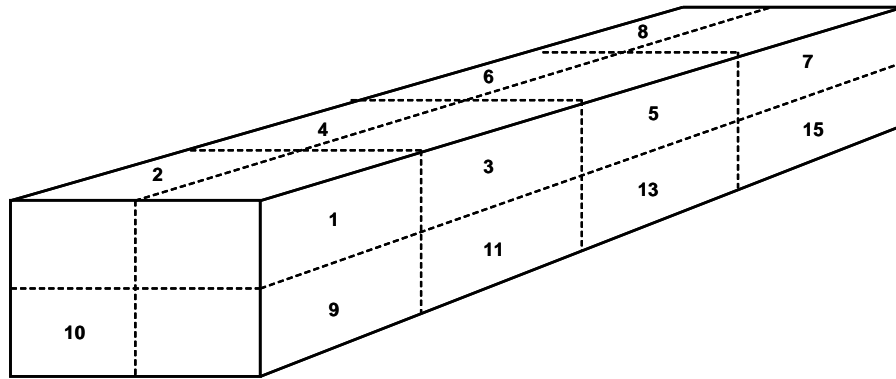
When the “ $n^{\text{th}}$ ” vehicle in each waste sector arrived, a unique, sequential sample identification (ID) number was assigned to the load. That sample ID number was entered on the vehicle selection form, and a unique sample placard was placed in the windshield of the chosen vehicle. The sample ID matched the corresponding waste sector prefix (COM, RES, SH). For example, the first commercial sample ID on a given day was COM-1, while the fourth residential sample ID was RES-4. The brightly colored sample placard alerted the Field Manager and sorting crew to the presence of a sample. Where feasible, the vehicle selection responsibility was handled by the scale house crew, as they were uniquely positioned to count off and select the  $n^{\text{th}}$  vehicle during the course of the sampling day.

### Hand-sorting Samples

Loads selected to provide hand-sorted samples were extracted from the elongated piles ejected from the dumping vehicle. From each selected pile, the Field Manager randomly selected one sample of waste using an imaginary 16-cell grid (see below) superimposed over the dumped material. Then, with the assistance of a loader operator, a sample of waste weighing 225 pounds (on average) was removed from the designated cell and placed on a tarp. Each sample was labeled with the identifying sample ID number and digitally photographed.



Figure 18: The 16-Cell Grid as Applied to a Tipped Load



Our process for hand-sorting samples included the following actions:

1. After each sample of waste was placed on a tarp, photographs of the sample were taken using a digital camera. The sample placard that identified each sample was positioned so it was visible in each photograph.
2. Each sample of waste was then sorted into the *material types*, and the sorting crew used plastic laundry baskets to contain the separated materials. The sorting crew members typically specialized in groups of materials, such as papers or plastics. The Field Manager monitored the homogeneity of material in the baskets as they accumulated, rejecting any materials which may have been improperly classified.
3. The Field Manager then verified the purity of each material as it was weighed in its basket, using a pre-calibrated scale, and recorded each material weight (excluding the weight of the basket) on the sample tally form. The Field Manager oversaw all weighing and data recording of each sample.

At the conclusion of each sorting day, the Field Manager conducted a quality control review of the data recorded on each sample tally sheet. The completed sample tally sheet was transported to the Cascadia Consulting office for data entry.

## Site Maintenance and Cleanup

Our field crew took steps to reduce or eliminate the risk of litter, particularly in open-air environments. A thorough clean-up effort followed each day of work and included the following:

- Organizing and stowing sorting supplies in a designated location;
- Removing all sorted waste discarded throughout the day (the host facility loader operator typically helped with removal);
- Sweeping and cleaning the sorting area to prevent windblown litter and other situations that could attract vectors;
- Removing and properly disposing any single-use personal protective equipment; and
- Checking out with the Facility Manager each day.

## Data Management

Our quality assurance/quality control process involved:

- Assigning a unique combination sample number, county of origin, date, and time to each sample and then transferring that information to the tally sheet that was used to record material weights for the sample.
- Encoding the type of waste load into the sample number. For example, on a particular date, samples of commercial waste were numbered Com-1, Com-2, and so on.
- Using the vehicle selection form to track the numbers of each type of load obtained and sampled.
- Verifying that data forms were obtained for each day the data collection crew was in the field.
- Designing the data entry databases to prevent out-of-range values for vehicle and sample characteristics such as vehicle type, net weight, and other factors.
- Randomly checking computer-entered data against the paper forms to verify that numbers were entered correctly and to look for any systematic or random errors.

Following each season of fieldwork, all field forms were transported back to Cascadia's office and entered into a waste composition database created specifically for the 2009 Washington statewide study. Our team's data entry procedure was developed to protect the integrity of the data at every step of the process, from collection in the field to final analysis.

After the sample tally sheets were checked by the Field Manager, the Data Manager verified that all required data had been recorded properly and supervised the data entry process. As an additional step in quality control, randomly selected records were inspected in detail to monitor the accuracy of the data entry process.

## Collecting Composition and Quantity Data

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### Composition of Waste

Composition estimates that resulted from sorting samples were combined with quantity data to produce meaningful results at the material and waste sector levels. The data collected in the field provided Ecology with the *percentages* of the various materials found in the waste sector, but not the *tonnages*. When these percentages were paired with the tonnage figures that were collected from Washington's waste generations areas, these percentages were scaled up to a specific weight. In other words, knowing that a particular waste sector is composed of 20 percent food waste is helpful, but only when one knows that 20 percent equates to 40,000 tons of food can concrete planning occur and diversion programs be established.

### Quantity of Waste

In order to determine how many tons of disposed waste were associated with each of the waste sectors addressed in the study, we gathered tonnage data from two sources:

1. A vehicle survey carried out during season four at each of the ten sampling facilities.
2. Tonnage data provided by 36 statewide disposal facilities.

We began the tonnage data collection process by gathering tonnage data during the pre-fieldwork conversations with facilities that we expected to visit. The collection of this data involved conversations, faxes, or the collection of transaction logs. It should be noted that facilities do not always track data in a consistent manner, and availability varies from facility to facility. Therefore, Cascadia needed to interpret some of the data to create comparable information. In addition to collecting tonnage data from the ten facilities visited for sampling, Cascadia collected tonnage data from an additional 36 facilities statewide.

## Vehicle Surveys

Vehicle surveys were administered to the drivers of each vehicle entering the facility through the gate at which the surveyor was posted. If the facility had multiple gates (such as the Spokane Regional Waste to Energy Facility), then the surveyor rotated among the gates at regular intervals of approximately one hour. The number of vehicles surveyed at each facility is presented in Table 22.

**Table 22: Vehicle Surveys Conducted, by County and Facility**

COUNTY	FACILITY	VEHICLES SURVEYED
Clallam	Port Angeles Transfer Station	107
Grays Harbor	Aberdeen Central Transfer Station	97
Whatcom	Regional Disposal Company	73
Clark	West Van Material Recovery Center	80
Lewis	Lewis County Central Transfer Station	157
Kitsap	Olympic View Transfer Station	142
Grant	Ephrata Landfill	64
Yakima	Terrace Heights Landfill	177
Spokane	Spokane Regional Waste to Energy	189
Walla Walla	Sudbury Road Landfill	58
<b>Total</b>		<b>1,144</b>

The ultimate product of the survey data was an estimate of the fraction of the overall waste sector contributed by each of the waste sectors at each participating facility.

On survey days, the surveyor arrived at the site at the scheduled start time, which was assigned to permit full coverage throughout the day and at times of greatest traffic at the facility. The surveyor introduced himself or herself to the scalehouse staff and verified the procedure for administering the survey that day by confirming several key details:

- The procedure for obtaining vehicle net weights;
- Any rules the facility used for assigning a minimum net weight to certain types of vehicles, such as those carrying self-hauled loads; and
- Any rules governing the assignment of net volume estimates instead of net weights.

The surveyor positioned himself or herself at the designated entrance to the facility and interviewed the driver of each passing vehicle. The information gathered through the interview included the following:

- The waste sector (residential, commercial, self-hauled C&D, and self-hauled other);
- In cases where loads were composed of waste from multiple sectors, the estimated proportions of the sectors represented in the load;
- The activity that generated the waste; and
- Vehicle type.

An example vehicle survey form that was used to collect the data is included in Appendix C: Forms Used during the Study.

At most of the facilities, it was possible for the surveyor to obtain net weights for vehicles by observing the weighing process at the scalehouse and recording the weight at the same moment the vehicle drove across the scales. In some cases, the surveyor coordinated with scalehouse personnel periodically throughout the day to obtain weight tickets (transaction receipts) corresponding to every load of waste brought to the facility.

In all cases, the surveyor recorded the type of waste and net weight, net volume, or default assigned weight for every vehicle encountered that was carrying disposed waste that did not come from another solid waste facility. The survey did not record loads of non-disposed waste, material to be recycled or recovered, Alternative Daily Cover, or material brought from transfer stations or other solid waste or recovery facilities.

Collected survey data were checked for accuracy in the field. The surveyor checked the forms to ensure that all appropriate information had been gathered. The survey supervisor checked the surveys after they were returned to the office to confirm that all the required data was properly entered. Survey entries with errors or that were incomplete were not used.

The survey data were entered into a Microsoft Access database. Following data entry, the entries were compared in two separate checks with the written field records. First, the field survey data were entered into a customized database that compared the two sets of entries and flagged any that did not match. Second, each database record was reviewed and compared against the original field form. Any data entry errors were addressed. In cases where data entry errors or omissions could not be resolved, the entry was deleted.

## Additional Tonnage Data

In addition to the vehicle surveys, additional data was collected from 36 solid waste facilities throughout Washington. These 36 sites were not randomly selected but were chosen from a list of all waste facilities in the state provided by Ecology. Each facility was asked to provide:

- Annual disposed tonnage;
- Percent or tonnages allocated to the residential and commercial waste sectors; and
- Percent or tonnages allocated to the self-hauled C&D and self-hauled other waste sectors.

Most facilities were able to provide the annual tons and residential/commercial tons, but very few track their self-hauled or “public” loads in a way that could be used for our analysis. Due to these

uncertainties, we relied most heavily on the vehicle survey data to provide sector tonnages, and we utilized the additional survey data only when we were confident of its accuracy. Table 23 presents a list of all 36 facilities that were able to provide tonnage data for one of the three categories listed above.

**Table 23: Additional Survey Facilities**

COUNTY	FACILITY	COUNTY	FACILITY
Grant	CDSI Transfer & Recycling	King	Factoria Transfer Station
Chelan	Dryden Transfer Station	King	Houghton Transfer Station
Yakima	Cheyne Road Landfill	King	Renton Transfer Station
Yakima	Yakima County Lower Valley RTS	King	Algona Transfer Station
Kittitas	Ellensburg Transfer Station	King	Skykomish Transfer Station
Kittitas	Cle Elum Transfer Station	King	Bow Lake Transfer Station
Kittitas	Ryegrass Landfill	King	Enumclaw Transfer Station
Spokane	North County Transfer Station	King	Vashon Transfer Station
Spokane	Valley Transfer Station	King	Cedar Falls Transfer Station
Spokane	Northside Landfill	King	Shoreline Transfer Station
Benton	Horn Rapids Landfill	Clark	Central Transfer Station
Benton	Kennewick Transfer Station	Lewis	East Lewis County Transfer Station
Franklin	Basin Disposal Transfer Station	Cowlitz	Cowlitz County Landfill
Kitsap	Bainbridge Island Recycling & Garbage Facility	Clallam	Blue Mtn. Transfer Station
Kitsap	Hansville Recycling & Garbage Facility	Grays Harbor	Elma McCleary Transfer Station
Kitsap	Ollala Recycling & Garbage Facility	Grays Harbor	Hogan's Corner Transfer Station
Kitsap	Silverdale Recycling & Garbage Facility	Grays Harbor	Ocosta Transfer Station
Pierce	Tacoma City Municipal Landfill	Grays Harbor	Pacific Beach Transfer Station

## Explaining the Calculations and Statistical Procedures Used

Data from vehicle surveys, facility tonnage reports, and the sorting of waste samples were analyzed to yield estimates of percentages and tonnages of *material types* in Washington's waste stream. This section describes the methodology used to obtain each estimate and its associated confidence interval (error range).

The general calculation strategy involved two basic practices: (1) the use of ratio estimators to determine the composition percentages of the waste stream and (2) aggregation of sample data from the waste generation area (WGA) level to the statewide level.

## Estimating Waste Composition

To develop waste characterization and quantity profiles for this study, three main steps were taken. These steps were as follows:

1. Convert volumetric estimates of materials to weight for the samples.
2. Calculate the estimated composition of all samples in a given sector, based on the sample weight.
3. Combine the results for individual sectors, using a weighted average procedure, to produce findings for combined sectors.

In the descriptions of calculation methods, the following variables are used frequently:

- $i$  denotes an individual sample;
- $j$  denotes the *material type*;
- $c_j$  is the weight of the *material type j* in a sample;
- $w$  is the weight of an entire sample;
- $r_j$  is the composition estimate for material  $j$  ( $r$  stands for *ratio*);
- $a$  denotes a WGA ( $a$  stands for *area*);
- $s$  denotes a particular sector of the waste sector; and
- $n$  denotes the number of samples in the particular group that is being analyzed at that step.

### Estimating the Composition

The following method was used to estimate the composition of waste belonging to the commercial, residential, self-hauled C&D, and self-hauled other sectors.

For a given stratum (that is, for the samples belonging to the same waste sector within the same WGA), the composition estimate denoted by  $r_j$  represents the ratio of the component's weight to the total weight of all the samples in the stratum. This estimate was derived by summing each component's weight across all of the selected samples belonging to a given stratum and dividing by the sum of the total weight of waste for all of the samples in that stratum, as shown in the following equation:

$$r_j = \frac{\sum_i c_{ij}}{\sum_i w_i} \quad (1)$$

where:

- $c$  = weight of particular component;
- $w$  = sum of all component weights;
- for  $i = 1$  to  $n$ , where  $n$  = number of selected samples; and
- for  $j = 1$  to  $m$ , where  $m$  = number of components.

For example, the following simplified scenario involves three samples. For the purposes of this example, only the weights of the component *carpet* are shown.

	SAMPLE 1	SAMPLE 2	SAMPLE 3
Weight (c) of carpet	5	3	4
Total Sample Weight (w)	80	70	90

$$r_{\text{Carpet}} = \frac{5 + 3 + 4}{80 + 70 + 90} = 0.05$$

To find the composition estimate for the component *carpet*, the weights for that material are added for all selected samples and divided by the total sample weights of those samples. The resulting composition is 0.05, or 5 percent. In other words, 5 percent of the sampled material, by weight, is *carpet*. This finding is then projected onto the stratum being examined in this step of the analysis.

The confidence interval for this estimate was derived in two steps. First, the variance around the estimate was calculated, accounting for the fact that the ratio included two random variables (the component and total sample weights). The variance of the ratio estimator equation follows:

$$\text{Var}(r_j) \approx \left( \frac{1}{n} \right) \left( \frac{1}{\bar{w}^2} \right) \left( \frac{\sum_i (c_{ij} - r_j w_i)^2}{n-1} \right) \quad (2)$$

where:

$$\bar{w} = \frac{\sum_i w_i}{n} \quad (3)$$

(For more information regarding Equation 2, refer to *Sampling Techniques, 3rd Edition* by William G. Cochran [John Wiley & Sons, Inc., 1977].)

Second, precision levels at the 90 percent confidence level were calculated for a component's mean as follows:

$$r_j \pm (z \sqrt{\text{Var}(r_j)}) \quad (4)$$

where  $z$  = the value of the  $z$ -statistic (1.645) corresponding to a 90 percent confidence level.

Composition results for strata were then combined, using a weighted averaging method, to estimate the composition of larger portions of the waste sector. The relative tonnages associated with each stratum served as the weighting factors. The calculation was performed as follows:

$$O_j = (p_1 * r_{j1}) + (p_2 * r_{j2}) + (p_3 * r_{j3}) + \dots \quad (5)$$

where:

- $p$  = the proportion of tonnage contributed by the noted waste stratum (the weighting factor);
- $r$  = ratio of component weight to total waste weight in the noted waste stratum (the composition percent for the given material component); and
- for  $j = 1$  to  $m$ , where  $m$  = number of material components.

For example, the above equation is illustrated here using three waste strata.

	STRATUM 1	STRATUM 2	STRATUM 3
Ratio ( $r$ ) of carpet	5%	10%	10%
Tonnage	25,000	100,000	50,000
Proportion of tonnage ( $p$ )	14.3%	57.1%	28.6%

To estimate the portion of larger portions of the waste stream, the composition results for the three strata are combined as follows.

$$O_{\text{Carpet}} = (0.143 * 0.05) + (0.571 * 0.10) + (0.286 * 0.10) = 0.093 = 9.3\%$$

The variance of the weighted average was calculated as follows:

$$\text{Var}(O_j) = (p_1^2 \text{Var}(r_{j1})) + (p_2^2 \text{Var}(r_{j2})) + (p_3^2 \text{Var}(r_{j3})) + K \quad (6)$$

## Estimating Composition of Entire Statewide Disposed Waste Stream

Composition results for all waste sectors were combined, using a weighted averaging method, to estimate the composition of the entire statewide disposed waste stream. The relative tonnages associated with each sector served as the weighting factors. The calculation was performed as follows:

$$O_j = (p_1 * r_{j1}) + (p_2 * r_{j2}) + (p_3 * r_{j3}) + \dots \quad (7)$$

where:

- $p$  = the proportion of tonnage contributed by the noted waste sector (the weighting factor);
- $r$  = ratio of component weight to total waste weight in the noted waste sector (the composition percent for the given material component); and
- for  $j = 1$  to  $m$ , where  $m$  = number of material components.



The following scenario illustrates the above equation. This example involves the component *carpet* in three waste sectors.

	WASTE SECTOR 1	WASTE SECTOR 2	WASTE SECTOR 3
Ratio of carpet (r)	0.05	0.10	0.15
Proportion of Tonnage (p)	0.50	0.25	0.25

$$O_{\text{Carpet}} = (0.50 * 0.05) + (0.25 * 0.10) + (0.25 * 0.15) = 0.0875$$

So, it is estimated that 0.0875 or 8.75 percent of the entire waste stream is composed of *carpet*.

The variance of the weighted average was calculated as follows:

$$\text{Var}(O_j) = (p_1^2 \text{Var}(r_{j1})) + (p_2^2 \text{Var}(r_{j2})) + (p_3^2 \text{Var}(r_{j3})) + K \quad (8)$$

## Quantifying Disposed Waste

Disposed waste from each sector was quantified through the use of vehicle surveys, phone surveys, and tonnage reports. The calculation method is described below.

**Step 1: Aggregating Survey Records to Produce Findings at the Facility Level.** For a given facility on a given day, each vehicle that was included in the gatehouse survey had its net weight assigned to one or more of the established waste sectors, according to the response of the driver. Thus, the tonnage from each vehicle was assigned or apportioned to one or more of the commercial, residential, self-hauled C&D, or self-hauled other sectors. The tonnages identified through the survey were used to calculate the relative proportions of the waste associated with each sector.

Each facility provided its disposed tonnage for the calendar year 2009. The relative proportions described above were applied to these reported figures to produce estimates of the tons of disposed waste associated with each sector at the facility in question.

For example, suppose that Facility A was visited on two days. Suppose that Facility A also provided transaction records for 2009. The following scenario describes how the percentages of waste for each sector were calculated for this facility.

First, survey data from the facility for the two days the survey crew was present were examined to determine the tons associated with the studied sectors. A hypothetical accounting of tonnages from two daily transaction reports is shown below. Example numbers are rounded and decimals are not carried through calculations.

	CONTRACTED		SELF-HAULED		TOTAL
Facility A	Commercial	Residential	Self-hauled C&D	Self-hauled Other	
Tonnage from survey day 1	20	20	15	15	<b>70</b>
Tonnage from survey day 2	30	15	20	10	<b>75</b>
<b>Tonnage for two days</b>	<b>50</b>	<b>35</b>	<b>35</b>	<b>25</b>	<b>145</b>

Next, the tonnages were converted into percentages within the franchised and self-hauled categories, as shown below.

	CONTRACTED			SELF-HAULED		
Facility A	Commercial	Residential	Total Contracted	Self-hauled C&D	Self-hauled Other	Total Self-hauled
Tonnage for two days	50	35	<b>85</b>	35	25	<b>60</b>
<b>Percentages</b>	<b>59%</b>	<b>41%</b>	<b>100%</b>	<b>58%</b>	<b>42%</b>	<b>100%</b>

These percentages were then applied to the annual contracted and self-hauled tonnages from transaction records supplied by the facility. Suppose that Facility A accepted 15,000 tons of waste in 2009, of which 10,000 tons came from contracted haulers and 5,000 came from self-haulers. Quantities would be assigned to each sector as shown in the table below.

	CONTRACTED		SELF-HAULED	
Facility A	Commercial	Residential	Self-hauled C&D	Self-hauled Other
Total Annual Tons	10,000		5,000	
<b>Tons per sector</b>	<b>5,900</b>	<b>4,100</b>	<b>2,900</b>	<b>2,100</b>

**Step 2: Aggregating Tonnage from Facilities to Produce Findings at the WGA Level.** Tonnage estimates for each type of waste were combined for participating facilities within each WGA, using a weighted averaging method. The tonnage estimates for each type of waste at all participating facilities within a WGA were aggregated, and relative proportions were calculated for each sector. The aggregated proportions for each sector were then applied to the total 2008 disposal figure for the WGA, as reported by the Department of Ecology.

For example, hypothetical annual tonnages by sector for two facilities visited in a WGA are shown in the table below.

	COMMERCIAL	RESIDENTIAL	SELF-HAULED C&D	SELF-HAULED OTHER	TOTAL
Facility A	5,900	4,100	2,900	2,100	<b>15,000</b>
Facility B	150,000	80,000	30,000	5,000	<b>265,000</b>
<b>Total (tons)</b>	<b>155,900</b>	<b>84,100</b>	<b>32,900</b>	<b>7,100</b>	<b>280,000</b>
<b>% of Total</b>	<b>56%</b>	<b>30%</b>	<b>12%</b>	<b>2%</b>	<b>100%</b>

Using an annual tonnage for this WGA of 2,000,000 tons, we can assign tonnages to the four waste sectors according to the percentages from the survey data.

WGA 1	COMMERCIAL	RESIDENTIAL	SELF-HAULED C&D	SELF-HAULED OTHER	TOTAL
Percents	56%	30%	12%	2%	<b>100%</b>
Tons	1,120,000	600,000	240,000	40,000	<b>2,000,000</b>

**Step 3: Aggregating WGA Findings to Produce Sector Tonnage Estimates Statewide.** The relative proportions of disposed waste corresponding to each sector were combined among WGAs using a weighted aggregation method. The weightings associated with each WGA were proportional to the total disposed tonnage for the WGA for calendar year 2008. This step resulted in a final set of proportions reflecting the relative disposal of waste corresponding to each waste sector statewide. The proportions were then multiplied by the total 2008 statewide disposal figure to produce the statewide tonnage estimate associated with each sector.

	COMMERCIAL	RESIDENTIAL	SELF-HAULED C&D	SELF-HAULED OTHER	TOTAL
WGA 1	1,120,000	600,000	240,000	40,000	<b>2,000,000</b>
WGA 2	550,000	375,000	118,000	82,000	<b>1,125,000</b>
WGA 3	690,000	410,000	73,000	127,000	<b>1,300,000</b>
<b>Total</b>	<b>2,360,000</b>	<b>1,385,000</b>	<b>431,000</b>	<b>249,000</b>	<b>4,425,000</b>

The actual 2008 figures for disposed tonnage associated with each WGA are shown in Table 24 below.

**Table 24: Annual Disposed Tonnage by Waste Generation Area 2008**

WASTE GENERATION AREAS	ANNUAL DISPOSED TONNAGE
Central WGA	523,636
East WGA	734,627
Northwest WGA	306,189
Puget Sound WGA	2,810,988
Southwest WGA	428,085
West WGA	174,971
<b>Total</b>	<b>4,978,496</b>

## Appendix B: List and Definitions of Material Types for Statewide Study

### Introduction

The list and definitions of the *material types* used in this study are shown below. The field crew sorted materials into the 130 *material types* defined below. This list of *material types* was designed to be “rolled up” into a condensed list used for presenting results of this study combined with the results from other waste characterization studies in the Puget Sound WGA.

**The complete list developed for this study is shown below followed by detailed definitions for each *material type*. The rolled-up material list used for the supplemental study, with the corresponding materials from the three additional Puget Sound studies, is shown in**

#### Why 130 Material Types?

The types and quantities of materials in our waste streams are always in flux and therefore, so are the diversion possibilities. Ecology chose these 130 material types as a way to track current reuse/recycling programs while looking forward toward the creation of future stewardship opportunities.

Table 57 at the beginning of Appendix E.

## List of Material Types

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The list below shows the complete list of **Material Classes** and *material types*. As part of the 2009 Statewide Waste Characterization Study, solid waste was sorted into the 130 *material types* shown, and composition percentages as well as quantities were calculated for those *material types*.

**Table 25: List of Material Types**

<b>Material Class</b> <b>Material Type</b>	<b>Material Class</b> <b>Material Type</b>
<b>Paper Packaging</b>	<b>Paper Products</b>
Newspaper Packaging	Newspaper
Cardboard/Kraft Paper Packaging	Cardboard/Kraft Paper Products
Other Groundwood Paper Packaging	Magazines
Mixed/Low Grade Paper Packaging	High-Grade Paper Products
Compostable Paper Packaging	Other Groundwood Paper Products
R/C Paper Packaging	Mixed Low Grade Paper Products
	Compostable Paper Products
	Paper Processing Sludge
	R/C Paper Products
<b>Plastic Packaging</b>	<b>Plastic Products</b>
#1 PETE Plastic Bottles	#1 PETE Plastic Products
#1 PETE Plastic Non-bottles	#2 HDPE Plastic Products
#2 HDPE Plastic Natural Bottles	#3 PVC Plastic Products
#2 HDPE Plastic Colored Bottles	#4 LDPE Plastic Products
#2 HDPE Plastic Jars & Tubs	#5 PP Plastic Products
#3 PVC Plastic Packaging	#6 PS Plastic Products
#4 LDPE Plastic Packaging	#7 Other Plastic Products
#5 PP Plastic Packaging	PLA Products
#6 PS Plastic Packaging	Plastic Garbage Bags
#7 Other Plastic Packaging	Plastic Film Products
PLA Packaging	R/C Plastic Products
Plastic Merchandise Bags	
Non-industrial Packaging Film Plastic	
Industrial Packaging Film Plastic	
R/C Plastic Packaging	
	<b>Consumer Products</b>
<b>Glass</b>	Televisions - CRT
Clear Glass Containers	Televisions - LCD
Green Glass Containers	VCR's, DVD's, DVR's
Brown Glass Containers	Computer Monitors - CRT
Plate Glass	Computer Monitors - LCD
Stoneware/Kitchen Ceramics/Glassware	Computers
R/C Glass	Computer Peripherals
	Audio Equipment
<b>Metal</b>	Gaming Equipment
Aluminum Beverage Cans	Other Consumer Electronics
Aluminum Foil/Containers	Textiles - Organic
Other Aluminum	Textiles - Synthetic
Other Nonferrous	Shoes, Purses, Belts
Food Cans - Tinned	Tires & Rubber
Food Cans - Coated	Furniture
White Goods	Mattresses
Other Ferrous Metal	R/C Consumer Products
R/C Metals	

Table 25: List of Material Types, **continued**

<b>Material Class</b> <b>Material Type</b>	<b>Material Class</b> <b>Material Type</b>
<b>Organics</b>	<b>Hazardous/Special Wastes</b>
Food - Vegetative	Pesticides/Herbicides
Food - Non-vegetative	Mercury Vapor Lighting
Leaves & Grass	Compact Fluorescent Lights
Prunings	Fluorescent Tubes
Animal Manure	Asbestos
Animal Carcasses	Latex Paint
Crop Residues	Solvent-based Glues
Fruit Waste	Latex-based Glues
R/C Organics	Oil-based Paint & Solvent
	Caustic Cleaners
<b>Wood Debris</b>	Dry-cell Batteries
Treated Wood	Wet-cell Batteries
Painted Wood	Gasoline/Kerosene
Dimensional Lumber	Motor Oil
Engineered Wood	Antifreeze
Pallets & Crates	Other Vehicle Fluids
Other Untreated Wood	Oil Filters
Wood By-Products	Explosives
R/C Wood Wastes	Medical Wastes
	Pharmaceuticals/Vitamins
<b>Construction Materials</b>	Disposable Diapers
Natural Wood	Other Cleaners & Soaps
Insulation	Other Hazardous
Asphalt Paving	Other Non-hazardous
Concrete	
Drywall	<b>Residues</b>
Carpet	Ash
Carpet Padding	Dust
Soil, Rocks, Sand	Fines
Asphalt Roofing	Sludge/Special Industrial
Plastic Flooring	
Ceramics & Brick	
R/C Construction Materials	



## Material Types Organized by Packaging and Products Material Groups

The list below shows how each of the 130 *material types* were distributed for the Packaging and Products analysis found in the statewide study analysis above.

**Table 26: Material Types by Packaging and Products Material Groups**

Material Group Material Type	Material Group Material Type
<b>Packaging</b>	<b>Products</b>
Newspaper Packaging	Newspaper
Cardboard/Kraft Paper Packaging	Cardboard/Kraft Paper Products
Other Groundwood Paper Packaging	Magazines
Mixed/Low Grade Paper Packaging	High-Grade Paper Products
Compostable Paper Packaging	Other Groundwood Paper Products
R/C Paper Packaging	Mixed Low Grade Paper Products
#1 PETE Plastic Bottles	Compostable Paper Products
#1 PETE Plastic Non-bottles	Paper Processing Sludge
#2 HDPE Plastic Natural Bottles	R/C Paper Products
#2 HDPE Plastic Colored Bottles	#1 PETE Plastic Products
#2 HDPE Plastic Jars & Tubs	#2 HDPE Plastic Products
#3 PVC Plastic Packaging	#3 PVC Plastic Products
#4 LDPE Plastic Packaging	#4 LDPE Plastic Products
#5 PP Plastic Packaging	#5 PP Plastic Products
#6 PS Plastic Packaging	#6 PS Plastic Products
#7 Other Plastic Packaging	#7 Other Plastic Products
PLA Packaging	PLA Products
Plastic Merchandise Bags	Plastic Garbage Bags
Non-industrial Packaging Film Plastic	Plastic Film Products
Industrial Packaging Film Plastic	R/C Plastic Products
R/C Plastic Packaging	Televisions - CRT
Clear Glass Containers	Televisions - LCD
Green Glass Containers	VCR's, DVD's, DVR's
Brown Glass Containers	Computer Monitors - CRT
Aluminum Beverage Cans	Computer Monitors - LCD
Aluminum Foil/Containers	Computers
Food Cans - Tinned	Computer Peripherals
Food Cans - Coated	Audio Equipment
	Gaming Equipment
<b>Organics</b>	Other Consumer Electronics
Food - Vegetative	Textiles - Organic
Food - Non-vegetative	Textiles - Synthetic
Leaves & Grass	Shoes, Purses, Belts
Prunings	Tires & Rubber
Animal Manure	Furniture
Animal Carcasses	Mattresses
Crop Residues	R/C Consumer Products
Fruit Waste	Plate Glass
R/C Organics	Stoneware/Kitchen Ceramics/Glassware
	White Goods

**Table 26: Material Types by Packaging and Products Material Groups, continued**

<b>Material Group Material Type</b>	<b>Material Group Material Type</b>
<b>Metal</b>	<b>Hazardous/Special Wastes</b>
Other Aluminum	Pesticides/Herbicides
Other Nonferrous	Mercury Vapor Lighting
Other Ferrous Metal	Compact Fluorescent Lights
R/C Metals	Fluorescent Tubes
	Asbestos
<b>Wood Debris</b>	Latex Paint
Treated Wood	Solvent-based Glues
Painted Wood	Latex-based Glues
Dimensional Lumber	Oil-based Paint & Solvent
Engineered Wood	Caustic Cleaners
Pallets & Crates	Dry-cell Batteries
Other Untreated Wood	Wet-cell Batteries
Wood By-Products	Gasoline/Kerosene
R/C Wood Wastes	Motor Oil
	Antifreeze
<b>Construction Materials</b>	Other Vehicle Fluids
Natural Wood	Oil Filters
Insulation	Explosives
Asphalt Paving	Medical Wastes
Concrete	Pharmaceuticals/Vitamins
Drywall	Disposable Diapers
Carpet	Other Cleaners & Soaps
Carpet Padding	Other Hazardous
Soil, Rocks, Sand	Other Non-hazardous
Asphalt Roofing	
Plastic Flooring	<b>Residues</b>
Ceramics & Brick	R/C Glass
R/C Construction Materials	Ash
	Dust
	Fines
	Sludge/Special Industrial

## Definitions of Material Types

### Paper Packaging:

1. **Newspaper Packaging:** shredded newspaper packing material.
2. **Cardboard and Kraft Packaging:** unwaxed Kraft paper corrugated containers and boxes, unless poly- or foil-laminated. Includes cardboard boxes and brown Kraft paper bags and packaging paper.
3. **Other Groundwood Paper Packaging:** other packaging made from groundwood paper, such as egg cartons.

4. Mixed/Low-Grade Paper Packaging: low-grade recyclable papers, including non-corrugated paperboard packaging, aseptic packaging, and polycoated paperboard packaging. Includes cereal and cracker boxes
5. Compostable Paper Packaging: packaging paper that can be composted such as pizza boxes, waxed cardboard boxes, and all cups/containers from fast food establishments.
6. Remainder/Composite Paper Packaging: non-recyclable and non-compostable types of papers such as paper packaging with metal or plastic parts (except aseptic packaging). Examples would include plastic lined or metal handled take-out food containers.

## Paper Products

7. Newspaper Products: printed groundwood newsprint, including glossy ads and Sunday edition magazines that are delivered with the newspaper (unless these are found separately during sorting).
8. Cardboard and Kraft Paper Products: unwaxed Kraft paper and corrugated products and, unless poly- or foil-laminated. Could include cat scratching pads.
9. Magazines: magazines, catalogs and similar products with glossy paper. Includes Sunday edition news magazines, if found separate from the newspaper.
10. High-Grade Paper Products: high-grade white or light-colored bond and copy machine papers and envelopes, and continuous-feed computer printouts and forms of all types, except multiple copy carbonless paper.
11. Other Groundwood Paper Products: non-packaging products made from groundwood paper, including phone books, some tablet paper, and paperback books.
12. Mixed/Low-Grade Paper Products: low-grade recyclable papers, including colored papers, notebook or other lined paper, envelopes with plastic windows, non-corrugated paperboard, carbonless copy paper, and junk mail.
13. Compostable Paper Products: non-packaging papers that can be composted such as paper towels/napkins, paper cups and plates (if purchased empty), and tissues.
14. Paper Processing Sludge: paper-based materials from industrial non-packaging sources that do not easily fit into the above materials, such as sludges.
15. Remainder Composite Paper Products: non-recyclable and non-compostable types of paper products such as carbon paper and hardcover books, and composite materials containing paper mixed with metal or plastic parts.

## Plastic Packaging

16. #1 PETE (Polyethylene terephthalate) Plastic bottles: includes plastic bottles bearing the #1, such as carbonated drink bottles and water bottles.
17. #1 PETE (Polyethylene terephthalate) Plastic non-bottles: includes plastic non-bottle packaging bearing the #1, and would include oven-ready meal trays and other packaging.
18. #2 HDPE (High-density polyethylene) Plastic Natural Bottles: includes milk jugs and water jugs and any natural bottle bearing the #2.
19. #2 HDPE (High-density polyethylene) Plastic Colored Bottles: includes detergent bottles, some hair care product bottles, and any opaque plastic bottle bearing the #2.
20. #2 HDPE (High-density polyethylene) Plastic Jars and Tubs: yogurt and margarine tubs and any packaging jar or tub bearing the #2. This category includes 5 gallon plastic pails (with or without handles) and lids.

21. #3 PVC (Polyvinyl chloride) Plastic Packaging: includes any plastic bottle or container marked with a # 3.
22. #4 LDPE (Low-density polyethylene) Plastic Packaging: includes any plastic bottle or container marked with the #4.
23. #5 PP (Polypropylene) Plastic Packaging: includes any plastic packaging marked with the #5 as well as plastic straws.
24. #6 PS (Polystyrene) Plastic Packaging: includes any plastic packaging marked with the #6 and also includes packing peanuts, Styrofoam coolers, egg cartons, meat trays, compact disc cases, and any other Styrofoam packaging.
25. #7 Other/Unknown Plastic Packaging: includes all non-numbered plastic packaging and any other plastic packaging product not listed in another category.
26. PLA (Polylactic Acid) Compostable Packaging: any compostable plastic packaging or food containers made from corn, potato, sugarcane or any other compostable resin. Examples include fast food clamshell containers and beverage cups.
27. Plastic Merchandise Bags: will include all grocery, shopping, and merchandise bags.
28. Non-industrial Packaging Film Plastic: includes other types of packaging film such as cling wrap, bread and food bags, and plastic potato chip bags.
29. Industrial Packaging Film Plastic: includes bubble wrap and shrink wrap and any other packaging film used in a typically industrial manner.
30. Remainder/Composite Plastic Packaging: other types of packaging that are not one of the above materials and items that are composites of multiple plastics and plastics mixed with other materials. Examples would include plastic toys with metal attachments.

## Plastic Products

31. #1 PETE (Polyethylene terephthalate) Plastic Products: includes any PET product bearing the #1 and used in a non-packaging application.
32. #2 HDPE (High-density polyethylene) Plastic Products: includes any other non-packaging product bearing the #2.
33. #3 PVC (Polyvinyl chloride) Plastic Products: includes any non-packaging product bearing the #3 but also including plastic piping, some shower curtains, and some toys.
34. #4 LDPE (Low-density polyethylene) Plastic Products: includes any other non-packaging product bearing the #4.
35. #5 PP (Polypropylene) Plastic Products: includes any plastic non-packaging product bearing the #5 but also includes some reusable food containers.
36. #6 PS (Polystyrene) Plastic Products: includes any plastic non-packaging product bearing the #6 but also includes plastic tableware.
37. #7 Other/Unknown Plastic Products: includes all non-packaging, non-numbered plastic product not listed in another category. Examples could include some toys, household products, disposable plastic products (food utensils), durable plastic products (tooth brushes, dinnerware), and electronic media (CDs and DVDs).
38. PLA (Polylactic Acid) Compostable Products: any compostable plastic product made from corn, potato, sugarcane or any other compostable resin. Examples include utensils and plates made of PLA.
39. Plastic Garbage Bags: includes all bags whose primary use is to hold trash or garbage.

- 40. Plastic Non-bag Film Products: includes Visqueen sheeting for drop cloths, other plastic tarps, and any other film product not used for packaging purposes.
- 41. Remainder/Composite Plastic Products: includes all other types of non-packaging plastic that are not one of the above materials and items that are composites of multiple plastics and plastics mixed with other materials. This section also includes plastic sheeting and tarps that are contaminated with other materials such as paint or concrete residue.

## Glass

- 42. Clear Glass Containers: bottles and jars made from clear glass.
- 43. Green Glass Containers: bottles and jars made from green glass.
- 44. Brown/Other Colored Glass Containers: bottles and jars made from brown glass. Note that blue glass was included with brown glass.
- 45. Plate Glass: flat glass products such as windows, mirrors, and flat products.
- 46. Non-glass Ceramics: Ceramics not composed of true glass and not typically used as building materials. Examples include dishes, crockware, etc.
- 47. Remainder/Composite Glass: other types of glass products and scrap that do not fit into the above materials, including light bulbs, glassware, Pyrex, and non-C&D fiberglass. Note that ceramics (plates and knickknacks) will not be included here but will be placed in “Non-Glass Ceramics” below.

## Metal

- 48. Aluminum Beverage Cans: aluminum beverage cans.
- 49. Aluminum Foil/Containers: aluminum foil, food trays and similar items.
- 50. Other Aluminum: aluminum scrap and products that do not fit into the above two materials.
- 51. Other Non-Ferrous Metal: metallic products and pieces that are not aluminum and not derived from iron (see “other ferrous”) and are not significantly contaminated with other metals or materials (see “residual/composite”).
- 52. Food Cans-Tinned: including zinc or tin-coated steel food containers. This material includes bi-metal beverage cans, but not paint cans or other types of cans.
- 53. Food Cans-Coated: including many plastic-lined aluminum pet food containers.
- 54. White Goods: large household appliances or parts thereof. Special note should be taken if any of these are found still containing refrigerant.
- 55. Other Ferrous Metal: products and pieces made from metal to which a magnet will adhere (including stainless steel), and which are not significantly contaminated with other metals or materials (in the latter case, the item will instead be included under “residual/composite”). This material will include paint and other non-food “tin cans”, as well as aerosol cans.
- 56. Remainder/Composite Metals: items made of a mixture of ferrous and non-ferrous or a mixture of metal and non-metallic materials (as long as these are primarily metal). Examples include small appliances, motors, and insulated wire.

## Organics

- 57. Food Waste, Vegetative: plant-based foods including the food container when the container weight is not appreciable compared to the food inside.
- 58. Food Waste, Meats, Fats, and Oils: animal derived foods and oils including the food container when the container weight is not appreciable compared to the food inside.

- 59. Yard, Garden Waste (Leaves and Grass): grass clippings, leaves and weeds.
- 60. Yard, Garden Waste (Prunings): materials including prunings six inches or less (branches with leaves OK).
- 61. Animal Manure: all animal manures and soiled bedding and litter whether derived from an agricultural or residential origin. Includes kitty litter.
- 62. Animal Carcasses, Offal: carcasses and pieces of small and large animal, unless the item is the result of food preparation in a household or commercial setting. For instance, fish or chicken entrails from food preparation and raw, plucked chickens will typically be classified as food, not as an animal carcass, unless the material is from an agricultural or industrial source.
- 63. Crop Residues: vegetative materials that are left over from growing crops (except tree fruit) and that are treated as a waste (specify type of crop).
- 64. Fruit Waste: Fruit (apples, berries, grapes, etc.) and processing wastes (apple, grape, berry pomace, etc.) that are left over from growing and processing fruit in Washington and that are treated as a waste (**specify type of fruit**). Does not include fruit purchased at groceries, etc.
- 65. Remainder/Composite Organics: other organics that do not easily fit into the above materials must note identity of whatever material is placed in this category.

## Wood Debris

- 66. Treated Wood: wood treated with preservatives such as creosote, CCA and ACQ. This includes dimensional lumber and posts if treated, but does not include painted or varnished wood. This material may also include some plywood (especially “marine plywood”), strandboard, and other wood.
- 67. Painted Wood: wood that has been painted, varnished or coated in similar ways.
- 68. Dimensional Lumber: wood commonly used in construction for framing and related uses, including 2 x 4’s, 2 x 6’s and posts/headers (4x8’s, etc.).
- 69. Engineered Wood: building materials that have been manufactured and that generally include adhesive as one or more layers. Examples include plywood (sheets of wood built up of two or more veneer sheets glued or cemented together under pressure), particle board (wood chips pressed together to form large sheets or boards), fiberboard (like particle board but with fibers), “glu-lam” beams and boards (built up from dimensional or smaller lumber), and similar products.
- 70. Pallets and Crates: partial or whole pallets, crates and similar shipping containers.
- 71. Other Untreated Wood: other types of wood products and materials that do not fit into the above materials, excluding composite materials (See Residual/Composites, below).
- 72. Wood By-products: sawdust and shavings, not otherwise identifiable.
- 73. Remainder/Composite Wood Debris: items that consist primarily of wood but that do not fit into the above materials, including composite materials that consist primarily (over 50 percent) of wood. Examples of composites include wood with sheetrock nailed to it or with tiles glued to it (such that the materials cannot be easily separated).

## Construction Materials

- 74. Natural Wood: wood that has not been processed, including stumps of trees and shrubs, with the adhering soil (if any), and other natural woods, such as logs and branches in excess of six inches in diameter.
- 75. Insulation: Include all pad, roll, or blown-in types of insulation.
- 76. Asphalt Paving: asphalt paving material.

- 77. Concrete: cement (mixed or unmixed), concrete blocks, and similar wastes.
- 78. Drywall: used or new gypsum wallboard, sheetrock or drywall present in recoverable amounts or pieces (generally any piece larger than two inches square will be recovered from the sample).
- 79. Carpet: pieces of carpet and rugs made of similar material.
- 80. Carpet Padding: foam rubber and other materials used as padding under carpets.
- 81. Soil, Rocks and Sand: rock, gravel, soil, sand and similar naturally-occurring materials.
- 82. Asphalt Roofing: asphalt and fiberglass shingles, tar paper, and similar wastes from demolition or installation of roofs. Does not include wooden shingle or shakes.
- 83. Plastic Floor Covering: such as plastic tile, vinyl flooring, and linoleum.
- 84. Ceramics and Bricks: includes clay, porcelain bricks and tiles, such as used toilets, sinks and bricks of various types and sizes.
- 85. Remainder/Composite Construction Materials: other construction and demolition materials that do not fit easily into the above materials or that are composites made up of two or more different materials.

## Consumer Products

- 86. Televisions-CRT: television sets containing a cathode ray tube (CRT).
- 87. Televisions-LCD: LCD or plasma.
- 88. Television Peripherals: DVRs, VCRs, DVD players, etc.
- 89. Computer Monitors-CRT: computer monitors containing a cathode ray tube (CRT).
- 90. Computer monitors-LCD: LCD computer monitors.
- 91. Computers: towers, laptops and portable computers
- 92. Computer Peripherals: keyboard, mice and mouse pads, printers, disk drives, etc.
- 93. Audio Equipment: examples include stereo equipment, receivers, speakers, radios, tape players, CD players, turntables, etc.
- 94. Electronic Gaming equipment: such as Nintendo, Play Stations, joysticks, etc.
- 95. Other Consumer Electronics: small electric appliances such as toasters, mixers, microwave ovens, power tools, curling irons, cell phones, and anything else that runs with a plug or battery.
- 96. Textiles-Organic: cloth, clothing, and rope made of 100 percent cotton, leather, wool or other naturally-occurring fibers. Composites of several different naturally-occurring fibers (such as a wool jacket with a cotton liner) can be included in this material, as can organic textiles with buttons and zippers.
- 97. Textiles-Synthetic, Mixed or Unknown: cloth, clothing, and rope made of unknown fibers, synthetic fibers or made from a mixture of synthetic and natural materials.
- 98. Shoes, Purses, and Belts: all shoes and boots, purses, and belts whether made of leather, rubber, other materials, or a combination thereof.
- 99. Tires and Other Rubber: vehicle tires of all types, including bicycle tires and including the rims if present, and finished products and scrap materials made of rubber, such as bath mats, inner tubes, rubber hose and foam rubber (except carpet padding, see below).
- 100. Furniture: mixed-material furniture such as upholstered chairs (furniture made of a single material would be classified with that material category).
- 101. Mattresses: mattresses made of various materials and in any condition.
- 102. Remainder/Composite Consumer Products: this is a catch-all material for objects consisting of more than one material.



## Hazardous and Special Wastes

103. Pesticides and Herbicides: includes a variety of poisons whose purpose is to discourage or kill pests, weeds or microorganisms. Fungicides and wood preservatives, such as pentachlorophenol, are also included in this material.
104. High-Intensity Discharge Lamps (HID): includes high pressure sodium, metal halide and mercury vapor.
105. Compact Fluorescent Lamps (CFL)
106. Fluorescent Tubes: includes linear, u-shaped, and circular.
107. Asbestos: pure asbestos and asbestos-containing products where the asbestos present is the most distinguishing characteristic of the material.
108. Latex Paints: water-based paints and similar products.
109. Solvent-Based Adhesives/Glues: oil/resin/volatile solvent-based glues and adhesives, including epoxy, rubber cement, two-part glues and sealers, and auto body fillers.
110. Water-Based Adhesives/Glues: water-based glues, caulking compounds, grouts, and Spackle.
111. Oil-Based Paint/Solvent: solvent-based paints, varnishes, and similar products. Various solvents, including chlorinated and flammable solvents, paint strippers, solvents contaminated with other products such as paints, degreasers and some other cleaners if the primary ingredient is (or was) a solvent, or alcohol such as methanol and isopropanol.
112. Caustic Cleaners: caustic acids and bases whose primary purpose is to clean surfaces, unclog drains, or perform other actions.
113. Dry-Cell Batteries: dry-cell batteries of various sizes and types as commonly used in households. Includes cell phone and button cell batteries. Distinguish between single use batteries and rechargeable batteries.
114. Wet-Cell Batteries: wet-cell batteries of various sizes and types as commonly used in automobiles.
115. Gasoline/Kerosene: gasoline, diesel fuel, and fuel oils.
116. Motor Oil: lubricating oils, primarily used in vehicles but including other types with similar characteristics.
117. Antifreeze: automobile and other antifreeze mixtures based on ethylene or propylene glycol.
118. Other Vehicle Fluids: includes brake, power steering, and hydraulic, and transmission fluid.
119. Oil Filters: used oil filters, primarily those used in cars but possibly including similar filters from other types of vehicles and other applications.
120. Explosives: gunpowder, unspent ammunition, picric acid, and other potentially explosive chemicals.
121. Medical Wastes: materials typically discarded in a health care setting such as I.V. tubing and patient drapes, specimen containers, and Petri dishes. Medical wastes that could be considered a biohazard are weighed, but not further sorted.
122. Pharmaceuticals and Vitamins: not including the container. Classify container according to material type.
123. Disposable Diapers: disposable baby diapers and protective undergarments for adults (including feminine hygiene products).
124. Other Cleaners/Chemicals: soaps, non-caustic cleaners, medicines, cosmetics, and other household chemicals.
125. Other Potentially Hazardous Wastes: other chemicals or potentially harmful wastes that do not fit into the above categories, including unidentifiable materials.

126. Other Non-Hazardous Waste: problem wastes that do not fall into one of the above materials, but that are not hazardous, weak acids and bases (cleaners), automotive products (car wax, etc.)

## Residuals

127. Ash: fireplace, burn barrel or firepit ash, as well as boiler and ash from industrial sources.
128. Dust: baghouse and other dusts from industrial sources, as well as bags of vacuum cleaner dust.
129. Fines/Sorting Residues: mixed waste that remains on the sorting table after all the materials that can practicably be removed have been sorted out. This material will consist primarily of small pieces of various types of paper and plastic, but will also contain small pieces of broken glass and other materials. May also include material less than one-half inch in diameter that falls through a bottom screen during sorting, for those using sorting boxes with screens, and if the material cannot otherwise be identified.
130. Sludges and Other Special Industrial Wastes: sludges and other wastes from industrial sources that cannot easily be fit into any of the above material. Can include liquids and semi-solids but only if these materials are treated as a solid waste.

## Appendix C: Forms Used During the Study

### List of Forms Used

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- Vehicle Selection Form;
- Sample Placard;
- Sample Sorting & Characterization Form;
- Vehicle Survey Form;
- Additional Tonnage Data Survey Form.

Figure 19: Vehicle Selection Sheet

<b>Washington 2009 Waste Characterization Study Vehicle Selection Form</b>																																																																																																								
<b>Site:</b> _____		<b>Goal:</b> <u>12</u> Samples Total																																																																																																						
<p>Each number represents an expected vehicle based on the available data.</p> <p>Cross off one number for each category of vehicle entering the landfill and circle the number when a vehicle is selected for sampling.</p> <p>Hand the driver a sample placard, record the information below, and collect a net weight when possible.</p>																																																																																																								
<b>RESIDENTIAL: (Res 1-3)</b>																<b>NEED</b>		<b>3 TOTAL</b>																																																																																						
<i>*Must be at least 80% single-family residential waste.</i>																																																																																																								
1   2   3   4   5   6   7   8 (expect 8)																																																																																																								
<b>COMMERCIAL: (Com 1-4)</b>																<b>NEED</b>		<b>4 TOTAL</b>																																																																																						
<i>*Must be at least 80% commercial waste.</i>																																																																																																								
1   2   3   4   5 (expect 5)																																																																																																								
<b>SELF HAULED C&amp;D: (CD 1-2)</b>																<b>NEED</b>		<b>2 TOTAL</b>																																																																																						
1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20 21   22   23   24   25   26   27   28   29   30   31   32   33   34   35   36   37   38   39   40 41   42   43   44   45   46   47   48   49   50   51   52   53   54   55   56   57   58   59   60 (expect 60)																																																																																																								
<b>SELF HAULED OTHER: (SH 1-3)</b>																<b>NEED</b>		<b>3 TOTAL</b>																																																																																						
1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20 21   22   23   24   25   26   27   28   29   30   31   32   33   34   35   36   37   38   39   40 41   42   43   44   45   46   47   48   49   50   51   52   53   54   55   56   57   58   59   60 61   62   63   64   65   66   67   68   69   70   71   72   73   74   75   76   77   78   79   80 81   82   83   84   85   86   87   88   89   90   91   92   93   94   95   96   97   98   99   100 (expect 100)																																																																																																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Sample ID</th> <th style="width: 15%;">Vehicle Type (enter code)</th> <th style="width: 10%;">Single Source?</th> <th style="width: 10%;">Net Weight</th> <th style="width: 25%;">Notes</th> </tr> </thead> <tbody> <tr><td>Res 1</td><td></td><td>yes   no</td><td></td><td></td></tr> <tr><td>Res 2</td><td></td><td>yes   no</td><td></td><td></td></tr> <tr><td>Res 3</td><td></td><td>yes   no</td><td></td><td></td></tr> <tr><td>Com 1</td><td></td><td>yes   no</td><td></td><td></td></tr> <tr><td>Com 2</td><td></td><td>yes   no</td><td></td><td></td></tr> <tr><td>Com 3</td><td></td><td>yes   no</td><td></td><td></td></tr> <tr><td>Com 4</td><td></td><td>yes   no</td><td></td><td></td></tr> <tr><td>CD 1</td><td></td><td>yes   no</td><td></td><td></td></tr> <tr><td>CD 2</td><td></td><td>yes   no</td><td></td><td></td></tr> <tr><td>SH 1</td><td></td><td>yes   no</td><td></td><td></td></tr> <tr><td>SH 2</td><td></td><td>yes   no</td><td></td><td></td></tr> <tr><td>SH 3</td><td></td><td>yes   no</td><td></td><td></td></tr> </tbody> </table>																Sample ID	Vehicle Type (enter code)	Single Source?	Net Weight	Notes	Res 1		yes   no			Res 2		yes   no			Res 3		yes   no			Com 1		yes   no			Com 2		yes   no			Com 3		yes   no			Com 4		yes   no			CD 1		yes   no			CD 2		yes   no			SH 1		yes   no			SH 2		yes   no			SH 3		yes   no			<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Vehicle Codes</th> </tr> </thead> <tbody> <tr><td style="width: 10%;">1</td><td>Rear Packer</td></tr> <tr><td>2</td><td>Front Packer</td></tr> <tr><td>3</td><td>Side Packer</td></tr> <tr><td>4</td><td>Drop Box, Loose</td></tr> <tr><td>5</td><td>Drop Box, Compacted</td></tr> <tr><td>6</td><td>Pick-up, Van, SUV</td></tr> <tr><td>7</td><td>Large Other</td></tr> <tr><td>8</td><td>Car</td></tr> <tr><td>9</td><td>Semi-Truck</td></tr> </tbody> </table>				Vehicle Codes		1	Rear Packer	2	Front Packer	3	Side Packer	4	Drop Box, Loose	5	Drop Box, Compacted	6	Pick-up, Van, SUV	7	Large Other	8	Car	9	Semi-Truck
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Figure 20: Sample Placard

Cell Number: 10

**ABERDEEN**

**COM - 1**

**1/18/2009**

Figure 21: Sample Sorting and Characterization Form, Front

Paper Packaging	Newspaper				
	Cardboard/Kraft Packaging				
	Other Groundwood Packaging				
	Mixed/Low Grade Packaging				
	Compostable Packaging				
	R/C Paper Packaging				
Paper Products	Newspaper				
	Cardboard/Kraft				
	Magazines				
	High-Grade Papers				
	Groundwood Products				
	Mixed Low Grade Paper				
	Compostable Products				
	Paper Processing Sludge				
	R/C Paper Products				
GLASS	Clear Containers				
	Green Containers				
	Brown Containers				
	Plate Glass				
	R/C Glass				
	Stoneware/Kitchen Ceramics				
METAL	Alum. Beverage Cans				
	Alum. Foil/Containers				
	Other Aluminum				
	Other Nonferrous				
	Food Cans - Tinned				
	Food Cans - Coated				
	White Goods				
	R/C Metals				
Plastic Packaging	#1 PET Bottles				
	#1 PET Non-bottles				
	#2 HDPE Natural Bottles				
	#2 HDPE Colored Bottles				
	#2 HDPE Jars & Tubs				
	#3 PVC Packaging				
	#4 LDPE Packaging				
	#5 PP Packaging				
	#6 PS Packaging				
	PLA/Compostable Packaging				
	#7 Other Packaging				
	Merchandise Bags				
Plastic Products	Non-industrial Packaging Film				
	Industrial Packaging Film				
	R/C Packaging				
Plastic Products	#1 PET Product				
	#2 HDPE Product				
	#3 PVC Product				
	#4 LDPE Product				
	#5 PP Product				
	#6 PS Product				
	#7 Other Product				
	PLA/Compostable Product				
	Garbage Bags				
	Film Products				
R/C Products					
ORGANICS	Food - Vegetative				
	Food - Non-vegetative				
	Leaves & Grass				
	Prunings				
	Animal Manure				
	Animal Carcasses				
	Crop Residues				
	Fruit Waste				
	R/C Organics				

Sample ID: \_\_\_\_\_ Date: \_\_\_\_\_ Location: \_\_\_\_\_

Figure 22: Sample Sorting and Characterization Form, Back

Wood Wastes	Treated Wood					
	Painted Wood					
	Dimensional Lumber					
	Engineered Wood					
	Pallets & Crates					
	Other Untreated Wood					
	Wood By-Products					
	R/C Wood					
HAZARDOUS WASTES	Oil Filters					
	Antifreeze					
	Pesticides/Herbicides					
	Mercury Vapor Lighting					
	Compact Fluorescents					
	Fluorescent Tubes					
	Asbestos					
	Latex Paint					
	Solvent-based Glues					
	Latex-based Glues					
	Oil-based Paint & Solvent					
	Caustic Cleaners					
	Dry-cell Batteries					
	Wet-cell Batteries					
	Gasoline/Kerosene					
	Motor Oil					
	Other Vehicle Fluids					
	Explosives					
	Medical Wastes					
	Pharmaceuticals/Vitamins					
	Disposable Diapers					
	Other Cleaners & Soaps					
	Other Hazardous					
	Other Non-hazardous					
	Consumer Products	Televisions - CRT				
		Televisions - LCD				
		VCR's, DVD's, DVR's				
		Computer Monitors - CRT				
Computer Monitors - LCD						
Computers						
Computer Peripherals						
Audio Equipment						
Gaming Equipment						
Other Consumer Electronics						
Textiles - Organic						
Textiles - Synthetic						
Shoes, Purses, Belts						
Tires & Rubber						
Furniture						
Mattresses						
R/C Consumer						
Residues	Ash					
	Dust					
	Fines					
	Sludge/Special Industrial					
Construction Materials	Natural Wood					
	Insulation					
	Asphalt Paving					
	Concrete					
	Drywall					
	Carpet					
	Carpet Padding					
	Soil, Rocks, Sand					
	Asphalt Roofing					
	Plastic Flooring					
	Ceramics & Brick					
	R/C Demo					

**Figure 23: Vehicle Survey Form, Front**

Date  /  /

Survey Site

Minimum Weight Car:  lbs.
Pickup:  lbs.

Surveyor

Checked by

Page  of

This sheet started at  am  pm

ID	Vehicle Type	Trailer	Sector				For COM Only			For SH and SHC	For SHC Only				For All Loads				Notes & Comments	
<div>Enter the weightback ticket number here (if used)</div>	1. Rear Packer 2. Front Packer 3. Side Packer 4. DB-Loose 5. DB-Compacted 6. Pickup, Van, SUV 7. Large Other 8. Car 9. Other	Check if the vehicle has a trailer with garbage in it.	SF single-family residential COM commercial/multifamily SH self-haul SHC self-haul construction	Did this load come from a single garbage source?	If this load is from a single source, which business type (from the list in the margin of the page) best describes the source of this load?	For single source loads get name of source, if possible.	Did this load come from a home or someplace else (business, park, church, government office, etc.)	What kind of construction job?  If yes: <div>             N=new construction              R=renovation              D=demolition              RF=roofing              OC=other c&amp;d           </div>				Net Weight of Load.  If you use the same units for all loads just circle the units on the first line, otherwise be sure to circle the units on every line.		Alternative minimum weight. Check if used and note the facilities minimum weight at the top of this sheet.		If needed for notes any time you choose NA or about the load, or to record license/vehicle #s for identification purposes, etc.				
	SF %							COM %COM %MF		SH %	SHC %	<div> <div></div> <div></div> </div>	<div> <div></div> <div></div> </div>	<div> <div></div> <div></div> </div>	<div> <div></div> <div></div> </div>		<div> <div></div> <div></div> </div>	<div> <div></div> <div></div> </div>		
											Car								Pickup	
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
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							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						
							R NR	N	R	D	RF	OC		tons lbs yds						

0 = NA  
5 = Wholesale  
10 = Residential

1 = Construction  
6 = Mixed Commercial  
11 = Landscaping

2 = Food Retail  
7 = Other Retail  
12 = Food Processing

3 = Big Box Retail  
8 = Medical/Hospital  
13 = Agriculture

4 = Manufacturing  
9 = Education  
14 = Prison

15 = Other



Figure 24: Vehicle Survey Form, Back

**GENERAL INSTRUCTIONS**  
Make entries neatly in pencil.  
Enter the information at the top of each page. Enter total # of pages on each page at the end of the day.  
Enter the net weight of the load. If the operator measures self-haul loads by volume, record the volume and indicate that the unit is "yds".  
If the load is either SH or SHC note whether it is from a residence or a business.  
If the load is from a construction site, circle only one of the activities in the For SHC what kind of construction job? column.  
If load is from a single source note the generator type. Get the name too if possible

**STEP-BY-STEP INSTRUCTIONS**  
CHECK IN WITH GATEHOUSE STAFF  
Confirm the method for getting net weights.

AS THE VEHICLE ARRIVES RECORD THE TYPE OF VEHICLE ON THE SURVEY SHEET

WHEN A VEHICLE ARRIVES, STOP THE VEHICLE, THEN BEGIN QUESTIONS:

**ALL DRIVERS:**  
Introduction: "Hello, the Washington DOE is conducting a survey today."  
Ask the driver what **sector** generated the load  
If you circle more than one sector, be sure to ask the driver for the estimated % of each.

Commercially collected residential: Single-family (SF)	Waste that is collected by a commercial hauler from single-family residences or multifamily structures with less than 4 units
Commercially collected residential: Multifamily (MF)	Waste that is collected by a commercial hauler from multi-unit structures with greater than 4 units
Commercially collected commercial (COM)	Waste disposed by businesses, industries (factories, farms, etc.), and governments (schools, highways, parks, etc.) that is collected and transported by professional waste haulers
Self-hauled	Waste hauled to a disposal site by a resident or business that is from a construction job
Self-hauled construction	Waste hauled to a disposal site by a resident or business that is not from a construction job

IF THE SOURCE IS COM AND THE VEHICLE TYPE IS DB-LOOSE OR DB-COMPACTED, ASK  
Is this load from a single source (a single business generated the garbage in this load)  
If yes, circle Y in the single source column  
Ask what type of business and note the generator type that best matches in the generator type column  
If possible get the business name and note it

IF THE SOURCE IS SH OR SHC, ASK  
Is the load from a residence or someplace else (business, government office, manufacturing, public works facility)  
If it's a residence circle R, if it's not circle NR

IF DRIVER IS FROM A CONSTRUCTION SITE, ASK:  
If it is a C&D load, ask the driver what **activity** generated the waste.

New construction (NC)	Construction materials generated from the construction of new buildings
Remodel (R)	Construction or demolition materials generated from the remodeling of buildings
Demolition (D)	Materials generated from the tearing down of any facility, structure, pavement or building, (wall, fence) whether in whole or in part, whether interior or exterior
Roofing (RF)	Waste generated by the installation or replacement of roofs
Other construction & demolition (OC)	Waste generated by construction or demolition of buildings, not included in categories above or from public works projects.

**RECORD NET WEIGHTS**  
Circle the units used, if the same units are used all day just circle the units on the first row. If not circle the units on every row.  
If the site has a minimum weight note it on the front page and every time a survey vehicle pays the minimum check it in the appropriate column.

Figure 25: Additional Tonnage Data Survey Form

Tonnage Data Collection: ECYStatewide2009

Facility:  
County:

**Annual Tons Incoming Disposed Waste**  
*Note: tons should be non-transfer disposed waste only, excluding tons separated for recycling, composting, or other diversions such as alternative daily cover (ADC).*

Year: \_\_\_\_\_ Select one: Calendar or Fiscal

	Tons
Overall	
Check if any are transfer tons (list tons)	
Check if any are diversion tons (list tons)	
<b>Overall (excluding transfer and diversion)</b>	

**Franchise or Commercially-collected or City-collected Waste**  
*Note: Fill out either tons of each or percent of each (with a total tons).*

	Tons	Percent	Notes
Residential			
Commercial			
Total			
Tons % is based on:			

**Self-hauled or Public Waste**  
*Note: Fill out either tons of each or percent of each (with a total tons).*

	Tons	Percent	Notes
C&D			
Non-C&D			
Total			
Tons % is based on:			

**Check Total Tons**  
*Check that the overall tons and sum of sector tons are equal*

Figure 26: Additional Tonnage Data Survey Form, Back

	<b>Tons</b>
Residential Tons (from above)	
Commercial Tons (from above)	
Self-hauled C&D Tons (from above)	
Self-hauled Other Tons (from above)	
Sum the Total Sector Tons	
<b>Does this equal the overall tons reported above?</b>	
<p><b><i>Reports Provided</i></b></p> <p><i>Ask if facility has reports available, especially if no annual breakdown for our sectors. Ask for daily scale transactions from a typical week (or two), preferably in Excel, that we can use to tease out the percentage of tons from our sectors.</i></p>	
<b>Report Type</b>	<b>Notes</b>
<input type="checkbox"/> Daily Scale Transaction	
<input type="checkbox"/> Annual Reports	
<input type="checkbox"/> Other:	
<input type="checkbox"/> Other:	
<p><b><i>Contacts</i></b></p>	
Name: Phone: Email: Notes:	
Name: Phone: Email: Notes:	

## Appendix D: Waste Generation Area Composition Results

This section presents waste composition results for each of Washington's six WGAs:

- Central
- East
- Northwest
- Puget Sound
- Southwest
- West

Each WGA section presents composition tables for the following sectors:

- Overall
- Commercial
- Residential
- Self-hauled C&D
- Self-hauled Other

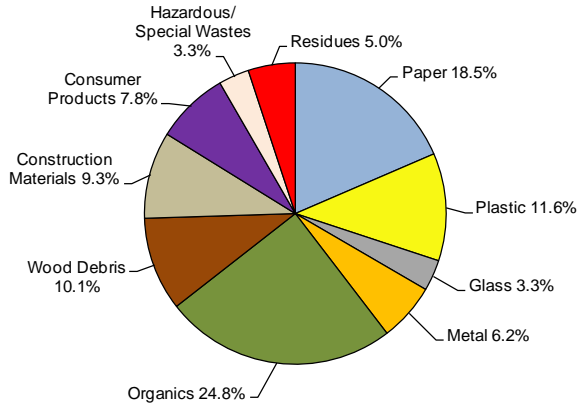
In addition to the sector tables, a set of six figures, one for each WGA, is presented comparing the overall **Material Class** composition findings for the overall waste stream.

All WGAs were analyzed using the 2009 statewide study (130 material type list) format. The Puget Sound WGA was also analyzed using the supplemental format, presented in Appendix E, which added King, Snohomish, and Thurston Counties and used the 50 "rolled up" materials types.

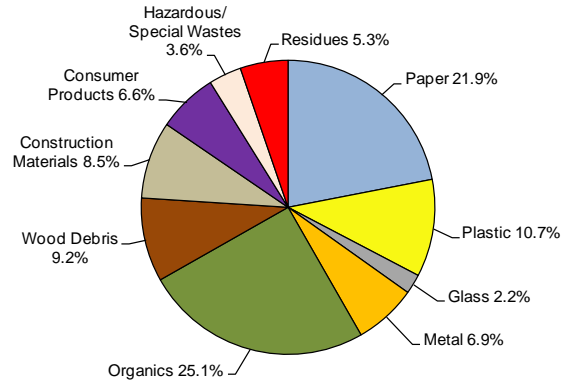
Figure 27 through Figure 32 show a comparison of each WGAs overall waste composition at the **Material Class** level. This analysis uses the supplemental "rolled-up" set of **Material Classes** used for the supplemental study, as described in Appendix E, below.

Table 27 through Table 56 present detailed composition tables for each of the six WGAs for the overall waste stream and for each of the four sectors analyzed.

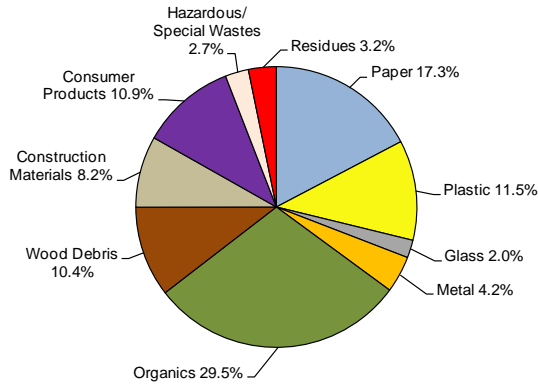
**Figure 27: Central WGA**



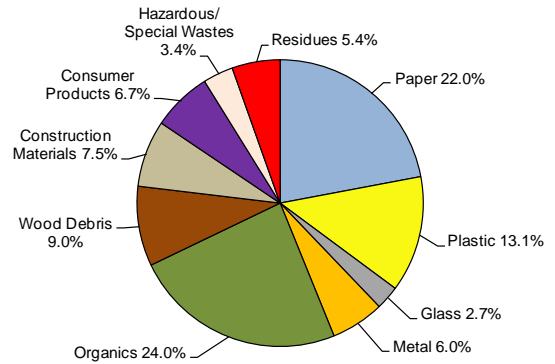
**Figure 28: East WGA**



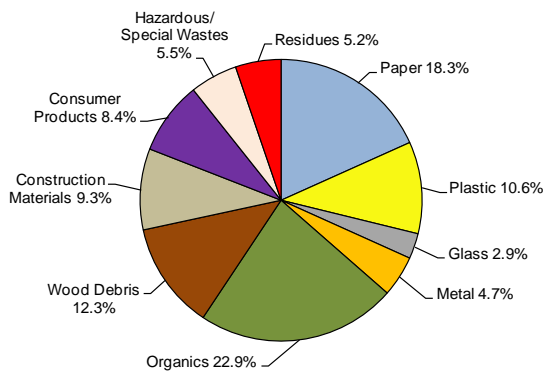
**Figure 29: Northwest WGA**



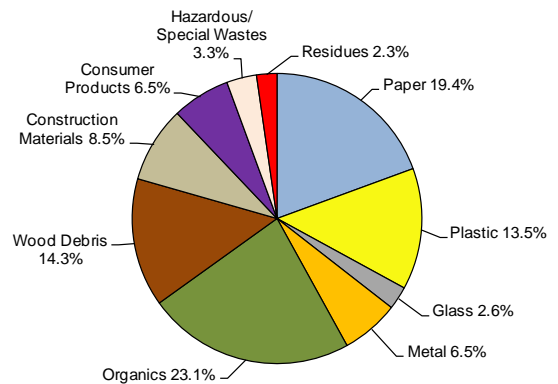
**Figure 30: Puget Sound WGA**



**Figure 31: Southwest WGA**



**Figure 32: West WGA**



## Central Waste Generation Area Composition Tables

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**Table 27: Central WGA Overall Disposed Waste Stream  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>10.3%</b>		<b>54,129</b>	<b>Paper Products</b>	<b>8.2%</b>		<b>42,845</b>
Newspaper Packaging	0.0%	0.0%	126	Newspaper	1.2%	0.3%	6,277
Cardboard/Kraft Paper Packaging	5.3%	1.2%	27,556	Cardboard/Kraft Paper Products	0.0%	0.0%	179
Other Groundwood Paper Packaging	0.2%	0.1%	957	Magazines	0.6%	0.2%	3,396
Mixed/Low Grade Paper Packaging	3.2%	1.5%	16,710	High-Grade Paper Products	0.6%	0.2%	2,906
Compostable Paper Packaging	0.9%	0.3%	4,582	Other Groundwood Paper Products	0.2%	0.2%	1,065
R/C Paper Packaging	0.8%	0.2%	4,198	Mixed Low Grade Paper Products	1.9%	0.5%	9,985
				Compostable Paper Products	2.9%	0.5%	15,047
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.8%	0.5%	3,990
<b>Plastic Packaging</b>	<b>6.7%</b>		<b>35,266</b>	<b>Plastic Products</b>	<b>4.8%</b>		<b>25,219</b>
#1 PETE Plastic Bottles	1.0%	0.2%	5,244	#1 PETE Plastic Products	0.0%	0.0%	4
#1 PETE Plastic Non-bottles	0.3%	0.0%	1,344	#2 HDPE Plastic Products	0.0%	0.0%	29
#2 HDPE Plastic Natural Bottles	0.4%	0.1%	1,892	#3 PVC Plastic Products	0.1%	0.1%	534
#2 HDPE Plastic Colored Bottles	0.3%	0.1%	1,617	#4 LDPE Plastic Products	0.0%	0.0%	94
#2 HDPE Plastic Jars & Tubs	0.2%	0.1%	962	#5 PP Plastic Products	0.0%	0.0%	167
#3 PVC Plastic Packaging	0.0%	0.0%	38	#6 PS Plastic Products	0.0%	0.0%	261
#4 LDPE Plastic Packaging	0.0%	0.0%	79	#7 Other Plastic Products	1.2%	0.5%	6,327
#5 PP Plastic Packaging	0.3%	0.1%	1,408	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.6%	0.2%	3,217	Plastic Garbage Bags	1.2%	0.2%	6,132
#7 Other Plastic Packaging	0.7%	0.4%	3,662	Plastic Film Products	0.4%	0.2%	1,871
PLA Packaging	0.0%	0.0%	92	R/C Plastic Products	1.9%	1.5%	9,799
Plastic Merchandise Bags	0.5%	0.1%	2,780				
Non-industrial Packaging Film Plastic	1.5%	0.3%	7,817	<b>Consumer Products</b>	<b>8.5%</b>		<b>44,398</b>
Industrial Packaging Film Plastic	0.8%	0.6%	4,386	Televisions - CRT	0.7%	1.1%	3,616
R/C Plastic Packaging	0.1%	0.1%	728	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	0
<b>Glass</b>	<b>3.4%</b>		<b>17,910</b>	Computer Monitors - CRT	0.1%	0.2%	644
Clear Glass Containers	1.4%	0.4%	7,157	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.3%	0.1%	1,599	Computers	0.0%	0.0%	0
Brown Glass Containers	0.9%	0.4%	4,515	Computer Peripherals	0.1%	0.1%	678
Plate Glass	0.2%	0.3%	1,124	Audio Equipment	0.1%	0.1%	648
Stoneware/Kitchen Ceramics/Glassware	0.1%	0.1%	464	Gaming Equipment	0.0%	0.0%	0
R/C Glass	0.6%	0.4%	3,050	Other Consumer Electronics	0.3%	0.2%	1,385
				Textiles - Organic	2.1%	0.7%	10,748
<b>Metal</b>	<b>6.2%</b>		<b>32,515</b>	Textiles - Synthetic	1.2%	0.4%	6,121
Aluminum Beverage Cans	0.6%	0.1%	2,973	Shoes, Purses, Belts	0.3%	0.2%	1,662
Aluminum Foil/Containers	0.1%	0.0%	601	Tires & Rubber	0.5%	0.3%	2,510
Other Aluminum	0.2%	0.2%	1,100	Furniture	2.1%	1.4%	11,220
Other Nonferrous	0.1%	0.1%	658	Mattresses	0.4%	0.3%	1,858
Food Cans - Tinned	0.7%	0.1%	3,524	R/C Consumer Products	0.6%	0.8%	3,306
Food Cans - Coated	0.1%	0.0%	595				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>3.4%</b>		<b>17,723</b>
Other Ferrous Metal	1.9%	0.6%	10,088	Pesticides/Herbicides	0.0%	0.0%	0
R/C Metals	2.5%	1.1%	12,976	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	27
<b>Organics</b>	<b>26.3%</b>		<b>137,515</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	9.2%	1.5%	48,024	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	3.1%	0.6%	16,445	Latex Paint	0.1%	0.2%	761
Leaves & Grass	8.8%	2.6%	46,122	Solvent-based Glues	0.0%	0.0%	33
Prunings	1.1%	1.1%	5,837	Latex-based Glues	0.0%	0.0%	78
Animal Manure	1.2%	0.4%	6,163	Oil-based Paint & Solvent	0.0%	0.0%	115
Animal Carcasses	0.0%	0.0%	7	Caustic Cleaners	0.0%	0.0%	19
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	124
Fruit Waste	1.4%	1.6%	7,395	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	1.4%	1.6%	7,523	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	42
<b>Wood Debris</b>	<b>10.0%</b>		<b>52,510</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	1.4%	1.8%	7,551	Other Vehicle Fluids	0.0%	0.0%	30
Painted Wood	2.9%	1.4%	14,991	Oil Filters	0.0%	0.0%	68
Dimensional Lumber	1.2%	0.6%	6,429	Explosives	0.0%	0.0%	3
Engineered Wood	1.0%	0.5%	5,303	Medical Wastes	1.1%	0.8%	5,560
Pallets & Crates	1.9%	2.0%	10,167	Pharmaceuticals/Vitamins	0.0%	0.1%	255
Other Untreated Wood	0.2%	0.2%	901	Disposable Diapers	1.9%	0.5%	9,897
Wood By-Products	0.0%	0.0%	137	Other Cleaners & Soaps	0.1%	0.0%	576
R/C Wood Wastes	1.3%	0.8%	7,031	Other Hazardous	0.0%	0.0%	59
				Other Non-hazardous	0.0%	0.0%	75
<b>Construction Materials</b>	<b>10.9%</b>		<b>57,272</b>	<b>Residues</b>	<b>1.2%</b>		<b>6,337</b>
Natural Wood	0.0%	0.1%	200	Ash	0.1%	0.1%	382
Insulation	1.0%	1.0%	5,113	Dust	0.0%	0.0%	189
Asphalt Paving	0.3%	0.6%	1,765	Fines	1.1%	0.5%	5,766
Concrete	0.2%	0.2%	790	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	1.0%	0.6%	5,235				
Carpet	2.1%	1.0%	10,924	<b>Totals</b>	<b>100.0%</b>		<b>523,636</b>
Carpet Padding	0.6%	0.4%	2,909	<b>Sample Count</b>	<b>113</b>		
Soil, Rocks, Sand	1.4%	1.4%	7,130				
Asphalt Roofing	1.6%	1.0%	8,324				
Plastic Flooring	0.2%	0.1%	910				
Ceramics & Brick	0.2%	0.2%	1,101				
R/C Construction Materials	2.5%	2.0%	12,871				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

**Table 28: Central WGA Commercial Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>16.1%</b>		<b>29,655</b>	<b>Paper Products</b>	<b>7.4%</b>		<b>13,636</b>
Newspaper Packaging	0.0%	0.0%	37	Newspaper	0.7%	0.3%	1,217
Cardboard/Kraft Paper Packaging	8.6%	3.0%	15,796	Cardboard/Kraft Paper Products	0.1%	0.1%	153
Other Groundwood Paper Packaging	0.1%	0.0%	171	Magazines	0.1%	0.1%	166
Mixed/Low Grade Paper Packaging	4.7%	4.2%	8,719	High-Grade Paper Products	0.3%	0.1%	557
Compostable Paper Packaging	1.6%	0.8%	2,900	Other Groundwood Paper Products	0.1%	0.1%	163
R/C Paper Packaging	1.1%	0.4%	2,031	Mixed Low Grade Paper Products	1.4%	0.8%	2,628
				Compostable Paper Products	3.0%	1.0%	5,477
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	1.8%	1.4%	3,275
<b>Plastic Packaging</b>	<b>8.7%</b>		<b>15,979</b>	<b>Plastic Products</b>	<b>7.2%</b>		<b>13,263</b>
#1 PETE Plastic Bottles	1.0%	0.4%	1,895	#1 PETE Plastic Products	0.0%	0.0%	3
#1 PETE Plastic Non-bottles	0.3%	0.1%	499	#2 HDPE Plastic Products	0.0%	0.0%	6
#2 HDPE Plastic Natural Bottles	0.3%	0.1%	516	#3 PVC Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Colored Bottles	0.2%	0.1%	296	#4 LDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	0.2%	0.1%	286	#5 PP Plastic Products	0.0%	0.0%	81
#3 PVC Plastic Packaging	0.0%	0.0%	11	#6 PS Plastic Products	0.0%	0.0%	56
#4 LDPE Plastic Packaging	0.0%	0.0%	15	#7 Other Plastic Products	1.3%	0.9%	2,367
#5 PP Plastic Packaging	0.2%	0.1%	377	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.9%	0.5%	1,611	Plastic Garbage Bags	1.9%	0.7%	3,500
#7 Other Plastic Packaging	1.2%	1.0%	2,133	Plastic Film Products	0.5%	0.4%	900
PLA Packaging	0.0%	0.0%	5	R/C Plastic Products	3.4%	4.2%	6,351
Plastic Merchandise Bags	0.3%	0.1%	636				
Non-industrial Packaging Film Plastic	1.9%	0.7%	3,488	<b>Consumer Products</b>	<b>4.2%</b>		<b>7,841</b>
Industrial Packaging Film Plastic	2.1%	1.8%	3,939	Televisions - CRT	0.0%	0.0%	0
R/C Plastic Packaging	0.1%	0.1%	271	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	0
<b>Glass</b>	<b>3.7%</b>		<b>6,748</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	1.6%	0.8%	2,936	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.5%	0.3%	988	Computers	0.0%	0.0%	0
Brown Glass Containers	1.1%	1.0%	2,111	Computer Peripherals	0.0%	0.0%	0
Plate Glass	0.0%	0.1%	74	Audio Equipment	0.0%	0.0%	52
Stoneware/Kitchen Ceramics/Glassware	0.0%	0.0%	43	Gaming Equipment	0.0%	0.0%	0
R/C Glass	0.3%	0.4%	595	Other Consumer Electronics	0.1%	0.1%	129
				Textiles - Organic	1.2%	0.9%	2,160
<b>Metal</b>	<b>7.7%</b>		<b>14,133</b>	Textiles - Synthetic	0.5%	0.3%	865
Aluminum Beverage Cans	0.7%	0.3%	1,235	Shoes, Purses, Belts	0.1%	0.1%	213
Aluminum Foil/Containers	0.1%	0.1%	222	Tires & Rubber	0.8%	0.8%	1,525
Other Aluminum	0.3%	0.5%	553	Furniture	0.8%	1.3%	1,490
Other Nonferrous	0.1%	0.1%	160	Mattresses	0.7%	0.9%	1,302
Food Cans - Tinned	0.6%	0.3%	1,049	R/C Consumer Products	0.1%	0.1%	107
Food Cans - Coated	0.0%	0.0%	57				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>3.7%</b>		<b>6,844</b>
Other Ferrous Metal	2.4%	1.3%	4,462	Pesticides/Herbicides	0.0%	0.0%	0
R/C Metals	3.5%	2.9%	6,396	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	0
<b>Organics</b>	<b>17.8%</b>		<b>32,895</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	8.6%	3.0%	15,806	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	3.4%	1.3%	6,310	Latex Paint	0.0%	0.0%	11
Leaves & Grass	1.1%	1.3%	2,053	Solvent-based Glues	0.0%	0.0%	22
Prunings	0.2%	0.2%	315	Latex-based Glues	0.0%	0.0%	4
Animal Manure	0.4%	0.5%	796	Oil-based Paint & Solvent	0.0%	0.0%	0
Animal Carcasses	0.0%	0.0%	0	Caustic Cleaners	0.0%	0.0%	0
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	73
Fruit Waste	4.0%	4.6%	7,395	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	0.1%	0.1%	219	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	38
<b>Wood Debris</b>	<b>13.2%</b>		<b>24,458</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	3.1%	4.8%	5,806	Other Vehicle Fluids	0.0%	0.0%	22
Painted Wood	2.2%	2.6%	4,037	Oil Filters	0.0%	0.0%	44
Dimensional Lumber	1.0%	0.9%	1,897	Explosives	0.0%	0.0%	1
Engineered Wood	1.1%	1.1%	2,059	Medical Wastes	2.1%	1.9%	3,855
Pallets & Crates	5.2%	5.5%	9,568	Pharmaceuticals/Vitamins	0.0%	0.0%	18
Other Untreated Wood	0.0%	0.1%	83	Disposable Diapers	1.5%	1.2%	2,681
Wood By-Products	0.0%	0.1%	90	Other Cleaners & Soaps	0.0%	0.0%	44
R/C Wood Debris	0.5%	0.7%	919	Other Hazardous	0.0%	0.0%	0
				Other Non-hazardous	0.0%	0.0%	30
<b>Construction Materials</b>	<b>9.2%</b>		<b>17,036</b>	<b>Residues</b>	<b>1.2%</b>		<b>2,228</b>
Natural Wood	0.0%	0.0%	17	Ash	0.0%	0.0%	0
Insulation	1.8%	2.8%	3,284	Dust	0.1%	0.1%	153
Asphalt Paving	0.0%	0.0%	0	Fines	1.1%	0.7%	2,075
Concrete	0.0%	0.0%	0	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	0.1%	0.1%	151				
Carpet	1.1%	1.6%	1,961	<b>Totals</b>	<b>100.0%</b>		<b>184,716</b>
Carpet Padding	0.0%	0.0%	0	<b>Sample Count</b>	<b>34</b>		
Soil, Rocks, Sand	2.5%	3.7%	4,603				
Asphalt Roofing	0.1%	0.2%	243				
Plastic Flooring	0.0%	0.0%	0				
Ceramics & Brick	0.0%	0.0%	40				
R/C Construction Materials	3.6%	5.2%	6,737				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.



**Table 29: Central WGA Residential Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>9.6%</b>		<b>19,485</b>	<b>Paper Products</b>	<b>12.8%</b>		<b>25,878</b>
Newspaper Packaging	0.0%	0.1%	88	Newspaper	2.4%	0.6%	4,937
Cardboard/Kraft Paper Packaging	3.8%	1.0%	7,782	Cardboard/Kraft Paper Products	0.0%	0.0%	0
Other Groundwood Paper Packaging	0.4%	0.2%	779	Magazines	1.3%	0.4%	2,582
Mixed/Low Grade Paper Packaging	3.6%	0.4%	7,329	High-Grade Paper Products	0.9%	0.5%	1,816
Compostable Paper Packaging	0.7%	0.3%	1,498	Other Groundwood Paper Products	0.4%	0.4%	760
R/C Paper Packaging	1.0%	0.3%	2,009	Mixed Low Grade Paper Products	3.1%	0.8%	6,367
				Compostable Paper Products	4.6%	0.7%	9,241
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.1%	0.1%	175
<b>Plastic Packaging</b>	<b>8.7%</b>		<b>17,563</b>	<b>Plastic Products</b>	<b>3.0%</b>		<b>6,071</b>
#1 PETE Plastic Bottles	1.6%	0.2%	3,157	#1 PETE Plastic Products	0.0%	0.0%	1
#1 PETE Plastic Non-bottles	0.4%	0.1%	816	#2 HDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Natural Bottles	0.7%	0.1%	1,332	#3 PVC Plastic Products	0.2%	0.3%	407
#2 HDPE Plastic Colored Bottles	0.6%	0.1%	1,256	#4 LDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	0.1%	0.1%	285	#5 PP Plastic Products	0.0%	0.0%	61
#3 PVC Plastic Packaging	0.0%	0.0%	25	#6 PS Plastic Products	0.1%	0.0%	161
#4 LDPE Plastic Packaging	0.0%	0.0%	26	#7 Other Plastic Products	0.8%	0.2%	1,617
#5 PP Plastic Packaging	0.5%	0.1%	914	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.7%	0.2%	1,460	Plastic Garbage Bags	1.2%	0.2%	2,451
#7 Other Plastic Packaging	0.6%	0.1%	1,275	Plastic Film Products	0.3%	0.2%	575
PLA Packaging	0.0%	0.1%	87	R/C Plastic Products	0.4%	0.2%	797
Plastic Merchandise Bags	1.0%	0.2%	2,072				
Non-industrial Packaging Film Plastic	2.0%	0.3%	4,139	<b>Consumer Products</b>	<b>6.6%</b>		<b>13,307</b>
Industrial Packaging Film Plastic	0.2%	0.1%	356	Televisions - CRT	0.0%	0.0%	0
R/C Plastic Packaging	0.2%	0.2%	363	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	0
<b>Glass</b>	<b>3.2%</b>		<b>6,557</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	1.6%	0.4%	3,212	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.3%	0.1%	589	Computers	0.0%	0.0%	0
Brown Glass Containers	0.9%	0.3%	1,835	Computer Peripherals	0.2%	0.3%	407
Plate Glass	0.0%	0.0%	0	Audio Equipment	0.2%	0.3%	425
Stoneware/Kitchen Ceramics/Glassware	0.2%	0.2%	396	Gaming Equipment	0.0%	0.0%	0
R/C Glass	0.3%	0.1%	524	Other Consumer Electronics	0.5%	0.4%	1,012
				Textiles - Organic	2.7%	1.1%	5,529
<b>Metal</b>	<b>5.0%</b>		<b>10,096</b>	Textiles - Synthetic	1.8%	0.8%	3,737
Aluminum Beverage Cans	0.7%	0.1%	1,511	Shoes, Purses, Belts	0.5%	0.2%	998
Aluminum Foil/Containers	0.2%	0.1%	365	Tires & Rubber	0.2%	0.2%	500
Other Aluminum	0.1%	0.1%	187	Furniture	0.2%	0.3%	409
Other Nonferrous	0.1%	0.1%	179	Mattresses	0.0%	0.0%	0
Food Cans - Tinned	1.2%	0.2%	2,336	R/C Consumer Products	0.1%	0.1%	292
Food Cans - Coated	0.3%	0.1%	538				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>4.7%</b>		<b>9,613</b>
Other Ferrous Metal	1.3%	0.7%	2,556	Pesticides/Herbicides	0.0%	0.0%	0
R/C Metals	1.2%	0.8%	2,423	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	27
<b>Organics</b>	<b>38.5%</b>		<b>78,203</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	15.2%	2.8%	30,840	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	4.6%	0.9%	9,319	Latex Paint	0.0%	0.0%	43
Leaves & Grass	14.8%	4.5%	30,089	Solvent-based Glues	0.0%	0.0%	0
Prunings	0.5%	0.4%	919	Latex-based Glues	0.0%	0.0%	4
Animal Manure	2.3%	0.9%	4,717	Oil-based Paint & Solvent	0.0%	0.0%	39
Animal Carcasses	0.0%	0.0%	7	Caustic Cleaners	0.0%	0.0%	19
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	46
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	1.1%	0.6%	2,311	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	4
<b>Wood Debris</b>	<b>1.5%</b>		<b>3,118</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	0.0%	0.0%	11	Other Vehicle Fluids	0.0%	0.0%	8
Painted Wood	0.8%	0.6%	1,657	Oil Filters	0.0%	0.0%	24
Dimensional Lumber	0.1%	0.1%	206	Explosives	0.0%	0.0%	1
Engineered Wood	0.2%	0.3%	445	Medical Wastes	0.8%	1.2%	1,705
Pallets & Crates	0.0%	0.0%	0	Pharmaceuticals/Vitamins	0.1%	0.1%	237
Other Untreated Wood	0.0%	0.0%	91	Disposable Diapers	3.5%	0.9%	7,098
Wood By-Products	0.0%	0.0%	36	Other Cleaners & Soaps	0.2%	0.1%	331
R/C Wood Debris	0.3%	0.2%	671	Other Hazardous	0.0%	0.0%	26
				Other Non-hazardous	0.0%	0.0%	0
<b>Construction Materials</b>	<b>4.4%</b>		<b>8,928</b>	<b>Residues</b>	<b>2.0%</b>		<b>4,080</b>
Natural Wood	0.1%	0.1%	183	Ash	0.2%	0.2%	382
Insulation	0.3%	0.4%	557	Dust	0.0%	0.0%	36
Asphalt Paving	0.0%	0.0%	0	Fines	1.8%	1.1%	3,663
Concrete	0.0%	0.0%	0	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	0.2%	0.2%	355				
Carpet	1.6%	1.1%	3,204	<b>Totals</b>	<b>100.0%</b>		<b>202,900</b>
Carpet Padding	0.4%	0.4%	824	<b>Sample Count</b>	<b>33</b>		
Soil, Rocks, Sand	1.0%	0.7%	1,941				
Asphalt Roofing	0.3%	0.4%	518				
Plastic Flooring	0.3%	0.3%	514				
Ceramics & Brick	0.2%	0.2%	319				
R/C Construction Materials	0.3%	0.2%	514				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

**Table 30: Central WGA Self-hauled C&D Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>2.7%</b>		<b>1,211</b>	<b>Paper Products</b>	<b>0.3%</b>		<b>113</b>
Newspaper Packaging	0.0%	0.0%	0	Newspaper	0.0%	0.0%	1
Cardboard/Kraft Paper Packaging	2.7%	2.5%	1,198	Cardboard/Kraft Paper Products	0.0%	0.0%	0
Other Groundwood Paper Packaging	0.0%	0.0%	0	Magazines	0.2%	0.3%	72
Mixed/Low Grade Paper Packaging	0.0%	0.0%	10	High-Grade Paper Products	0.0%	0.0%	0
Compostable Paper Packaging	0.0%	0.0%	1	Other Groundwood Paper Products	0.0%	0.0%	0
R/C Paper Packaging	0.0%	0.0%	1	Mixed Low Grade Paper Products	0.1%	0.1%	34
				Compostable Paper Products	0.0%	0.0%	0
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.0%	0.0%	6
<b>Plastic Packaging</b>	<b>0.4%</b>		<b>163</b>	<b>Plastic Products</b>	<b>4.8%</b>		<b>2,130</b>
#1 PETE Plastic Bottles	0.0%	0.0%	7	#1 PETE Plastic Products	0.0%	0.0%	0
#1 PETE Plastic Non-bottles	0.0%	0.0%	0	#2 HDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Natural Bottles	0.0%	0.0%	2	#3 PVC Plastic Products	0.3%	0.4%	121
#2 HDPE Plastic Colored Bottles	0.0%	0.0%	1	#4 LDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	0.0%	0.0%	0	#5 PP Plastic Products	0.0%	0.0%	0
#3 PVC Plastic Packaging	0.0%	0.0%	0	#6 PS Plastic Products	0.0%	0.0%	0
#4 LDPE Plastic Packaging	0.0%	0.0%	0	#7 Other Plastic Products	2.6%	3.9%	1,168
#5 PP Plastic Packaging	0.0%	0.0%	3	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.1%	0.1%	30	Plastic Garbage Bags	0.1%	0.1%	48
#7 Other Plastic Packaging	0.0%	0.0%	4	Plastic Film Products	0.8%	1.3%	340
PLA Packaging	0.0%	0.0%	0	R/C Plastic Products	1.0%	1.7%	453
Plastic Merchandise Bags	0.0%	0.0%	0				
Non-industrial Packaging Film Plastic	0.2%	0.4%	101	<b>Consumer Products</b>	<b>0.8%</b>		<b>352</b>
Industrial Packaging Film Plastic	0.0%	0.0%	15	Televisions - CRT	0.0%	0.0%	0
R/C Plastic Packaging	0.0%	0.0%	0	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	0
<b>Glass</b>	<b>2.4%</b>		<b>1,070</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	0.0%	0.0%	0	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.0%	0.0%	0	Computers	0.0%	0.0%	0
Brown Glass Containers	0.1%	0.1%	23	Computer Peripherals	0.0%	0.0%	0
Plate Glass	2.4%	3.8%	1,047	Audio Equipment	0.0%	0.0%	0
Stoneware/Kitchen Ceramics/Glassware	0.0%	0.0%	0	Gaming Equipment	0.0%	0.0%	0
R/C Glass	0.0%	0.0%	0	Other Consumer Electronics	0.0%	0.0%	6
				Textiles - Organic	0.1%	0.2%	51
<b>Metal</b>	<b>7.7%</b>		<b>3,434</b>	Textiles - Synthetic	0.0%	0.0%	1
Aluminum Beverage Cans	0.0%	0.1%	18	Shoes, Purses, Belts	0.0%	0.0%	0
Aluminum Foil/Containers	0.0%	0.0%	0	Tires & Rubber	0.0%	0.0%	1
Other Aluminum	0.5%	0.6%	204	Furniture	0.0%	0.0%	0
Other Nonferrous	0.2%	0.2%	83	Mattresses	0.7%	0.8%	293
Food Cans - Tinned	0.0%	0.0%	0	R/C Consumer Products	0.0%	0.0%	0
Food Cans - Coated	0.0%	0.0%	0				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>0.0%</b>		<b>5</b>
Other Ferrous Metal	2.9%	2.0%	1,290	Pesticides/Herbicides	0.0%	0.0%	0
R/C Metals	4.1%	3.8%	1,840	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	0
<b>Organics</b>	<b>1.4%</b>		<b>601</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	0.0%	0.0%	6	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	0.0%	0.0%	0	Latex Paint	0.0%	0.0%	0
Leaves & Grass	0.9%	1.4%	390	Solvent-based Glues	0.0%	0.0%	5
Prunings	0.5%	0.8%	205	Latex-based Glues	0.0%	0.0%	0
Animal Manure	0.0%	0.0%	0	Oil-based Paint & Solvent	0.0%	0.0%	0
Animal Carcasses	0.0%	0.0%	0	Caustic Cleaners	0.0%	0.0%	0
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	0
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	0.0%	0.0%	0	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	0
<b>Wood Debris</b>	<b>23.5%</b>		<b>10,419</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	0.1%	0.1%	31	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	5.9%	4.3%	2,624	Oil Filters	0.0%	0.0%	0
Dimensional Lumber	8.9%	5.7%	3,965	Explosives	0.0%	0.0%	0
Engineered Wood	5.3%	4.1%	2,370	Medical Wastes	0.0%	0.0%	0
Pallets & Crates	1.4%	2.2%	599	Pharmaceuticals/Vitamins	0.0%	0.0%	0
Other Untreated Wood	0.0%	0.0%	3	Disposable Diapers	0.0%	0.0%	0
Wood By-Products	0.0%	0.0%	0	Other Cleaners & Soaps	0.0%	0.0%	0
R/C Wood Debris	1.9%	2.2%	826	Other Hazardous	0.0%	0.0%	0
				Other Non-hazardous	0.0%	0.0%	0
<b>Construction Materials</b>	<b>56.0%</b>		<b>24,847</b>	<b>Residues</b>	<b>0.0%</b>		<b>0</b>
Natural Wood	0.0%	0.0%	0	Ash	0.0%	0.0%	0
Insulation	2.5%	2.1%	1,117	Dust	0.0%	0.0%	0
Asphalt Paving	4.0%	6.5%	1,765	Fines	0.0%	0.0%	0
Concrete	0.8%	1.4%	374	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	10.7%	7.1%	4,729				
Carpet	11.0%	7.7%	4,895	<b>Totals</b>	<b>100.0%</b>		<b>44,345</b>
Carpet Padding	2.9%	2.4%	1,304	<b>Sample Count</b>	<b>23</b>		
Soil, Rocks, Sand	1.3%	1.6%	586				
Asphalt Roofing	17.1%	11.4%	7,563				
Plastic Flooring	0.7%	1.0%	327				
Ceramics & Brick	0.0%	0.0%	6				
R/C Construction Materials	4.9%	3.5%	2,182				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

**Table 31: Central WGA Self-hauled Other Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>4.1%</b>		<b>3,778</b>	<b>Paper Products</b>	<b>3.5%</b>		<b>3,218</b>
Newspaper Packaging	0.0%	0.0%	0	Newspaper	0.1%	0.1%	122
Cardboard/Kraft Paper Packaging	3.0%	1.7%	2,781	Cardboard/Kraft Paper Products	0.0%	0.0%	25
Other Groundwood Paper Packaging	0.0%	0.0%	7	Magazines	0.6%	0.6%	576
Mixed/Low Grade Paper Packaging	0.7%	0.6%	652	High-Grade Paper Products	0.6%	0.5%	533
Compostable Paper Packaging	0.2%	0.2%	183	Other Groundwood Paper Products	0.2%	0.2%	143
R/C Paper Packaging	0.2%	0.2%	156	Mixed Low Grade Paper Products	1.0%	1.4%	955
				Compostable Paper Products	0.4%	0.4%	329
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.6%	0.6%	534
<b>Plastic Packaging</b>	<b>1.7%</b>		<b>1,561</b>	<b>Plastic Products</b>	<b>4.1%</b>		<b>3,755</b>
#1 PETE Plastic Bottles	0.2%	0.2%	186	#1 PETE Plastic Products	0.0%	0.0%	0
#1 PETE Plastic Non-bottles	0.0%	0.0%	28	#2 HDPE Plastic Products	0.0%	0.0%	23
#2 HDPE Plastic Natural Bottles	0.0%	0.0%	42	#3 PVC Plastic Products	0.0%	0.0%	6
#2 HDPE Plastic Colored Bottles	0.1%	0.1%	64	#4 LDPE Plastic Products	0.1%	0.2%	94
#2 HDPE Plastic Jars & Tubs	0.4%	0.6%	391	#5 PP Plastic Products	0.0%	0.0%	25
#3 PVC Plastic Packaging	0.0%	0.0%	2	#6 PS Plastic Products	0.0%	0.1%	45
#4 LDPE Plastic Packaging	0.0%	0.1%	39	#7 Other Plastic Products	1.3%	1.1%	1,176
#5 PP Plastic Packaging	0.1%	0.1%	114	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.1%	0.1%	116	Plastic Garbage Bags	0.1%	0.1%	133
#7 Other Plastic Packaging	0.3%	0.2%	249	Plastic Film Products	0.1%	0.1%	55
PLA Packaging	0.0%	0.0%	0	R/C Plastic Products	2.4%	1.6%	2,199
Plastic Merchandise Bags	0.1%	0.0%	71				
Non-industrial Packaging Film Plastic	0.1%	0.1%	90	<b>Consumer Products</b>	<b>25.0%</b>		<b>22,897</b>
Industrial Packaging Film Plastic	0.1%	0.1%	75	Televisions - CRT	3.9%	6.4%	3,616
R/C Plastic Packaging	0.1%	0.2%	94	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	0
<b>Glass</b>	<b>3.9%</b>		<b>3,535</b>	Computer Monitors - CRT	0.7%	1.1%	644
Clear Glass Containers	1.1%	0.9%	1,009	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.0%	0.0%	22	Computers	0.0%	0.0%	0
Brown Glass Containers	0.6%	0.5%	545	Computer Peripherals	0.3%	0.4%	271
Plate Glass	0.0%	0.0%	3	Audio Equipment	0.2%	0.3%	172
Stoneware/Kitchen Ceramics/Glassware	0.0%	0.0%	25	Gaming Equipment	0.0%	0.0%	0
R/C Glass	2.1%	2.2%	1,931	Other Consumer Electronics	0.3%	0.3%	238
				Textiles - Organic	3.3%	2.6%	3,009
<b>Metal</b>	<b>5.3%</b>		<b>4,852</b>	Textiles - Synthetic	1.7%	1.3%	1,519
Aluminum Beverage Cans	0.2%	0.2%	209	Shoes, Purses, Belts	0.5%	0.7%	452
Aluminum Foil/Containers	0.0%	0.0%	14	Tires & Rubber	0.5%	0.5%	484
Other Aluminum	0.2%	0.3%	156	Furniture	10.2%	7.6%	9,322
Other Nonferrous	0.3%	0.3%	236	Mattresses	0.3%	0.5%	263
Food Cans - Tinned	0.2%	0.1%	139	R/C Consumer Products	3.2%	4.7%	2,907
Food Cans - Coated	0.0%	0.0%	0				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>1.4%</b>		<b>1,261</b>
Other Ferrous Metal	1.9%	1.1%	1,780	Pesticides/Herbicides	0.0%	0.0%	0
R/C Metals	2.5%	1.5%	2,317	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	0
<b>Organics</b>	<b>28.2%</b>		<b>25,815</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	1.5%	1.4%	1,372	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	0.9%	0.8%	815	Latex Paint	0.8%	1.3%	708
Leaves & Grass	14.8%	10.7%	13,590	Solvent-based Glues	0.0%	0.0%	6
Prunings	4.8%	6.1%	4,397	Latex-based Glues	0.1%	0.1%	70
Animal Manure	0.7%	1.1%	649	Oil-based Paint & Solvent	0.1%	0.1%	76
Animal Carcasses	0.0%	0.0%	0	Caustic Cleaners	0.0%	0.0%	0
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	5
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	5.4%	8.8%	4,992	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	0
<b>Wood Debris</b>	<b>15.8%</b>		<b>14,515</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	1.9%	3.1%	1,703	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	7.3%	5.6%	6,672	Oil Filters	0.0%	0.0%	0
Dimensional Lumber	0.4%	0.3%	362	Explosives	0.0%	0.0%	0
Engineered Wood	0.5%	0.7%	428	Medical Wastes	0.0%	0.0%	0
Pallets & Crates	0.0%	0.0%	0	Pharmaceuticals/Vitamins	0.0%	0.0%	0
Other Untreated Wood	0.8%	1.2%	724	Disposable Diapers	0.1%	0.1%	119
Wood By-Products	0.0%	0.0%	12	Other Cleaners & Soaps	0.2%	0.2%	201
R/C Wood Debris	5.0%	4.2%	4,615	Other Hazardous	0.0%	0.1%	33
				Other Non-hazardous	0.0%	0.1%	44
<b>Construction Materials</b>	<b>7.0%</b>		<b>6,461</b>	<b>Residues</b>	<b>0.0%</b>		<b>28</b>
Natural Wood	0.0%	0.0%	0	Ash	0.0%	0.0%	0
Insulation	0.2%	0.3%	155	Dust	0.0%	0.0%	0
Asphalt Paving	0.0%	0.0%	0	Fines	0.0%	0.0%	28
Concrete	0.5%	0.5%	417	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	0.0%	0.0%	0				
Carpet	0.9%	1.1%	865	<b>Totals</b>	<b>100.0%</b>		<b>91,675</b>
Carpet Padding	0.9%	1.4%	781	<b>Sample Count</b>	<b>23</b>		
Soil, Rocks, Sand	0.0%	0.0%	0				
Asphalt Roofing	0.0%	0.0%	0				
Plastic Flooring	0.1%	0.1%	69				
Ceramics & Brick	0.8%	0.9%	736				
R/C Construction Materials	3.8%	4.1%	3,438				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

## East Waste Generation Area Composition Tables

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**Table 32: East WGA Overall Disposed Waste Stream  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>10.0%</b>		<b>73,765</b>	<b>Paper Products</b>	<b>11.9%</b>		<b>87,466</b>
Newspaper Packaging	0.1%	0.1%	635	Newspaper	1.7%	0.3%	12,401
Cardboard/Kraft Paper Packaging	4.6%	1.0%	34,135	Cardboard/Kraft Paper Products	0.1%	0.2%	754
Other Groundwood Paper Packaging	0.2%	0.1%	1,339	Magazines	1.7%	0.8%	12,492
Mixed/Low Grade Paper Packaging	2.8%	0.4%	20,711	High-Grade Paper Products	1.6%	1.2%	11,969
Compostable Paper Packaging	1.3%	0.4%	9,340	Other Groundwood Paper Products	0.4%	0.2%	3,082
R/C Paper Packaging	1.0%	0.6%	7,605	Mixed Low Grade Paper Products	2.7%	0.6%	19,958
				Compostable Paper Products	3.1%	0.5%	23,127
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.5%	0.2%	3,682
<b>Plastic Packaging</b>	<b>7.0%</b>		<b>51,689</b>	<b>Plastic Products</b>	<b>3.7%</b>		<b>27,070</b>
#1 PETE Plastic Bottles	0.8%	0.1%	5,986	#1 PETE Plastic Products	0.0%	0.0%	33
#1 PETE Plastic Non-bottles	0.3%	0.0%	2,258	#2 HDPE Plastic Products	0.1%	0.2%	1,068
#2 HDPE Plastic Natural Bottles	0.3%	0.0%	1,859	#3 PVC Plastic Products	0.0%	0.0%	85
#2 HDPE Plastic Colored Bottles	0.4%	0.1%	3,039	#4 LDPE Plastic Products	0.0%	0.0%	6
#2 HDPE Plastic Jars & Tubs	0.3%	0.1%	1,860	#5 PP Plastic Products	0.0%	0.0%	254
#3 PVC Plastic Packaging	0.0%	0.0%	60	#6 PS Plastic Products	0.0%	0.0%	355
#4 LDPE Plastic Packaging	0.0%	0.0%	143	#7 Other Plastic Products	1.2%	0.3%	8,629
#5 PP Plastic Packaging	0.4%	0.1%	3,184	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.7%	0.2%	5,009	Plastic Garbage Bags	1.3%	0.2%	9,201
#7 Other Plastic Packaging	0.5%	0.1%	3,483	Plastic Film Products	0.3%	0.1%	2,208
PLA Packaging	0.0%	0.0%	3	R/C Plastic Products	0.7%	0.3%	5,230
Plastic Merchandise Bags	0.6%	0.1%	4,115				
Non-industrial Packaging Film Plastic	1.5%	0.2%	11,346	<b>Consumer Products</b>	<b>6.8%</b>		<b>50,065</b>
Industrial Packaging Film Plastic	0.5%	0.3%	3,988	Televisions - CRT	0.4%	0.4%	3,216
R/C Plastic Packaging	0.7%	0.9%	5,356	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	74
<b>Glass</b>	<b>2.3%</b>		<b>16,670</b>	Computer Monitors - CRT	0.0%	0.1%	312
Clear Glass Containers	0.8%	0.1%	5,805	Computer Monitors - LCD	0.0%	0.1%	322
Green Glass Containers	0.4%	0.2%	3,030	Computers	0.1%	0.1%	717
Brown Glass Containers	0.6%	0.2%	4,162	Computer Peripherals	0.0%	0.0%	141
Plate Glass	0.1%	0.1%	701	Audio Equipment	0.2%	0.1%	1,150
Stoneware/Kitchen Ceramics/Glassware	0.1%	0.1%	800	Gaming Equipment	0.1%	0.1%	371
R/C Glass	0.3%	0.2%	2,172	Other Consumer Electronics	0.3%	0.2%	2,385
				Textiles - Organic	0.8%	0.2%	6,194
<b>Metal</b>	<b>6.9%</b>		<b>50,608</b>	Textiles - Synthetic	0.9%	0.2%	6,940
Aluminum Beverage Cans	0.4%	0.1%	3,085	Shoes, Purses, Belts	0.3%	0.1%	1,966
Aluminum Foil/Containers	0.1%	0.0%	916	Tires & Rubber	0.8%	0.3%	5,587
Other Aluminum	0.1%	0.1%	475	Furniture	2.6%	1.3%	18,770
Other Nonferrous	0.3%	0.2%	2,194	Mattresses	0.1%	0.1%	397
Food Cans - Tinned	0.7%	0.1%	5,045	R/C Consumer Products	0.2%	0.1%	1,524
Food Cans - Coated	0.1%	0.0%	675				
White Goods	0.9%	1.0%	6,459	<b>Hazardous/Special Wastes</b>	<b>3.7%</b>		<b>27,256</b>
Other Ferrous Metal	2.6%	1.0%	18,859	Pesticides/Herbicides	0.0%	0.0%	10
R/C Metals	1.8%	0.8%	12,902	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	67
<b>Organics</b>	<b>25.8%</b>		<b>189,406</b>	Fluorescent Tubes	0.0%	0.0%	11
Food - Vegetative	7.8%	1.0%	57,364	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	3.0%	0.6%	22,355	Latex Paint	0.3%	0.3%	2,207
Leaves & Grass	8.4%	2.1%	61,995	Solvent-based Glues	0.1%	0.1%	411
Prunings	1.4%	0.9%	9,950	Latex-based Glues	0.0%	0.0%	6
Animal Manure	2.8%	1.0%	20,344	Oil-based Paint & Solvent	0.2%	0.2%	1,261
Animal Carcasses	1.7%	2.4%	12,196	Caustic Cleaners	0.0%	0.0%	98
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	331
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	0.7%	0.4%	5,201	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	133
<b>Wood Debris</b>	<b>9.0%</b>		<b>66,179</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	0.3%	0.3%	2,550	Other Vehicle Fluids	0.0%	0.0%	12
Painted Wood	2.3%	0.8%	16,722	Oil Filters	0.2%	0.1%	1,255
Dimensional Lumber	1.8%	0.6%	13,204	Explosives	0.0%	0.0%	7
Engineered Wood	1.5%	0.5%	10,737	Medical Wastes	0.6%	0.7%	4,149
Pallets & Crates	1.7%	1.1%	12,715	Pharmaceuticals/Vitamins	0.0%	0.0%	330
Other Untreated Wood	0.4%	0.3%	2,691	Disposable Diapers	2.0%	0.5%	14,926
Wood By-Products	0.1%	0.1%	959	Other Cleaners & Soaps	0.1%	0.0%	780
R/C Wood Wastes	0.9%	0.6%	6,602	Other Hazardous	0.1%	0.1%	812
				Other Non-hazardous	0.1%	0.0%	449
<b>Construction Materials</b>	<b>11.3%</b>		<b>83,239</b>	<b>Residues</b>	<b>1.5%</b>		<b>11,215</b>
Natural Wood	0.2%	0.2%	1,611	Ash	0.0%	0.0%	15
Insulation	0.1%	0.1%	1,051	Dust	0.1%	0.0%	632
Asphalt Paving	0.0%	0.0%	0	Fines	1.0%	0.3%	7,085
Concrete	1.0%	0.7%	7,185	Sludge/Special Industrial	0.5%	0.8%	3,483
Drywall	1.9%	1.5%	13,966				
Carpet	2.3%	1.2%	16,807	<b>Totals</b>	<b>100.0%</b>		<b>734,627</b>
Carpet Padding	0.3%	0.2%	2,360	<b>Sample Count</b>	<b>151</b>		
Soil, Rocks, Sand	1.8%	0.9%	13,498				
Asphalt Roofing	0.4%	0.5%	3,295				
Plastic Flooring	0.1%	0.1%	733				
Ceramics & Brick	0.8%	0.7%	5,664				
R/C Construction Materials	2.3%	1.1%	17,069				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

**Table 33: East WGA Commercial Disposed Waste  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>12.4%</b>		<b>30,412</b>	<b>Paper Products</b>	<b>15.9%</b>		<b>39,135</b>
Newspaper Packaging	0.1%	0.2%	252	Newspaper	1.8%	0.8%	4,309
Cardboard/Kraft Paper Packaging	6.0%	1.3%	14,833	Cardboard/Kraft Paper Products	0.3%	0.5%	753
Other Groundwood Paper Packaging	0.2%	0.1%	377	Magazines	2.5%	2.2%	6,194
Mixed/Low Grade Paper Packaging	2.2%	0.8%	5,450	High-Grade Paper Products	3.6%	3.5%	8,798
Compostable Paper Packaging	2.1%	1.1%	5,273	Other Groundwood Paper Products	0.2%	0.1%	378
R/C Paper Packaging	1.7%	1.7%	4,226	Mixed Low Grade Paper Products	3.4%	1.5%	8,301
				Compostable Paper Products	3.6%	1.0%	8,908
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.6%	0.3%	1,493
<b>Plastic Packaging</b>	<b>9.3%</b>		<b>22,999</b>	<b>Plastic Products</b>	<b>4.3%</b>		<b>10,679</b>
#1 PETE Plastic Bottles	0.9%	0.3%	2,211	#1 PETE Plastic Products	0.0%	0.0%	19
#1 PETE Plastic Non-bottles	0.3%	0.1%	733	#2 HDPE Plastic Products	0.4%	0.5%	951
#2 HDPE Plastic Natural Bottles	0.2%	0.1%	393	#3 PVC Plastic Products	0.0%	0.0%	21
#2 HDPE Plastic Colored Bottles	0.4%	0.2%	912	#4 LDPE Plastic Products	0.0%	0.0%	1
#2 HDPE Plastic Jars & Tubs	0.4%	0.2%	926	#5 PP Plastic Products	0.1%	0.1%	150
#3 PVC Plastic Packaging	0.0%	0.0%	5	#6 PS Plastic Products	0.0%	0.0%	70
#4 LDPE Plastic Packaging	0.0%	0.0%	41	#7 Other Plastic Products	0.9%	0.5%	2,176
#5 PP Plastic Packaging	0.5%	0.3%	1,206	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	1.3%	0.5%	3,100	Plastic Garbage Bags	1.7%	0.4%	4,110
#7 Other Plastic Packaging	0.4%	0.1%	950	Plastic Film Products	0.3%	0.2%	622
PLA Packaging	0.0%	0.0%	0	R/C Plastic Products	1.0%	0.6%	2,560
Plastic Merchandise Bags	0.4%	0.1%	951				
Non-industrial Packaging Film Plastic	1.6%	0.5%	4,028	<b>Consumer Products</b>	<b>6.1%</b>		<b>14,928</b>
Industrial Packaging Film Plastic	1.2%	0.8%	2,978	Televisions - CRT	0.6%	1.0%	1,446
R/C Plastic Packaging	1.9%	2.7%	4,564	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	0
<b>Glass</b>	<b>2.1%</b>		<b>5,077</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	0.7%	0.2%	1,841	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.5%	0.3%	1,125	Computers	0.0%	0.0%	0
Brown Glass Containers	0.5%	0.3%	1,294	Computer Peripherals	0.0%	0.1%	116
Plate Glass	0.2%	0.3%	481	Audio Equipment	0.1%	0.1%	157
Stoneware/Kitchen Ceramics/Glassware	0.0%	0.0%	40	Gaming Equipment	0.0%	0.0%	0
R/C Glass	0.1%	0.1%	294	Other Consumer Electronics	0.1%	0.1%	238
				Textiles - Organic	0.5%	0.3%	1,210
<b>Metal</b>	<b>8.6%</b>		<b>21,227</b>	Textiles - Synthetic	0.7%	0.4%	1,666
Aluminum Beverage Cans	0.3%	0.1%	820	Shoes, Purses, Belts	0.3%	0.2%	622
Aluminum Foil/Containers	0.1%	0.0%	254	Tires & Rubber	0.9%	0.6%	2,115
Other Aluminum	0.2%	0.2%	370	Furniture	2.8%	2.9%	6,832
Other Nonferrous	0.5%	0.7%	1,178	Mattresses	0.0%	0.0%	0
Food Cans - Tinned	0.5%	0.3%	1,286	R/C Consumer Products	0.2%	0.2%	527
Food Cans - Coated	0.0%	0.0%	92				
White Goods	0.0%	0.0%	22	<b>Hazardous/Special Wastes</b>	<b>3.0%</b>		<b>7,389</b>
Other Ferrous Metal	4.9%	2.8%	12,060	Pesticides/Herbicides	0.0%	0.0%	10
R/C Metals	2.1%	1.3%	5,146	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	0
<b>Organics</b>	<b>18.6%</b>		<b>45,878</b>	Fluorescent Tubes	0.0%	0.0%	11
Food - Vegetative	8.8%	2.5%	21,560	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	4.1%	1.6%	10,136	Latex Paint	0.1%	0.2%	338
Leaves & Grass	4.3%	2.6%	10,681	Solvent-based Glues	0.1%	0.2%	363
Prunings	0.9%	1.4%	2,240	Latex-based Glues	0.0%	0.0%	6
Animal Manure	0.3%	0.3%	801	Oil-based Paint & Solvent	0.0%	0.0%	14
Animal Carcasses	0.0%	0.0%	0	Caustic Cleaners	0.0%	0.0%	14
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.1%	0.1%	132
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	0.2%	0.1%	460	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	44
<b>Wood Debris</b>	<b>6.0%</b>		<b>14,869</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	0.1%	0.1%	303	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	0.7%	0.4%	1,741	Oil Filters	0.5%	0.4%	1,137
Dimensional Lumber	0.5%	0.3%	1,326	Explosives	0.0%	0.0%	1
Engineered Wood	0.4%	0.4%	970	Medical Wastes	1.5%	2.0%	3,608
Pallets & Crates	3.0%	2.8%	7,443	Pharmaceuticals/Vitamins	0.0%	0.0%	17
Other Untreated Wood	0.1%	0.1%	260	Disposable Diapers	0.3%	0.2%	707
Wood By-Products	0.2%	0.4%	595	Other Cleaners & Soaps	0.1%	0.0%	155
R/C Wood Debris	0.9%	1.0%	2,231	Other Hazardous	0.2%	0.2%	591
				Other Non-hazardous	0.1%	0.1%	240
<b>Construction Materials</b>	<b>13.1%</b>		<b>32,124</b>	<b>Residues</b>	<b>0.6%</b>		<b>1,442</b>
Natural Wood	0.0%	0.0%	46	Ash	0.0%	0.0%	15
Insulation	0.0%	0.0%	4	Dust	0.1%	0.1%	146
Asphalt Paving	0.0%	0.0%	0	Fines	0.5%	0.3%	1,281
Concrete	1.8%	2.1%	4,495	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	3.0%	4.4%	7,357				
Carpet	3.1%	2.4%	7,642	<b>Totals</b>	<b>100.0%</b>		<b>246,159</b>
Carpet Padding	0.5%	0.5%	1,137	<b>Sample Count</b>	<b>48</b>		
Soil, Rocks, Sand	0.3%	0.3%	705				
Asphalt Roofing	0.0%	0.0%	13				
Plastic Flooring	0.1%	0.2%	277				
Ceramics & Brick	1.5%	2.0%	3,592				
R/C Construction Materials	2.8%	2.3%	6,856				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.



**Table 34: East WGA Residential Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>11.5%</b>		<b>37,241</b>	<b>Paper Products</b>	<b>13.9%</b>		<b>45,019</b>
Newspaper Packaging	0.1%	0.2%	374	Newspaper	2.4%	0.4%	7,892
Cardboard/Kraft Paper Packaging	4.5%	1.9%	14,654	Cardboard/Kraft Paper Products	0.0%	0.0%	0
Other Groundwood Paper Packaging	0.3%	0.1%	924	Magazines	1.8%	0.7%	5,919
Mixed/Low Grade Paper Packaging	4.5%	0.7%	14,433	High-Grade Paper Products	0.8%	0.3%	2,582
Compostable Paper Packaging	1.2%	0.3%	3,916	Other Groundwood Paper Products	0.8%	0.3%	2,542
R/C Paper Packaging	0.9%	0.2%	2,941	Mixed Low Grade Paper Products	3.4%	0.6%	11,053
				Compostable Paper Products	4.1%	0.7%	13,198
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.6%	0.3%	1,833
<b>Plastic Packaging</b>	<b>8.2%</b>		<b>26,417</b>	<b>Plastic Products</b>	<b>3.4%</b>		<b>11,011</b>
#1 PETE Plastic Bottles	1.1%	0.1%	3,653	#1 PETE Plastic Products	0.0%	0.0%	14
#1 PETE Plastic Non-bottles	0.4%	0.1%	1,450	#2 HDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Natural Bottles	0.4%	0.1%	1,432	#3 PVC Plastic Products	0.0%	0.0%	18
#2 HDPE Plastic Colored Bottles	0.6%	0.1%	2,051	#4 LDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	0.2%	0.1%	727	#5 PP Plastic Products	0.0%	0.0%	53
#3 PVC Plastic Packaging	0.0%	0.0%	53	#6 PS Plastic Products	0.1%	0.0%	196
#4 LDPE Plastic Packaging	0.0%	0.0%	82	#7 Other Plastic Products	0.9%	0.3%	2,958
#5 PP Plastic Packaging	0.6%	0.1%	1,842	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.5%	0.1%	1,691	Plastic Garbage Bags	1.4%	0.2%	4,665
#7 Other Plastic Packaging	0.7%	0.1%	2,362	Plastic Film Products	0.3%	0.1%	985
PLA Packaging	0.0%	0.0%	3	R/C Plastic Products	0.7%	0.3%	2,121
Plastic Merchandise Bags	1.0%	0.1%	3,086				
Non-industrial Packaging Film Plastic	2.2%	0.2%	7,016	<b>Consumer Products</b>	<b>4.5%</b>		<b>14,521</b>
Industrial Packaging Film Plastic	0.2%	0.1%	495	Televisions - CRT	0.1%	0.1%	268
R/C Plastic Packaging	0.1%	0.1%	475	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	74
<b>Glass</b>	<b>3.1%</b>		<b>10,168</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	1.1%	0.2%	3,659	Computer Monitors - LCD	0.1%	0.2%	322
Green Glass Containers	0.6%	0.3%	1,899	Computers	0.1%	0.2%	464
Brown Glass Containers	0.8%	0.2%	2,647	Computer Peripherals	0.0%	0.0%	10
Plate Glass	0.0%	0.0%	139	Audio Equipment	0.2%	0.1%	511
Stoneware/Kitchen Ceramics/Glassware	0.2%	0.1%	693	Gaming Equipment	0.1%	0.1%	298
R/C Glass	0.3%	0.2%	1,132	Other Consumer Electronics	0.4%	0.2%	1,162
				Textiles - Organic	1.3%	0.4%	4,187
<b>Metal</b>	<b>5.3%</b>		<b>17,320</b>	Textiles - Synthetic	1.2%	0.3%	3,871
Aluminum Beverage Cans	0.7%	0.1%	2,204	Shoes, Purses, Belts	0.3%	0.1%	1,048
Aluminum Foil/Containers	0.2%	0.0%	632	Tires & Rubber	0.5%	0.4%	1,564
Other Aluminum	0.0%	0.0%	88	Furniture	0.0%	0.1%	145
Other Nonferrous	0.2%	0.1%	752	Mattresses	0.0%	0.0%	0
Food Cans - Tinned	1.1%	0.2%	3,599	R/C Consumer Products	0.2%	0.2%	597
Food Cans - Coated	0.2%	0.1%	550				
White Goods	1.2%	2.0%	3,930	<b>Hazardous/Special Wastes</b>	<b>5.0%</b>		<b>16,062</b>
Other Ferrous Metal	0.9%	0.4%	2,922	Pesticides/Herbicides	0.0%	0.0%	0
R/C Metals	0.8%	0.3%	2,643	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	65
<b>Organics</b>	<b>37.7%</b>		<b>122,298</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	10.2%	1.2%	33,107	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	3.5%	0.5%	11,255	Latex Paint	0.1%	0.1%	470
Leaves & Grass	14.5%	4.2%	47,117	Solvent-based Glues	0.0%	0.0%	39
Prunings	2.3%	1.7%	7,375	Latex-based Glues	0.0%	0.0%	0
Animal Manure	5.9%	2.3%	19,045	Oil-based Paint & Solvent	0.1%	0.0%	162
Animal Carcasses	0.1%	0.1%	163	Caustic Cleaners	0.0%	0.0%	85
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.1%	0.0%	178
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	1.3%	0.8%	4,237	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	89
<b>Wood Debris</b>	<b>1.2%</b>		<b>3,796</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	0.0%	0.0%	77	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	0.5%	0.3%	1,581	Oil Filters	0.0%	0.0%	117
Dimensional Lumber	0.3%	0.1%	887	Explosives	0.0%	0.0%	6
Engineered Wood	0.2%	0.2%	591	Medical Wastes	0.1%	0.0%	180
Pallets & Crates	0.0%	0.0%	0	Pharmaceuticals/Vitamins	0.1%	0.1%	309
Other Untreated Wood	0.0%	0.0%	157	Disposable Diapers	4.1%	1.0%	13,354
Wood By-Products	0.0%	0.0%	117	Other Cleaners & Soaps	0.2%	0.1%	577
R/C Wood Debris	0.1%	0.1%	386	Other Hazardous	0.1%	0.1%	221
				Other Non-hazardous	0.1%	0.1%	209
<b>Construction Materials</b>	<b>4.4%</b>		<b>14,178</b>	<b>Residues</b>	<b>1.9%</b>		<b>6,059</b>
Natural Wood	0.5%	0.5%	1,487	Ash	0.0%	0.0%	0
Insulation	0.0%	0.0%	18	Dust	0.1%	0.1%	441
Asphalt Paving	0.0%	0.0%	0	Fines	1.7%	0.6%	5,618
Concrete	0.4%	0.3%	1,268	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	0.1%	0.1%	378				
Carpet	0.4%	0.3%	1,239	<b>Totals</b>	<b>100.0%</b>		<b>324,090</b>
Carpet Padding	0.2%	0.2%	615	<b>Sample Count</b>	<b>45</b>		
Soil, Rocks, Sand	2.2%	1.2%	7,182				
Asphalt Roofing	0.0%	0.1%	130				
Plastic Flooring	0.0%	0.0%	82				
Ceramics & Brick	0.2%	0.2%	758				
R/C Construction Materials	0.3%	0.3%	1,021				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

**Table 35: East WGA Self-hauled C&D Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>4.8%</b>		<b>3,438</b>	<b>Paper Products</b>	<b>0.3%</b>		<b>249</b>
Newspaper Packaging	0.0%	0.0%	0	Newspaper	0.0%	0.0%	10
Cardboard/Kraft Paper Packaging	4.1%	2.4%	2,942	Cardboard/Kraft Paper Products	0.0%	0.0%	0
Other Groundwood Paper Packaging	0.0%	0.0%	0	Magazines	0.2%	0.3%	118
Mixed/Low Grade Paper Packaging	0.2%	0.2%	177	High-Grade Paper Products	0.0%	0.0%	2
Compostable Paper Packaging	0.1%	0.2%	93	Other Groundwood Paper Products	0.0%	0.0%	0
R/C Paper Packaging	0.3%	0.4%	226	Mixed Low Grade Paper Products	0.0%	0.0%	3
				Compostable Paper Products	0.0%	0.0%	21
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.1%	0.2%	94
<b>Plastic Packaging</b>	<b>1.2%</b>		<b>858</b>	<b>Plastic Products</b>	<b>2.3%</b>		<b>1,660</b>
#1 PETE Plastic Bottles	0.0%	0.0%	5	#1 PETE Plastic Products	0.0%	0.0%	0
#1 PETE Plastic Non-bottles	0.0%	0.0%	11	#2 HDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Natural Bottles	0.0%	0.0%	3	#3 PVC Plastic Products	0.1%	0.1%	46
#2 HDPE Plastic Colored Bottles	0.0%	0.0%	2	#4 LDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	0.0%	0.1%	31	#5 PP Plastic Products	0.0%	0.0%	22
#3 PVC Plastic Packaging	0.0%	0.0%	0	#6 PS Plastic Products	0.0%	0.0%	0
#4 LDPE Plastic Packaging	0.0%	0.0%	15	#7 Other Plastic Products	1.7%	1.2%	1,193
#5 PP Plastic Packaging	0.0%	0.0%	0	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.0%	0.0%	16	Plastic Garbage Bags	0.1%	0.1%	73
#7 Other Plastic Packaging	0.0%	0.0%	25	Plastic Film Products	0.2%	0.3%	127
PLA Packaging	0.0%	0.0%	0	R/C Plastic Products	0.3%	0.5%	199
Plastic Merchandise Bags	0.0%	0.0%	1				
Non-industrial Packaging Film Plastic	0.1%	0.1%	38	<b>Consumer Products</b>	<b>5.2%</b>		<b>3,736</b>
Industrial Packaging Film Plastic	0.6%	0.5%	462	Televisions - CRT	0.0%	0.0%	0
R/C Plastic Packaging	0.3%	0.5%	250	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	0
<b>Glass</b>	<b>0.9%</b>		<b>631</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	0.0%	0.0%	0	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.0%	0.0%	0	Computers	0.4%	0.6%	253
Brown Glass Containers	0.0%	0.0%	0	Computer Peripherals	0.0%	0.0%	0
Plate Glass	0.0%	0.0%	0	Audio Equipment	0.0%	0.0%	0
Stoneware/Kitchen Ceramics/Glassware	0.0%	0.0%	0	Gaming Equipment	0.0%	0.0%	0
R/C Glass	0.9%	1.5%	631	Other Consumer Electronics	0.0%	0.0%	0
				Textiles - Organic	0.1%	0.2%	101
<b>Metal</b>	<b>4.2%</b>		<b>2,982</b>	Textiles - Synthetic	0.0%	0.0%	0
Aluminum Beverage Cans	0.0%	0.0%	7	Shoes, Purses, Belts	0.0%	0.0%	0
Aluminum Foil/Containers	0.0%	0.0%	0	Tires & Rubber	1.1%	1.4%	794
Other Aluminum	0.0%	0.0%	16	Furniture	3.1%	4.3%	2,192
Other Nonferrous	0.3%	0.2%	191	Mattresses	0.6%	0.9%	397
Food Cans - Tinned	0.0%	0.1%	33	R/C Consumer Products	0.0%	0.0%	0
Food Cans - Coated	0.0%	0.0%	0				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>0.3%</b>		<b>234</b>
Other Ferrous Metal	2.8%	1.3%	2,039	Pesticides/Herbicides	0.0%	0.0%	0
R/C Metals	1.0%	1.3%	695	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	0
<b>Organics</b>	<b>2.0%</b>		<b>1,421</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	0.0%	0.1%	24	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	0.0%	0.0%	5	Latex Paint	0.3%	0.5%	234
Leaves & Grass	1.6%	1.8%	1,143	Solvent-based Glues	0.0%	0.0%	0
Prunings	0.3%	0.6%	243	Latex-based Glues	0.0%	0.0%	0
Animal Manure	0.0%	0.0%	0	Oil-based Paint & Solvent	0.0%	0.0%	0
Animal Carcasses	0.0%	0.0%	0	Caustic Cleaners	0.0%	0.0%	0
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	0
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	0.0%	0.0%	6	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	0
<b>Wood Debris</b>	<b>48.5%</b>		<b>34,783</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	1.4%	0.9%	1,007	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	13.0%	6.4%	9,307	Oil Filters	0.0%	0.0%	0
Dimensional Lumber	11.1%	5.0%	7,953	Explosives	0.0%	0.0%	0
Engineered Wood	11.5%	4.5%	8,256	Medical Wastes	0.0%	0.0%	0
Pallets & Crates	5.2%	5.1%	3,755	Pharmaceuticals/Vitamins	0.0%	0.0%	0
Other Untreated Wood	2.3%	2.2%	1,644	Disposable Diapers	0.0%	0.0%	0
Wood By-Products	0.3%	0.3%	219	Other Cleaners & Soaps	0.0%	0.0%	1
R/C Wood Debris	3.7%	4.5%	2,641	Other Hazardous	0.0%	0.0%	0
				Other Non-hazardous	0.0%	0.0%	0
<b>Construction Materials</b>	<b>30.3%</b>		<b>21,727</b>	<b>Residues</b>	<b>0.0%</b>		<b>15</b>
Natural Wood	0.0%	0.1%	32	Ash	0.0%	0.0%	0
Insulation	1.0%	1.3%	692	Dust	0.0%	0.0%	0
Asphalt Paving	0.0%	0.0%	0	Fines	0.0%	0.0%	15
Concrete	0.9%	1.1%	631	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	7.7%	4.4%	5,491				
Carpet	6.2%	6.2%	4,451	<b>Totals</b>	<b>100.0%</b>		<b>71,735</b>
Carpet Padding	0.3%	0.3%	185	<b>Sample Count</b>	<b>29</b>		
Soil, Rocks, Sand	2.0%	3.3%	1,445				
Asphalt Roofing	4.2%	4.9%	3,013				
Plastic Flooring	0.2%	0.2%	149				
Ceramics & Brick	0.7%	0.9%	468				
R/C Construction Materials	7.2%	5.6%	5,170				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.



**Table 36: East WGA Self-hauled Other Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>2.9%</b>		<b>2,673</b>	<b>Paper Products</b>	<b>3.3%</b>		<b>3,062</b>
Newspaper Packaging	0.0%	0.0%	9	Newspaper	0.2%	0.1%	191
Cardboard/Kraft Paper Packaging	1.8%	1.1%	1,706	Cardboard/Kraft Paper Products	0.0%	0.0%	0
Other Groundwood Paper Packaging	0.0%	0.1%	38	Magazines	0.3%	0.2%	260
Mixed/Low Grade Paper Packaging	0.7%	0.4%	650	High-Grade Paper Products	0.6%	0.7%	587
Compostable Paper Packaging	0.1%	0.0%	58	Other Groundwood Paper Products	0.2%	0.3%	162
R/C Paper Packaging	0.2%	0.1%	212	Mixed Low Grade Paper Products	0.6%	0.4%	601
				Compostable Paper Products	1.1%	0.8%	1,001
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.3%	0.2%	261
<b>Plastic Packaging</b>	<b>1.5%</b>		<b>1,415</b>	<b>Plastic Products</b>	<b>4.0%</b>		<b>3,720</b>
#1 PETE Plastic Bottles	0.1%	0.1%	117	#1 PETE Plastic Products	0.0%	0.0%	1
#1 PETE Plastic Non-bottles	0.1%	0.1%	63	#2 HDPE Plastic Products	0.1%	0.2%	117
#2 HDPE Plastic Natural Bottles	0.0%	0.0%	31	#3 PVC Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Colored Bottles	0.1%	0.1%	74	#4 LDPE Plastic Products	0.0%	0.0%	5
#2 HDPE Plastic Jars & Tubs	0.2%	0.2%	176	#5 PP Plastic Products	0.0%	0.0%	30
#3 PVC Plastic Packaging	0.0%	0.0%	2	#6 PS Plastic Products	0.1%	0.1%	89
#4 LDPE Plastic Packaging	0.0%	0.0%	5	#7 Other Plastic Products	2.5%	1.9%	2,301
#5 PP Plastic Packaging	0.1%	0.1%	137	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.2%	0.3%	202	Plastic Garbage Bags	0.4%	0.3%	353
#7 Other Plastic Packaging	0.2%	0.1%	147	Plastic Film Products	0.5%	0.6%	475
PLA Packaging	0.0%	0.0%	0	R/C Plastic Products	0.4%	0.2%	350
Plastic Merchandise Bags	0.1%	0.1%	77				
Non-industrial Packaging Film Plastic	0.3%	0.2%	264	<b>Consumer Products</b>	<b>18.2%</b>		<b>16,880</b>
Industrial Packaging Film Plastic	0.1%	0.1%	53	Televisions - CRT	1.6%	1.8%	1,502
R/C Plastic Packaging	0.1%	0.1%	67	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	0
<b>Glass</b>	<b>0.9%</b>		<b>794</b>	Computer Monitors - CRT	0.3%	0.6%	312
Clear Glass Containers	0.3%	0.3%	304	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.0%	0.0%	6	Computers	0.0%	0.0%	0
Brown Glass Containers	0.2%	0.2%	220	Computer Peripherals	0.0%	0.0%	15
Plate Glass	0.1%	0.1%	81	Audio Equipment	0.5%	0.5%	482
Stoneware/Kitchen Ceramics/Glassware	0.1%	0.1%	67	Gaming Equipment	0.1%	0.1%	73
R/C Glass	0.1%	0.2%	115	Other Consumer Electronics	1.1%	1.0%	984
				Textiles - Organic	0.8%	0.6%	696
<b>Metal</b>	<b>9.8%</b>		<b>9,079</b>	Textiles - Synthetic	1.5%	1.3%	1,404
Aluminum Beverage Cans	0.1%	0.0%	55	Shoes, Purses, Belts	0.3%	0.4%	296
Aluminum Foil/Containers	0.0%	0.0%	30	Tires & Rubber	1.2%	1.3%	1,114
Other Aluminum	0.0%	0.0%	0	Furniture	10.4%	6.3%	9,602
Other Nonferrous	0.1%	0.1%	73	Mattresses	0.0%	0.0%	0
Food Cans - Tinned	0.1%	0.1%	126	R/C Consumer Products	0.4%	0.4%	399
Food Cans - Coated	0.0%	0.1%	32				
White Goods	2.7%	3.8%	2,507	<b>Hazardous/Special Wastes</b>	<b>3.9%</b>		<b>3,570</b>
Other Ferrous Metal	2.0%	1.7%	1,837	Pesticides/Herbicides	0.0%	0.0%	0
R/C Metals	4.8%	5.0%	4,418	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	2
<b>Organics</b>	<b>21.4%</b>		<b>19,808</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	2.9%	1.9%	2,673	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	1.0%	0.9%	960	Latex Paint	1.3%	2.1%	1,165
Leaves & Grass	3.3%	3.0%	3,053	Solvent-based Glues	0.0%	0.0%	9
Prunings	0.1%	0.1%	93	Latex-based Glues	0.0%	0.0%	0
Animal Manure	0.5%	0.6%	498	Oil-based Paint & Solvent	1.2%	1.9%	1,085
Animal Carcasses	13.0%	19.3%	12,034	Caustic Cleaners	0.0%	0.0%	0
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	21
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	0.5%	0.8%	498	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	0
<b>Wood Debris</b>	<b>13.7%</b>		<b>12,732</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	1.3%	1.9%	1,163	Other Vehicle Fluids	0.0%	0.0%	12
Painted Wood	4.4%	3.1%	4,093	Oil Filters	0.0%	0.0%	0
Dimensional Lumber	3.3%	2.2%	3,038	Explosives	0.0%	0.0%	0
Engineered Wood	1.0%	1.1%	919	Medical Wastes	0.4%	0.5%	361
Pallets & Crates	1.6%	1.9%	1,517	Pharmaceuticals/Vitamins	0.0%	0.0%	4
Other Untreated Wood	0.7%	1.1%	629	Disposable Diapers	0.9%	1.2%	864
Wood By-Products	0.0%	0.0%	27	Other Cleaners & Soaps	0.1%	0.1%	46
R/C Wood Debris	1.5%	2.1%	1,345	Other Hazardous	0.0%	0.0%	0
				Other Non-hazardous	0.0%	0.0%	0
<b>Construction Materials</b>	<b>16.4%</b>		<b>15,211</b>	<b>Residues</b>	<b>4.0%</b>		<b>3,699</b>
Natural Wood	0.0%	0.1%	45	Ash	0.0%	0.0%	0
Insulation	0.4%	0.6%	337	Dust	0.0%	0.1%	45
Asphalt Paving	0.0%	0.0%	0	Fines	0.2%	0.2%	171
Concrete	0.9%	0.9%	792	Sludge/Special Industrial	3.8%	6.2%	3,483
Drywall	0.8%	1.2%	739				
Carpet	3.8%	4.4%	3,475	<b>Totals</b>	<b>100.0%</b>		<b>92,643</b>
Carpet Padding	0.5%	0.5%	423	<b>Sample Count</b>	<b>29</b>		
Soil, Rocks, Sand	4.5%	5.3%	4,167				
Asphalt Roofing	0.2%	0.2%	140				
Plastic Flooring	0.2%	0.4%	226				
Ceramics & Brick	0.9%	1.3%	846				
R/C Construction Materials	4.3%	5.0%	4,022				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

## Northwest Waste Generation Area Composition Tables

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**Table 37: Northwest WGA Overall Disposed Waste Stream  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>6.6%</b>		<b>20,110</b>	<b>Paper Products</b>	<b>10.7%</b>		<b>32,856</b>
Newspaper Packaging	0.0%	0.0%	120	Newspaper	1.0%	0.5%	2,985
Cardboard/Kraft Paper Packaging	2.4%	0.6%	7,353	Cardboard/Kraft Paper Products	0.1%	0.2%	318
Other Groundwood Paper Packaging	0.1%	0.1%	359	Magazines	0.4%	0.2%	1,187
Mixed/Low Grade Paper Packaging	1.7%	0.3%	5,296	High-Grade Paper Products	0.5%	0.1%	1,545
Compostable Paper Packaging	0.8%	0.3%	2,490	Other Groundwood Paper Products	0.4%	0.4%	1,354
R/C Paper Packaging	1.5%	0.4%	4,493	Mixed Low Grade Paper Products	2.2%	0.8%	6,821
				Compostable Paper Products	5.6%	1.2%	17,268
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.4%	0.2%	1,378
<b>Plastic Packaging</b>	<b>7.5%</b>		<b>22,848</b>	<b>Plastic Products</b>	<b>4.1%</b>		<b>12,423</b>
#1 PETE Plastic Bottles	0.6%	0.1%	1,903	#1 PETE Plastic Products	0.0%	0.0%	0
#1 PETE Plastic Non-bottles	0.3%	0.1%	990	#2 HDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Natural Bottles	0.3%	0.1%	935	#3 PVC Plastic Products	0.1%	0.1%	333
#2 HDPE Plastic Colored Bottles	0.3%	0.1%	956	#4 LDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	0.3%	0.2%	881	#5 PP Plastic Products	0.0%	0.0%	120
#3 PVC Plastic Packaging	0.0%	0.0%	79	#6 PS Plastic Products	0.1%	0.1%	283
#4 LDPE Plastic Packaging	0.0%	0.0%	35	#7 Other Plastic Products	1.2%	0.4%	3,732
#5 PP Plastic Packaging	0.6%	0.3%	1,802	PLA Products	0.0%	0.0%	8
#6 PS Plastic Packaging	0.7%	0.2%	2,118	Plastic Garbage Bags	1.5%	0.3%	4,485
#7 Other Plastic Packaging	0.6%	0.1%	1,968	Plastic Film Products	0.6%	0.4%	1,709
PLA Packaging	0.1%	0.1%	202	R/C Plastic Products	0.6%	0.4%	1,754
Plastic Merchandise Bags	0.5%	0.1%	1,472				
Non-industrial Packaging Film Plastic	2.6%	0.7%	8,039	<b>Consumer Products</b>	<b>11.1%</b>		<b>34,040</b>
Industrial Packaging Film Plastic	0.4%	0.2%	1,093	Televisions - CRT	0.2%	0.3%	650
R/C Plastic Packaging	0.1%	0.1%	375	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.1%	0.2%	335
<b>Glass</b>	<b>2.1%</b>		<b>6,567</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	0.9%	0.3%	2,771	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.3%	0.2%	884	Computers	0.0%	0.0%	78
Brown Glass Containers	0.3%	0.1%	941	Computer Peripherals	0.0%	0.0%	42
Plate Glass	0.3%	0.3%	968	Audio Equipment	0.0%	0.0%	3
Stoneware/Kitchen Ceramics/Glassware	0.1%	0.1%	304	Gaming Equipment	0.0%	0.0%	24
R/C Glass	0.2%	0.2%	698	Other Consumer Electronics	0.6%	0.5%	1,787
				Textiles - Organic	4.0%	3.3%	12,120
<b>Metal</b>	<b>4.2%</b>		<b>12,936</b>	Textiles - Synthetic	1.9%	1.5%	5,738
Aluminum Beverage Cans	0.3%	0.1%	865	Shoes, Purses, Belts	0.5%	0.2%	1,404
Aluminum Foil/Containers	0.2%	0.1%	554	Tires & Rubber	0.4%	0.3%	1,287
Other Aluminum	0.0%	0.0%	39	Furniture	3.1%	2.9%	9,509
Other Nonferrous	0.0%	0.0%	148	Mattresses	0.1%	0.2%	452
Food Cans - Tinned	0.6%	0.1%	1,696	R/C Consumer Products	0.2%	0.2%	609
Food Cans - Coated	0.1%	0.1%	303				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>2.7%</b>		<b>8,415</b>
Other Ferrous Metal	1.8%	1.1%	5,442	Pesticides/Herbicides	0.0%	0.0%	0
R/C Metals	1.3%	0.6%	3,888	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	0
<b>Organics</b>	<b>30.0%</b>		<b>91,831</b>	Fluorescent Tubes	0.0%	0.0%	2
Food - Vegetative	13.5%	2.4%	41,407	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	6.0%	1.9%	18,384	Latex Paint	0.0%	0.0%	96
Leaves & Grass	4.0%	1.5%	12,149	Solvent-based Glues	0.0%	0.0%	89
Prunings	1.2%	1.0%	3,558	Latex-based Glues	0.0%	0.0%	51
Animal Manure	4.8%	2.2%	14,676	Oil-based Paint & Solvent	0.0%	0.0%	16
Animal Carcasses	0.0%	0.0%	0	Caustic Cleaners	0.0%	0.0%	0
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	123
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	0.5%	0.3%	1,657	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	0
<b>Wood Debris</b>	<b>10.4%</b>		<b>31,961</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	0.6%	0.6%	1,847	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	4.4%	2.5%	13,600	Oil Filters	0.0%	0.0%	10
Dimensional Lumber	1.3%	1.1%	3,843	Explosives	0.0%	0.0%	13
Engineered Wood	0.6%	0.4%	1,921	Medical Wastes	0.2%	0.3%	708
Pallets & Crates	1.2%	1.3%	3,588	Pharmaceuticals/Vitamins	0.0%	0.0%	19
Other Untreated Wood	1.1%	1.0%	3,304	Disposable Diapers	2.2%	0.6%	6,700
Wood By-Products	0.4%	0.4%	1,237	Other Cleaners & Soaps	0.1%	0.0%	197
R/C Wood Wastes	0.9%	0.8%	2,621	Other Hazardous	0.0%	0.0%	0
				Other Non-hazardous	0.1%	0.1%	392
<b>Construction Materials</b>	<b>9.3%</b>		<b>28,602</b>	<b>Residues</b>	<b>1.2%</b>		<b>3,600</b>
Natural Wood	0.0%	0.0%	6	Ash	0.1%	0.2%	414
Insulation	1.5%	2.2%	4,633	Dust	0.4%	0.4%	1,169
Asphalt Paving	1.3%	2.1%	4,068	Fines	0.7%	0.5%	2,016
Concrete	0.3%	0.4%	801	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	0.7%	0.7%	2,102				
Carpet	1.1%	1.4%	3,366	<b>Totals</b>	<b>100.0%</b>		<b>306,189</b>
Carpet Padding	0.0%	0.0%	0	<b>Sample Count</b>	<b>52</b>		
Soil, Rocks, Sand	0.2%	0.3%	721				
Asphalt Roofing	1.3%	1.2%	3,960				
Plastic Flooring	0.0%	0.0%	55				
Ceramics & Brick	0.9%	1.0%	2,718				
R/C Construction Materials	2.0%	1.7%	6,170				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

**Table 38: Northwest WGA Commercial Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>7.0%</b>		<b>9,207</b>	<b>Paper Products</b>	<b>13.6%</b>		<b>18,013</b>
Newspaper Packaging	0.1%	0.1%	110	Newspaper	0.7%	0.4%	876
Cardboard/Kraft Paper Packaging	2.4%	0.9%	3,128	Cardboard/Kraft Paper Products	0.2%	0.4%	307
Other Groundwood Paper Packaging	0.1%	0.1%	74	Magazines	0.2%	0.3%	217
Mixed/Low Grade Paper Packaging	1.5%	0.5%	1,971	High-Grade Paper Products	0.6%	0.2%	798
Compostable Paper Packaging	1.2%	0.7%	1,620	Other Groundwood Paper Products	0.1%	0.1%	113
R/C Paper Packaging	1.7%	0.8%	2,304	Mixed Low Grade Paper Products	2.4%	1.6%	3,218
				Compostable Paper Products	8.6%	2.6%	11,431
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.8%	0.5%	1,052
<b>Plastic Packaging</b>	<b>8.7%</b>		<b>11,582</b>	<b>Plastic Products</b>	<b>4.9%</b>		<b>6,465</b>
#1 PETE Plastic Bottles	0.8%	0.3%	1,005	#1 PETE Plastic Products	0.0%	0.0%	0
#1 PETE Plastic Non-bottles	0.4%	0.2%	494	#2 HDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Natural Bottles	0.4%	0.2%	518	#3 PVC Plastic Products	0.2%	0.3%	263
#2 HDPE Plastic Colored Bottles	0.3%	0.1%	355	#4 LDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	0.5%	0.4%	672	#5 PP Plastic Products	0.0%	0.0%	62
#3 PVC Plastic Packaging	0.0%	0.0%	0	#6 PS Plastic Products	0.1%	0.1%	112
#4 LDPE Plastic Packaging	0.0%	0.0%	25	#7 Other Plastic Products	1.0%	0.5%	1,266
#5 PP Plastic Packaging	0.8%	0.6%	1,105	PLA Products	0.0%	0.0%	8
#6 PS Plastic Packaging	0.8%	0.3%	1,010	Plastic Garbage Bags	2.1%	0.7%	2,757
#7 Other Plastic Packaging	0.6%	0.3%	858	Plastic Film Products	0.7%	0.6%	963
PLA Packaging	0.1%	0.1%	178	R/C Plastic Products	0.8%	0.8%	1,035
Plastic Merchandise Bags	0.3%	0.1%	337				
Non-industrial Packaging Film Plastic	3.2%	1.4%	4,293	<b>Consumer Products</b>	<b>18.7%</b>		<b>24,726</b>
Industrial Packaging Film Plastic	0.4%	0.3%	536	Televisions - CRT	0.0%	0.0%	0
R/C Plastic Packaging	0.1%	0.1%	196	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	11
<b>Glass</b>	<b>1.8%</b>		<b>2,430</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	0.8%	0.5%	1,042	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.3%	0.2%	412	Computers	0.1%	0.1%	67
Brown Glass Containers	0.3%	0.3%	387	Computer Peripherals	0.0%	0.0%	42
Plate Glass	0.0%	0.0%	0	Audio Equipment	0.0%	0.0%	0
Stoneware/Kitchen Ceramics/Glassware	0.0%	0.0%	21	Gaming Equipment	0.0%	0.0%	0
R/C Glass	0.4%	0.5%	568	Other Consumer Electronics	1.0%	1.1%	1,347
				Textiles - Organic	6.3%	7.6%	8,300
<b>Metal</b>	<b>5.0%</b>		<b>6,666</b>	Textiles - Synthetic	3.2%	3.4%	4,270
Aluminum Beverage Cans	0.2%	0.1%	329	Shoes, Purses, Belts	0.4%	0.4%	559
Aluminum Foil/Containers	0.2%	0.2%	285	Tires & Rubber	0.3%	0.2%	440
Other Aluminum	0.0%	0.0%	39	Furniture	7.0%	6.8%	9,299
Other Nonferrous	0.0%	0.0%	28	Mattresses	0.0%	0.0%	0
Food Cans - Tinned	0.6%	0.3%	768	R/C Consumer Products	0.3%	0.4%	389
Food Cans - Coated	0.1%	0.1%	117				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>1.2%</b>		<b>1,547</b>
Other Ferrous Metal	2.9%	2.5%	3,818	Pesticides/Herbicides	0.0%	0.0%	0
R/C Metals	1.0%	0.5%	1,282	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	0
<b>Organics</b>	<b>24.7%</b>		<b>32,745</b>	Fluorescent Tubes	0.0%	0.0%	2
Food - Vegetative	14.7%	4.7%	19,476	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	8.2%	4.2%	10,866	Latex Paint	0.1%	0.1%	87
Leaves & Grass	1.0%	1.3%	1,278	Solvent-based Glues	0.0%	0.0%	0
Prunings	0.0%	0.0%	32	Latex-based Glues	0.0%	0.0%	0
Animal Manure	0.6%	0.8%	728	Oil-based Paint & Solvent	0.0%	0.0%	0
Animal Carcasses	0.0%	0.0%	0	Caustic Cleaners	0.0%	0.0%	0
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.1%	0.1%	88
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	0.3%	0.3%	364	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	0
<b>Wood Debris</b>	<b>9.0%</b>		<b>11,973</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	0.3%	0.5%	371	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	2.8%	4.5%	3,686	Oil Filters	0.0%	0.0%	0
Dimensional Lumber	0.2%	0.2%	202	Explosives	0.0%	0.0%	0
Engineered Wood	0.6%	0.9%	829	Medical Wastes	0.5%	0.7%	704
Pallets & Crates	2.7%	3.0%	3,531	Pharmaceuticals/Vitamins	0.0%	0.0%	0
Other Untreated Wood	0.7%	1.2%	986	Disposable Diapers	0.5%	0.4%	641
Wood By-Products	0.3%	0.6%	453	Other Cleaners & Soaps	0.0%	0.0%	11
R/C Wood Debris	1.4%	1.8%	1,916	Other Hazardous	0.0%	0.0%	0
				Other Non-hazardous	0.0%	0.0%	14
<b>Construction Materials</b>	<b>4.7%</b>		<b>6,217</b>	<b>Residues</b>	<b>0.6%</b>		<b>808</b>
Natural Wood	0.0%	0.0%	0	Ash	0.0%	0.0%	0
Insulation	3.1%	5.2%	4,151	Dust	0.1%	0.1%	85
Asphalt Paving	0.0%	0.0%	0	Fines	0.5%	0.5%	723
Concrete	0.6%	1.0%	801	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	0.0%	0.0%	0				
Carpet	0.2%	0.3%	265	<b>Totals</b>	<b>100.0%</b>		<b>132,378</b>
Carpet Padding	0.0%	0.0%	0	<b>Sample Count</b>	<b>16</b>		
Soil, Rocks, Sand	0.0%	0.0%	0				
Asphalt Roofing	0.1%	0.2%	138				
Plastic Flooring	0.0%	0.0%	0				
Ceramics & Brick	0.3%	0.5%	453				
R/C Construction Materials	0.3%	0.5%	410				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

**Table 39: Northwest WGA Residential Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>7.6%</b>		<b>8,434</b>	<b>Paper Products</b>	<b>9.9%</b>		<b>10,980</b>
Newspaper Packaging	0.0%	0.0%	0	Newspaper	1.0%	0.6%	1,142
Cardboard/Kraft Paper Packaging	2.3%	0.7%	2,502	Cardboard/Kraft Paper Products	0.0%	0.0%	0
Other Groundwood Paper Packaging	0.3%	0.2%	278	Magazines	0.4%	0.3%	441
Mixed/Low Grade Paper Packaging	2.7%	0.7%	2,959	High-Grade Paper Products	0.6%	0.3%	689
Compostable Paper Packaging	0.8%	0.5%	834	Other Groundwood Paper Products	0.3%	0.3%	281
R/C Paper Packaging	1.7%	0.7%	1,861	Mixed Low Grade Paper Products	2.6%	0.9%	2,902
				Compostable Paper Products	4.9%	1.0%	5,411
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.1%	0.1%	114
<b>Plastic Packaging</b>	<b>8.2%</b>		<b>9,074</b>	<b>Plastic Products</b>	<b>2.9%</b>		<b>3,271</b>
#1 PETE Plastic Bottles	0.6%	0.1%	642	#1 PETE Plastic Products	0.0%	0.0%	0
#1 PETE Plastic Non-bottles	0.4%	0.1%	449	#2 HDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Natural Bottles	0.3%	0.1%	343	#3 PVC Plastic Products	0.0%	0.0%	28
#2 HDPE Plastic Colored Bottles	0.4%	0.2%	421	#4 LDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	0.1%	0.1%	146	#5 PP Plastic Products	0.0%	0.0%	54
#3 PVC Plastic Packaging	0.1%	0.1%	79	#6 PS Plastic Products	0.1%	0.1%	142
#4 LDPE Plastic Packaging	0.0%	0.0%	9	#7 Other Plastic Products	0.8%	0.2%	907
#5 PP Plastic Packaging	0.5%	0.1%	533	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.8%	0.4%	848	Plastic Garbage Bags	1.2%	0.2%	1,286
#7 Other Plastic Packaging	0.8%	0.1%	904	Plastic Film Products	0.7%	0.9%	735
PLA Packaging	0.0%	0.0%	15	R/C Plastic Products	0.1%	0.1%	118
Plastic Merchandise Bags	0.9%	0.2%	1,052				
Non-industrial Packaging Film Plastic	2.7%	0.4%	3,038	<b>Consumer Products</b>	<b>4.6%</b>		<b>5,131</b>
Industrial Packaging Film Plastic	0.4%	0.4%	432	Televisions - CRT	0.0%	0.0%	0
R/C Plastic Packaging	0.1%	0.1%	163	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	0
<b>Glass</b>	<b>2.0%</b>		<b>2,256</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	1.1%	0.5%	1,209	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.3%	0.2%	291	Computers	0.0%	0.0%	11
Brown Glass Containers	0.4%	0.2%	434	Computer Peripherals	0.0%	0.0%	0
Plate Glass	0.0%	0.1%	47	Audio Equipment	0.0%	0.0%	3
Stoneware/Kitchen Ceramics/Glassware	0.2%	0.2%	205	Gaming Equipment	0.0%	0.0%	24
R/C Glass	0.1%	0.1%	70	Other Consumer Electronics	0.1%	0.1%	94
				Textiles - Organic	2.2%	1.2%	2,458
<b>Metal</b>	<b>3.0%</b>		<b>3,296</b>	Textiles - Synthetic	1.0%	0.5%	1,081
Aluminum Beverage Cans	0.4%	0.1%	468	Shoes, Purses, Belts	0.5%	0.4%	506
Aluminum Foil/Containers	0.2%	0.1%	222	Tires & Rubber	0.5%	0.7%	609
Other Aluminum	0.0%	0.0%	0	Furniture	0.2%	0.3%	210
Other Nonferrous	0.1%	0.1%	84	Mattresses	0.0%	0.0%	0
Food Cans - Tinned	0.6%	0.2%	696	R/C Consumer Products	0.1%	0.2%	134
Food Cans - Coated	0.1%	0.1%	154				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>5.2%</b>		<b>5,786</b>
Other Ferrous Metal	1.2%	0.7%	1,297	Pesticides/Herbicides	0.0%	0.0%	0
R/C Metals	0.3%	0.2%	374	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	0
<b>Organics</b>	<b>49.2%</b>		<b>54,530</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	17.9%	3.3%	19,880	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	6.2%	1.3%	6,891	Latex Paint	0.0%	0.0%	0
Leaves & Grass	8.3%	3.5%	9,152	Solvent-based Glues	0.0%	0.0%	21
Prunings	3.1%	2.9%	3,493	Latex-based Glues	0.0%	0.0%	0
Animal Manure	12.6%	6.0%	13,947	Oil-based Paint & Solvent	0.0%	0.0%	16
Animal Carcasses	0.0%	0.0%	0	Caustic Cleaners	0.0%	0.0%	0
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	14
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	1.1%	0.7%	1,168	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	0
<b>Wood Debris</b>	<b>1.8%</b>		<b>2,029</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	0.1%	0.1%	66	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	0.4%	0.4%	472	Oil Filters	0.0%	0.0%	0
Dimensional Lumber	0.1%	0.1%	108	Explosives	0.0%	0.0%	2
Engineered Wood	0.3%	0.4%	311	Medical Wastes	0.0%	0.0%	3
Pallets & Crates	0.0%	0.0%	0	Pharmaceuticals/Vitamins	0.0%	0.0%	18
Other Untreated Wood	0.2%	0.3%	264	Disposable Diapers	4.8%	1.4%	5,343
Wood By-Products	0.7%	0.8%	784	Other Cleaners & Soaps	0.1%	0.1%	151
R/C Wood Debris	0.0%	0.0%	24	Other Hazardous	0.0%	0.0%	0
				Other Non-hazardous	0.2%	0.3%	217
<b>Construction Materials</b>	<b>3.1%</b>		<b>3,432</b>	<b>Residues</b>	<b>2.4%</b>		<b>2,693</b>
Natural Wood	0.0%	0.0%	0	Ash	0.4%	0.6%	414
Insulation	0.2%	0.2%	167	Dust	0.9%	1.1%	1,046
Asphalt Paving	0.0%	0.0%	0	Fines	1.1%	1.1%	1,233
Concrete	0.0%	0.0%	0	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	0.0%	0.0%	0				
Carpet	0.3%	0.5%	371	<b>Totals</b>	<b>100.0%</b>		<b>110,912</b>
Carpet Padding	0.0%	0.0%	0	<b>Sample Count</b>	<b>14</b>		
Soil, Rocks, Sand	0.6%	0.8%	719				
Asphalt Roofing	0.0%	0.0%	0				
Plastic Flooring	0.1%	0.1%	55				
Ceramics & Brick	0.3%	0.2%	366				
R/C Construction Materials	1.6%	2.1%	1,755				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

**Table 40: Northwest WGA Self-hauled C&D Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>0.6%</b>		<b>227</b>	<b>Paper Products</b>	<b>0.7%</b>		<b>257</b>
Newspaper Packaging	0.0%	0.0%	10	Newspaper	0.0%	0.0%	0
Cardboard/Kraft Paper Packaging	0.4%	0.5%	151	Cardboard/Kraft Paper Products	0.0%	0.0%	0
Other Groundwood Paper Packaging	0.0%	0.0%	0	Magazines	0.1%	0.1%	32
Mixed/Low Grade Paper Packaging	0.1%	0.2%	37	High-Grade Paper Products	0.0%	0.0%	5
Compostable Paper Packaging	0.0%	0.0%	0	Other Groundwood Paper Products	0.0%	0.0%	0
R/C Paper Packaging	0.1%	0.1%	28	Mixed Low Grade Paper Products	0.3%	0.5%	106
				Compostable Paper Products	0.1%	0.1%	26
<b>Plastic Packaging</b>	<b>0.4%</b>		<b>130</b>	Paper Processing Sludge	0.0%	0.0%	0
#1 PETE Plastic Bottles	0.0%	0.1%	12	R/C Paper Products	0.2%	0.3%	88
#1 PETE Plastic Non-bottles	0.0%	0.0%	1				
#2 HDPE Plastic Natural Bottles	0.0%	0.0%	0	<b>Plastic Products</b>	<b>0.2%</b>		<b>82</b>
#2 HDPE Plastic Colored Bottles	0.0%	0.0%	4	#1 PETE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	0.0%	0.0%	0	#2 HDPE Plastic Products	0.0%	0.0%	0
#3 PVC Plastic Packaging	0.0%	0.0%	0	#3 PVC Plastic Products	0.0%	0.0%	0
#4 LDPE Plastic Packaging	0.0%	0.0%	0	#4 LDPE Plastic Products	0.0%	0.0%	0
#5 PP Plastic Packaging	0.0%	0.0%	1	#5 PP Plastic Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.0%	0.0%	4	#6 PS Plastic Products	0.0%	0.0%	0
#7 Other Plastic Packaging	0.2%	0.3%	60	#7 Other Plastic Products	0.1%	0.1%	29
PLA Packaging	0.0%	0.0%	0	PLA Products	0.0%	0.0%	0
Plastic Merchandise Bags	0.0%	0.0%	3	Plastic Garbage Bags	0.0%	0.1%	15
Non-industrial Packaging Film Plastic	0.0%	0.0%	4	Plastic Film Products	0.0%	0.0%	0
Industrial Packaging Film Plastic	0.1%	0.1%	40	R/C Plastic Products	0.1%	0.2%	37
R/C Plastic Packaging	0.0%	0.0%	1				
<b>Glass</b>	<b>1.5%</b>		<b>573</b>	<b>Consumer Products</b>	<b>0.9%</b>		<b>350</b>
Clear Glass Containers	0.0%	0.0%	4	Televisions - CRT	0.0%	0.0%	0
Green Glass Containers	0.0%	0.0%	0	Televisions - LCD	0.0%	0.0%	0
Brown Glass Containers	0.0%	0.0%	10	VCR's, DVD's, DVR's	0.0%	0.0%	0
Plate Glass	1.5%	2.5%	559	Computer Monitors - CRT	0.0%	0.0%	0
Stoneware/Kitchen Ceramics/Glassware	0.0%	0.0%	0	Computer Monitors - LCD	0.0%	0.0%	0
R/C Glass	0.0%	0.0%	0	Computers	0.0%	0.0%	0
<b>Metal</b>	<b>0.1%</b>		<b>47</b>	Computer Peripherals	0.0%	0.0%	0
Aluminum Beverage Cans	0.0%	0.0%	0	Audio Equipment	0.0%	0.0%	0
Aluminum Foil/Containers	0.0%	0.0%	0	Gaming Equipment	0.0%	0.0%	0
Other Aluminum	0.0%	0.0%	0	Other Consumer Electronics	0.1%	0.1%	28
Other Nonferrous	0.1%	0.1%	20	Textiles - Organic	0.5%	0.8%	181
Food Cans - Tinned	0.0%	0.0%	0	Textiles - Synthetic	0.2%	0.3%	65
Food Cans - Coated	0.0%	0.0%	0	Shoes, Purses, Belts	0.2%	0.3%	76
White Goods	0.0%	0.0%	0	Tires & Rubber	0.0%	0.0%	0
Other Ferrous Metal	0.0%	0.1%	15	Furniture	0.0%	0.0%	0
R/C Metals	0.0%	0.0%	12	Mattresses	0.0%	0.0%	0
				R/C Consumer Products	0.0%	0.0%	0
<b>Organics</b>	<b>3.3%</b>		<b>1,222</b>	<b>Hazardous/Special Wastes</b>	<b>0.1%</b>		<b>32</b>
Food - Vegetative	0.0%	0.0%	9	Pesticides/Herbicides	0.0%	0.0%	0
Food - Non-vegetative	0.0%	0.0%	0	Mercury Vapor Lighting	0.0%	0.0%	0
Leaves & Grass	3.3%	4.4%	1,213	Compact Fluorescent Lights	0.0%	0.0%	0
Prunings	0.0%	0.0%	0	Fluorescent Tubes	0.0%	0.0%	0
Animal Manure	0.0%	0.0%	0	Asbestos	0.0%	0.0%	0
Animal Carcasses	0.0%	0.0%	0	Latex Paint	0.0%	0.0%	9
Crop Residues	0.0%	0.0%	0	Solvent-based Glues	0.0%	0.0%	0
Fruit Waste	0.0%	0.0%	0	Latex-based Glues	0.0%	0.0%	0
R/C Organics	0.0%	0.0%	0	Oil-based Paint & Solvent	0.0%	0.0%	0
<b>Wood Debris</b>	<b>44.9%</b>		<b>16,705</b>	Caustic Cleaners	0.0%	0.0%	0
Treated Wood	3.6%	5.0%	1,347	Dry-cell Batteries	0.0%	0.0%	0
Painted Wood	25.2%	12.6%	9,350	Wet-cell Batteries	0.0%	0.0%	0
Dimensional Lumber	8.9%	8.9%	3,292	Gasoline/Kerosene	0.0%	0.0%	0
Engineered Wood	1.6%	1.6%	606	Motor Oil	0.0%	0.0%	0
Pallets & Crates	0.0%	0.0%	0	Antifreeze	0.0%	0.0%	0
Other Untreated Wood	5.5%	6.8%	2,049	Other Vehicle Fluids	0.0%	0.0%	0
Wood By-Products	0.0%	0.0%	0	Oil Filters	0.0%	0.0%	0
R/C Wood Debris	0.2%	0.2%	61	Explosives	0.0%	0.0%	0
<b>Construction Materials</b>	<b>47.2%</b>		<b>17,537</b>	Medical Wastes	0.0%	0.0%	0
Natural Wood	0.0%	0.0%	0	Pharmaceuticals/Vitamins	0.0%	0.0%	1
Insulation	0.5%	0.8%	188	Disposable Diapers	0.0%	0.0%	0
Asphalt Paving	10.9%	17.0%	4,068	Other Cleaners & Soaps	0.0%	0.0%	0
Concrete	0.0%	0.0%	0	Other Hazardous	0.0%	0.0%	0
Drywall	3.3%	5.3%	1,219	Other Non-hazardous	0.1%	0.1%	22
Carpet	6.8%	11.2%	2,516				
Carpet Padding	0.0%	0.0%	0	<b>Residues</b>	<b>0.0%</b>		<b>6</b>
Soil, Rocks, Sand	0.0%	0.0%	3	Ash	0.0%	0.0%	0
Asphalt Roofing	10.3%	9.5%	3,823	Dust	0.0%	0.0%	0
Plastic Flooring	0.0%	0.0%	0	Fines	0.0%	0.0%	6
Ceramics & Brick	5.0%	8.1%	1,840	Sludge/Special Industrial	0.0%	0.0%	0
R/C Construction Materials	10.4%	12.3%	3,881				
				<b>Totals</b>	<b>100.0%</b>		<b>37,169</b>
				<b>Sample Count</b>	<b>11</b>		

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.



**Table 41: Northwest WGA Self-hauled Other Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>8.7%</b>		<b>2,243</b>	<b>Paper Products</b>	<b>14.0%</b>		<b>3,606</b>
Newspaper Packaging	0.0%	0.0%	0	Newspaper	3.8%	4.6%	967
Cardboard/Kraft Paper Packaging	6.1%	5.2%	1,571	Cardboard/Kraft Paper Products	0.0%	0.1%	11
Other Groundwood Paper Packaging	0.0%	0.0%	7	Magazines	1.9%	1.8%	497
Mixed/Low Grade Paper Packaging	1.3%	0.7%	328	High-Grade Paper Products	0.2%	0.2%	53
Compostable Paper Packaging	0.1%	0.1%	37	Other Groundwood Paper Products	3.7%	3.9%	960
R/C Paper Packaging	1.2%	0.9%	300	Mixed Low Grade Paper Products	2.3%	2.6%	595
				Compostable Paper Products	1.6%	1.1%	400
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.5%	0.5%	123
<b>Plastic Packaging</b>	<b>8.0%</b>		<b>2,061</b>	<b>Plastic Products</b>	<b>10.1%</b>		<b>2,606</b>
#1 PETE Plastic Bottles	0.9%	0.8%	244	#1 PETE Plastic Products	0.0%	0.0%	0
#1 PETE Plastic Non-bottles	0.2%	0.2%	45	#2 HDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Natural Bottles	0.3%	0.2%	74	#3 PVC Plastic Products	0.2%	0.2%	42
#2 HDPE Plastic Colored Bottles	0.7%	0.5%	176	#4 LDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	0.2%	0.3%	63	#5 PP Plastic Products	0.0%	0.0%	4
#3 PVC Plastic Packaging	0.0%	0.0%	0	#6 PS Plastic Products	0.1%	0.2%	30
#4 LDPE Plastic Packaging	0.0%	0.0%	1	#7 Other Plastic Products	5.9%	3.6%	1,530
#5 PP Plastic Packaging	0.6%	0.6%	162	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	1.0%	0.6%	256	Plastic Garbage Bags	1.7%	1.2%	427
#7 Other Plastic Packaging	0.6%	0.5%	146	Plastic Film Products	0.0%	0.0%	11
PLA Packaging	0.0%	0.1%	10	R/C Plastic Products	2.2%	2.7%	564
Plastic Merchandise Bags	0.3%	0.2%	80				
Non-industrial Packaging Film Plastic	2.7%	1.9%	704	<b>Consumer Products</b>	<b>14.9%</b>		<b>3,833</b>
Industrial Packaging Film Plastic	0.3%	0.3%	85	Televisions - CRT	2.5%	4.1%	650
R/C Plastic Packaging	0.1%	0.1%	14	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	1.3%	2.0%	324
<b>Glass</b>	<b>5.1%</b>		<b>1,308</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	2.0%	1.5%	515	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.7%	1.0%	181	Computers	0.0%	0.0%	0
Brown Glass Containers	0.4%	0.4%	110	Computer Peripherals	0.0%	0.0%	0
Plate Glass	1.4%	2.1%	362	Audio Equipment	0.0%	0.0%	0
Stoneware/Kitchen Ceramics/Glassware	0.3%	0.4%	79	Gaming Equipment	0.0%	0.0%	0
R/C Glass	0.2%	0.2%	61	Other Consumer Electronics	1.2%	1.3%	318
				Textiles - Organic	4.6%	3.3%	1,180
<b>Metal</b>	<b>11.4%</b>		<b>2,927</b>	Textiles - Synthetic	1.3%	0.8%	322
Aluminum Beverage Cans	0.3%	0.2%	68	Shoes, Purses, Belts	1.0%	1.1%	264
Aluminum Foil/Containers	0.2%	0.3%	46	Tires & Rubber	0.9%	0.8%	237
Other Aluminum	0.0%	0.0%	0	Furniture	0.0%	0.0%	0
Other Nonferrous	0.1%	0.1%	17	Mattresses	1.8%	2.8%	452
Food Cans - Tinned	0.9%	0.6%	232	R/C Consumer Products	0.3%	0.5%	86
Food Cans - Coated	0.1%	0.1%	32				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>4.1%</b>		<b>1,050</b>
Other Ferrous Metal	1.2%	0.6%	312	Pesticides/Herbicides	0.0%	0.0%	0
R/C Metals	8.6%	6.3%	2,220	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	0
<b>Organics</b>	<b>13.0%</b>		<b>3,334</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	7.9%	4.3%	2,043	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	2.4%	1.7%	627	Latex Paint	0.0%	0.0%	0
Leaves & Grass	2.0%	2.6%	506	Solvent-based Glues	0.3%	0.3%	68
Prunings	0.1%	0.2%	34	Latex-based Glues	0.2%	0.3%	51
Animal Manure	0.0%	0.0%	0	Oil-based Paint & Solvent	0.0%	0.0%	0
Animal Carcasses	0.0%	0.0%	0	Caustic Cleaners	0.0%	0.0%	0
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.1%	0.1%	21
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	0.5%	0.4%	125	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	0
<b>Wood Debris</b>	<b>4.9%</b>		<b>1,253</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	0.2%	0.2%	63	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	0.4%	0.4%	91	Oil Filters	0.0%	0.1%	10
Dimensional Lumber	0.9%	1.3%	242	Explosives	0.0%	0.1%	11
Engineered Wood	0.7%	1.1%	175	Medical Wastes	0.0%	0.0%	1
Pallets & Crates	0.2%	0.4%	57	Pharmaceuticals/Vitamins	0.0%	0.0%	0
Other Untreated Wood	0.0%	0.0%	4	Disposable Diapers	2.8%	3.7%	716
Wood By-Products	0.0%	0.0%	0	Other Cleaners & Soaps	0.1%	0.1%	35
R/C Wood Debris	2.4%	3.6%	620	Other Hazardous	0.0%	0.0%	0
				Other Non-hazardous	0.5%	0.8%	139
<b>Construction Materials</b>	<b>5.5%</b>		<b>1,416</b>	<b>Residues</b>	<b>0.4%</b>		<b>93</b>
Natural Wood	0.0%	0.0%	6	Ash	0.0%	0.0%	0
Insulation	0.5%	0.8%	128	Dust	0.2%	0.3%	39
Asphalt Paving	0.0%	0.0%	0	Fines	0.2%	0.3%	54
Concrete	0.0%	0.0%	0	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	3.4%	4.0%	883				
Carpet	0.8%	1.3%	214	<b>Totals</b>	<b>100.0%</b>		<b>25,730</b>
Carpet Padding	0.0%	0.0%	0	<b>Sample Count</b>	<b>11</b>		
Soil, Rocks, Sand	0.0%	0.0%	0				
Asphalt Roofing	0.0%	0.0%	0				
Plastic Flooring	0.0%	0.0%	0				
Ceramics & Brick	0.2%	0.4%	60				
R/C Construction Materials	0.5%	0.6%	125				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

## **Puget Sound Waste Generation Area Composition Tables**

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**Table 42: Puget Sound WGA Overall Disposed Waste Stream  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>9.3%</b>		<b>260,030</b>	<b>Paper Products</b>	<b>9.8%</b>		<b>276,212</b>
Newspaper Packaging	0.3%	0.5%	8,518	Newspaper	1.6%	0.8%	45,889
Cardboard/Kraft Paper Packaging	3.5%	1.4%	98,468	Cardboard/Kraft Paper Products	0.1%	0.1%	2,176
Other Groundwood Paper Packaging	0.1%	0.1%	3,766	Magazines	0.9%	0.4%	24,166
Mixed/Low Grade Paper Packaging	2.7%	0.7%	77,088	High-Grade Paper Products	1.0%	0.5%	27,740
Compostable Paper Packaging	1.1%	0.8%	31,986	Other Groundwood Paper Products	0.3%	0.3%	7,727
R/C Paper Packaging	1.4%	0.8%	40,202	Mixed Low Grade Paper Products	1.2%	0.5%	35,057
				Compostable Paper Products	4.4%	1.5%	122,803
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.4%	0.5%	10,654
<b>Plastic Packaging</b>	<b>6.9%</b>		<b>194,420</b>	<b>Plastic Products</b>	<b>4.6%</b>		<b>130,360</b>
#1 PETE Plastic Bottles	0.6%	0.1%	16,317	#1 PETE Plastic Products	0.0%	0.0%	72
#1 PETE Plastic Non-bottles	0.3%	0.1%	8,598	#2 HDPE Plastic Products	0.0%	0.0%	328
#2 HDPE Plastic Natural Bottles	0.2%	0.1%	6,179	#3 PVC Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Colored Bottles	0.3%	0.1%	9,823	#4 LDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	0.5%	0.6%	14,994	#5 PP Plastic Products	0.1%	0.1%	2,607
#3 PVC Plastic Packaging	0.0%	0.0%	440	#6 PS Plastic Products	0.1%	0.1%	4,180
#4 LDPE Plastic Packaging	0.0%	0.0%	22	#7 Other Plastic Products	1.3%	0.5%	36,041
#5 PP Plastic Packaging	0.3%	0.1%	8,597	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.4%	0.1%	10,169	Plastic Garbage Bags	1.3%	0.3%	36,840
#7 Other Plastic Packaging	0.5%	0.1%	13,873	Plastic Film Products	0.2%	0.2%	5,680
PLA Packaging	0.0%	0.0%	0	R/C Plastic Products	1.6%	1.0%	44,611
Plastic Merchandise Bags	0.5%	0.1%	13,163				
Non-industrial Packaging Film Plastic	2.0%	0.5%	57,133	<b>Consumer Products</b>	<b>6.2%</b>		<b>175,237</b>
Industrial Packaging Film Plastic	0.3%	0.3%	9,573	Televisions - CRT	0.6%	1.0%	16,991
R/C Plastic Packaging	0.9%	1.3%	25,537	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.1%	898
<b>Glass</b>	<b>2.1%</b>		<b>58,769</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	0.7%	0.3%	20,864	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.0%	0.0%	1,154	Computers	0.0%	0.0%	0
Brown Glass Containers	0.2%	0.1%	4,781	Computer Peripherals	0.1%	0.1%	2,062
Plate Glass	0.0%	0.0%	0	Audio Equipment	0.1%	0.1%	1,838
Stoneware/Kitchen Ceramics/Glassware	0.2%	0.2%	6,237	Gaming Equipment	0.0%	0.0%	114
R/C Glass	0.9%	1.0%	25,732	Other Consumer Electronics	0.8%	0.6%	22,664
				Textiles - Organic	1.6%	0.6%	43,874
<b>Metal</b>	<b>6.7%</b>		<b>188,206</b>	Textiles - Synthetic	0.9%	0.4%	24,449
Aluminum Beverage Cans	0.5%	0.3%	14,188	Shoes, Purses, Belts	0.4%	0.2%	10,932
Aluminum Foil/Containers	0.1%	0.1%	2,785	Tires & Rubber	0.1%	0.1%	4,076
Other Aluminum	0.1%	0.1%	3,333	Furniture	1.7%	1.9%	46,845
Other Nonferrous	0.1%	0.1%	2,120	Mattresses	0.0%	0.0%	0
Food Cans - Tinned	0.8%	0.5%	21,686	R/C Consumer Products	0.0%	0.0%	493
Food Cans - Coated	0.1%	0.1%	2,880				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>4.1%</b>		<b>115,004</b>
Other Ferrous Metal	3.5%	2.3%	97,285	Pesticides/Herbicides	0.0%	0.0%	172
R/C Metals	1.6%	1.2%	43,930	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	75
<b>Organics</b>	<b>28.3%</b>		<b>795,872</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	15.5%	4.6%	435,262	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	6.0%	2.8%	169,058	Latex Paint	0.1%	0.1%	2,535
Leaves & Grass	2.4%	2.5%	68,079	Solvent-based Glues	0.3%	0.4%	7,336
Prunings	0.1%	0.1%	3,723	Latex-based Glues	0.0%	0.0%	41
Animal Manure	3.7%	1.9%	104,798	Oil-based Paint & Solvent	0.0%	0.0%	496
Animal Carcasses	0.0%	0.0%	291	Caustic Cleaners	0.0%	0.0%	638
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	494
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	0.5%	0.3%	14,662	Gasoline/Kerosene	0.0%	0.1%	1,317
				Motor Oil	0.0%	0.0%	0
<b>Wood Debris</b>	<b>7.5%</b>		<b>210,036</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	1.0%	1.1%	27,488	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	1.4%	1.2%	38,246	Oil Filters	0.0%	0.0%	0
Dimensional Lumber	0.7%	0.6%	19,578	Explosives	0.0%	0.0%	0
Engineered Wood	1.0%	0.8%	29,112	Medical Wastes	0.3%	0.5%	9,418
Pallets & Crates	1.6%	1.7%	45,722	Pharmaceuticals/Vitamins	0.0%	0.0%	690
Other Untreated Wood	0.7%	0.9%	18,536	Disposable Diapers	3.1%	1.1%	87,646
Wood By-Products	0.2%	0.2%	6,276	Other Cleaners & Soaps	0.1%	0.1%	3,599
R/C Wood Wastes	0.9%	0.7%	25,077	Other Hazardous	0.0%	0.0%	124
				Other Non-hazardous	0.0%	0.0%	422
<b>Construction Materials</b>	<b>14.2%</b>		<b>399,938</b>	<b>Residues</b>	<b>0.2%</b>		<b>6,905</b>
Natural Wood	0.1%	0.2%	3,190	Ash	0.2%	0.3%	5,346
Insulation	0.4%	0.5%	9,932	Dust	0.1%	0.1%	1,558
Asphalt Paving	0.0%	0.0%	0	Fines	0.0%	0.0%	0
Concrete	0.0%	0.1%	1,112	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	3.5%	3.6%	97,428				
Carpet	3.7%	3.2%	103,496	<b>Totals</b>	<b>100.0%</b>		<b>2,810,988</b>
Carpet Padding	0.9%	1.4%	24,302	<b>Sample Count</b>	<b>41</b>		
Soil, Rocks, Sand	0.9%	1.0%	26,617				
Asphalt Roofing	1.3%	1.2%	36,881				
Plastic Flooring	0.3%	0.4%	7,587				
Ceramics & Brick	2.0%	2.6%	56,451				
R/C Construction Materials	1.2%	1.2%	32,941				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

**Table 43: Puget Sound WGA Commercial Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>11.4%</b>		<b>152,263</b>	<b>Paper Products</b>	<b>9.3%</b>		<b>123,847</b>
Newspaper Packaging	0.6%	1.0%	8,197	Newspaper	1.1%	0.9%	14,482
Cardboard/Kraft Paper Packaging	4.4%	2.3%	58,017	Cardboard/Kraft Paper Products	0.1%	0.1%	1,109
Other Groundwood Paper Packaging	0.1%	0.1%	1,769	Magazines	0.5%	0.6%	7,266
Mixed/Low Grade Paper Packaging	2.7%	1.3%	36,315	High-Grade Paper Products	1.2%	1.0%	15,973
Compostable Paper Packaging	1.7%	1.5%	22,135	Other Groundwood Paper Products	0.1%	0.1%	1,445
R/C Paper Packaging	1.9%	1.7%	25,831	Mixed Low Grade Paper Products	1.0%	0.7%	13,317
				Compostable Paper Products	5.1%	3.0%	67,998
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.2%	0.2%	2,258
<b>Plastic Packaging</b>	<b>7.2%</b>		<b>95,880</b>	<b>Plastic Products</b>	<b>4.4%</b>		<b>58,816</b>
#1 PETE Plastic Bottles	0.3%	0.2%	4,362	#1 PETE Plastic Products	0.0%	0.0%	72
#1 PETE Plastic Non-bottles	0.3%	0.2%	3,574	#2 HDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Natural Bottles	0.1%	0.1%	1,801	#3 PVC Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Colored Bottles	0.1%	0.1%	1,713	#4 LDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	1.0%	1.3%	13,301	#5 PP Plastic Products	0.1%	0.2%	1,432
#3 PVC Plastic Packaging	0.0%	0.0%	0	#6 PS Plastic Products	0.2%	0.2%	2,469
#4 LDPE Plastic Packaging	0.0%	0.0%	0	#7 Other Plastic Products	0.7%	0.4%	9,803
#5 PP Plastic Packaging	0.2%	0.1%	2,478	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.2%	0.1%	2,344	Plastic Garbage Bags	1.7%	0.7%	22,360
#7 Other Plastic Packaging	0.3%	0.2%	3,523	Plastic Film Products	0.1%	0.1%	807
PLA Packaging	0.0%	0.0%	0	R/C Plastic Products	1.6%	1.6%	21,874
Plastic Merchandise Bags	0.2%	0.2%	2,986				
Non-industrial Packaging Film Plastic	2.2%	0.9%	29,707	<b>Consumer Products</b>	<b>1.9%</b>		<b>25,283</b>
Industrial Packaging Film Plastic	0.5%	0.5%	6,805	Televisions - CRT	0.0%	0.0%	0
R/C Plastic Packaging	1.7%	2.8%	23,287	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	0
<b>Glass</b>	<b>1.6%</b>		<b>20,959</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	0.3%	0.3%	4,540	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.0%	0.0%	0	Computers	0.0%	0.0%	0
Brown Glass Containers	0.0%	0.0%	405	Computer Peripherals	0.0%	0.0%	0
Plate Glass	0.0%	0.0%	0	Audio Equipment	0.0%	0.0%	0
Stoneware/Kitchen Ceramics/Glassware	0.1%	0.1%	674	Gaming Equipment	0.0%	0.0%	0
R/C Glass	1.2%	1.9%	15,340	Other Consumer Electronics	1.2%	1.0%	15,536
				Textiles - Organic	0.5%	0.4%	6,306
<b>Metal</b>	<b>6.8%</b>		<b>90,557</b>	Textiles - Synthetic	0.2%	0.2%	2,164
Aluminum Beverage Cans	0.5%	0.5%	6,665	Shoes, Purses, Belts	0.1%	0.1%	915
Aluminum Foil/Containers	0.1%	0.1%	1,083	Tires & Rubber	0.0%	0.0%	192
Other Aluminum	0.2%	0.2%	2,840	Furniture	0.0%	0.0%	0
Other Nonferrous	0.2%	0.2%	2,106	Mattresses	0.0%	0.0%	0
Food Cans - Tinned	0.9%	1.1%	11,638	R/C Consumer Products	0.0%	0.0%	170
Food Cans - Coated	0.0%	0.0%	108				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>2.6%</b>		<b>34,241</b>
Other Ferrous Metal	2.9%	3.5%	38,569	Pesticides/Herbicides	0.0%	0.0%	0
R/C Metals	2.1%	2.5%	27,548	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	0
<b>Organics</b>	<b>26.9%</b>		<b>357,976</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	18.1%	9.4%	241,401	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	8.1%	5.9%	107,807	Latex Paint	0.0%	0.0%	409
Leaves & Grass	0.0%	0.1%	650	Solvent-based Glues	0.0%	0.0%	0
Prunings	0.0%	0.0%	337	Latex-based Glues	0.0%	0.0%	0
Animal Manure	0.2%	0.4%	3,320	Oil-based Paint & Solvent	0.0%	0.0%	0
Animal Carcasses	0.0%	0.0%	0	Caustic Cleaners	0.0%	0.1%	552
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	0
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	0.3%	0.5%	4,462	Gasoline/Kerosene	0.1%	0.2%	1,317
				Motor Oil	0.0%	0.0%	0
<b>Wood Debris</b>	<b>5.9%</b>		<b>78,682</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	1.6%	2.2%	21,021	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	1.3%	1.5%	17,508	Oil Filters	0.0%	0.0%	0
Dimensional Lumber	0.7%	0.9%	9,361	Explosives	0.0%	0.0%	0
Engineered Wood	0.8%	1.0%	10,813	Medical Wastes	0.7%	1.1%	9,123
Pallets & Crates	0.5%	0.6%	6,204	Pharmaceuticals/Vitamins	0.0%	0.1%	637
Other Untreated Wood	0.1%	0.1%	1,131	Disposable Diapers	1.6%	1.6%	21,728
Wood By-Products	0.0%	0.0%	0	Other Cleaners & Soaps	0.0%	0.0%	473
R/C Wood Debris	0.9%	1.0%	12,645	Other Hazardous	0.0%	0.0%	0
				Other Non-hazardous	0.0%	0.0%	0
<b>Construction Materials</b>	<b>22.0%</b>		<b>293,562</b>	<b>Residues</b>	<b>0.0%</b>		<b>0</b>
Natural Wood	0.0%	0.0%	0	Ash	0.0%	0.0%	0
Insulation	0.7%	1.1%	9,852	Dust	0.0%	0.0%	0
Asphalt Paving	0.0%	0.0%	0	Fines	0.0%	0.0%	0
Concrete	0.0%	0.0%	0	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	5.7%	7.2%	75,459				
Carpet	5.6%	6.4%	74,357	<b>Totals</b>	<b>100.0%</b>		<b>1,332,068</b>
Carpet Padding	1.8%	3.0%	24,302	<b>Sample Count</b>	<b>13</b>		
Soil, Rocks, Sand	1.6%	2.0%	21,587				
Asphalt Roofing	0.2%	0.3%	2,378				
Plastic Flooring	0.6%	0.9%	7,332				
Ceramics & Brick	4.0%	5.4%	53,585				
R/C Construction Materials	1.9%	2.4%	24,711				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

**Table 44: Puget Sound WGA Residential Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>7.8%</b>		<b>76,441</b>	<b>Paper Products</b>	<b>12.7%</b>		<b>124,036</b>
Newspaper Packaging	0.0%	0.0%	0	Newspaper	2.1%	1.1%	20,809
Cardboard/Kraft Paper Packaging	1.5%	0.5%	15,021	Cardboard/Kraft Paper Products	0.1%	0.1%	600
Other Groundwood Paper Packaging	0.2%	0.1%	1,855	Magazines	1.3%	0.8%	12,480
Mixed/Low Grade Paper Packaging	3.8%	0.9%	37,052	High-Grade Paper Products	1.1%	0.6%	10,865
Compostable Paper Packaging	1.0%	0.7%	9,338	Other Groundwood Paper Products	0.6%	0.7%	6,282
R/C Paper Packaging	1.3%	0.2%	13,175	Mixed Low Grade Paper Products	2.1%	0.9%	20,137
				Compostable Paper Products	5.3%	1.2%	52,012
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.1%	0.1%	851
<b>Plastic Packaging</b>	<b>9.0%</b>		<b>88,211</b>	<b>Plastic Products</b>	<b>4.4%</b>		<b>43,067</b>
#1 PETE Plastic Bottles	1.1%	0.2%	10,755	#1 PETE Plastic Products	0.0%	0.0%	0
#1 PETE Plastic Non-bottles	0.5%	0.1%	4,882	#2 HDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Natural Bottles	0.4%	0.2%	4,078	#3 PVC Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Colored Bottles	0.8%	0.1%	7,418	#4 LDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	0.1%	0.1%	879	#5 PP Plastic Products	0.0%	0.0%	0
#3 PVC Plastic Packaging	0.0%	0.1%	379	#6 PS Plastic Products	0.2%	0.1%	1,693
#4 LDPE Plastic Packaging	0.0%	0.0%	22	#7 Other Plastic Products	1.5%	1.0%	14,916
#5 PP Plastic Packaging	0.6%	0.2%	5,708	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.8%	0.4%	7,471	Plastic Garbage Bags	1.3%	0.2%	12,831
#7 Other Plastic Packaging	1.0%	0.2%	9,628	Plastic Film Products	0.1%	0.1%	1,052
PLA Packaging	0.0%	0.0%	0	R/C Plastic Products	1.3%	1.5%	12,575
Plastic Merchandise Bags	1.0%	0.2%	9,428				
Non-industrial Packaging Film Plastic	2.6%	0.4%	25,641	<b>Consumer Products</b>	<b>6.8%</b>		<b>66,312</b>
Industrial Packaging Film Plastic	0.0%	0.1%	318	Televisions - CRT	1.7%	2.9%	16,991
R/C Plastic Packaging	0.2%	0.1%	1,602	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	0
<b>Glass</b>	<b>2.4%</b>		<b>23,165</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	1.3%	0.7%	13,067	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.1%	0.0%	620	Computers	0.0%	0.0%	0
Brown Glass Containers	0.4%	0.4%	4,145	Computer Peripherals	0.0%	0.1%	337
Plate Glass	0.0%	0.0%	0	Audio Equipment	0.0%	0.0%	84
Stoneware/Kitchen Ceramics/Glassware	0.2%	0.2%	1,642	Gaming Equipment	0.0%	0.0%	0
R/C Glass	0.4%	0.2%	3,691	Other Consumer Electronics	0.2%	0.2%	1,518
				Textiles - Organic	2.2%	1.2%	21,686
<b>Metal</b>	<b>4.1%</b>		<b>39,582</b>	Textiles - Synthetic	1.3%	0.9%	12,803
Aluminum Beverage Cans	0.6%	0.3%	6,336	Shoes, Purses, Belts	0.9%	0.4%	9,026
Aluminum Foil/Containers	0.2%	0.1%	1,641	Tires & Rubber	0.4%	0.3%	3,545
Other Aluminum	0.0%	0.1%	422	Furniture	0.0%	0.0%	0
Other Nonferrous	0.0%	0.0%	0	Mattresses	0.0%	0.0%	0
Food Cans - Tinned	0.9%	0.4%	9,188	R/C Consumer Products	0.0%	0.0%	323
Food Cans - Coated	0.2%	0.1%	2,415				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>8.1%</b>		<b>78,845</b>
Other Ferrous Metal	0.9%	0.4%	8,608	Pesticides/Herbicides	0.0%	0.0%	0
R/C Metals	1.1%	0.7%	10,974	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	53
<b>Organics</b>	<b>42.2%</b>		<b>412,401</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	19.0%	3.0%	185,207	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	6.0%	1.5%	58,588	Latex Paint	0.2%	0.2%	2,126
Leaves & Grass	6.6%	7.1%	64,079	Solvent-based Glues	0.8%	1.2%	7,336
Prunings	0.3%	0.3%	2,767	Latex-based Glues	0.0%	0.0%	0
Animal Manure	9.8%	5.3%	95,461	Oil-based Paint & Solvent	0.0%	0.1%	396
Animal Carcasses	0.0%	0.0%	291	Caustic Cleaners	0.0%	0.0%	0
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.1%	483
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	0.6%	0.3%	6,008	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	0
<b>Wood Debris</b>	<b>0.7%</b>		<b>6,442</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	0.0%	0.0%	38	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	0.0%	0.0%	196	Oil Filters	0.0%	0.0%	0
Dimensional Lumber	0.0%	0.0%	0	Explosives	0.0%	0.0%	0
Engineered Wood	0.0%	0.1%	464	Medical Wastes	0.0%	0.1%	295
Pallets & Crates	0.0%	0.0%	0	Pharmaceuticals/Vitamins	0.0%	0.0%	48
Other Untreated Wood	0.1%	0.1%	826	Disposable Diapers	6.7%	2.3%	65,703
Wood By-Products	0.4%	0.6%	3,805	Other Cleaners & Soaps	0.2%	0.2%	1,857
R/C Wood Debris	0.1%	0.1%	1,114	Other Hazardous	0.0%	0.0%	124
				Other Non-hazardous	0.0%	0.1%	422
<b>Construction Materials</b>	<b>1.7%</b>		<b>16,625</b>	<b>Residues</b>	<b>0.2%</b>		<b>1,497</b>
Natural Wood	0.0%	0.0%	84	Ash	0.0%	0.0%	0
Insulation	0.0%	0.0%	0	Dust	0.2%	0.2%	1,497
Asphalt Paving	0.0%	0.0%	0	Fines	0.0%	0.0%	0
Concrete	0.0%	0.0%	0	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	0.0%	0.0%	0				
Carpet	0.8%	0.7%	7,631	<b>Totals</b>	<b>100.0%</b>		<b>976,624</b>
Carpet Padding	0.0%	0.0%	0	<b>Sample Count</b>	<b>10</b>		
Soil, Rocks, Sand	0.2%	0.3%	2,235				
Asphalt Roofing	0.4%	0.7%	3,921				
Plastic Flooring	0.0%	0.0%	255				
Ceramics & Brick	0.0%	0.1%	348				
R/C Construction Materials	0.2%	0.4%	2,150				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

**Table 45: Puget Sound WGA Self-hauled C&D Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>0.8%</b>		<b>1,498</b>	<b>Paper Products</b>	<b>0.5%</b>		<b>904</b>
Newspaper Packaging	0.0%	0.0%	0	Newspaper	0.0%	0.0%	0
Cardboard/Kraft Paper Packaging	0.7%	0.9%	1,308	Cardboard/Kraft Paper Products	0.3%	0.4%	467
Other Groundwood Paper Packaging	0.0%	0.0%	0	Magazines	0.0%	0.0%	0
Mixed/Low Grade Paper Packaging	0.0%	0.0%	0	High-Grade Paper Products	0.0%	0.0%	4
Compostable Paper Packaging	0.0%	0.1%	85	Other Groundwood Paper Products	0.0%	0.0%	0
R/C Paper Packaging	0.1%	0.1%	105	Mixed Low Grade Paper Products	0.0%	0.1%	85
				Compostable Paper Products	0.2%	0.2%	341
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.0%	0.0%	7
<b>Plastic Packaging</b>	<b>1.0%</b>		<b>1,816</b>	<b>Plastic Products</b>	<b>1.6%</b>		<b>2,886</b>
#1 PETE Plastic Bottles	0.0%	0.0%	86	#1 PETE Plastic Products	0.0%	0.0%	0
#1 PETE Plastic Non-bottles	0.0%	0.0%	0	#2 HDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Natural Bottles	0.1%	0.1%	141	#3 PVC Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Colored Bottles	0.0%	0.0%	4	#4 LDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	0.4%	0.7%	743	#5 PP Plastic Products	0.0%	0.0%	0
#3 PVC Plastic Packaging	0.0%	0.0%	0	#6 PS Plastic Products	0.0%	0.0%	19
#4 LDPE Plastic Packaging	0.0%	0.0%	0	#7 Other Plastic Products	0.4%	0.5%	665
#5 PP Plastic Packaging	0.0%	0.0%	52	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.0%	0.0%	48	Plastic Garbage Bags	0.3%	0.2%	529
#7 Other Plastic Packaging	0.0%	0.0%	7	Plastic Film Products	0.0%	0.0%	7
PLA Packaging	0.0%	0.0%	0	R/C Plastic Products	0.9%	1.4%	1,666
Plastic Merchandise Bags	0.0%	0.0%	22				
Non-industrial Packaging Film Plastic	0.2%	0.2%	273	<b>Consumer Products</b>	<b>3.1%</b>		<b>5,566</b>
Industrial Packaging Film Plastic	0.2%	0.3%	410	Televisions - CRT	0.0%	0.0%	0
R/C Plastic Packaging	0.0%	0.0%	28	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	0
<b>Glass</b>	<b>0.2%</b>		<b>434</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	0.2%	0.3%	434	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.0%	0.0%	0	Computers	0.0%	0.0%	0
Brown Glass Containers	0.0%	0.0%	0	Computer Peripherals	0.0%	0.0%	0
Plate Glass	0.0%	0.0%	0	Audio Equipment	0.0%	0.0%	0
Stoneware/Kitchen Ceramics/Glassware	0.0%	0.0%	0	Gaming Equipment	0.0%	0.0%	0
R/C Glass	0.0%	0.0%	0	Other Consumer Electronics	0.0%	0.0%	0
				Textiles - Organic	0.1%	0.1%	127
<b>Metal</b>	<b>2.1%</b>		<b>3,841</b>	Textiles - Synthetic	0.3%	0.4%	493
Aluminum Beverage Cans	0.0%	0.0%	10	Shoes, Purses, Belts	0.0%	0.0%	22
Aluminum Foil/Containers	0.0%	0.0%	11	Tires & Rubber	0.1%	0.1%	93
Other Aluminum	0.0%	0.0%	0	Furniture	2.7%	4.5%	4,831
Other Nonferrous	0.0%	0.0%	0	Mattresses	0.0%	0.0%	0
Food Cans - Tinned	0.0%	0.0%	26	R/C Consumer Products	0.0%	0.0%	0
Food Cans - Coated	0.0%	0.0%	0				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>0.0%</b>		<b>78</b>
Other Ferrous Metal	1.7%	1.6%	3,034	Pesticides/Herbicides	0.0%	0.0%	0
R/C Metals	0.4%	0.4%	761	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	22
<b>Organics</b>	<b>3.0%</b>		<b>5,444</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	0.5%	0.7%	849	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	0.3%	0.4%	482	Latex Paint	0.0%	0.0%	0
Leaves & Grass	0.0%	0.0%	0	Solvent-based Glues	0.0%	0.0%	0
Prunings	0.0%	0.1%	63	Latex-based Glues	0.0%	0.0%	41
Animal Manure	0.0%	0.0%	0	Oil-based Paint & Solvent	0.0%	0.0%	0
Animal Carcasses	0.0%	0.0%	0	Caustic Cleaners	0.0%	0.0%	0
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	11
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	2.2%	2.2%	4,049	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	0
<b>Wood Debris</b>	<b>43.5%</b>		<b>78,865</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	3.5%	6.0%	6,366	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	10.1%	14.2%	18,354	Oil Filters	0.0%	0.0%	0
Dimensional Lumber	5.5%	6.6%	9,917	Explosives	0.0%	0.0%	0
Engineered Wood	9.8%	10.3%	17,836	Medical Wastes	0.0%	0.0%	0
Pallets & Crates	4.0%	6.3%	7,316	Pharmaceuticals/Vitamins	0.0%	0.0%	4
Other Untreated Wood	7.7%	13.1%	13,928	Disposable Diapers	0.0%	0.0%	0
Wood By-Products	0.5%	0.7%	831	Other Cleaners & Soaps	0.0%	0.0%	0
R/C Wood Debris	2.4%	2.6%	4,318	Other Hazardous	0.0%	0.0%	0
				Other Non-hazardous	0.0%	0.0%	0
<b>Construction Materials</b>	<b>44.1%</b>		<b>79,842</b>	<b>Residues</b>	<b>0.0%</b>		<b>0</b>
Natural Wood	1.7%	2.9%	3,105	Ash	0.0%	0.0%	0
Insulation	0.0%	0.1%	80	Dust	0.0%	0.0%	0
Asphalt Paving	0.0%	0.0%	0	Fines	0.0%	0.0%	0
Concrete	0.0%	0.0%	0	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	10.1%	15.6%	18,348				
Carpet	10.8%	17.7%	19,498	<b>Totals</b>	<b>100.0%</b>		<b>181,174</b>
Carpet Padding	0.0%	0.0%	0	<b>Sample Count</b>	<b>9</b>		
Soil, Rocks, Sand	1.5%	2.6%	2,795				
Asphalt Roofing	16.9%	17.8%	30,581				
Plastic Flooring	0.0%	0.0%	0				
Ceramics & Brick	1.2%	1.9%	2,134				
R/C Construction Materials	1.8%	2.5%	3,300				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

**Table 46: Puget Sound WGA Self-hauled Other Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>9.3%</b>		<b>29,827</b>	<b>Paper Products</b>	<b>8.5%</b>		<b>27,424</b>
Newspaper Packaging	0.1%	0.1%	321	Newspaper	3.3%	4.3%	10,598
Cardboard/Kraft Paper Packaging	7.5%	7.1%	24,123	Cardboard/Kraft Paper Products	0.0%	0.0%	0
Other Groundwood Paper Packaging	0.0%	0.1%	143	Magazines	1.4%	1.5%	4,420
Mixed/Low Grade Paper Packaging	1.2%	1.0%	3,721	High-Grade Paper Products	0.3%	0.4%	898
Compostable Paper Packaging	0.1%	0.2%	428	Other Groundwood Paper Products	0.0%	0.0%	0
R/C Paper Packaging	0.3%	0.3%	1,091	Mixed Low Grade Paper Products	0.5%	0.6%	1,519
				Compostable Paper Products	0.8%	0.8%	2,452
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	2.3%	3.9%	7,538
<b>Plastic Packaging</b>	<b>2.7%</b>		<b>8,513</b>	<b>Plastic Products</b>	<b>8.0%</b>		<b>25,591</b>
#1 PETE Plastic Bottles	0.3%	0.3%	1,113	#1 PETE Plastic Products	0.0%	0.0%	0
#1 PETE Plastic Non-bottles	0.0%	0.1%	143	#2 HDPE Plastic Products	0.1%	0.1%	328
#2 HDPE Plastic Natural Bottles	0.0%	0.1%	158	#3 PVC Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Colored Bottles	0.2%	0.2%	688	#4 LDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	0.0%	0.0%	71	#5 PP Plastic Products	0.4%	0.4%	1,175
#3 PVC Plastic Packaging	0.0%	0.0%	61	#6 PS Plastic Products	0.0%	0.0%	0
#4 LDPE Plastic Packaging	0.0%	0.0%	0	#7 Other Plastic Products	3.3%	2.4%	10,657
#5 PP Plastic Packaging	0.1%	0.1%	359	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.1%	0.1%	307	Plastic Garbage Bags	0.3%	0.2%	1,121
#7 Other Plastic Packaging	0.2%	0.2%	715	Plastic Film Products	1.2%	1.3%	3,814
PLA Packaging	0.0%	0.0%	0	R/C Plastic Products	2.6%	2.5%	8,497
Plastic Merchandise Bags	0.2%	0.1%	727				
Non-industrial Packaging Film Plastic	0.5%	0.3%	1,511	<b>Consumer Products</b>	<b>24.3%</b>		<b>78,076</b>
Industrial Packaging Film Plastic	0.6%	0.5%	2,040	Televisions - CRT	0.0%	0.0%	0
R/C Plastic Packaging	0.2%	0.1%	620	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.3%	0.5%	898
<b>Glass</b>	<b>4.4%</b>		<b>14,210</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	0.9%	1.3%	2,823	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.2%	0.2%	535	Computers	0.0%	0.0%	0
Brown Glass Containers	0.1%	0.1%	232	Computer Peripherals	0.5%	0.9%	1,725
Plate Glass	0.0%	0.0%	0	Audio Equipment	0.5%	0.7%	1,754
Stoneware/Kitchen Ceramics/Glassware	1.2%	2.0%	3,921	Gaming Equipment	0.0%	0.1%	114
R/C Glass	2.1%	3.2%	6,701	Other Consumer Electronics	1.7%	2.4%	5,610
				Textiles - Organic	4.9%	3.4%	15,756
<b>Metal</b>	<b>16.9%</b>		<b>54,225</b>	Textiles - Synthetic	2.8%	1.8%	8,989
Aluminum Beverage Cans	0.4%	0.4%	1,178	Shoes, Purses, Belts	0.3%	0.5%	969
Aluminum Foil/Containers	0.0%	0.0%	50	Tires & Rubber	0.1%	0.1%	246
Other Aluminum	0.0%	0.0%	71	Furniture	13.1%	16.4%	42,015
Other Nonferrous	0.0%	0.0%	14	Mattresses	0.0%	0.0%	0
Food Cans - Tinned	0.3%	0.2%	834	R/C Consumer Products	0.0%	0.0%	0
Food Cans - Coated	0.1%	0.1%	356				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>0.6%</b>		<b>1,841</b>
Other Ferrous Metal	14.7%	13.3%	47,074	Pesticides/Herbicides	0.1%	0.1%	172
R/C Metals	1.4%	1.2%	4,648	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	0
<b>Organics</b>	<b>6.2%</b>		<b>20,052</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	2.4%	2.1%	7,805	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	0.7%	0.8%	2,181	Latex Paint	0.0%	0.0%	0
Leaves & Grass	1.0%	1.8%	3,350	Solvent-based Glues	0.0%	0.0%	0
Prunings	0.2%	0.3%	556	Latex-based Glues	0.0%	0.0%	0
Animal Manure	1.9%	2.0%	6,016	Oil-based Paint & Solvent	0.0%	0.1%	100
Animal Carcasses	0.0%	0.0%	0	Caustic Cleaners	0.0%	0.0%	86
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	0
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	0.0%	0.1%	143	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	0
<b>Wood Debris</b>	<b>14.3%</b>		<b>46,046</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	0.0%	0.0%	64	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	0.7%	0.8%	2,189	Oil Filters	0.0%	0.0%	0
Dimensional Lumber	0.1%	0.2%	299	Explosives	0.0%	0.0%	0
Engineered Wood	0.0%	0.0%	0	Medical Wastes	0.0%	0.0%	0
Pallets & Crates	10.0%	14.5%	32,202	Pharmaceuticals/Vitamins	0.0%	0.0%	1
Other Untreated Wood	0.8%	1.1%	2,652	Disposable Diapers	0.1%	0.1%	214
Wood By-Products	0.5%	0.8%	1,640	Other Cleaners & Soaps	0.4%	0.6%	1,269
R/C Wood Debris	2.2%	3.5%	7,000	Other Hazardous	0.0%	0.0%	0
				Other Non-hazardous	0.0%	0.0%	0
<b>Construction Materials</b>	<b>3.1%</b>		<b>9,908</b>	<b>Residues</b>	<b>1.7%</b>		<b>5,408</b>
Natural Wood	0.0%	0.0%	0	Ash	1.7%	2.6%	5,346
Insulation	0.0%	0.0%	0	Dust	0.0%	0.0%	61
Asphalt Paving	0.0%	0.0%	0	Fines	0.0%	0.0%	0
Concrete	0.3%	0.6%	1,112	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	1.1%	1.9%	3,621				
Carpet	0.6%	1.0%	2,010	<b>Totals</b>	<b>100.0%</b>		<b>321,121</b>
Carpet Padding	0.0%	0.0%	0	<b>Sample Count</b>	<b>9</b>		
Soil, Rocks, Sand	0.0%	0.0%	0				
Asphalt Roofing	0.0%	0.0%	0				
Plastic Flooring	0.0%	0.0%	0				
Ceramics & Brick	0.1%	0.2%	385				
R/C Construction Materials	0.9%	1.4%	2,780				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

## Southwest Waste Generation Area Composition Tables

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**Table 47: Southwest WGA Overall Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>10.7%</b>		<b>45,753</b>	<b>Paper Products</b>	<b>7.6%</b>		<b>32,492</b>
Newspaper Packaging	0.4%	0.2%	1,750	Newspaper	0.4%	0.2%	1,745
Cardboard/Kraft Paper Packaging	2.8%	0.7%	11,801	Cardboard/Kraft Paper Products	0.1%	0.1%	330
Other Groundwood Paper Packaging	0.2%	0.2%	682	Magazines	0.6%	0.3%	2,636
Mixed/Low Grade Paper Packaging	1.7%	0.5%	7,200	High-Grade Paper Products	0.9%	0.4%	3,822
Compostable Paper Packaging	1.7%	1.2%	7,273	Other Groundwood Paper Products	0.1%	0.1%	446
R/C Paper Packaging	4.0%	2.8%	17,048	Mixed Low Grade Paper Products	1.5%	0.8%	6,583
				Compostable Paper Products	3.6%	1.3%	15,273
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.4%	0.3%	1,657
<b>Plastic Packaging</b>	<b>6.5%</b>		<b>27,823</b>	<b>Plastic Products</b>	<b>4.1%</b>		<b>17,345</b>
#1 PETE Plastic Bottles	0.6%	0.2%	2,471	#1 PETE Plastic Products	0.0%	0.0%	0
#1 PETE Plastic Non-bottles	0.2%	0.0%	837	#2 HDPE Plastic Products	0.0%	0.0%	66
#2 HDPE Plastic Natural Bottles	0.3%	0.1%	1,112	#3 PVC Plastic Products	0.0%	0.0%	38
#2 HDPE Plastic Colored Bottles	0.2%	0.0%	858	#4 LDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	0.2%	0.2%	872	#5 PP Plastic Products	0.1%	0.1%	323
#3 PVC Plastic Packaging	0.0%	0.0%	45	#6 PS Plastic Products	0.2%	0.1%	873
#4 LDPE Plastic Packaging	0.0%	0.0%	37	#7 Other Plastic Products	1.2%	0.4%	5,238
#5 PP Plastic Packaging	0.3%	0.0%	1,080	PLA Products	0.0%	0.0%	41
#6 PS Plastic Packaging	0.3%	0.1%	1,390	Plastic Garbage Bags	1.2%	0.4%	5,145
#7 Other Plastic Packaging	0.5%	0.2%	2,347	Plastic Film Products	0.3%	0.2%	1,368
PLA Packaging	0.0%	0.0%	13	R/C Plastic Products	1.0%	0.6%	4,253
Plastic Merchandise Bags	0.4%	0.1%	1,697				
Non-industrial Packaging Film Plastic	3.0%	1.8%	12,878	<b>Consumer Products</b>	<b>9.2%</b>		<b>39,399</b>
Industrial Packaging Film Plastic	0.4%	0.3%	1,616	Televisions - CRT	1.1%	0.8%	4,539
R/C Plastic Packaging	0.1%	0.1%	569	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.1%	0.1%	339
<b>Glass</b>	<b>3.1%</b>		<b>13,450</b>	Computer Monitors - CRT	0.1%	0.2%	519
Clear Glass Containers	0.9%	0.4%	3,725	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.3%	0.2%	1,258	Computers	0.1%	0.1%	495
Brown Glass Containers	0.5%	0.3%	1,979	Computer Peripherals	0.0%	0.0%	137
Plate Glass	0.5%	0.5%	2,252	Audio Equipment	0.1%	0.1%	414
Stoneware/Kitchen Ceramics/Glassware	0.2%	0.2%	985	Gaming Equipment	0.0%	0.0%	171
R/C Glass	0.8%	0.6%	3,251	Other Consumer Electronics	0.4%	0.3%	1,541
				Textiles - Organic	2.5%	1.0%	10,821
<b>Metal</b>	<b>4.7%</b>		<b>20,157</b>	Textiles - Synthetic	0.8%	0.3%	3,561
Aluminum Beverage Cans	0.2%	0.1%	1,035	Shoes, Purses, Belts	0.3%	0.2%	1,355
Aluminum Foil/Containers	0.1%	0.0%	377	Tires & Rubber	0.3%	0.1%	1,203
Other Aluminum	0.0%	0.0%	70	Furniture	2.0%	1.4%	8,657
Other Nonferrous	0.1%	0.1%	618	Mattresses	0.5%	0.6%	2,182
Food Cans - Tinned	0.6%	0.2%	2,464	R/C Consumer Products	0.8%	0.8%	3,464
Food Cans - Coated	0.1%	0.0%	276				
White Goods	0.2%	0.3%	655	<b>Hazardous/Special Wastes</b>	<b>5.6%</b>		<b>24,125</b>
Other Ferrous Metal	1.9%	0.8%	8,269	Pesticides/Herbicides	0.0%	0.0%	44
R/C Metals	1.5%	0.7%	6,393	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	6
<b>Organics</b>	<b>23.5%</b>		<b>100,440</b>	Fluorescent Tubes	0.0%	0.0%	51
Food - Vegetative	12.6%	3.6%	53,864	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	5.3%	1.5%	22,519	Latex Paint	0.1%	0.1%	410
Leaves & Grass	2.4%	1.3%	10,076	Solvent-based Glues	0.0%	0.0%	41
Prunings	0.6%	0.5%	2,482	Latex-based Glues	0.0%	0.0%	13
Animal Manure	2.1%	0.7%	9,021	Oil-based Paint & Solvent	0.0%	0.0%	64
Animal Carcasses	0.0%	0.0%	0	Caustic Cleaners	0.0%	0.0%	0
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.1%	0.0%	264
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	0.6%	0.3%	2,479	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.1%	0.1%	270
<b>Wood Debris</b>	<b>12.3%</b>		<b>52,579</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	3.1%	3.2%	13,329	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	2.0%	2.0%	8,446	Oil Filters	0.0%	0.0%	143
Dimensional Lumber	1.2%	0.7%	4,969	Explosives	0.0%	0.0%	0
Engineered Wood	0.8%	0.6%	3,440	Medical Wastes	1.1%	1.1%	4,579
Pallets & Crates	2.6%	2.1%	11,320	Pharmaceuticals/Vitamins	0.0%	0.0%	31
Other Untreated Wood	0.2%	0.3%	1,011	Disposable Diapers	3.9%	1.4%	16,793
Wood By-Products	0.7%	0.5%	3,120	Other Cleaners & Soaps	0.2%	0.1%	792
R/C Wood Wastes	1.6%	1.0%	6,945	Other Hazardous	0.1%	0.1%	503
				Other Non-hazardous	0.0%	0.0%	123
<b>Construction Materials</b>	<b>12.1%</b>		<b>51,976</b>	<b>Residues</b>	<b>0.6%</b>		<b>2,545</b>
Natural Wood	0.0%	0.0%	0	Ash	0.4%	0.7%	1,732
Insulation	0.3%	0.2%	1,256	Dust	0.1%	0.1%	249
Asphalt Paving	0.9%	1.4%	3,684	Fines	0.1%	0.1%	565
Concrete	0.2%	0.3%	832	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	2.1%	1.1%	9,152				
Carpet	1.5%	1.0%	6,355	<b>Totals</b>	<b>100.0%</b>		<b>428,085</b>
Carpet Padding	0.6%	0.5%	2,483	<b>Sample Count</b>	<b>88</b>		
Soil, Rocks, Sand	2.1%	3.3%	9,072				
Asphalt Roofing	2.0%	2.5%	8,492				
Plastic Flooring	0.2%	0.3%	767				
Ceramics & Brick	0.7%	1.0%	3,047				
R/C Construction Materials	1.6%	0.8%	6,836				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

**Table 48: Southwest WGA Commercial Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>15.2%</b>		<b>31,648</b>	<b>Paper Products</b>	<b>8.0%</b>		<b>16,693</b>
Newspaper Packaging	0.4%	0.3%	749	Newspaper	0.4%	0.3%	750
Cardboard/Kraft Paper Packaging	3.3%	1.1%	6,918	Cardboard/Kraft Paper Products	0.1%	0.1%	175
Other Groundwood Paper Packaging	0.3%	0.4%	566	Magazines	0.6%	0.5%	1,280
Mixed/Low Grade Paper Packaging	1.4%	0.8%	3,005	High-Grade Paper Products	0.9%	0.5%	1,980
Compostable Paper Packaging	2.6%	2.4%	5,380	Other Groundwood Paper Products	0.0%	0.1%	97
R/C Paper Packaging	7.2%	5.7%	15,031	Mixed Low Grade Paper Products	1.6%	1.5%	3,341
				Compostable Paper Products	3.7%	2.5%	7,634
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.7%	0.7%	1,437
<b>Plastic Packaging</b>	<b>7.2%</b>		<b>15,027</b>	<b>Plastic Products</b>	<b>4.1%</b>		<b>8,553</b>
#1 PETE Plastic Bottles	0.5%	0.3%	1,051	#1 PETE Plastic Products	0.0%	0.0%	0
#1 PETE Plastic Non-bottles	0.1%	0.1%	250	#2 HDPE Plastic Products	0.0%	0.1%	66
#2 HDPE Plastic Natural Bottles	0.2%	0.1%	313	#3 PVC Plastic Products	0.0%	0.0%	37
#2 HDPE Plastic Colored Bottles	0.1%	0.1%	186	#4 LDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	0.4%	0.3%	750	#5 PP Plastic Products	0.1%	0.1%	147
#3 PVC Plastic Packaging	0.0%	0.0%	20	#6 PS Plastic Products	0.3%	0.3%	543
#4 LDPE Plastic Packaging	0.0%	0.0%	0	#7 Other Plastic Products	0.7%	0.4%	1,437
#5 PP Plastic Packaging	0.1%	0.1%	271	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.2%	0.1%	495	Plastic Garbage Bags	1.5%	0.8%	3,211
#7 Other Plastic Packaging	0.4%	0.3%	924	Plastic Film Products	0.2%	0.2%	405
PLA Packaging	0.0%	0.0%	13	R/C Plastic Products	1.3%	1.2%	2,707
Plastic Merchandise Bags	0.1%	0.1%	251				
Non-industrial Packaging Film Plastic	4.3%	3.6%	8,949	<b>Consumer Products</b>	<b>6.5%</b>		<b>13,539</b>
Industrial Packaging Film Plastic	0.6%	0.6%	1,277	Televisions - CRT	0.4%	0.7%	884
R/C Plastic Packaging	0.1%	0.1%	277	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	0
<b>Glass</b>	<b>2.0%</b>		<b>4,094</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	0.9%	0.8%	1,948	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.3%	0.3%	610	Computers	0.0%	0.0%	0
Brown Glass Containers	0.5%	0.7%	956	Computer Peripherals	0.0%	0.0%	0
Plate Glass	0.0%	0.0%	0	Audio Equipment	0.0%	0.0%	0
Stoneware/Kitchen Ceramics/Glassware	0.0%	0.0%	36	Gaming Equipment	0.0%	0.0%	0
R/C Glass	0.3%	0.3%	543	Other Consumer Electronics	0.0%	0.0%	7
				Textiles - Organic	2.5%	1.8%	5,299
<b>Metal</b>	<b>4.8%</b>		<b>9,933</b>	Textiles - Synthetic	0.4%	0.3%	846
Aluminum Beverage Cans	0.2%	0.1%	355	Shoes, Purses, Belts	0.1%	0.1%	241
Aluminum Foil/Containers	0.0%	0.0%	92	Tires & Rubber	0.2%	0.1%	322
Other Aluminum	0.0%	0.0%	12	Furniture	1.8%	2.4%	3,714
Other Nonferrous	0.2%	0.3%	394	Mattresses	0.6%	1.0%	1,207
Food Cans - Tinned	0.5%	0.5%	1,074	R/C Consumer Products	0.5%	0.6%	1,021
Food Cans - Coated	0.0%	0.0%	8				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>4.9%</b>		<b>10,339</b>
Other Ferrous Metal	2.2%	1.4%	4,641	Pesticides/Herbicides	0.0%	0.0%	0
R/C Metals	1.6%	1.2%	3,358	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	0
<b>Organics</b>	<b>18.0%</b>		<b>37,615</b>	Fluorescent Tubes	0.0%	0.0%	40
Food - Vegetative	11.7%	7.2%	24,389	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	4.2%	2.7%	8,711	Latex Paint	0.0%	0.0%	56
Leaves & Grass	1.1%	1.5%	2,340	Solvent-based Glues	0.0%	0.0%	0
Prunings	0.0%	0.0%	13	Latex-based Glues	0.0%	0.0%	0
Animal Manure	0.7%	1.1%	1,375	Oil-based Paint & Solvent	0.0%	0.0%	30
Animal Carcasses	0.0%	0.0%	0	Caustic Cleaners	0.0%	0.0%	0
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	38
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	0.4%	0.5%	787	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.1%	0.2%	270
<b>Wood Debris</b>	<b>16.2%</b>		<b>33,794</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	5.7%	6.5%	11,938	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	2.5%	4.0%	5,300	Oil Filters	0.0%	0.0%	0
Dimensional Lumber	1.0%	1.1%	1,993	Explosives	0.0%	0.0%	0
Engineered Wood	1.3%	1.0%	2,626	Medical Wastes	2.1%	2.3%	4,317
Pallets & Crates	4.1%	3.9%	8,601	Pharmaceuticals/Vitamins	0.0%	0.0%	0
Other Untreated Wood	0.1%	0.1%	111	Disposable Diapers	2.5%	2.7%	5,213
Wood By-Products	0.4%	0.6%	861	Other Cleaners & Soaps	0.0%	0.0%	0
R/C Wood Debris	1.1%	1.8%	2,363	Other Hazardous	0.2%	0.3%	375
				Other Non-hazardous	0.0%	0.0%	0
<b>Construction Materials</b>	<b>12.3%</b>		<b>25,752</b>	<b>Residues</b>	<b>0.9%</b>		<b>1,880</b>
Natural Wood	0.0%	0.0%	0	Ash	0.8%	1.3%	1,732
Insulation	0.1%	0.2%	296	Dust	0.0%	0.0%	0
Asphalt Paving	1.7%	2.8%	3,621	Fines	0.1%	0.1%	148
Concrete	0.0%	0.0%	0	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	0.0%	0.0%	28				
Carpet	0.1%	0.1%	234	<b>Totals</b>	<b>100.0%</b>		<b>208,867</b>
Carpet Padding	0.3%	0.5%	660	<b>Sample Count</b>	<b>27</b>		
Soil, Rocks, Sand	4.2%	6.8%	8,839				
Asphalt Roofing	3.1%	5.1%	6,438				
Plastic Flooring	0.3%	0.6%	709				
Ceramics & Brick	1.2%	2.0%	2,576				
R/C Construction Materials	1.1%	1.1%	2,351				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.



**Table 49: Southwest WGA Residential Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>8.6%</b>		<b>12,317</b>	<b>Paper Products</b>	<b>10.2%</b>		<b>14,650</b>
Newspaper Packaging	0.6%	0.5%	904	Newspaper	0.7%	0.3%	955
Cardboard/Kraft Paper Packaging	2.6%	1.1%	3,797	Cardboard/Kraft Paper Products	0.0%	0.1%	52
Other Groundwood Paper Packaging	0.1%	0.1%	94	Magazines	0.7%	0.4%	1,028
Mixed/Low Grade Paper Packaging	2.8%	0.6%	3,981	High-Grade Paper Products	1.3%	0.8%	1,797
Compostable Paper Packaging	1.3%	0.6%	1,817	Other Groundwood Paper Products	0.1%	0.1%	161
R/C Paper Packaging	1.2%	0.2%	1,724	Mixed Low Grade Paper Products	2.1%	0.7%	3,048
				Compostable Paper Products	5.2%	1.4%	7,478
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.1%	0.1%	130
<b>Plastic Packaging</b>	<b>8.3%</b>		<b>11,827</b>	<b>Plastic Products</b>	<b>4.5%</b>		<b>6,489</b>
#1 PETE Plastic Bottles	0.9%	0.1%	1,354	#1 PETE Plastic Products	0.0%	0.0%	0
#1 PETE Plastic Non-bottles	0.4%	0.1%	563	#2 HDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Natural Bottles	0.5%	0.2%	781	#3 PVC Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Colored Bottles	0.4%	0.1%	641	#4 LDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	0.1%	0.1%	101	#5 PP Plastic Products	0.1%	0.1%	174
#3 PVC Plastic Packaging	0.0%	0.0%	26	#6 PS Plastic Products	0.2%	0.1%	284
#4 LDPE Plastic Packaging	0.0%	0.0%	37	#7 Other Plastic Products	1.7%	0.7%	2,501
#5 PP Plastic Packaging	0.5%	0.0%	778	PLA Products	0.0%	0.0%	41
#6 PS Plastic Packaging	0.5%	0.2%	769	Plastic Garbage Bags	1.3%	0.1%	1,898
#7 Other Plastic Packaging	0.9%	0.2%	1,264	Plastic Film Products	0.7%	0.5%	948
PLA Packaging	0.0%	0.0%	0	R/C Plastic Products	0.4%	0.2%	643
Plastic Merchandise Bags	1.0%	0.2%	1,416				
Non-industrial Packaging Film Plastic	2.5%	0.3%	3,623	<b>Consumer Products</b>	<b>7.0%</b>		<b>10,068</b>
Industrial Packaging Film Plastic	0.1%	0.1%	206	Televisions - CRT	0.8%	1.3%	1,143
R/C Plastic Packaging	0.2%	0.1%	268	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	0
<b>Glass</b>	<b>3.0%</b>		<b>4,278</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	1.2%	0.4%	1,754	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.4%	0.3%	636	Computers	0.0%	0.0%	6
Brown Glass Containers	0.6%	0.3%	857	Computer Peripherals	0.0%	0.0%	51
Plate Glass	0.0%	0.0%	0	Audio Equipment	0.3%	0.4%	414
Stoneware/Kitchen Ceramics/Glassware	0.3%	0.2%	473	Gaming Equipment	0.1%	0.1%	137
R/C Glass	0.4%	0.2%	558	Other Consumer Electronics	0.9%	0.8%	1,281
				Textiles - Organic	2.5%	0.7%	3,562
<b>Metal</b>	<b>3.1%</b>		<b>4,469</b>	Textiles - Synthetic	1.3%	0.7%	1,876
Aluminum Beverage Cans	0.5%	0.1%	663	Shoes, Purses, Belts	0.4%	0.3%	519
Aluminum Foil/Containers	0.2%	0.1%	278	Tires & Rubber	0.4%	0.3%	602
Other Aluminum	0.0%	0.0%	52	Furniture	0.0%	0.0%	0
Other Nonferrous	0.0%	0.1%	62	Mattresses	0.0%	0.0%	0
Food Cans - Tinned	0.9%	0.2%	1,324	R/C Consumer Products	0.3%	0.3%	476
Food Cans - Coated	0.2%	0.1%	251				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>8.9%</b>		<b>12,784</b>
Other Ferrous Metal	0.7%	0.4%	1,074	Pesticides/Herbicides	0.0%	0.0%	0
R/C Metals	0.5%	0.4%	766	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	6
<b>Organics</b>	<b>40.5%</b>		<b>58,076</b>	Fluorescent Tubes	0.0%	0.0%	12
Food - Vegetative	20.2%	2.2%	28,913	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	9.3%	2.1%	13,355	Latex Paint	0.0%	0.0%	7
Leaves & Grass	3.5%	2.2%	4,967	Solvent-based Glues	0.0%	0.0%	40
Prunings	1.5%	1.4%	2,184	Latex-based Glues	0.0%	0.0%	9
Animal Manure	4.9%	1.4%	7,054	Oil-based Paint & Solvent	0.0%	0.0%	32
Animal Carcasses	0.0%	0.0%	0	Caustic Cleaners	0.0%	0.0%	0
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.1%	0.1%	210
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	1.1%	0.5%	1,604	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	0
<b>Wood Debris</b>	<b>2.1%</b>		<b>3,055</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	0.3%	0.4%	451	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	0.8%	0.6%	1,124	Oil Filters	0.1%	0.1%	143
Dimensional Lumber	0.1%	0.1%	156	Explosives	0.0%	0.0%	0
Engineered Wood	0.1%	0.1%	111	Medical Wastes	0.2%	0.2%	259
Pallets & Crates	0.0%	0.0%	0	Pharmaceuticals/Vitamins	0.0%	0.0%	28
Other Untreated Wood	0.0%	0.0%	28	Disposable Diapers	7.9%	1.9%	11,351
Wood By-Products	0.4%	0.3%	609	Other Cleaners & Soaps	0.3%	0.2%	486
R/C Wood Debris	0.4%	0.4%	576	Other Hazardous	0.1%	0.1%	80
				Other Non-hazardous	0.1%	0.1%	121
<b>Construction Materials</b>	<b>3.3%</b>		<b>4,686</b>	<b>Residues</b>	<b>0.5%</b>		<b>657</b>
Natural Wood	0.0%	0.0%	0	Ash	0.0%	0.0%	0
Insulation	0.3%	0.5%	443	Dust	0.2%	0.2%	249
Asphalt Paving	0.0%	0.1%	62	Fines	0.3%	0.3%	408
Concrete	0.1%	0.1%	125	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	0.4%	0.4%	572				
Carpet	1.2%	1.3%	1,680	<b>Totals</b>	<b>100.0%</b>		<b>143,358</b>
Carpet Padding	0.2%	0.4%	330	<b>Sample Count</b>	<b>23</b>		
Soil, Rocks, Sand	0.1%	0.2%	208				
Asphalt Roofing	0.1%	0.1%	91				
Plastic Flooring	0.0%	0.1%	58				
Ceramics & Brick	0.1%	0.1%	137				
R/C Construction Materials	0.7%	0.7%	979				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

**Table 50: Southwest WGA Self-hauled C&D Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>2.0%</b>		<b>571</b>	<b>Paper Products</b>	<b>0.3%</b>		<b>73</b>
Newspaper Packaging	0.3%	0.5%	92	Newspaper	0.0%	0.0%	3
Cardboard/Kraft Paper Packaging	1.3%	0.7%	354	Cardboard/Kraft Paper Products	0.0%	0.0%	0
Other Groundwood Paper Packaging	0.0%	0.0%	0	Magazines	0.0%	0.1%	9
Mixed/Low Grade Paper Packaging	0.4%	0.6%	112	High-Grade Paper Products	0.0%	0.1%	12
Compostable Paper Packaging	0.0%	0.0%	2	Other Groundwood Paper Products	0.0%	0.0%	0
R/C Paper Packaging	0.0%	0.0%	11	Mixed Low Grade Paper Products	0.0%	0.0%	3
				Compostable Paper Products	0.0%	0.0%	1
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.2%	0.3%	46
<b>Plastic Packaging</b>	<b>0.4%</b>		<b>124</b>	<b>Plastic Products</b>	<b>2.0%</b>		<b>557</b>
#1 PETE Plastic Bottles	0.0%	0.0%	8	#1 PETE Plastic Products	0.0%	0.0%	0
#1 PETE Plastic Non-bottles	0.0%	0.0%	5	#2 HDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Natural Bottles	0.0%	0.0%	3	#3 PVC Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Colored Bottles	0.0%	0.0%	9	#4 LDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	0.0%	0.0%	0	#5 PP Plastic Products	0.0%	0.0%	1
#3 PVC Plastic Packaging	0.0%	0.0%	0	#6 PS Plastic Products	0.1%	0.1%	24
#4 LDPE Plastic Packaging	0.0%	0.0%	0	#7 Other Plastic Products	0.4%	0.3%	99
#5 PP Plastic Packaging	0.0%	0.0%	3	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.0%	0.0%	0	Plastic Garbage Bags	0.0%	0.0%	4
#7 Other Plastic Packaging	0.0%	0.0%	6	Plastic Film Products	0.0%	0.1%	11
PLA Packaging	0.0%	0.0%	0	R/C Plastic Products	1.5%	1.5%	418
Plastic Merchandise Bags	0.0%	0.0%	2				
Non-industrial Packaging Film Plastic	0.0%	0.0%	2	<b>Consumer Products</b>	<b>2.6%</b>		<b>738</b>
Industrial Packaging Film Plastic	0.3%	0.2%	86	Televisions - CRT	0.0%	0.0%	0
R/C Plastic Packaging	0.0%	0.0%	1	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	0
<b>Glass</b>	<b>9.8%</b>		<b>2,749</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	0.0%	0.0%	8	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.0%	0.1%	12	Computers	0.0%	0.0%	0
Brown Glass Containers	0.0%	0.1%	14	Computer Peripherals	0.0%	0.0%	0
Plate Glass	6.7%	8.1%	1,880	Audio Equipment	0.0%	0.0%	0
Stoneware/Kitchen Ceramics/Glassware	0.0%	0.0%	0	Gaming Equipment	0.0%	0.0%	0
R/C Glass	3.0%	4.9%	835	Other Consumer Electronics	0.0%	0.0%	0
				Textiles - Organic	1.5%	2.5%	426
<b>Metal</b>	<b>4.9%</b>		<b>1,384</b>	Textiles - Synthetic	0.1%	0.1%	16
Aluminum Beverage Cans	0.0%	0.0%	4	Shoes, Purses, Belts	1.0%	1.6%	285
Aluminum Foil/Containers	0.0%	0.0%	1	Tires & Rubber	0.0%	0.1%	11
Other Aluminum	0.0%	0.0%	6	Furniture	0.0%	0.0%	0
Other Nonferrous	0.6%	0.6%	160	Mattresses	0.0%	0.0%	0
Food Cans - Tinned	0.0%	0.0%	4	R/C Consumer Products	0.0%	0.0%	0
Food Cans - Coated	0.0%	0.0%	1				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>0.1%</b>		<b>38</b>
Other Ferrous Metal	3.0%	3.1%	837	Pesticides/Herbicides	0.0%	0.0%	0
R/C Metals	1.3%	1.6%	371	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	0
<b>Organics</b>	<b>1.3%</b>		<b>357</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	0.0%	0.1%	13	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	0.0%	0.0%	0	Latex Paint	0.1%	0.2%	30
Leaves & Grass	0.0%	0.0%	2	Solvent-based Glues	0.0%	0.0%	0
Prunings	0.6%	1.0%	173	Latex-based Glues	0.0%	0.0%	0
Animal Manure	0.3%	0.5%	93	Oil-based Paint & Solvent	0.0%	0.0%	0
Animal Carcasses	0.0%	0.0%	0	Caustic Cleaners	0.0%	0.0%	0
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	0
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	0.3%	0.3%	75	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	0
<b>Wood Debris</b>	<b>30.2%</b>		<b>8,508</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	3.2%	5.3%	900	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	5.9%	4.9%	1,648	Oil Filters	0.0%	0.0%	0
Dimensional Lumber	4.8%	3.3%	1,351	Explosives	0.0%	0.0%	0
Engineered Wood	0.0%	0.0%	6	Medical Wastes	0.0%	0.0%	0
Pallets & Crates	0.0%	0.0%	0	Pharmaceuticals/Vitamins	0.0%	0.0%	0
Other Untreated Wood	3.0%	4.6%	848	Disposable Diapers	0.0%	0.0%	1
Wood By-Products	3.9%	5.9%	1,096	Other Cleaners & Soaps	0.0%	0.0%	7
R/C Wood Debris	9.4%	6.7%	2,659	Other Hazardous	0.0%	0.0%	0
				Other Non-hazardous	0.0%	0.0%	0
<b>Construction Materials</b>	<b>46.3%</b>		<b>13,048</b>	<b>Residues</b>	<b>0.0%</b>		<b>9</b>
Natural Wood	0.0%	0.0%	0	Ash	0.0%	0.0%	0
Insulation	1.6%	1.8%	463	Dust	0.0%	0.0%	0
Asphalt Paving	0.0%	0.0%	0	Fines	0.0%	0.1%	9
Concrete	2.5%	4.1%	707	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	24.9%	13.4%	7,022				
Carpet	0.3%	0.3%	76	<b>Totals</b>	<b>100.0%</b>		<b>28,156</b>
Carpet Padding	0.0%	0.0%	0	<b>Sample Count</b>	<b>19</b>		
Soil, Rocks, Sand	0.0%	0.0%	12				
Asphalt Roofing	6.6%	7.4%	1,861				
Plastic Flooring	0.0%	0.0%	0				
Ceramics & Brick	1.2%	1.4%	334				
R/C Construction Materials	9.1%	7.4%	2,573				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

**Table 51: Southwest WGA Self-hauled Other Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>2.6%</b>		<b>1,218</b>	<b>Paper Products</b>	<b>2.3%</b>		<b>1,075</b>
Newspaper Packaging	0.0%	0.0%	5	Newspaper	0.1%	0.1%	37
Cardboard/Kraft Paper Packaging	1.5%	1.1%	731	Cardboard/Kraft Paper Products	0.2%	0.3%	103
Other Groundwood Paper Packaging	0.0%	0.1%	23	Magazines	0.7%	1.0%	319
Mixed/Low Grade Paper Packaging	0.2%	0.2%	102	High-Grade Paper Products	0.1%	0.1%	33
Compostable Paper Packaging	0.2%	0.2%	74	Other Groundwood Paper Products	0.4%	0.6%	187
R/C Paper Packaging	0.6%	0.7%	282	Mixed Low Grade Paper Products	0.4%	0.6%	192
				Compostable Paper Products	0.3%	0.3%	160
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.1%	0.1%	44
<b>Plastic Packaging</b>	<b>1.8%</b>		<b>844</b>	<b>Plastic Products</b>	<b>3.7%</b>		<b>1,745</b>
#1 PETE Plastic Bottles	0.1%	0.2%	58	#1 PETE Plastic Products	0.0%	0.0%	0
#1 PETE Plastic Non-bottles	0.0%	0.0%	20	#2 HDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Natural Bottles	0.0%	0.0%	15	#3 PVC Plastic Products	0.0%	0.0%	1
#2 HDPE Plastic Colored Bottles	0.0%	0.0%	22	#4 LDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	0.0%	0.1%	21	#5 PP Plastic Products	0.0%	0.0%	2
#3 PVC Plastic Packaging	0.0%	0.0%	0	#6 PS Plastic Products	0.0%	0.1%	22
#4 LDPE Plastic Packaging	0.0%	0.0%	0	#7 Other Plastic Products	2.5%	2.6%	1,201
#5 PP Plastic Packaging	0.1%	0.1%	29	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.3%	0.4%	126	Plastic Garbage Bags	0.1%	0.0%	31
#7 Other Plastic Packaging	0.3%	0.3%	152	Plastic Film Products	0.0%	0.0%	3
PLA Packaging	0.0%	0.0%	0	R/C Plastic Products	1.0%	1.0%	486
Plastic Merchandise Bags	0.1%	0.0%	27				
Non-industrial Packaging Film Plastic	0.6%	0.5%	304	<b>Consumer Products</b>	<b>31.6%</b>		<b>15,052</b>
Industrial Packaging Film Plastic	0.1%	0.1%	47	Televisions - CRT	5.3%	4.9%	2,512
R/C Plastic Packaging	0.0%	0.1%	24	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.7%	0.8%	339
<b>Glass</b>	<b>4.9%</b>		<b>2,329</b>	Computer Monitors - CRT	1.1%	1.8%	519
Clear Glass Containers	0.0%	0.0%	15	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.0%	0.0%	0	Computers	1.0%	1.2%	490
Brown Glass Containers	0.3%	0.5%	151	Computer Peripherals	0.2%	0.2%	86
Plate Glass	0.8%	1.2%	373	Audio Equipment	0.0%	0.0%	0
Stoneware/Kitchen Ceramics/Glassware	1.0%	1.5%	476	Gaming Equipment	0.1%	0.1%	34
R/C Glass	2.8%	4.4%	1,315	Other Consumer Electronics	0.5%	0.6%	253
				Textiles - Organic	3.2%	3.7%	1,535
<b>Metal</b>	<b>9.2%</b>		<b>4,371</b>	Textiles - Synthetic	1.7%	1.2%	823
Aluminum Beverage Cans	0.0%	0.0%	13	Shoes, Purses, Belts	0.6%	0.7%	310
Aluminum Foil/Containers	0.0%	0.0%	5	Tires & Rubber	0.6%	0.7%	268
Other Aluminum	0.0%	0.0%	0	Furniture	10.4%	7.0%	4,943
Other Nonferrous	0.0%	0.0%	3	Mattresses	2.0%	3.3%	975
Food Cans - Tinned	0.1%	0.2%	63	R/C Consumer Products	4.1%	6.6%	1,967
Food Cans - Coated	0.0%	0.1%	17				
White Goods	1.4%	2.3%	655	<b>Hazardous/Special Wastes</b>	<b>2.0%</b>		<b>964</b>
Other Ferrous Metal	3.6%	2.3%	1,717	Pesticides/Herbicides	0.1%	0.1%	44
R/C Metals	4.0%	3.1%	1,898	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	0
<b>Organics</b>	<b>9.2%</b>		<b>4,393</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	1.2%	1.2%	549	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	0.9%	0.8%	453	Latex Paint	0.7%	1.0%	316
Leaves & Grass	5.8%	6.5%	2,767	Solvent-based Glues	0.0%	0.0%	1
Prunings	0.2%	0.4%	112	Latex-based Glues	0.0%	0.0%	4
Animal Manure	1.0%	1.7%	498	Oil-based Paint & Solvent	0.0%	0.0%	2
Animal Carcasses	0.0%	0.0%	0	Caustic Cleaners	0.0%	0.0%	0
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	16
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	0.0%	0.0%	14	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	0
<b>Wood Debris</b>	<b>15.1%</b>		<b>7,222</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	0.1%	0.1%	39	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	0.8%	0.9%	374	Oil Filters	0.0%	0.0%	0
Dimensional Lumber	3.1%	4.0%	1,469	Explosives	0.0%	0.0%	0
Engineered Wood	1.5%	2.4%	697	Medical Wastes	0.0%	0.0%	3
Pallets & Crates	5.7%	7.0%	2,719	Pharmaceuticals/Vitamins	0.0%	0.0%	3
Other Untreated Wood	0.0%	0.1%	24	Disposable Diapers	0.5%	0.7%	228
Wood By-Products	1.2%	1.2%	554	Other Cleaners & Soaps	0.6%	0.7%	299
R/C Wood Debris	2.8%	2.6%	1,347	Other Hazardous	0.1%	0.1%	48
				Other Non-hazardous	0.0%	0.0%	1
<b>Construction Materials</b>	<b>17.8%</b>		<b>8,489</b>	<b>Residues</b>	<b>0.0%</b>		<b>0</b>
Natural Wood	0.0%	0.0%	0	Ash	0.0%	0.0%	0
Insulation	0.1%	0.2%	54	Dust	0.0%	0.0%	0
Asphalt Paving	0.0%	0.0%	0	Fines	0.0%	0.0%	0
Concrete	0.0%	0.0%	0	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	3.2%	5.3%	1,529				
Carpet	9.2%	7.9%	4,365	<b>Totals</b>	<b>100.0%</b>		<b>47,704</b>
Carpet Padding	3.1%	3.5%	1,494	<b>Sample Count</b>	<b>19</b>		
Soil, Rocks, Sand	0.0%	0.0%	12				
Asphalt Roofing	0.2%	0.3%	101				
Plastic Flooring	0.0%	0.0%	0				
Ceramics & Brick	0.0%	0.0%	0				
R/C Construction Materials	2.0%	2.6%	933				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

## West Waste Generation Area Composition Tables

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**Table 52: West WGA Overall Disposed Waste Stream  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>9.0%</b>		<b>15,788</b>	<b>Paper Products</b>	<b>10.4%</b>		<b>18,179</b>
Newspaper Packaging	0.5%	0.3%	940	Newspaper	0.7%	0.2%	1,297
Cardboard/Kraft Paper Packaging	3.4%	0.8%	5,998	Cardboard/Kraft Paper Products	0.1%	0.1%	136
Other Groundwood Paper Packaging	0.1%	0.1%	239	Magazines	1.3%	0.5%	2,272
Mixed/Low Grade Paper Packaging	2.1%	0.4%	3,657	High-Grade Paper Products	1.0%	0.2%	1,685
Compostable Paper Packaging	1.4%	0.6%	2,520	Other Groundwood Paper Products	0.1%	0.1%	200
R/C Paper Packaging	1.4%	0.5%	2,433	Mixed Low Grade Paper Products	1.5%	0.4%	2,663
				Compostable Paper Products	4.7%	1.5%	8,283
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.9%	0.5%	1,642
<b>Plastic Packaging</b>	<b>7.5%</b>		<b>13,190</b>	<b>Plastic Products</b>	<b>6.0%</b>		<b>10,494</b>
#1 PETE Plastic Bottles	0.8%	0.1%	1,423	#1 PETE Plastic Products	0.0%	0.0%	63
#1 PETE Plastic Non-bottles	0.3%	0.1%	536	#2 HDPE Plastic Products	0.2%	0.3%	392
#2 HDPE Plastic Natural Bottles	0.3%	0.1%	569	#3 PVC Plastic Products	0.1%	0.1%	119
#2 HDPE Plastic Colored Bottles	0.4%	0.1%	724	#4 LDPE Plastic Products	0.0%	0.0%	16
#2 HDPE Plastic Jars & Tubs	0.3%	0.2%	451	#5 PP Plastic Products	0.1%	0.0%	103
#3 PVC Plastic Packaging	0.0%	0.0%	48	#6 PS Plastic Products	0.1%	0.0%	114
#4 LDPE Plastic Packaging	0.0%	0.0%	12	#7 Other Plastic Products	2.3%	1.1%	3,948
#5 PP Plastic Packaging	0.4%	0.1%	661	PLA Products	0.0%	0.0%	5
#6 PS Plastic Packaging	0.4%	0.1%	676	Plastic Garbage Bags	1.7%	0.7%	2,980
#7 Other Plastic Packaging	0.5%	0.1%	949	Plastic Film Products	0.4%	0.2%	630
PLA Packaging	0.0%	0.0%	1	R/C Plastic Products	1.2%	0.8%	2,124
Plastic Merchandise Bags	0.5%	0.1%	913				
Non-industrial Packaging Film Plastic	2.2%	0.5%	3,878	<b>Consumer Products</b>	<b>7.0%</b>		<b>12,249</b>
Industrial Packaging Film Plastic	0.7%	0.4%	1,256	Televisions - CRT	0.0%	0.0%	0
R/C Plastic Packaging	0.6%	0.5%	1,093	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	0
<b>Glass</b>	<b>2.6%</b>		<b>4,603</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	1.2%	0.2%	2,031	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.4%	0.2%	667	Computers	0.0%	0.0%	2
Brown Glass Containers	0.6%	0.2%	1,112	Computer Peripherals	0.4%	0.6%	614
Plate Glass	0.0%	0.0%	36	Audio Equipment	0.0%	0.0%	55
Stoneware/Kitchen Ceramics/Glassware	0.1%	0.0%	102	Gaming Equipment	0.0%	0.0%	62
R/C Glass	0.4%	0.2%	655	Other Consumer Electronics	0.2%	0.1%	268
				Textiles - Organic	2.1%	0.5%	3,714
<b>Metal</b>	<b>6.5%</b>		<b>11,292</b>	Textiles - Synthetic	1.2%	0.4%	2,059
Aluminum Beverage Cans	0.5%	0.1%	886	Shoes, Purses, Belts	0.3%	0.1%	611
Aluminum Foil/Containers	0.1%	0.0%	194	Tires & Rubber	0.3%	0.2%	553
Other Aluminum	0.1%	0.0%	150	Furniture	1.5%	0.8%	2,618
Other Nonferrous	0.1%	0.0%	115	Mattresses	0.4%	0.5%	771
Food Cans - Tinned	0.8%	0.2%	1,357	R/C Consumer Products	0.5%	0.6%	922
Food Cans - Coated	0.2%	0.1%	325				
White Goods	0.1%	0.2%	251	<b>Hazardous/Special Wastes</b>	<b>3.5%</b>		<b>6,065</b>
Other Ferrous Metal	3.0%	0.9%	5,277	Pesticides/Herbicides	0.0%	0.0%	28
R/C Metals	1.6%	0.6%	2,738	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	8
<b>Organics</b>	<b>23.5%</b>		<b>41,190</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	10.6%	1.5%	18,539	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	5.8%	1.5%	10,062	Latex Paint	0.1%	0.1%	205
Leaves & Grass	3.1%	1.4%	5,489	Solvent-based Glues	0.0%	0.1%	81
Prunings	0.8%	1.1%	1,390	Latex-based Glues	0.0%	0.0%	54
Animal Manure	2.8%	1.1%	4,886	Oil-based Paint & Solvent	0.1%	0.1%	133
Animal Carcasses	0.1%	0.1%	104	Caustic Cleaners	0.0%	0.0%	45
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.1%	0.0%	129
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.1%	0.2%	207
R/C Organics	0.4%	0.1%	719	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.1%	68
<b>Wood Debris</b>	<b>14.2%</b>		<b>24,909</b>	Antifreeze	0.0%	0.0%	3
Treated Wood	1.9%	2.6%	3,380	Other Vehicle Fluids	0.0%	0.0%	35
Painted Wood	2.8%	1.6%	4,879	Oil Filters	0.0%	0.0%	70
Dimensional Lumber	2.2%	1.7%	3,905	Explosives	0.0%	0.0%	2
Engineered Wood	2.2%	1.4%	3,811	Medical Wastes	0.4%	0.5%	653
Pallets & Crates	1.8%	2.0%	3,194	Pharmaceuticals/Vitamins	0.0%	0.0%	18
Other Untreated Wood	0.3%	0.3%	473	Disposable Diapers	2.3%	0.6%	4,059
Wood By-Products	0.5%	0.3%	846	Other Cleaners & Soaps	0.1%	0.0%	205
R/C Wood Wastes	2.5%	2.7%	4,421	Other Hazardous	0.0%	0.0%	51
				Other Non-hazardous	0.0%	0.0%	12
<b>Construction Materials</b>	<b>9.5%</b>		<b>16,592</b>	<b>Residues</b>	<b>0.2%</b>		<b>420</b>
Natural Wood	0.1%	0.1%	140	Ash	0.0%	0.0%	0
Insulation	0.2%	0.2%	394	Dust	0.1%	0.1%	262
Asphalt Paving	0.1%	0.1%	159	Fines	0.1%	0.1%	158
Concrete	0.1%	0.1%	196	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	2.1%	1.6%	3,592				
Carpet	2.5%	2.3%	4,333	<b>Totals</b>	<b>100.0%</b>		<b>174,971</b>
Carpet Padding	0.7%	0.7%	1,157	<b>Sample Count</b>	<b>85</b>		
Soil, Rocks, Sand	0.6%	0.4%	971				
Asphalt Roofing	0.7%	0.7%	1,263				
Plastic Flooring	0.0%	0.0%	0				
Ceramics & Brick	0.4%	0.2%	636				
R/C Construction Materials	2.1%	1.3%	3,751				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

**Table 53: West WGA Commercial Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>8.5%</b>		<b>5,940</b>	<b>Paper Products</b>	<b>12.2%</b>		<b>8,559</b>
Newspaper Packaging	0.3%	0.3%	187	Newspaper	0.6%	0.3%	449
Cardboard/Kraft Paper Packaging	3.3%	1.4%	2,285	Cardboard/Kraft Paper Products	0.2%	0.2%	135
Other Groundwood Paper Packaging	0.0%	0.0%	6	Magazines	1.4%	1.2%	984
Mixed/Low Grade Paper Packaging	1.6%	0.7%	1,110	High-Grade Paper Products	0.8%	0.4%	565
Compostable Paper Packaging	1.3%	0.9%	877	Other Groundwood Paper Products	0.2%	0.2%	128
R/C Paper Packaging	2.1%	1.1%	1,475	Mixed Low Grade Paper Products	1.2%	0.6%	839
				Compostable Paper Products	6.3%	3.7%	4,414
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	1.5%	1.1%	1,045
<b>Plastic Packaging</b>	<b>7.5%</b>		<b>5,211</b>	<b>Plastic Products</b>	<b>8.1%</b>		<b>5,638</b>
#1 PETE Plastic Bottles	0.5%	0.2%	356	#1 PETE Plastic Products	0.0%	0.0%	13
#1 PETE Plastic Non-bottles	0.3%	0.2%	177	#2 HDPE Plastic Products	0.5%	0.7%	320
#2 HDPE Plastic Natural Bottles	0.3%	0.1%	219	#3 PVC Plastic Products	0.0%	0.1%	31
#2 HDPE Plastic Colored Bottles	0.4%	0.3%	260	#4 LDPE Plastic Products	0.0%	0.0%	8
#2 HDPE Plastic Jars & Tubs	0.4%	0.4%	254	#5 PP Plastic Products	0.1%	0.1%	38
#3 PVC Plastic Packaging	0.0%	0.0%	3	#6 PS Plastic Products	0.1%	0.0%	36
#4 LDPE Plastic Packaging	0.0%	0.0%	5	#7 Other Plastic Products	2.9%	2.4%	1,999
#5 PP Plastic Packaging	0.2%	0.1%	149	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.4%	0.2%	254	Plastic Garbage Bags	2.5%	1.7%	1,732
#7 Other Plastic Packaging	0.3%	0.1%	226	Plastic Film Products	0.4%	0.4%	294
PLA Packaging	0.0%	0.0%	0	R/C Plastic Products	1.7%	2.0%	1,167
Plastic Merchandise Bags	0.2%	0.1%	144				
Non-industrial Packaging Film Plastic	2.4%	1.1%	1,704	<b>Consumer Products</b>	<b>2.2%</b>		<b>1,553</b>
Industrial Packaging Film Plastic	1.2%	0.8%	841	Televisions - CRT	0.0%	0.0%	0
R/C Plastic Packaging	0.9%	1.1%	620	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	0
<b>Glass</b>	<b>0.9%</b>		<b>625</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	0.3%	0.2%	192	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.1%	0.1%	76	Computers	0.0%	0.0%	0
Brown Glass Containers	0.3%	0.3%	234	Computer Peripherals	0.0%	0.0%	2
Plate Glass	0.0%	0.0%	10	Audio Equipment	0.0%	0.1%	34
Stoneware/Kitchen Ceramics/Glassware	0.0%	0.0%	18	Gaming Equipment	0.0%	0.0%	12
R/C Glass	0.1%	0.1%	95	Other Consumer Electronics	0.1%	0.1%	72
				Textiles - Organic	0.8%	0.7%	578
<b>Metal</b>	<b>5.9%</b>		<b>4,100</b>	Textiles - Synthetic	0.7%	0.5%	466
Aluminum Beverage Cans	0.3%	0.2%	205	Shoes, Purses, Belts	0.2%	0.2%	129
Aluminum Foil/Containers	0.1%	0.1%	60	Tires & Rubber	0.2%	0.2%	143
Other Aluminum	0.0%	0.0%	34	Furniture	0.2%	0.3%	112
Other Nonferrous	0.1%	0.1%	67	Mattresses	0.0%	0.0%	0
Food Cans - Tinned	0.6%	0.4%	452	R/C Consumer Products	0.0%	0.0%	4
Food Cans - Coated	0.1%	0.1%	74				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>1.9%</b>		<b>1,324</b>
Other Ferrous Metal	3.0%	1.9%	2,077	Pesticides/Herbicides	0.0%	0.0%	0
R/C Metals	1.6%	1.1%	1,131	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	0
<b>Organics</b>	<b>16.4%</b>		<b>11,484</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	7.4%	2.9%	5,196	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	7.8%	3.5%	5,470	Latex Paint	0.0%	0.0%	7
Leaves & Grass	0.8%	0.7%	566	Solvent-based Glues	0.1%	0.2%	77
Prunings	0.1%	0.1%	45	Latex-based Glues	0.1%	0.1%	41
Animal Manure	0.2%	0.2%	116	Oil-based Paint & Solvent	0.0%	0.0%	0
Animal Carcasses	0.0%	0.0%	0	Caustic Cleaners	0.0%	0.0%	0
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	11
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.1%	0.1%	35
R/C Organics	0.1%	0.1%	91	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	14
<b>Wood Debris</b>	<b>23.9%</b>		<b>16,669</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	4.1%	6.5%	2,896	Other Vehicle Fluids	0.0%	0.1%	35
Painted Wood	4.2%	4.0%	2,935	Oil Filters	0.1%	0.1%	51
Dimensional Lumber	3.1%	4.2%	2,163	Explosives	0.0%	0.0%	0
Engineered Wood	2.7%	3.2%	1,905	Medical Wastes	0.8%	1.1%	556
Pallets & Crates	3.8%	5.0%	2,651	Pharmaceuticals/Vitamins	0.0%	0.0%	14
Other Untreated Wood	0.5%	0.7%	365	Disposable Diapers	0.6%	0.6%	454
Wood By-Products	0.0%	0.0%	20	Other Cleaners & Soaps	0.0%	0.0%	19
R/C Wood Debris	5.3%	6.8%	3,733	Other Hazardous	0.0%	0.0%	11
				Other Non-hazardous	0.0%	0.0%	0
<b>Construction Materials</b>	<b>12.5%</b>		<b>8,748</b>	<b>Residues</b>	<b>0.1%</b>		<b>35</b>
Natural Wood	0.1%	0.1%	58	Ash	0.0%	0.0%	0
Insulation	0.1%	0.1%	44	Dust	0.0%	0.0%	10
Asphalt Paving	0.2%	0.4%	159	Fines	0.0%	0.1%	25
Concrete	0.0%	0.0%	0	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	1.9%	3.2%	1,352				
Carpet	4.9%	5.7%	3,438	<b>Totals</b>	<b>100.0%</b>		<b>69,886</b>
Carpet Padding	1.0%	1.6%	674	<b>Sample Count</b>	<b>26</b>		
Soil, Rocks, Sand	0.7%	0.8%	468				
Asphalt Roofing	0.0%	0.1%	32				
Plastic Flooring	0.0%	0.0%	0				
Ceramics & Brick	0.1%	0.1%	60				
R/C Construction Materials	3.5%	3.2%	2,462				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.



**Table 54: West WGA Residential Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>10.3%</b>		<b>7,063</b>	<b>Paper Products</b>	<b>11.5%</b>		<b>7,915</b>
Newspaper Packaging	1.1%	0.7%	737	Newspaper	1.2%	0.4%	806
Cardboard/Kraft Paper Packaging	2.6%	0.7%	1,800	Cardboard/Kraft Paper Products	0.0%	0.0%	0
Other Groundwood Paper Packaging	0.3%	0.3%	218	Magazines	1.2%	0.4%	852
Mixed/Low Grade Paper Packaging	3.2%	0.6%	2,217	High-Grade Paper Products	1.4%	0.4%	937
Compostable Paper Packaging	2.1%	1.1%	1,409	Other Groundwood Paper Products	0.1%	0.1%	59
R/C Paper Packaging	1.0%	0.2%	683	Mixed Low Grade Paper Products	1.9%	0.6%	1,284
				Compostable Paper Products	5.4%	1.2%	3,682
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.4%	0.2%	294
<b>Plastic Packaging</b>	<b>9.7%</b>		<b>6,687</b>	<b>Plastic Products</b>	<b>4.5%</b>		<b>3,117</b>
#1 PETE Plastic Bottles	1.4%	0.2%	948	#1 PETE Plastic Products	0.1%	0.1%	49
#1 PETE Plastic Non-bottles	0.5%	0.1%	335	#2 HDPE Plastic Products	0.0%	0.0%	28
#2 HDPE Plastic Natural Bottles	0.4%	0.1%	307	#3 PVC Plastic Products	0.0%	0.1%	29
#2 HDPE Plastic Colored Bottles	0.6%	0.1%	401	#4 LDPE Plastic Products	0.0%	0.0%	4
#2 HDPE Plastic Jars & Tubs	0.2%	0.2%	120	#5 PP Plastic Products	0.0%	0.0%	13
#3 PVC Plastic Packaging	0.1%	0.1%	43	#6 PS Plastic Products	0.1%	0.1%	40
#4 LDPE Plastic Packaging	0.0%	0.0%	6	#7 Other Plastic Products	1.6%	0.6%	1,069
#5 PP Plastic Packaging	0.6%	0.1%	441	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.5%	0.1%	313	Plastic Garbage Bags	1.7%	0.2%	1,174
#7 Other Plastic Packaging	0.8%	0.1%	541	Plastic Film Products	0.3%	0.2%	189
PLA Packaging	0.0%	0.0%	1	R/C Plastic Products	0.8%	0.4%	521
Plastic Merchandise Bags	1.0%	0.1%	702				
Non-industrial Packaging Film Plastic	2.9%	0.4%	1,996	<b>Consumer Products</b>	<b>5.5%</b>		<b>3,759</b>
Industrial Packaging Film Plastic	0.1%	0.1%	76	Televisions - CRT	0.0%	0.0%	0
R/C Plastic Packaging	0.7%	0.6%	457	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	0
<b>Glass</b>	<b>4.8%</b>		<b>3,281</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	2.5%	0.5%	1,691	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.8%	0.4%	583	Computers	0.0%	0.0%	0
Brown Glass Containers	1.2%	0.5%	831	Computer Peripherals	0.9%	1.4%	611
Plate Glass	0.0%	0.0%	3	Audio Equipment	0.0%	0.0%	4
Stoneware/Kitchen Ceramics/Glassware	0.1%	0.0%	39	Gaming Equipment	0.1%	0.1%	50
R/C Glass	0.2%	0.2%	135	Other Consumer Electronics	0.2%	0.1%	105
				Textiles - Organic	2.5%	0.7%	1,743
<b>Metal</b>	<b>4.7%</b>		<b>3,198</b>	Textiles - Synthetic	1.0%	0.4%	669
Aluminum Beverage Cans	0.9%	0.2%	602	Shoes, Purses, Belts	0.5%	0.2%	319
Aluminum Foil/Containers	0.2%	0.1%	127	Tires & Rubber	0.4%	0.3%	245
Other Aluminum	0.1%	0.1%	85	Furniture	0.0%	0.0%	0
Other Nonferrous	0.0%	0.0%	9	Mattresses	0.0%	0.0%	0
Food Cans - Tinned	1.2%	0.2%	856	R/C Consumer Products	0.0%	0.0%	12
Food Cans - Coated	0.3%	0.2%	234				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>5.9%</b>		<b>4,046</b>
Other Ferrous Metal	0.8%	0.3%	519	Pesticides/Herbicides	0.0%	0.0%	21
R/C Metals	1.1%	0.6%	766	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	8
<b>Organics</b>	<b>39.4%</b>		<b>27,034</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	18.0%	2.4%	12,359	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	6.3%	1.2%	4,293	Latex Paint	0.2%	0.2%	135
Leaves & Grass	5.6%	3.3%	3,874	Solvent-based Glues	0.0%	0.0%	0
Prunings	1.7%	2.8%	1,194	Latex-based Glues	0.0%	0.0%	1
Animal Manure	6.9%	2.7%	4,768	Oil-based Paint & Solvent	0.2%	0.3%	108
Animal Carcasses	0.0%	0.0%	4	Caustic Cleaners	0.0%	0.0%	0
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.2%	0.1%	103
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	0.8%	0.3%	541	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.1%	0.1%	53
<b>Wood Debris</b>	<b>1.3%</b>		<b>905</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	0.1%	0.1%	65	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	0.4%	0.3%	292	Oil Filters	0.0%	0.0%	19
Dimensional Lumber	0.3%	0.3%	194	Explosives	0.0%	0.0%	0
Engineered Wood	0.3%	0.3%	187	Medical Wastes	0.1%	0.1%	52
Pallets & Crates	0.0%	0.0%	0	Pharmaceuticals/Vitamins	0.0%	0.0%	4
Other Untreated Wood	0.0%	0.1%	23	Disposable Diapers	4.9%	1.2%	3,361
Wood By-Products	0.2%	0.2%	124	Other Cleaners & Soaps	0.2%	0.1%	147
R/C Wood Debris	0.0%	0.0%	20	Other Hazardous	0.0%	0.0%	28
				Other Non-hazardous	0.0%	0.0%	5
<b>Construction Materials</b>	<b>2.0%</b>		<b>1,369</b>	<b>Residues</b>	<b>0.4%</b>		<b>263</b>
Natural Wood	0.1%	0.1%	38	Ash	0.0%	0.0%	0
Insulation	0.0%	0.0%	0	Dust	0.2%	0.2%	142
Asphalt Paving	0.0%	0.0%	0	Fines	0.2%	0.3%	121
Concrete	0.2%	0.3%	132	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	0.1%	0.1%	46				
Carpet	0.1%	0.2%	98	<b>Totals</b>	<b>100.0%</b>		<b>68,636</b>
Carpet Padding	0.0%	0.0%	4	<b>Sample Count</b>	<b>23</b>		
Soil, Rocks, Sand	0.7%	0.6%	497				
Asphalt Roofing	0.0%	0.0%	0				
Plastic Flooring	0.0%	0.0%	0				
Ceramics & Brick	0.2%	0.2%	133				
R/C Construction Materials	0.6%	0.6%	422				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

**Table 55: West WGA Self-hauled C&D Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>5.4%</b>		<b>643</b>	<b>Paper Products</b>	<b>0.9%</b>		<b>103</b>
Newspaper Packaging	0.0%	0.1%	4	Newspaper	0.0%	0.0%	0
Cardboard/Kraft Paper Packaging	4.5%	6.5%	529	Cardboard/Kraft Paper Products	0.0%	0.0%	0
Other Groundwood Paper Packaging	0.0%	0.1%	4	Magazines	0.4%	0.6%	42
Mixed/Low Grade Paper Packaging	0.1%	0.1%	12	High-Grade Paper Products	0.1%	0.1%	6
Compostable Paper Packaging	0.1%	0.1%	7	Other Groundwood Paper Products	0.1%	0.2%	13
R/C Paper Packaging	0.7%	1.2%	87	Mixed Low Grade Paper Products	0.0%	0.0%	0
				Compostable Paper Products	0.0%	0.1%	5
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	0.3%	0.5%	37
<b>Plastic Packaging</b>	<b>1.9%</b>		<b>229</b>	<b>Plastic Products</b>	<b>3.5%</b>		<b>417</b>
#1 PETE Plastic Bottles	0.0%	0.0%	1	#1 PETE Plastic Products	0.0%	0.0%	0
#1 PETE Plastic Non-bottles	0.1%	0.1%	8	#2 HDPE Plastic Products	0.1%	0.1%	9
#2 HDPE Plastic Natural Bottles	0.0%	0.0%	0	#3 PVC Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Colored Bottles	0.0%	0.0%	0	#4 LDPE Plastic Products	0.0%	0.0%	0
#2 HDPE Plastic Jars & Tubs	0.2%	0.4%	28	#5 PP Plastic Products	0.0%	0.0%	0
#3 PVC Plastic Packaging	0.0%	0.0%	0	#6 PS Plastic Products	0.0%	0.0%	0
#4 LDPE Plastic Packaging	0.0%	0.0%	0	#7 Other Plastic Products	1.2%	1.9%	147
#5 PP Plastic Packaging	0.2%	0.4%	29	PLA Products	0.0%	0.1%	5
#6 PS Plastic Packaging	0.1%	0.1%	8	Plastic Garbage Bags	0.0%	0.0%	3
#7 Other Plastic Packaging	0.7%	1.1%	79	Plastic Film Products	0.8%	1.0%	97
PLA Packaging	0.0%	0.0%	0	R/C Plastic Products	1.3%	1.5%	156
Plastic Merchandise Bags	0.0%	0.0%	0				
Non-industrial Packaging Film Plastic	0.0%	0.0%	2	<b>Consumer Products</b>	<b>3.4%</b>		<b>407</b>
Industrial Packaging Film Plastic	0.6%	0.6%	73	Televisions - CRT	0.0%	0.0%	0
R/C Plastic Packaging	0.0%	0.0%	0	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	0
<b>Glass</b>	<b>0.3%</b>		<b>32</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	0.0%	0.0%	3	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.0%	0.0%	0	Computers	0.0%	0.0%	0
Brown Glass Containers	0.1%	0.1%	8	Computer Peripherals	0.0%	0.0%	0
Plate Glass	0.0%	0.0%	0	Audio Equipment	0.1%	0.2%	17
Stoneware/Kitchen Ceramics/Glassware	0.0%	0.0%	0	Gaming Equipment	0.0%	0.0%	0
R/C Glass	0.2%	0.3%	21	Other Consumer Electronics	0.0%	0.0%	0
				Textiles - Organic	0.0%	0.1%	4
<b>Metal</b>	<b>3.3%</b>		<b>392</b>	Textiles - Synthetic	0.0%	0.0%	0
Aluminum Beverage Cans	0.0%	0.0%	2	Shoes, Purses, Belts	0.0%	0.0%	0
Aluminum Foil/Containers	0.0%	0.0%	0	Tires & Rubber	0.1%	0.1%	10
Other Aluminum	0.0%	0.0%	0	Furniture	0.0%	0.0%	0
Other Nonferrous	0.1%	0.2%	14	Mattresses	2.9%	4.7%	341
Food Cans - Tinned	0.0%	0.0%	0	R/C Consumer Products	0.3%	0.5%	34
Food Cans - Coated	0.0%	0.0%	0				
White Goods	0.0%	0.0%	0	<b>Hazardous/Special Wastes</b>	<b>0.0%</b>		<b>1</b>
Other Ferrous Metal	2.3%	2.0%	276	Pesticides/Herbicides	0.0%	0.0%	0
R/C Metals	0.8%	0.7%	100	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	0
<b>Organics</b>	<b>2.5%</b>		<b>301</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	0.5%	0.8%	57	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	0.0%	0.0%	0	Latex Paint	0.0%	0.0%	0
Leaves & Grass	2.0%	3.3%	241	Solvent-based Glues	0.0%	0.0%	1
Prunings	0.0%	0.0%	2	Latex-based Glues	0.0%	0.0%	0
Animal Manure	0.0%	0.0%	0	Oil-based Paint & Solvent	0.0%	0.0%	0
Animal Carcasses	0.0%	0.0%	0	Caustic Cleaners	0.0%	0.0%	0
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.0%	0.0%	0
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.0%	0.0%	0
R/C Organics	0.0%	0.0%	0	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	0
<b>Wood Debris</b>	<b>32.8%</b>		<b>3,870</b>	Antifreeze	0.0%	0.0%	0
Treated Wood	2.1%	2.2%	253	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	8.6%	3.5%	1,020	Oil Filters	0.0%	0.0%	0
Dimensional Lumber	9.8%	6.1%	1,155	Explosives	0.0%	0.0%	0
Engineered Wood	6.5%	4.0%	772	Medical Wastes	0.0%	0.0%	0
Pallets & Crates	1.6%	2.7%	192	Pharmaceuticals/Vitamins	0.0%	0.0%	0
Other Untreated Wood	0.7%	0.7%	82	Disposable Diapers	0.0%	0.0%	0
Wood By-Products	0.4%	0.5%	45	Other Cleaners & Soaps	0.0%	0.0%	0
R/C Wood Debris	3.0%	3.2%	349	Other Hazardous	0.0%	0.0%	0
				Other Non-hazardous	0.0%	0.0%	0
<b>Construction Materials</b>	<b>45.9%</b>		<b>5,414</b>	<b>Residues</b>	<b>0.0%</b>		<b>0</b>
Natural Wood	0.0%	0.0%	0	Ash	0.0%	0.0%	0
Insulation	1.5%	2.0%	178	Dust	0.0%	0.0%	0
Asphalt Paving	0.0%	0.0%	0	Fines	0.0%	0.0%	0
Concrete	0.5%	0.9%	64	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	18.2%	13.4%	2,147				
Carpet	4.8%	4.4%	563	<b>Totals</b>	<b>100.0%</b>		<b>11,808</b>
Carpet Padding	2.8%	3.2%	334	<b>Sample Count</b>	<b>18</b>		
Soil, Rocks, Sand	0.0%	0.0%	0				
Asphalt Roofing	9.8%	10.8%	1,159				
Plastic Flooring	0.0%	0.0%	0				
Ceramics & Brick	3.1%	2.9%	368				
R/C Construction Materials	5.1%	4.3%	601				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.



**Table 56: West WGA Self-hauled Other Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper Packaging</b>	<b>8.7%</b>		<b>2,142</b>	<b>Paper Products</b>	<b>6.5%</b>		<b>1,602</b>
Newspaper Packaging	0.0%	0.1%	11	Newspaper	0.2%	0.2%	43
Cardboard/Kraft Paper Packaging	5.6%	2.7%	1,385	Cardboard/Kraft Paper Products	0.0%	0.0%	1
Other Groundwood Paper Packaging	0.0%	0.1%	11	Magazines	1.6%	1.2%	394
Mixed/Low Grade Paper Packaging	1.3%	0.7%	318	High-Grade Paper Products	0.7%	0.8%	176
Compostable Paper Packaging	0.9%	1.1%	228	Other Groundwood Paper Products	0.0%	0.0%	0
R/C Paper Packaging	0.8%	0.6%	189	Mixed Low Grade Paper Products	2.2%	1.9%	540
				Compostable Paper Products	0.7%	0.6%	182
				Paper Processing Sludge	0.0%	0.0%	0
				R/C Paper Products	1.1%	1.0%	266
<b>Plastic Packaging</b>	<b>4.3%</b>		<b>1,062</b>	<b>Plastic Products</b>	<b>5.4%</b>		<b>1,322</b>
#1 PETE Plastic Bottles	0.5%	0.3%	117	#1 PETE Plastic Products	0.0%	0.0%	0
#1 PETE Plastic Non-bottles	0.1%	0.1%	16	#2 HDPE Plastic Products	0.1%	0.2%	35
#2 HDPE Plastic Natural Bottles	0.2%	0.1%	43	#3 PVC Plastic Products	0.2%	0.3%	59
#2 HDPE Plastic Colored Bottles	0.3%	0.2%	64	#4 LDPE Plastic Products	0.0%	0.0%	4
#2 HDPE Plastic Jars & Tubs	0.2%	0.3%	49	#5 PP Plastic Products	0.2%	0.2%	53
#3 PVC Plastic Packaging	0.0%	0.0%	1	#6 PS Plastic Products	0.2%	0.2%	38
#4 LDPE Plastic Packaging	0.0%	0.0%	1	#7 Other Plastic Products	3.0%	3.0%	732
#5 PP Plastic Packaging	0.2%	0.1%	42	PLA Products	0.0%	0.0%	0
#6 PS Plastic Packaging	0.4%	0.4%	99	Plastic Garbage Bags	0.3%	0.2%	71
#7 Other Plastic Packaging	0.4%	0.2%	103	Plastic Film Products	0.2%	0.3%	49
PLA Packaging	0.0%	0.0%	0	R/C Plastic Products	1.1%	0.7%	280
Plastic Merchandise Bags	0.3%	0.1%	67				
Non-industrial Packaging Film Plastic	0.7%	0.5%	176	<b>Consumer Products</b>	<b>26.5%</b>		<b>6,531</b>
Industrial Packaging Film Plastic	1.1%	1.3%	266	Televisions - CRT	0.0%	0.0%	0
R/C Plastic Packaging	0.1%	0.1%	16	Televisions - LCD	0.0%	0.0%	0
				VCR's, DVD's, DVR's	0.0%	0.0%	0
<b>Glass</b>	<b>2.7%</b>		<b>664</b>	Computer Monitors - CRT	0.0%	0.0%	0
Clear Glass Containers	0.6%	0.7%	145	Computer Monitors - LCD	0.0%	0.0%	0
Green Glass Containers	0.0%	0.0%	8	Computers	0.0%	0.0%	2
Brown Glass Containers	0.2%	0.2%	39	Computer Peripherals	0.0%	0.0%	0
Plate Glass	0.1%	0.1%	22	Audio Equipment	0.0%	0.0%	0
Stoneware/Kitchen Ceramics/Glassware	0.2%	0.2%	46	Gaming Equipment	0.0%	0.0%	0
R/C Glass	1.6%	1.3%	404	Other Consumer Electronics	0.4%	0.5%	92
				Textiles - Organic	5.6%	2.6%	1,389
<b>Metal</b>	<b>14.6%</b>		<b>3,602</b>	Textiles - Synthetic	3.7%	2.3%	923
Aluminum Beverage Cans	0.3%	0.2%	76	Shoes, Purses, Belts	0.7%	0.5%	163
Aluminum Foil/Containers	0.0%	0.0%	8	Tires & Rubber	0.6%	0.6%	155
Other Aluminum	0.1%	0.1%	31	Furniture	10.2%	5.8%	2,506
Other Nonferrous	0.1%	0.1%	25	Mattresses	1.7%	2.8%	430
Food Cans - Tinned	0.2%	0.1%	49	R/C Consumer Products	3.5%	4.0%	872
Food Cans - Coated	0.1%	0.1%	17				
White Goods	1.0%	1.7%	251	<b>Hazardous/Special Wastes</b>	<b>2.8%</b>		<b>694</b>
Other Ferrous Metal	9.8%	3.6%	2,405	Pesticides/Herbicides	0.0%	0.0%	7
R/C Metals	3.0%	2.3%	741	Mercury Vapor Lighting	0.0%	0.0%	0
				Compact Fluorescent Lights	0.0%	0.0%	0
<b>Organics</b>	<b>9.6%</b>		<b>2,371</b>	Fluorescent Tubes	0.0%	0.0%	0
Food - Vegetative	3.8%	1.8%	926	Asbestos	0.0%	0.0%	0
Food - Non-vegetative	1.2%	0.7%	300	Latex Paint	0.3%	0.3%	63
Leaves & Grass	3.3%	3.0%	807	Solvent-based Glues	0.0%	0.0%	4
Prunings	0.6%	0.8%	149	Latex-based Glues	0.0%	0.1%	12
Animal Manure	0.0%	0.0%	2	Oil-based Paint & Solvent	0.1%	0.2%	25
Animal Carcasses	0.4%	0.6%	100	Caustic Cleaners	0.2%	0.3%	45
Crop Residues	0.0%	0.0%	0	Dry-cell Batteries	0.1%	0.1%	15
Fruit Waste	0.0%	0.0%	0	Wet-cell Batteries	0.7%	1.1%	172
R/C Organics	0.4%	0.3%	87	Gasoline/Kerosene	0.0%	0.0%	0
				Motor Oil	0.0%	0.0%	0
<b>Wood Debris</b>	<b>14.1%</b>		<b>3,466</b>	Antifreeze	0.0%	0.0%	3
Treated Wood	0.7%	0.8%	166	Other Vehicle Fluids	0.0%	0.0%	0
Painted Wood	2.6%	2.2%	632	Oil Filters	0.0%	0.0%	0
Dimensional Lumber	1.6%	1.1%	393	Explosives	0.0%	0.0%	2
Engineered Wood	3.8%	3.2%	947	Medical Wastes	0.2%	0.3%	45
Pallets & Crates	1.4%	2.4%	350	Pharmaceuticals/Vitamins	0.0%	0.0%	0
Other Untreated Wood	0.0%	0.0%	3	Disposable Diapers	1.0%	1.0%	244
Wood By-Products	2.7%	2.2%	656	Other Cleaners & Soaps	0.2%	0.2%	39
R/C Wood Debris	1.3%	1.7%	320	Other Hazardous	0.0%	0.1%	12
				Other Non-hazardous	0.0%	0.0%	7
<b>Construction Materials</b>	<b>4.3%</b>		<b>1,062</b>	<b>Residues</b>	<b>0.5%</b>		<b>122</b>
Natural Wood	0.2%	0.3%	44	Ash	0.0%	0.0%	0
Insulation	0.7%	1.1%	172	Dust	0.4%	0.6%	110
Asphalt Paving	0.0%	0.0%	0	Fines	0.0%	0.1%	12
Concrete	0.0%	0.0%	0	Sludge/Special Industrial	0.0%	0.0%	0
Drywall	0.2%	0.3%	47				
Carpet	1.0%	0.7%	234	<b>Totals</b>	<b>100.0%</b>		<b>24,642</b>
Carpet Padding	0.6%	0.9%	144	<b>Sample Count</b>	<b>18</b>		
Soil, Rocks, Sand	0.0%	0.0%	7				
Asphalt Roofing	0.3%	0.4%	72				
Plastic Flooring	0.0%	0.0%	0				
Ceramics & Brick	0.3%	0.5%	75				
R/C Construction Materials	1.1%	1.0%	266				

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

## Appendix E: Supplemental Composition Results

This section presents waste composition results for the supplemental statewide study. The supplemental study generates statewide findings that incorporate recent studies conducted by King, Snohomish, and Thurston counties with data collected in the ten county, statewide study. First, data tables show supplemental composition results for the Puget Sound Waste Generation Area alone. Subsequently, statewide data are presented for the state overall and for each waste sector (commercial, residential, self-hauled C&D, and self-hauled other) in three ways:

1. A pie chart presents an overview of waste composition by **Material Class**.
2. A table shows the 15 most prevalent *material types*, by weight.
3. A detailed table lists the full composition and quantity results for the 50 *material types*. Because King, Snohomish, and Thurston counties each used a different list of *material types* for sorting—and none of the three used the same list as the 2009 statewide study—the list of 130 original *material types* has been merged into a list of 50 materials compatible with all four studies.

**To combine the existing composition data from King, Snohomish, and Thurston counties with data collected in the ten sampled counties, Cascadia needed to merge, or “roll-up,” four different material lists. Each study used a unique list of materials and grouped individual materials differently, so some materials in the four lists had to be merged into broader categories. The first column of**

Table 57 presents these 50 “rolled up” *material types*. The remaining four columns show the relationships between the material list used in the supplemental study list (50 materials) and the material lists used in the statewide study (130 materials), the King County study, the Snohomish County study, and the Thurston County study.

For example, the various *food material types* found in the four distinct studies—statewide study, King County, Snohomish County, and Thurston County—vary enough (six separate categories in the King County study, two in the Washington statewide study, and a single category for Snohomish and Thurston) that the common denominator ends up being only one category: *food*. Once a single material failed to be defined consistently in all four lists, a “roll-up” occurred until consensus was found among all lists.

**Table 57: Supplemental Statewide Results—Four Study Material Type Translation**

Supplemental Study (rolled-up) Material Types	Statewide Study Material Types	King County Material Types	Snohomish County Material Types	Thurston County Material Types
<b>Paper</b>				
Newspaper	Newspaper Packaging Newspaper	Newspaper (ONP)	Newspaper	Newspaper
Cardboard	Cardboard/Kraft Paper Packaging Cardboard/Kraft Paper Products	Corrugated Cardboard (OCC)	Cardboard	Cardboard
Mixed Grade Paper	Other Groundwood Packaging Mixed/Low Grade Paper Packaging Magazines High-Grade Paper Products Other Groundwood Paper Products Mixed Low Grade Paper Products	High Grade Low Grade Recyclable Bleached Polycoated Paperboard	Phone Books Mixed Waste Paper Milk Cartons and Other Aseptic Containers	Phone Books Mixed Waste Paper Milk Cartons and Other Aseptic Containers
Compostable Paper	Compostable Paper Packaging Compostable Paper Products	Compostable Paper	Compostable Paper	Compostable Paper
R/C Paper	R/C Paper Packaging Paper Processing Sludge R/C Paper Products	Paper and Other Materials Other Paper	Non-Recyclable Paper	Non-Recyclable Paper
<b>Plastic</b>				
#1 PET Bottles	#1 PETE Plastic Bottles	PET Bottles	PET Bottles	PET Bottles
#2 HDPE Bottles	#2 HDPE Plastic Natural Bottles #2 HDPE Plastic Colored Bottles	HDPE Bottles	HDPE Bottles	HDPE Bottles
Other Plastic Packaging	#1 PETE Plastic Non-bottles #2 HDPE Plastic Jars & Tubs #3 PVC Plastic Packaging #4 LDPE Plastic Packaging #5 PP Plastic Packaging #7 Other Plastic Packaging	Other Plastic Containers Other Plastic Packaging	Bottle Types 3-7 Plastic Packaging	Bottle Types 3-7 Tubs Plastic Packaging
Other Plastic Products	#1 PETE Plastic Products #2 HDPE Plastic Products #3 PVC Plastic Products #4 LDPE Plastic Products #5 PP Plastic Products #7 Other Plastic Products	Plastic Products	Plastic Products	Plastic Products
Bags and Film	Plastic Merchandise Bags Non-industrial Packaging Film Plastic Industrial Packaging Film Plastic Plastic Garbage Bags Plastic Film Products	Plastic Film and Bags	Bags and Film Tyvek Vapor Barrier	Film and Bags
R/C Plastics	#6 PS Packaging R/C Packaging #6 PS R/C Products PLA Packaging PLA Products	Expanded Polystyrene Plastic and Other Materials	Expanded Polystyrene	Expanded Polystyrene
<b>Glass</b>				
Clear Glass Containers	Clear Glass Containers	Clear Containers	Clear Glass Containers	Clear Bottles
Green Glass Containers	Green Glass Containers	Green Containers	Green Glass Containers	Green Bottles
Brown Glass Containers	Brown Glass Containers	Brown Containers	Brown Glass Containers	Brown Bottles
R/C Glass	Plate Glass R/C Glass	Other Glass	Non-Recyclable Glass Light Bulbs	Light Bulbs Non-Recyclable Glass



Table 57: Supplemental Statewide Results—Four Study Material Type Translation, Continued

Supplemental Study (rolled-up) Material Types	Statewide Study Material Types	King County Material Types	Snohomish County Material Types	Thurston County Material Types
<b>Metal</b>				
Aluminum Cans	Aluminum Beverage Cans	Aluminum Cans	Aluminum Cans	Aluminum Cans
Tin Cans	Food Cans - Tinned Food Cans - Coated	Tinned Food Cans	Tin Cans	Tin Cans
Other Ferrous Metals	White Goods Other Ferrous Metal	Other Ferrous Compressed Gas Cylinders (empty)	Ferrous Metals White Goods Aerosol Cans	Ferrous Metals White Goods Aerosol Cans
Other Non-Ferrous Metals	Aluminum Foil/Containers Other Aluminum Other Nonferrous	Other Aluminum Other Non-Ferrous	Aluminum Foil Non-Ferrous Metals	Aluminum Foil Non-Ferrous Metals
R/C Metals	R/C Metals	Mixed Metals/Other Materials	Mixed Metal/Materials	Mixed Metals/Materials Auto Parts
<b>Organics</b>				
Food	Food - Vegetative Food - Non-vegetative	Packaged Bakery Items Opened/Unpackaged/Scrap Bakery Items Packaged Vegetative Food Opened/Unpackaged/Scrap Vegetative Food Packaged Non-vegetative Food Opened/Unpackaged/Scrap Non-vegetative Food	Food Waste	Food Waste
Green Waste	Leaves & Grass Prunings Crop Residues Fruit Waste	Yard Wastes Large Prunings	Yard Debris	Yard and Garden
Animal Manure	Animal Manure	Animal Feces	Animal Excrement	Animal Excrement
Animal Carcasses	Animal Carcasses	Animal Carcasses	Animal Carcasses	Animal Carcasses
<b>Wood Debris</b>				
Lumber and Pallets	Treated Wood Painted Wood Dimensional Lumber Engineered Wood Pallets & Crates Other Untreated Wood	Dimensional Lumber/Engineered Wood Treated Wood Other Wood Roofing and Siding Wood	Pallets Other Clean Wood Other Wood Waste Roofing Hog Fuel	Dimension Lumber Pallets Treated Wood Plywood Particle Board/Fiberboard Wood Products Other Wood Waste Roofing
Natural Wood	Natural Wood	Stumps	Natural Wood	Stumps and Other Bulky Wood
R/C Wood	Wood By-Products R/C Wood	Contaminated Wood	Other Contaminated Wood	Contaminated Wood
<b>Construction Materials</b>				
Roofing	Asphalt Roofing	Asphalt Shingles	Roofing	Roofing Waste
Drywall	Drywall	Gypsum Wallboard	Gypsum Board	Gypsum Board
Carpet	Carpet	Carpet	Carpet	Carpeting
Carpet Padding	Carpet Padding	Foam Rubber and Padding	Carpet Padding	Carpet Padding
Other Construction Materials	Insulation Asphalt Paving Concrete Plastic Flooring R/C Construction Materials	C&D Wastes	Concrete Fiberglass Insulation Other Fiberglass Asphalt Other C&D	Concrete Fiberglass Insulation Other Fiberglass Asphalt Other C&D

**Table 57: Supplemental Statewide Results—Four Study Material Type Translation, Continued**

Supplemental Study (rolled-up) Material Types	Statewide Study Material Types	King County Material Types	Snohomish County Material Types	Thurston County Material Types
<b>Hazardous/Special Wastes</b>				
Gasoline and Fuel Oils	Gasoline/Kerosene	Gasoline and Fuel Oil	Gasoline and Fuel Oil	Gasoline and Fuel Oil
Vehicle & Equipment Fluids	Oil Filters Antifreeze Motor Oil Other Vehicle Fluids	Used Oil Antifreeze/Brake Fluid	Oil Filters Motor Oil Antifreeze Brake and Hydraulic Fluid	Motor Oil, Other Oil Filters Antifreeze Other Automotive Maintenance
Vehicle Batteries	Wet-cell Batteries	Vehicle Batteries	Car Batteries	Car Batteries
Household Batteries	Dry-cell Batteries	Household Batteries	Household Batteries	Household Batteries
Latex Paint	Latex Paint	Latex Paint	Latex Paint	Latex Paint
Oil-based Paint & Solvents	Oil-based Paint & Solvent	Oil-based Paint Solvents and Thinners	Oil-Based Paint Solvents	Oil-Based Paint Solvents
Adhesives and Glues	Solvent-based Glues Latex-based Glues	Adhesives and Glue	Adhesives and Glues	Adhesives and Glues
Pesticides/Herbicides	Pesticides/Herbicides	Pesticides and Herbicides	Pesticides and Herbicides	Pesticides and Herbicides Fertilizers with Pesticides and Herbicides
Medical/Pharmaceutical Waste	Medical Wastes Pharmaceuticals/Vitamins	Medical Waste	Pharmaceuticals Medical Wastes	Medical Wastes Pharmaceuticals
Cleaners and Corrosives	Caustic Cleaners	Cleaners and Corrosives	Cleaners and Corrosives	Cleaners and Corrosives
Diapers	Disposable Diapers	Disposable Diapers	Diapers	Disposable Diapers
Other Hazardous Wastes/Special Wastes	Mercury Vapor Lighting Compact Fluorescent Lights Fluorescent Tubes Asbestos Explosives Other Hazardous Other Non-hazardous	Other Hazardous Waste	Asbestos Fertilizers Other Hazardous and Special Waste	Gas Cylinders (partially full) Fertilizers without Pesticides and Herbicides Other Hazardous and Special Waste
<b>Consumer Products</b>				
Textiles	Textiles - Organic Textiles - Synthetic Shoes, Purses, Belts	Textiles:Clothes/Other Recyclables Other Textiles	Textiles	Textiles
Tires and Rubber	Tires & Rubber	Tires Rubber Products	Tires Rubber Products	Tires Rubber Products
Furniture/Mattresses	Furniture Mattresses	Furniture/Mattresses	Furniture	Furniture and Mattresses
E-Waste	Televisions - CRT Televisions - LCD Computer Monitors - CRT Computer Monitors - LCD Computers VCR's, DVD's, DVR's Computer Peripherals Audio Equipment Gaming Equipment Other Consumer Electronics	Office Electronics Computer Monitors Televisions Laptops/LCD Monitors Household Appliances Printers/Copiers/Fax Machines Cell Phones	E-Waste Other Electronics	E-Waste Other Electronics
<b>Residues</b>				
Ash and Dust	Ash Dust	Ash	Ash and Dust	Ash and Dust
Fines/Residues/Inerts/Remainders	Fines Sludge/Special Industrial Soil, Rocks, Sand Ceramics & Brick Stone/kitchenware R/C Organics Other Cleaners & Soaps R/C Consumer	Miscellaneous Inorganics Nondistinct Fines Miscellaneous Organics	Residuals Ceramics, Porcelain, and China Rocks and Brick Soil, Dirt, and Non-Distinct Fines Cosmetics	Residuals Ceramics, Porcelain, and China Rocks and Brick Soil, Dirt, and Non-Distinct Fines Miscellaneous Organics Miscellaneous Inorganics Cosmetics

## Supplemental Results for Puget Sound WGA

**Table 58: Supplemental Results—Puget Sound WGA Overall Disposed Waste  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper</b>	<b>22.0%</b>		<b>619,479</b>	<b>Construction Materials</b>	<b>7.5%</b>		<b>211,671</b>
Newspaper	1.6%	0.2%	44,019	Roofing	0.6%	0.2%	17,485
Cardboard	5.2%	0.7%	146,753	Drywall	1.1%	0.3%	29,702
Mixed Grade Paper	7.5%	0.8%	210,702	Carpet	2.5%	0.7%	70,792
Compostable Paper	6.2%	0.5%	173,730	Carpet Padding	0.5%	0.1%	12,802
R/C Paper	1.6%	0.2%	44,274	Other Construction Materials	2.9%	0.6%	80,890
<b>Plastic</b>	<b>13.1%</b>		<b>368,267</b>	<b>Hazardous/Special Wastes</b>	<b>3.4%</b>		<b>96,045</b>
#1 PET Bottles	0.8%	0.1%	23,586	Gasoline and Fuel Oils	0.0%	0.0%	556
#2 HDPE Bottles	0.5%	0.0%	13,580	Vehicle & Equipment Fluids	0.0%	0.0%	1,318
Other Plastic Packaging	1.7%	0.2%	48,192	Vehicle Batteries	0.0%	0.0%	559
Other Plastic Products	2.8%	0.4%	78,629	Household Batteries	0.1%	0.0%	1,952
Bags and Film	5.9%	0.4%	166,538	Latex Paint	0.1%	0.1%	2,682
R/C Plastics	1.3%	0.2%	37,743	Oil-based Paint & Solvents	0.0%	0.0%	711
<b>Glass</b>	<b>2.7%</b>		<b>75,888</b>	Adhesives and Glues	0.0%	0.0%	1,187
Clear Glass Containers	1.0%	0.1%	29,088	Pesticides/Herbicides	0.0%	0.0%	1,190
Green Glass Containers	0.4%	0.0%	10,548	Medical/Pharmaceutical Waste	0.2%	0.1%	4,404
Brown Glass Containers	0.6%	0.1%	16,285	Cleaners and Corrosives	0.0%	0.0%	807
R/C Glass	0.7%	0.2%	19,966	Diapers	2.7%	0.2%	76,301
<b>Metal</b>	<b>6.0%</b>		<b>169,159</b>	Other Hazardous/Special Wastes	0.2%	0.1%	4,379
Aluminum Cans	0.4%	0.0%	11,543	<b>Consumer Products</b>	<b>6.7%</b>		<b>189,105</b>
Tin Cans	1.1%	0.1%	30,249	Textiles	3.3%	0.4%	91,530
Other Ferrous Metals	2.1%	0.4%	59,191	Tires and Rubber	0.5%	0.1%	12,722
Other Non-Ferrous Metals	0.9%	0.2%	26,525	Furniture/Mattresses	2.2%	0.5%	61,716
R/C Metals	1.5%	0.2%	41,651	E-Waste	0.8%	0.2%	23,137
<b>Organics</b>	<b>24.0%</b>		<b>675,434</b>	<b>Residues</b>	<b>5.4%</b>		<b>152,726</b>
Food Scraps	18.3%	2.2%	515,643	Ash and Dust	0.3%	0.1%	8,838
Green Waste	3.5%	0.5%	99,127	Fines/Residues/Inerts/Remainders	5.1%	0.7%	143,888
Animal Manure	2.1%	0.2%	60,073				
Animal Carcasses	0.0%	0.0%	591				
<b>Wood Debris</b>	<b>9.0%</b>		<b>253,214</b>				
Lumber and Pallets	7.1%	1.2%	198,201				
Natural Wood	0.5%	0.4%	13,349				
R/C Wood	1.5%	0.3%	41,663				
				<b>Totals</b>	<b>100.0%</b>		<b>2,810,988</b>
				<b>Sample Count</b>	<b>923</b>		

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.



**Table 59: Supplemental Results—Puget Sound WGA Commercial Disposed Waste  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper</b>	<b>26.9%</b>		<b>358,588</b>	<b>Construction Materials</b>	<b>6.7%</b>		<b>89,065</b>
Newspaper	1.7%	0.3%	22,840	Roofing	0.2%	0.2%	3,258
Cardboard	7.2%	1.4%	96,535	Drywall	0.5%	0.4%	7,108
Mixed Grade Paper	8.4%	1.3%	111,255	Carpet	3.0%	1.3%	40,312
Compostable Paper	7.7%	0.9%	102,993	Carpet Padding	0.5%	0.2%	6,562
R/C Paper	1.9%	0.3%	24,965	Other Construction Materials	2.4%	0.9%	31,826
<b>Plastic</b>	<b>15.1%</b>		<b>200,867</b>	<b>Hazardous/Special Wastes</b>	<b>2.1%</b>		<b>28,112</b>
#1 PET Bottles	0.8%	0.1%	10,913	Gasoline and Fuel Oils	0.0%	0.1%	546
#2 HDPE Bottles	0.4%	0.1%	5,929	Vehicle & Equipment Fluids	0.0%	0.0%	263
Other Plastic Packaging	1.8%	0.3%	23,708	Vehicle Batteries	0.0%	0.0%	0
Other Plastic Products	2.9%	0.7%	38,514	Household Batteries	0.0%	0.0%	576
Bags and Film	7.6%	0.8%	100,702	Latex Paint	0.1%	0.1%	1,529
R/C Plastics	1.6%	0.4%	21,101	Oil-based Paint & Solvents	0.0%	0.0%	56
<b>Glass</b>	<b>2.3%</b>		<b>29,996</b>	Adhesives and Glues	0.0%	0.0%	189
Clear Glass Containers	0.9%	0.1%	11,432	Pesticides/Herbicides	0.1%	0.1%	809
Green Glass Containers	0.3%	0.1%	3,769	Medical/Pharmaceutical Waste	0.2%	0.2%	2,831
Brown Glass Containers	0.5%	0.2%	7,283	Cleaners and Corrosives	0.0%	0.0%	167
R/C Glass	0.6%	0.3%	7,513	Diapers	1.5%	0.3%	20,200
<b>Metal</b>	<b>5.3%</b>		<b>70,829</b>	Other Hazardous/Special Wastes	0.1%	0.0%	946
Aluminum Cans	0.4%	0.1%	5,163	<b>Consumer Products</b>	<b>4.7%</b>		<b>63,190</b>
Tin Cans	0.9%	0.2%	12,125	Textiles	2.8%	0.5%	37,707
Other Ferrous Metals	1.8%	0.6%	24,105	Tires and Rubber	0.5%	0.1%	6,679
Other Non-Ferrous Metals	0.7%	0.3%	9,616	Furniture/Mattresses	0.7%	0.3%	9,164
R/C Metals	1.5%	0.5%	19,819	E-Waste	0.7%	0.3%	9,639
<b>Organics</b>	<b>23.6%</b>		<b>314,279</b>	<b>Residues</b>	<b>5.1%</b>		<b>67,678</b>
Food Scraps	20.2%	3.7%	268,493	Ash and Dust	0.2%	0.1%	3,295
Green Waste	2.8%	0.8%	36,780	Fines/Residues/Inerts/Remainders	4.8%	1.1%	64,383
Animal Manure	0.7%	0.2%	8,959				
Animal Carcasses	0.0%	0.0%	47				
<b>Wood Debris</b>	<b>8.2%</b>		<b>109,464</b>				
Lumber and Pallets	6.7%	1.8%	88,728				
Natural Wood	0.6%	0.9%	8,337				
R/C Wood	0.9%	0.4%	12,399				
				<b>Totals</b>	<b>100.0%</b>		<b>1,332,068</b>
				<b>Sample Count</b>	<b>295</b>		

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

**Table 60: Supplemental Results—Puget Sound WGA Residential Disposed Waste  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper</b>	<b>21.5%</b>		<b>210,404</b>	<b>Construction Materials</b>	<b>2.0%</b>		<b>19,427</b>
Newspaper	1.9%	0.3%	18,549	Roofing	0.1%	0.1%	1,350
Cardboard	3.3%	0.4%	32,474	Drywall	0.4%	0.2%	3,439
Mixed Grade Paper	8.6%	1.3%	84,234	Carpet	0.6%	0.3%	6,254
Compostable Paper	6.3%	0.4%	61,899	Carpet Padding	0.1%	0.1%	997
R/C Paper	1.4%	0.2%	13,248	Other Construction Materials	0.8%	0.3%	7,388
<b>Plastic</b>	<b>12.7%</b>		<b>124,457</b>	<b>Hazardous/Special Wastes</b>	<b>6.2%</b>		<b>60,212</b>
#1 PET Bottles	1.1%	0.1%	11,189	Gasoline and Fuel Oils	0.0%	0.0%	10
#2 HDPE Bottles	0.7%	0.1%	6,498	Vehicle & Equipment Fluids	0.1%	0.1%	849
Other Plastic Packaging	2.0%	0.3%	19,708	Vehicle Batteries	0.1%	0.1%	551
Other Plastic Products	2.1%	0.2%	20,024	Household Batteries	0.1%	0.0%	1,175
Bags and Film	5.7%	0.5%	55,526	Latex Paint	0.1%	0.0%	641
R/C Plastics	1.2%	0.2%	11,512	Oil-based Paint & Solvents	0.0%	0.1%	472
<b>Glass</b>	<b>3.4%</b>		<b>32,727</b>	Adhesives and Glues	0.1%	0.1%	651
Clear Glass Containers	1.5%	0.1%	14,873	Pesticides/Herbicides	0.0%	0.0%	270
Green Glass Containers	0.6%	0.1%	5,461	Medical/Pharmaceutical Waste	0.1%	0.1%	1,448
Brown Glass Containers	0.7%	0.1%	7,322	Cleaners and Corrosives	0.0%	0.0%	355
R/C Glass	0.5%	0.1%	5,071	Diapers	5.4%	0.5%	53,202
<b>Metal</b>	<b>5.5%</b>		<b>54,087</b>	Other Hazardous/Special Wastes	0.1%	0.0%	589
Aluminum Cans	0.6%	0.0%	5,563	<b>Consumer Products</b>	<b>7.9%</b>		<b>77,471</b>
Tin Cans	1.3%	0.1%	13,127	Textiles	4.2%	0.7%	41,085
Other Ferrous Metals	1.5%	0.5%	14,820	Tires and Rubber	0.3%	0.1%	3,315
Other Non-Ferrous Metals	1.2%	0.3%	11,348	Furniture/Mattresses	2.4%	1.2%	23,842
R/C Metals	0.9%	0.2%	9,229	E-Waste	0.9%	0.4%	9,230
<b>Organics</b>	<b>31.6%</b>		<b>308,316</b>	<b>Residues</b>	<b>6.6%</b>		<b>64,343</b>
Food Scraps	23.0%	3.6%	224,732	Ash and Dust	0.3%	0.1%	2,866
Green Waste	3.9%	0.9%	37,907	Fines/Residues/Inerts/Remainders	6.3%	1.4%	61,478
Animal Manure	4.6%	0.6%	45,139				
Animal Carcasses	0.1%	0.1%	537				
<b>Wood Debris</b>	<b>2.6%</b>		<b>25,179</b>				
Lumber and Pallets	1.8%	0.6%	17,748				
Natural Wood	0.2%	0.2%	1,574				
R/C Wood	0.6%	0.2%	5,857				
				<b>Totals</b>	<b>100.0%</b>		<b>976,624</b>
				<b>Sample Count</b>	<b>251</b>		

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

**Table 61: Supplemental Results—Puget Sound WGA Self-hauled C&D Disposed Waste  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper</b>	<b>7.3%</b>		<b>13,141</b>	<b>Construction Materials</b>	<b>32.8%</b>		<b>59,481</b>
Newspaper	0.2%	0.1%	407	Roofing	5.3%	2.7%	9,683
Cardboard	2.7%	0.8%	4,844	Drywall	5.1%	3.1%	9,244
Mixed Grade Paper	1.4%	0.6%	2,518	Carpet	8.6%	3.5%	15,495
Compostable Paper	2.1%	2.1%	3,885	Carpet Padding	1.2%	0.6%	2,192
R/C Paper	0.8%	0.5%	1,488	Other Construction Materials	12.6%	4.5%	22,867
<b>Plastic</b>	<b>7.1%</b>		<b>12,898</b>	<b>Hazardous/Special Wastes</b>	<b>1.5%</b>		<b>2,723</b>
#1 PET Bottles	0.2%	0.1%	400	Gasoline and Fuel Oils	0.0%	0.0%	0
#2 HDPE Bottles	0.2%	0.1%	312	Vehicle & Equipment Fluids	0.0%	0.0%	15
Other Plastic Packaging	0.8%	0.6%	1,523	Vehicle Batteries	0.0%	0.0%	0
Other Plastic Products	3.3%	2.1%	5,925	Household Batteries	0.0%	0.0%	34
Bags and Film	2.0%	0.7%	3,594	Latex Paint	0.1%	0.2%	270
R/C Plastics	0.6%	0.5%	1,144	Oil-based Paint & Solvents	0.0%	0.1%	66
<b>Glass</b>	<b>1.4%</b>		<b>2,449</b>	Adhesives and Glues	0.0%	0.0%	9
Clear Glass Containers	0.2%	0.1%	451	Pesticides/Herbicides	0.0%	0.0%	0
Green Glass Containers	0.2%	0.1%	368	Medical/Pharmaceutical Waste	0.0%	0.0%	13
Brown Glass Containers	0.1%	0.1%	228	Cleaners and Corrosives	0.0%	0.0%	0
R/C Glass	0.8%	0.5%	1,401	Diapers	0.3%	0.2%	588
<b>Metal</b>	<b>5.8%</b>		<b>10,550</b>	Other Hazardous/Special Wastes	1.0%	1.5%	1,729
Aluminum Cans	0.2%	0.1%	283	<b>Consumer Products</b>	<b>3.6%</b>		<b>6,564</b>
Tin Cans	0.2%	0.1%	293	Textiles	0.9%	0.4%	1,698
Other Ferrous Metals	3.2%	1.4%	5,796	Tires and Rubber	0.2%	0.2%	380
Other Non-Ferrous Metals	0.2%	0.2%	441	Furniture/Mattresses	2.0%	1.3%	3,574
R/C Metals	2.1%	1.0%	3,737	E-Waste	0.5%	0.4%	911
<b>Organics</b>	<b>4.4%</b>		<b>8,053</b>	<b>Residues</b>	<b>3.1%</b>		<b>5,601</b>
Food Scraps	3.0%	1.5%	5,515	Ash and Dust	0.8%	1.2%	1,394
Green Waste	0.7%	0.6%	1,333	Fines/Residues/Inerts/Remainders	2.3%	0.9%	4,207
Animal Manure	0.7%	0.5%	1,200				
Animal Carcasses	0.0%	0.0%	5				
<b>Wood Debris</b>	<b>33.0%</b>		<b>59,716</b>				
Lumber and Pallets	25.7%	9.0%	46,564				
Natural Wood	0.4%	0.4%	814				
R/C Wood	6.8%	2.7%	12,337				
				<b>Totals</b>	<b>100.0%</b>		<b>181,174</b>
				<b>Sample Count</b>	<b>117</b>		

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

**Table 62: Supplemental Results—Puget Sound WGA Self-hauled Other Disposed Waste  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper</b>	<b>11.6%</b>		<b>37,346</b>	<b>Construction Materials</b>	<b>13.6%</b>		<b>43,699</b>
Newspaper	0.7%	0.2%	2,224	Roofing	1.0%	0.5%	3,194
Cardboard	4.0%	0.7%	12,901	Drywall	3.1%	1.2%	9,912
Mixed Grade Paper	4.0%	0.9%	12,695	Carpet	2.7%	1.1%	8,732
Compostable Paper	1.5%	0.3%	4,953	Carpet Padding	1.0%	0.6%	3,052
R/C Paper	1.4%	0.4%	4,573	Other Construction Materials	5.9%	1.7%	18,809
<b>Plastic</b>	<b>9.4%</b>		<b>30,044</b>	<b>Hazardous/Special Wastes</b>	<b>1.6%</b>		<b>4,997</b>
#1 PET Bottles	0.3%	0.1%	1,085	Gasoline and Fuel Oils	0.0%	0.0%	0
#2 HDPE Bottles	0.3%	0.1%	841	Vehicle & Equipment Fluids	0.1%	0.0%	191
Other Plastic Packaging	1.0%	0.2%	3,253	Vehicle Batteries	0.0%	0.0%	8
Other Plastic Products	4.4%	0.8%	14,165	Household Batteries	0.1%	0.0%	167
Bags and Film	2.1%	0.4%	6,716	Latex Paint	0.1%	0.1%	242
R/C Plastics	1.2%	0.7%	3,985	Oil-based Paint & Solvents	0.0%	0.0%	117
<b>Glass</b>	<b>3.3%</b>		<b>10,717</b>	Adhesives and Glues	0.1%	0.1%	339
Clear Glass Containers	0.7%	0.2%	2,332	Pesticides/Herbicides	0.0%	0.0%	111
Green Glass Containers	0.3%	0.1%	950	Medical/Pharmaceutical Waste	0.0%	0.0%	112
Brown Glass Containers	0.5%	0.2%	1,453	Cleaners and Corrosives	0.1%	0.0%	285
R/C Glass	1.9%	1.0%	5,981	Diapers	0.7%	0.4%	2,311
<b>Metal</b>	<b>10.5%</b>		<b>33,693</b>	Other Hazardous/Special Wastes	0.3%	0.3%	1,115
Aluminum Cans	0.2%	0.0%	534	<b>Consumer Products</b>	<b>13.0%</b>		<b>41,880</b>
Tin Cans	1.5%	0.5%	4,704	Textiles	3.4%	0.6%	11,039
Other Ferrous Metals	4.5%	1.3%	14,470	Tires and Rubber	0.7%	0.3%	2,348
Other Non-Ferrous Metals	1.6%	0.5%	5,120	Furniture/Mattresses	7.8%	1.9%	25,136
R/C Metals	2.8%	0.6%	8,865	E-Waste	1.0%	0.5%	3,358
<b>Organics</b>	<b>13.9%</b>		<b>44,786</b>	<b>Residues</b>	<b>4.7%</b>		<b>15,104</b>
Food Scraps	5.3%	1.3%	16,904	Ash and Dust	0.4%	0.2%	1,284
Green Waste	7.2%	2.1%	23,106	Fines/Residues/Inerts/Remainders	4.3%	1.4%	13,820
Animal Manure	1.5%	0.6%	4,775				
Animal Carcasses	0.0%	0.0%	1				
<b>Wood Debris</b>	<b>18.3%</b>		<b>58,854</b>				
Lumber and Pallets	14.1%	3.8%	45,160				
Natural Wood	0.8%	0.8%	2,624				
R/C Wood	3.4%	1.1%	11,071				
				<b>Totals</b>	<b>100.0%</b>		<b>321,121</b>
				<b>Sample Count</b>	<b>260</b>		

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

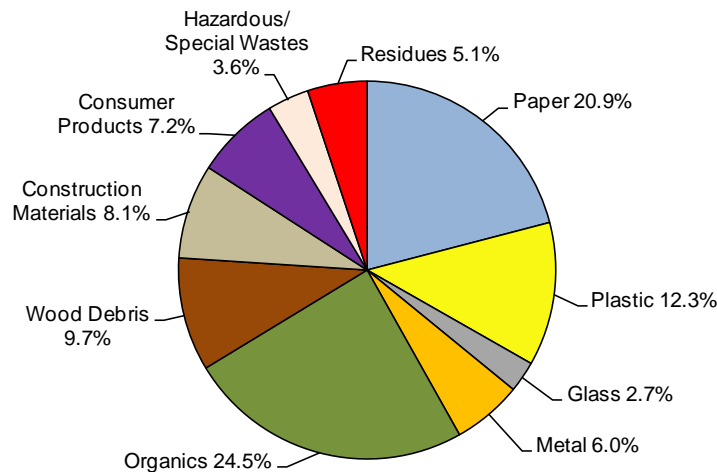
## Supplemental Statewide Results—Overall Disposed Waste Stream

This section characterizes the overall disposed MSW stream for the entire State of Washington by combining all four of the sectors and all six WGAs considered in this study with supplemental data from recent studies completed by King, Snohomish, and Thurston counties and uses the list of 50 *material types* that resulted from the process of combining material lists from these four analyses.

### Overview by Material Class

Composition estimates by **Material Class** for the overall statewide disposed waste stream are illustrated in Figure 33. The largest **Material Class** in the overall waste stream is **Organics**, which account for approximately 25 percent of the waste stream, by weight, followed by **Paper** (21 percent) and **Plastic** (12 percent). See Appendix B: List and Definitions of Material Types for a description of the *material types* included in each **Material Class**.

**Figure 33: Supplemental Statewide Results—Overall Statewide Disposed Waste Stream Composition by Material Class, 2009**



### Fifteen Most Prevalent Materials

When combined, the fifteen most prevalent *material types* in the overall waste stream account for more than three quarters of the waste stream (76 percent), as shown in Table 63, *Food scraps* (17 percent) is the most prevalent *material type*. *Mixed grade paper* is the most prevalent *material type* that is commonly recyclable, comprising seven percent of the overall waste stream.

**Table 63: Supplemental Statewide Results—Overall Statewide Disposed Waste Stream  
Fifteen Most Prevalent Material Types, 2009**

<b>Material</b>	<b>Est. Percent</b>	<b>Cum. Percent</b>	<b>Est. Tons</b>
Food Scraps	16.6%	16.6%	824,605
Lumber and Pallets	7.9%	24.4%	392,420
Mixed Grade Paper	7.3%	31.8%	363,920
Compostable Paper	5.6%	37.4%	278,932
Bags and Film	5.4%	42.8%	269,539
Green Waste	5.3%	48.1%	265,570
Fines/Residues/Inerts/Remainders	4.8%	52.9%	240,128
Cardboard	4.7%	57.7%	235,313
Textiles	3.3%	61.0%	166,545
Other Construction Materials	3.3%	64.3%	161,980
Diapers	2.6%	66.8%	128,676
Furniture/Mattresses	2.4%	69.2%	118,151
Animal Manure	2.3%	71.5%	115,163
Other Ferrous Metals	2.3%	73.8%	114,491
Carpet	2.3%	76.1%	112,579
<b>Total</b>	<b>76.1%</b>		<b>3,788,012</b>

## Detailed Composition

The composition percentages, by weight, for each *material type* in Washington's overall disposed waste stream are listed in Table 64.

**Table 64: Supplemental Statewide Results—Overall Statewide Disposed Waste Stream  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper</b>	<b>20.9%</b>		<b>1,042,861</b>	<b>Construction Materials</b>	<b>8.1%</b>		<b>402,838</b>
Newspaper	1.5%	0.1%	72,295	Roofing	0.9%	0.3%	42,819
Cardboard	4.7%	0.5%	235,313	Drywall	1.3%	0.3%	63,749
Mixed Grade Paper	7.3%	0.8%	363,920	Carpet	2.3%	0.5%	112,579
Compostable Paper	5.6%	0.4%	278,932	Carpet Padding	0.4%	0.1%	21,711
R/C Paper	1.9%	0.3%	92,400	Other Construction Materials	3.3%	0.6%	161,980
<b>Plastic</b>	<b>12.3%</b>		<b>611,632</b>	<b>Hazardous/Special Wastes</b>	<b>3.6%</b>		<b>177,079</b>
#1 PET Bottles	0.8%	0.0%	40,613	Gasoline and Fuel Oils	0.0%	0.0%	556
#2 HDPE Bottles	0.5%	0.0%	27,143	Vehicle & Equipment Fluids	0.1%	0.0%	3,457
Other Plastic Packaging	1.6%	0.2%	80,303	Vehicle Batteries	0.0%	0.0%	766
Other Plastic Products	2.2%	0.3%	110,350	Household Batteries	0.1%	0.0%	2,923
Bags and Film	5.4%	0.5%	269,539	Latex Paint	0.1%	0.1%	6,360
R/C Plastics	1.7%	0.3%	83,684	Oil-based Paint & Solvents	0.0%	0.0%	2,301
<b>Glass</b>	<b>2.7%</b>		<b>132,433</b>	Adhesives and Glues	0.0%	0.0%	2,043
Clear Glass Containers	1.0%	0.1%	50,577	Pesticides/Herbicides	0.0%	0.0%	1,271
Green Glass Containers	0.4%	0.0%	17,986	Medical/Pharmaceutical Waste	0.4%	0.2%	20,706
Brown Glass Containers	0.6%	0.1%	28,994	Cleaners and Corrosives	0.0%	0.0%	969
R/C Glass	0.7%	0.2%	34,876	Diapers	2.6%	0.2%	128,676
<b>Metal</b>	<b>6.0%</b>		<b>296,667</b>	Other Hazardous/Special Wastes	0.1%	0.1%	7,051
Aluminum Cans	0.4%	0.0%	20,386	<b>Consumer Products</b>	<b>7.2%</b>		<b>359,431</b>
Tin Cans	0.9%	0.1%	46,509	Textiles	3.3%	0.4%	166,545
Other Ferrous Metals	2.3%	0.3%	114,491	Tires and Rubber	0.5%	0.1%	23,862
Other Non-Ferrous Metals	0.7%	0.1%	34,734	Furniture/Mattresses	2.4%	0.5%	118,151
R/C Metals	1.6%	0.2%	80,548	E-Waste	1.0%	0.3%	50,874
<b>Organics</b>	<b>24.5%</b>		<b>1,218,236</b>	<b>Residues</b>	<b>5.1%</b>		<b>254,011</b>
Food Scraps	16.6%	1.4%	824,605	Ash and Dust	0.3%	0.1%	13,883
Green Waste	5.3%	0.9%	265,570	Fines/Residues/Inerts/Remainders	4.8%	0.8%	240,128
Animal Manure	2.3%	0.3%	115,163				
Animal Carcasses	0.3%	0.4%	12,898				
<b>Wood Debris</b>	<b>9.7%</b>		<b>483,309</b>				
Lumber and Pallets	7.9%	1.2%	392,420				
Natural Wood	0.3%	0.2%	15,307				
R/C Wood	1.5%	0.3%	75,582				
				<b>Totals</b>	<b>100.0%</b>		<b>4,978,496</b>
				<b>Sample Count</b>	<b>1,412</b>		

## Supplemental Statewide Results—Commercial Waste

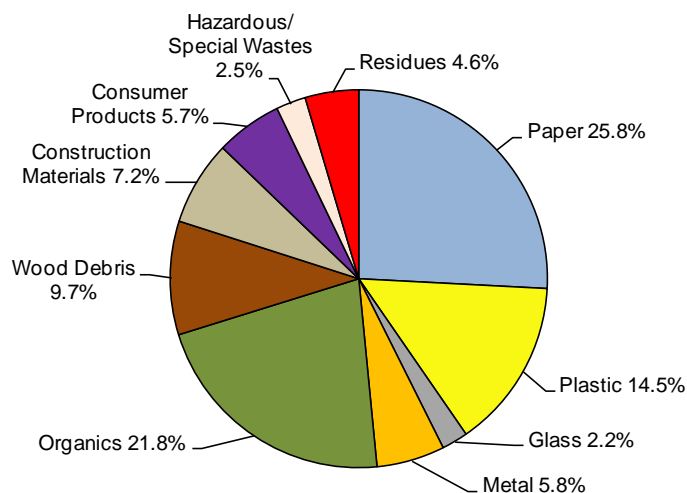
This section characterizes the MSW disposed by the commercial sector from the entire State of Washington by combining data from all six WGAs considered in this study with supplemental data from recent studies completed by King, Snohomish, and Thurston counties and uses the list of 50 *material types* that resulted from the process of combining material lists from these four analyses.

### Overview by Material Class

Composition estimates by **Material Class** for the statewide commercial disposed waste sector are illustrated in Figure 34. The largest **Material Class** in this waste sector is **Paper**, which accounts for approximately 26 percent of the waste sector, by weight, followed by **Organics** (22 percent) and **Plastic**

(15 percent). See Appendix B: List and Definitions of Material Types for a description of the *material types* included in each **Material Class**.

**Figure 34: Supplemental Statewide Results—Statewide Commercial Disposed Waste Sector  
Composition by Material Class, 2009**



## Fifteen Most Prevalent Materials

The fifteen most prevalent *material types* in the commercial waste sector, as shown in Table 65, combined account for more than 80 percent of the waste sector (81 percent). The four most prevalent materials—*food scraps, lumber and pallets, mixed grade paper, and compostable paper*—are all typically recoverable either through compost or recycling programs, and together these four materials account for approximately 42 percent of the waste sector, by weight.

**Table 65: Supplemental Statewide Results—Statewide Commercial Disposed Waste Sector  
Fifteen Most Prevalent Material Types, 2009**

Material	Est. Percent	Cum. Percent	Est. Tons
Food Scraps	18.2%	18.2%	396,411
Lumber and Pallets	8.2%	26.4%	177,311
Mixed Grade Paper	8.0%	34.4%	173,452
Compostable Paper	7.2%	41.6%	156,906
Bags and Film	7.1%	48.6%	153,550
Cardboard	6.5%	55.1%	141,019
Fines/Residues/Inerts/Remainders	4.3%	59.5%	94,328
Other Construction Materials	3.1%	62.6%	68,482
Textiles	3.0%	65.6%	65,130
Green Waste	2.9%	68.5%	63,740
R/C Paper	2.7%	71.2%	58,333
Carpet	2.5%	73.7%	53,853
Other Ferrous Metals	2.4%	76.1%	51,186
Other Plastic Products	2.3%	78.4%	49,976
R/C Plastics	2.2%	80.6%	48,337
<b>Total</b>	<b>80.6%</b>		<b>1,752,013</b>



## Detailed Composition

The composition percentages by weight for each *material type* in Washington's commercial disposed waste sector are listed in Table 66.

**Table 66: Supplemental Statewide Results—Statewide Commercial Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper</b>	<b>25.8%</b>		<b>561,485</b>	<b>Construction Materials</b>	<b>7.2%</b>		<b>157,485</b>
Newspaper	1.5%	0.2%	31,776	Roofing	0.5%	0.5%	10,121
Cardboard	6.5%	0.9%	141,019	Drywall	0.7%	0.6%	15,996
Mixed Grade Paper	8.0%	1.4%	173,452	Carpet	2.5%	0.9%	53,853
Compostable Paper	7.2%	0.8%	156,906	Carpet Padding	0.4%	0.2%	9,033
R/C Paper	2.7%	0.7%	58,333	Other Construction Materials	3.1%	1.0%	68,482
<b>Plastic</b>	<b>14.5%</b>		<b>316,264</b>	<b>Hazardous/Special Wastes</b>	<b>2.5%</b>		<b>55,325</b>
#1 PET Bottles	0.8%	0.1%	17,431	Gasoline and Fuel Oils	0.0%	0.0%	546
#2 HDPE Bottles	0.5%	0.1%	9,898	Vehicle & Equipment Fluids	0.1%	0.1%	1,918
Other Plastic Packaging	1.7%	0.3%	37,072	Vehicle Batteries	0.0%	0.0%	35
Other Plastic Products	2.3%	0.5%	49,976	Household Batteries	0.0%	0.0%	918
Bags and Film	7.1%	0.9%	153,550	Latex Paint	0.1%	0.1%	2,027
R/C Plastics	2.2%	0.7%	48,337	Oil-based Paint & Solvents	0.0%	0.0%	100
<b>Glass</b>	<b>2.2%</b>		<b>48,812</b>	Adhesives and Glues	0.0%	0.0%	701
Clear Glass Containers	0.9%	0.1%	19,391	Pesticides/Herbicides	0.0%	0.1%	819
Green Glass Containers	0.3%	0.1%	6,980	Medical/Pharmaceutical Waste	0.7%	0.4%	15,921
Brown Glass Containers	0.6%	0.2%	12,266	Cleaners and Corrosives	0.0%	0.0%	180
R/C Glass	0.5%	0.2%	10,174	Diapers	1.4%	0.3%	29,896
<b>Metal</b>	<b>5.8%</b>		<b>126,888</b>	Other Hazardous/Special Wastes	0.1%	0.1%	2,263
Aluminum Cans	0.4%	0.0%	8,106	<b>Consumer Products</b>	<b>5.7%</b>		<b>123,729</b>
Tin Cans	0.8%	0.1%	17,100	Textiles	3.0%	0.7%	65,130
Other Ferrous Metals	2.4%	0.6%	51,186	Tires and Rubber	0.5%	0.1%	11,224
Other Non-Ferrous Metals	0.6%	0.2%	13,365	Furniture/Mattresses	1.5%	0.7%	33,120
R/C Metals	1.7%	0.4%	37,132	E-Waste	0.7%	0.3%	14,256
<b>Organics</b>	<b>21.8%</b>		<b>472,974</b>	<b>Residues</b>	<b>4.6%</b>		<b>99,763</b>
Food Scraps	18.2%	2.6%	396,411	Ash and Dust	0.3%	0.2%	5,435
Green Waste	2.9%	0.8%	63,740	Fines/Residues/Inerts/Remainders	4.3%	1.2%	94,328
Animal Manure	0.6%	0.2%	12,776				
Animal Carcasses	0.0%	0.0%	47				
<b>Wood Debris</b>	<b>9.7%</b>		<b>211,349</b>				
Lumber and Pallets	8.2%	2.1%	177,311				
Natural Wood	0.4%	0.5%	8,459				
R/C Wood	1.2%	0.4%	25,579				
				<b>Totals</b>	<b>100.0%</b>		<b>2,174,075</b>
				<b>Sample Count</b>	<b>446</b>		

## Supplemental Statewide Results—Residential Waste

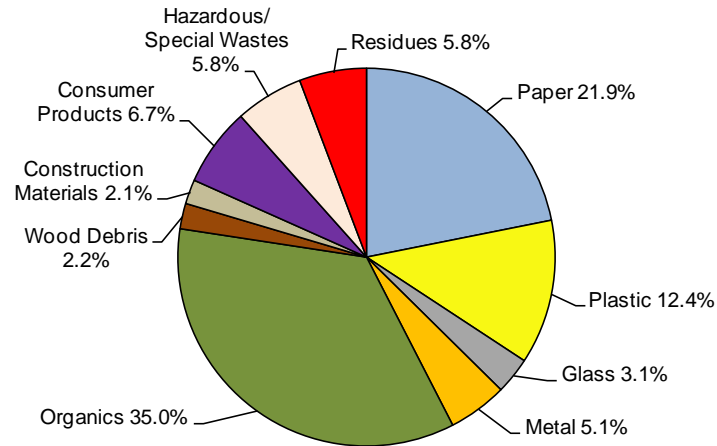
This section characterizes the MSW disposed by the residential sector from the entire State of Washington by combining data from all six WGAs considered in this study with data from recent studies completed by King, Snohomish, and Thurston counties and uses the list of 50 *material types* that resulted from the process of combining material lists from these four analyses.

### Overview by Material Class

Composition estimates by **Material Class** for the statewide residential disposed waste sector are illustrated in Figure 35. The largest **Material Class** in this waste sector is **Organics**, which account for approximately 35 percent of the waste sector, by weight, followed by **Paper** (22 percent) and **Plastic** (12

percent). See Appendix B: List and Definitions of Material Types for a description of the *material types* included in each **Material Class**.

**Figure 35: Supplemental Statewide Results—Statewide Residential Disposed Waste Sector  
Composition by Material Class, 2009**



## Fifteen Most Prevalent Materials

*Food scraps* is the most prevalent *material type*, comprising approximately 22 percent of residential disposed waste. In total, approximately 82 percent of residential waste is composed of the 15 *material types* shown in Table 67. *Mixed grade paper* is the most prevalent *material type* that is traditionally recyclable, composing approximately nine percent of residential disposed waste.

**Table 67: Supplemental Statewide Results—Statewide Residential Disposed Waste Sector  
Fifteen Most Prevalent Material Types, 2009**

Material	Est. Percent	Cum. Percent	Est. Tons
Food Scraps	21.6%	21.6%	394,943
Mixed Grade Paper	9.0%	30.6%	164,547
Green Waste	8.1%	38.7%	148,271
Compostable Paper	6.0%	44.8%	110,383
Bags and Film	5.5%	50.3%	100,139
Fines/Residues/Inerts/Remainders	5.5%	55.7%	99,649
Animal Manure	5.2%	60.9%	94,672
Diapers	5.1%	66.0%	93,709
Textiles	4.0%	70.1%	73,188
Cardboard	3.5%	73.5%	63,060
Newspaper	2.0%	75.5%	36,383
Other Plastic Packaging	2.0%	77.5%	35,941
Other Plastic Products	1.6%	79.1%	30,010
Lumber and Pallets	1.5%	80.6%	27,304
Other Ferrous Metals	1.5%	82.1%	27,118
<b>Total</b>	<b>82.1%</b>		<b>1,499,318</b>

## Detailed Composition

The composition percentages by weight for each *material type* in Washington's residential disposed waste sector are listed in Table 68.

**Table 68: Supplemental Statewide Results—Statewide Residential Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper</b>	<b>21.9%</b>		<b>399,387</b>	<b>Construction Materials</b>	<b>2.1%</b>		<b>38,053</b>
Newspaper	2.0%	0.3%	36,383	Roofing	0.1%	0.1%	2,088
Cardboard	3.5%	0.5%	63,060	Drywall	0.3%	0.1%	4,790
Mixed Grade Paper	9.0%	1.6%	164,547	Carpet	0.7%	0.2%	12,845
Compostable Paper	6.0%	0.4%	110,383	Carpet Padding	0.2%	0.1%	2,769
R/C Paper	1.4%	0.2%	25,013	Other Construction Materials	0.9%	0.3%	15,561
<b>Plastic</b>	<b>12.4%</b>		<b>225,984</b>	<b>Hazardous/Special Wastes</b>	<b>5.8%</b>		<b>106,810</b>
#1 PET Bottles	1.1%	0.1%	20,943	Gasoline and Fuel Oils	0.0%	0.0%	10
#2 HDPE Bottles	0.8%	0.1%	15,463	Vehicle & Equipment Fluids	0.1%	0.0%	1,307
Other Plastic Packaging	2.0%	0.3%	35,941	Vehicle Batteries	0.0%	0.0%	551
Other Plastic Products	1.6%	0.2%	30,010	Household Batteries	0.1%	0.0%	1,726
Bags and Film	5.5%	0.7%	100,139	Latex Paint	0.1%	0.0%	1,297
R/C Plastics	1.3%	0.2%	23,488	Oil-based Paint & Solvents	0.0%	0.0%	829
<b>Glass</b>	<b>3.1%</b>		<b>57,461</b>	Adhesives and Glues	0.0%	0.0%	765
Clear Glass Containers	1.4%	0.1%	26,398	Pesticides/Herbicides	0.0%	0.0%	291
Green Glass Containers	0.5%	0.1%	9,459	Medical/Pharmaceutical Waste	0.2%	0.1%	4,244
Brown Glass Containers	0.8%	0.1%	13,927	Cleaners and Corrosives	0.0%	0.0%	459
R/C Glass	0.4%	0.1%	7,678	Diapers	5.1%	0.4%	93,709
<b>Metal</b>	<b>5.1%</b>		<b>92,467</b>	Other Hazardous/Special Wastes	0.1%	0.0%	1,624
Aluminum Cans	0.6%	0.0%	11,011	<b>Consumer Products</b>	<b>6.7%</b>		<b>122,747</b>
Tin Cans	1.3%	0.1%	23,666	Textiles	4.0%	0.6%	73,188
Other Ferrous Metals	1.5%	0.5%	27,118	Tires and Rubber	0.4%	0.1%	6,836
Other Non-Ferrous Metals	0.8%	0.2%	14,471	Furniture/Mattresses	1.3%	0.7%	24,605
R/C Metals	0.9%	0.2%	16,202	E-Waste	1.0%	0.4%	18,118
<b>Organics</b>	<b>35.0%</b>		<b>638,597</b>	<b>Residues</b>	<b>5.8%</b>		<b>105,224</b>
Food Scraps	21.6%	2.3%	394,943	Ash and Dust	0.3%	0.1%	5,575
Green Waste	8.1%	2.0%	148,271	Fines/Residues/Inerts/Remainders	5.5%	1.2%	99,649
Animal Manure	5.2%	0.7%	94,672				
Animal Carcasses	0.0%	0.0%	711				
<b>Wood Debris</b>	<b>2.2%</b>		<b>39,790</b>				
Lumber and Pallets	1.5%	0.4%	27,304				
Natural Wood	0.2%	0.1%	3,282				
R/C Wood	0.5%	0.1%	9,204	<b>Totals</b>	<b>100.0%</b>		<b>1,826,521</b>
				<b>Sample Count</b>	<b>389</b>		

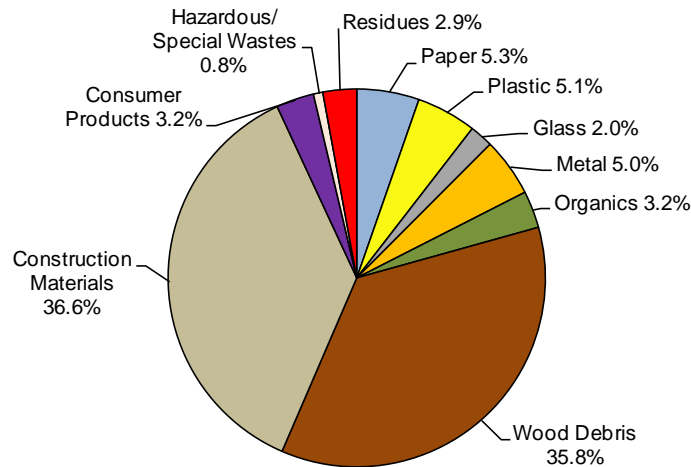
## Supplemental Statewide Results—Self-hauled C&D Waste

This section characterizes the MSW disposed by the self-hauled C&D sector from the entire State of Washington by combining data from all six WGAs considered in this study with data from recent studies completed by King, Snohomish, and Thurston counties and uses the list of 50 *material types* that resulted from the process of combining material lists from these four analyses.

### Overview by Material Class

Composition estimates by **Material Class** for the statewide self-hauled C&D disposed waste sector are illustrated in Figure 36. The largest **Material Class** in this waste sector is **Construction Materials**, which accounts for approximately 37 percent of the waste sector, by weight, followed by **Wood Debris** (36 percent). The eight remaining **Material Classes** combined comprise approximately 27 percent of the self-hauled C&D disposed waste sector. See Appendix B: List and Definitions of Material Types for a description of the *material types* included in each **Material Class**.

**Figure 36: Supplemental Statewide Results—Statewide Self-hauled C&D Disposed Waste Sector Composition by Material Class, 2009**



## Fifteen Most Prevalent Materials

When combined, the fifteen most prevalent *material types* in the self-hauled C&D disposed waste sector account for approximately 90 percent of the waste sector, as shown in Table 69, *lumber and pallets* is the most prevalent *material type*, comprising nearly one-third of the self-hauled C&D disposed waste sector.

**Table 69: Supplemental Statewide Results—Statewide Self-hauled C&D Disposed Waste Sector  
Fifteen Most Prevalent Material Types, 2009**

Material	Est. Percent	Cum. Percent	Est. Tons
Lumber and Pallets	30.2%	30.2%	112,952
Other Construction Materials	12.8%	43.0%	47,995
Drywall	8.0%	51.0%	29,853
Carpet	7.5%	58.4%	27,996
Roofing	7.2%	65.7%	27,102
R/C Wood	5.4%	71.1%	20,233
Other Ferrous Metals	2.7%	73.8%	10,254
Cardboard	2.7%	76.5%	10,018
Fines/Residues/Inerts/Remainders	2.5%	79.0%	9,421
Other Plastic Products	2.3%	81.4%	8,760
Furniture/Mattresses	1.8%	83.2%	6,797
R/C Metals	1.8%	85.0%	6,754
R/C Glass	1.7%	86.7%	6,375
Food Scraps	1.5%	88.2%	5,629
Bags and Film	1.4%	89.6%	5,141
<b>Total</b>	<b>89.6%</b>		<b>335,279</b>

## Detailed Composition

The composition percentages by weight for each *material type* in Washington's self-hauled C&D disposed waste sector are listed in Table 70.

**Table 70: Supplemental Statewide Results—Statewide Self-hauled C&D Disposed Waste Sector Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper</b>	<b>5.3%</b>		<b>20,026</b>	<b>Construction Materials</b>	<b>36.6%</b>		<b>136,960</b>
Newspaper	0.1%	0.1%	526	Roofing	7.2%	2.4%	27,102
Cardboard	2.7%	0.8%	10,018	Drywall	8.0%	2.3%	29,853
Mixed Grade Paper	0.9%	0.3%	3,329	Carpet	7.5%	2.5%	27,996
Compostable Paper	1.1%	1.0%	4,040	Carpet Padding	1.1%	0.4%	4,015
R/C Paper	0.6%	0.3%	2,113	Other Construction Materials	12.8%	4.4%	47,995
<b>Plastic</b>	<b>5.1%</b>		<b>19,249</b>	<b>Hazardous/Special Wastes</b>	<b>0.8%</b>		<b>3,026</b>
#1 PET Bottles	0.1%	0.0%	432	Gasoline and Fuel Oils	0.0%	0.0%	0
#2 HDPE Bottles	0.1%	0.0%	337	Vehicle & Equipment Fluids	0.0%	0.0%	15
Other Plastic Packaging	0.5%	0.3%	1,832	Vehicle Batteries	0.0%	0.0%	0
Other Plastic Products	2.3%	1.2%	8,760	Household Batteries	0.0%	0.0%	34
Bags and Film	1.4%	0.4%	5,141	Latex Paint	0.1%	0.1%	543
R/C Plastics	0.7%	0.4%	2,747	Oil-based Paint & Solvents	0.0%	0.0%	66
<b>Glass</b>	<b>2.0%</b>		<b>7,505</b>	Adhesives and Glues	0.0%	0.0%	14
Clear Glass Containers	0.1%	0.1%	467	Pesticides/Herbicides	0.0%	0.0%	0
Green Glass Containers	0.1%	0.1%	380	Medical/Pharmaceutical Waste	0.0%	0.0%	14
Brown Glass Containers	0.1%	0.0%	283	Cleaners and Corrosives	0.0%	0.0%	0
R/C Glass	1.7%	1.0%	6,375	Diapers	0.2%	0.1%	589
<b>Metal</b>	<b>5.0%</b>		<b>18,788</b>	Other Hazardous/Special Wastes	0.5%	0.7%	1,751
Aluminum Cans	0.1%	0.0%	315	<b>Consumer Products</b>	<b>3.2%</b>		<b>12,112</b>
Tin Cans	0.1%	0.0%	331	Textiles	0.8%	0.3%	2,904
Other Ferrous Metals	2.7%	0.8%	10,254	Tires and Rubber	0.3%	0.3%	1,197
Other Non-Ferrous Metals	0.3%	0.1%	1,135	Furniture/Mattresses	1.8%	1.1%	6,797
R/C Metals	1.8%	0.7%	6,754	E-Waste	0.3%	0.2%	1,215
<b>Organics</b>	<b>3.2%</b>		<b>11,873</b>	<b>Residues</b>	<b>2.9%</b>		<b>10,815</b>
Food Scraps	1.5%	0.7%	5,629	Ash and Dust	0.4%	0.6%	1,394
Green Waste	1.3%	0.8%	4,946	Fines/Residues/Inerts/Remainders	2.5%	1.4%	9,421
Animal Manure	0.3%	0.2%	1,293				
Animal Carcasses	0.0%	0.0%	5				
<b>Wood Debris</b>	<b>35.8%</b>		<b>134,033</b>				
Lumber and Pallets	30.2%	9.5%	112,952				
Natural Wood	0.2%	0.2%	847				
R/C Wood	5.4%	1.8%	20,233				
				<b>Totals</b>	<b>100.0%</b>		<b>374,386</b>
				<b>Sample Count</b>	<b>217</b>		

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

## Supplemental Statewide Results—Self-hauled Other Waste

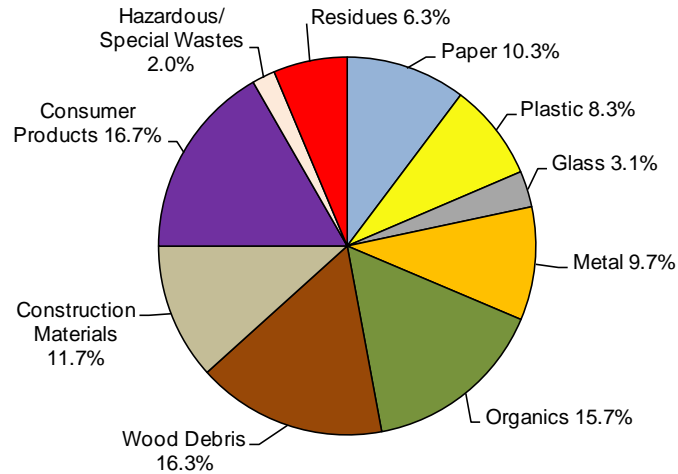
This section characterizes the MSW disposed by the self-hauled other sector from the entire State of Washington by combining data from all six WGAs considered in this study with data from recent studies completed by King, Snohomish, and Thurston counties and uses the list of 50 *material types* that resulted from the process of combining material lists from these four analyses.

## Overview by Material Class

Composition estimates by **Material Class** for the statewide self-hauled other disposed waste sector are illustrated in Figure 37. The largest **Material Class** in this waste sector is **Consumer Products**, which accounts for approximately 17 percent of the waste sector, by weight, followed by **Wood Debris** (16

percent) and **Organics** (16 percent). See Appendix B: List and Definitions of Material Types for a description of the *material types* included in each **Material Class**.

**Figure 37: Supplemental Statewide Results—Statewide Self-hauled Other Disposed Waste Sector  
Composition by Material Class, 2009**





## Fifteen Most Prevalent Materials

When combined, the fifteen most prevalent *material types* in the self-hauled other disposed waste sector account for more than three quarters (77 percent) of the waste sector, as shown in Table 71. *Lumber and pallets* (12 percent) and *furniture/mattresses* (nine percent) are the two most prevalent materials in the self-hauled other disposed waste sector.

**Table 71: Supplemental Statewide Results—Statewide Self-hauled Other Disposed Waste Sector  
Fifteen Most Prevalent Material Types, 2009**

Material	Est. Percent	Cum. Percent	Est. Tons
Lumber and Pallets	12.4%	12.4%	74,854
Furniture/Mattresses	8.9%	21.3%	53,628
Green Waste	8.1%	29.3%	48,613
Fines/Residues/Inerts/Remainders	6.1%	35.4%	36,731
Other Construction Materials	5.0%	40.4%	29,942
Food Scraps	4.6%	45.0%	27,621
Other Ferrous Metals	4.3%	49.3%	25,934
Textiles	4.2%	53.5%	25,323
Mixed Grade Paper	3.7%	57.2%	22,593
Other Plastic Products	3.6%	60.8%	21,604
Cardboard	3.5%	64.3%	21,216
R/C Wood	3.4%	67.7%	20,565
R/C Metals	3.4%	71.1%	20,460
Carpet	3.0%	74.1%	17,885
E-Waste	2.9%	76.9%	17,285
<b>Total</b>	<b>76.9%</b>		<b>464,255</b>

## Detailed Composition

The composition percentages by weight for each *material type* in Washington's self-hauled other disposed waste sector are listed in Table 72.

**Table 72: Supplemental Statewide Results—Statewide Self-hauled Other Disposed Waste Sector  
Detailed Composition, 2009**

Material	Est. Percent	+ / -	Est. Tons	Material	Est. Percent	+ / -	Est. Tons
<b>Paper</b>	<b>10.3%</b>		<b>61,963</b>	<b>Construction Materials</b>	<b>11.7%</b>		<b>70,339</b>
Newspaper	0.6%	0.3%	3,610	Roofing	0.6%	0.3%	3,508
Cardboard	3.5%	0.6%	21,216	Drywall	2.2%	0.8%	13,110
Mixed Grade Paper	3.7%	1.0%	22,593	Carpet	3.0%	1.1%	17,885
Compostable Paper	1.3%	0.3%	7,604	Carpet Padding	1.0%	0.5%	5,894
R/C Paper	1.2%	0.3%	6,941	Other Construction Materials	5.0%	1.6%	29,942
<b>Plastic</b>	<b>8.3%</b>		<b>50,135</b>	<b>Hazardous/Special Wastes</b>	<b>2.0%</b>		<b>11,918</b>
#1 PET Bottles	0.3%	0.1%	1,807	Gasoline and Fuel Oils	0.0%	0.0%	0
#2 HDPE Bottles	0.2%	0.0%	1,446	Vehicle & Equipment Fluids	0.0%	0.0%	217
Other Plastic Packaging	0.9%	0.2%	5,458	Vehicle Batteries	0.0%	0.0%	180
Other Plastic Products	3.6%	0.8%	21,604	Household Batteries	0.0%	0.0%	245
Bags and Film	1.8%	0.4%	10,709	Latex Paint	0.4%	0.4%	2,493
R/C Plastics	1.5%	0.6%	9,112	Oil-based Paint & Solvents	0.2%	0.3%	1,306
<b>Glass</b>	<b>3.1%</b>		<b>18,655</b>	Adhesives and Glues	0.1%	0.0%	563
Clear Glass Containers	0.7%	0.2%	4,321	Pesticides/Herbicides	0.0%	0.0%	162
Green Glass Containers	0.2%	0.1%	1,167	Medical/Pharmaceutical Waste	0.1%	0.1%	527
Brown Glass Containers	0.4%	0.1%	2,519	Cleaners and Corrosives	0.1%	0.0%	330
R/C Glass	1.8%	0.7%	10,649	Diapers	0.7%	0.3%	4,482
<b>Metal</b>	<b>9.7%</b>		<b>58,524</b>	Other Hazardous/Special Wastes	0.2%	0.2%	1,414
Aluminum Cans	0.2%	0.0%	955	<b>Consumer Products</b>	<b>16.7%</b>		<b>100,842</b>
Tin Cans	0.9%	0.3%	5,413	Textiles	4.2%	0.9%	25,323
Other Ferrous Metals	4.3%	1.1%	25,934	Tires and Rubber	0.8%	0.3%	4,605
Other Non-Ferrous Metals	1.0%	0.3%	5,763	Furniture/Mattresses	8.9%	2.1%	53,628
R/C Metals	3.4%	0.9%	20,460	E-Waste	2.9%	1.8%	17,285
<b>Organics</b>	<b>15.7%</b>		<b>94,792</b>	<b>Residues</b>	<b>6.3%</b>		<b>38,208</b>
Food Scraps	4.6%	0.9%	27,621	Ash and Dust	0.2%	0.1%	1,478
Green Waste	8.1%	3.0%	48,613	Fines/Residues/Inerts/Remainders	6.1%	3.0%	36,731
Animal Manure	1.1%	0.4%	6,422				
Animal Carcasses	2.0%	3.0%	12,135				
<b>Wood Debris</b>	<b>16.3%</b>		<b>98,138</b>				
Lumber and Pallets	12.4%	3.3%	74,854				
Natural Wood	0.5%	0.4%	2,719				
R/C Wood	3.4%	1.0%	20,565				
				<b>Totals</b>	<b>100.0%</b>		<b>603,514</b>
				<b>Sample Count</b>	<b>360</b>		

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.