

# EXECUTIVE SUMMARY

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StopWaste.Org (StopWaste) has retained R. W. Beck, Inc. (R. W. Beck) to complete the 2008 Alameda County (County) Waste Characterization Study (Study). This Study was designed to provide updated solid waste composition and quantity results for evaluation of current conditions and further comparison with previous studies completed in 1995 and 2000. These waste characterization results will contribute to a comprehensive understanding of solid waste disposal within each of the waste streams and jurisdictions of the County, in addition to overall Countywide totals.

The primary objectives of this Study are to:

- 1) Provide updated composition data for each of the 17 member agencies of StopWaste, in addition to a Countywide aggregate;
- 2) Compare the current composition and quantity data with that of previous studies in 1995 and 2000 to identify changes within each waste stream, when possible, and measure the effect of previously implemented waste reduction programs; and
- 3) Identify potential specific waste streams to be targeted for future waste reduction programs.

Updated waste disposal characterization data is needed because of: evolving local and Countywide waste management programs and policies; improvements in diversion activities; new solid waste infrastructure; changes to recyclable/reusable material markets; and changes in materials generated and discarded.

The study results will assist StopWaste to evaluate options for achieving its 75 percent and beyond waste diversion goal by further enhancing existing solid waste programs, promoting future diversion, and evaluating current solid waste conditions or trends. Detailed characterization results presented throughout this report provide an opportunity for limited evaluation of the performance of current solid waste management programs within the County. Because this report focuses only on disposed solid waste, excluding recyclables, analysis of the design and performance of specific diversion programs within the County is beyond the scope of this Study.

To provide direct comparability with previous Alameda studies, this study analyzed the same five segments of the overall waste stream as were used in earlier studies:

- Single-Family Residential
- Multi-Family Residential
- Commercial
- Roll-Off Container
- Self-Haul

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For the purposes of this Study, we have defined each of these five segments as a unique “waste stream”. While single-family residential, multi-family residential, and commercial waste streams represent typical generator types with distinct compositions, roll-off container, and self-haul waste streams represent delivery methods for non-generator specific waste received at solid waste facilities. In an effort to provide meaningful comparison of generator specific data, we have also provided results for roll-off and self-haul waste streams by generator type.

Quantities of waste disposed from jurisdictions within Alameda County during 2008 were provided for each waste stream by StopWaste staff. Table ES-1 presents the quantity of waste disposed from each jurisdiction in 2008 classified by waste stream. Tonnages presented throughout this report represent waste disposal originating within Alameda County including that which is delivered by franchised haulers to out of County facilities, but does not include waste that may be self-hauled out of County.

**Table ES-1  
2008 Solid Waste Disposal by Waste Stream (tons)**

Jurisdiction	SF Res	MF Res	Comm	Roll-off	Self-haul	Total	%
Alameda (City)	11,951	3,650	12,303	6,424	8,719	43,048	3.6%
Albany	1,873	874	1,358	1,257	607	5,968	0.5%
Berkeley	14,953	5,210	17,594	14,805	38,445	91,008	7.7%
Castro Valley SD	12,624	3,018	4,708	3,253	3,963	27,565	2.3%
Dublin	6,449	2,933	10,398	5,584	6,259	31,623	2.7%
Emeryville	639	2,318	4,747	5,706	843	14,253	1.2%
Fremont	37,545	17,384	31,981	38,094	44,540	169,544	14.3%
Hayward (1)	28,201	14,611	20,514	40,962	16,807	121,095	10.2%
Livermore	29,003	6,954	23,952	18,759	23,622	102,290	8.6%
Newark	7,819	3,667	9,839	13,567	1,253	36,145	3.0%
Oakland	55,555	51,621	55,284	41,975	64,373	268,809	22.6%
Oro Loma SD (1)	16,413	5,466	7,531	4,134	935	34,479	2.9%
Piedmont	2,534	0	0	798	413	3,745	0.3%
Pleasanton (2)	20,283	1,236	11,124	41,436	17,858	91,937	7.7%
San Leandro (1)	17,854	8,603	15,080	22,074	24,049	87,660	7.4%
Union City	11,257	4,538	9,825	13,380	8,827	47,826	4.0%
Unincorp County (1)	125	0	1,077	1,213	7,700	10,114	0.9%
<b>Total Countywide</b>	<b>275,079</b>	<b>132,081</b>	<b>237,315</b>	<b>273,420</b>	<b>269,213</b>	<b>1,187,108</b>	<b>100%</b>
<b>% of Total</b>	<b>23.2%</b>	<b>11.1%</b>	<b>20.0%</b>	<b>23.0%</b>	<b>22.7%</b>		

1. The waste flows reported for Oro Loma SD represent the waste which is collected from unincorporated areas of the district only; waste collected in portions of other jurisdictions are included in the waste flows for those jurisdictions.

2. Pleasanton single-family residential waste is delivered to the PGS MRF for processing to remove recyclables. Waste flow reported represents disposed waste that was not recovered.

Note: all waste flows provided by StopWaste.Org in annual tons of disposed waste.

Table ES-2 presents historic trends in overall solid waste disposal quantities generated within each jurisdiction. Overall annual solid waste quantities within the County have decreased by approximately 24 percent since 2000, with the greatest decrease (based on weight) represented by the City of Oakland and the greatest percentage decrease represented by Emeryville and Albany.

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Table ES-2  
Historic Solid Waste Disposal by Jurisdiction (tons)

Jurisdiction	1995	2000	2008	% Change from 2000
Alameda (City)	58,398	48,421	43,048	-11%
Albany	11,443	9,902	5,968	-40%
Berkeley	83,983	92,802	91,008	-2%
Castro Valley SD	31,614	30,936	27,565	-11%
Dublin	35,840	35,780	31,623	-12%
Emeryville	16,135	24,151	14,253	-41%
Fremont	185,311	199,922	169,544	-15%
Hayward	144,089	178,518	121,095	-32%
Livermore	83,304	126,183	102,290	-19%
Newark	51,860	52,558	36,145	-31%
Oakland	500,368	392,456	268,809	-32%
Oro Loma SD	39,194	37,758	34,479	-9%
Piedmont	6,620	5,411	3,745	-31%
Pleasanton	98,519	125,205	91,937	-27%
San Leandro	98,010	126,406	87,660	-31%
Union City	57,130	55,281	47,826	-13%
Unincorp County	12,628	10,993	10,114	-8%
<b>Total Countywide</b>	<b>1,514,446</b>	<b>1,552,683</b>	<b>1,187,108</b>	<b>-24%</b>

Interpretation of the 2008 Alameda County waste characterization results is difficult because of the significantly reduced waste quantities. The decline in waste flows from the 2000 study was certainly more dramatic between 2007 and the end of 2008, aligning with the recent construction and economic downturn. However, it is also likely that other factors have also contributed to some extent, such as public education regarding waste reduction, implementation of new diversion programs, and further participation of existing diversion programs. As the results of this Study are limited to solid waste, further evaluation, and integration of actual diversion (or material recovery) data would provide more support for program performance review. Effects of the recent economic downturn on solid waste disposal are discussed later.

For a more comprehensive look into what portions of the overall waste stream have varied most in the last eight years, Table ES-3 provides the amount of material by waste stream and percent change from 2000. Commercial and roll-off waste (primarily consisting of commercial and/or industrial) experienced the largest declines in waste disposal.

Table ES-3  
Historic Solid Waste Disposal by Waste Stream

Waste Stream	1995	2000	2008	% Change from 2000 to 2008
Single-Family Residential	333,025	332,703	275,079	-17%
Multi-Family Residential	112,087	122,872	132,081	+7%
Commercial	264,531	354,397	237,315	-33%
Roll-Off	339,246	406,468	273,420	-33%
Self-Haul	465,561	336,243	269,213	-20%
<b>Total Countywide</b>	<b>1,514,450</b>	<b>1,552,683</b>	<b>1,187,108</b>	<b>-24%</b>

In order to develop comprehensive waste characterization results, annual waste quantities provided by StopWaste were applied to corresponding composition profiles. Waste composition profiles were calculated based on representative waste sampling and sorting to identify the average allocation of materials (by statistical mean) within a specified waste stream. To obtain aggregate compositions for each jurisdiction as well as the five waste streams, a total of 2,320 physical and visual samples were collected during four seasons of field activities throughout calendar year 2008. Table ES-4 presents a breakdown of the total number of samples collected from waste originating in each jurisdiction during the Study. Similar to previous studies, physical samples (minimum 200 pounds) were collected for all single-family residential, multi-family residential and commercial waste. Visual characterization was performed for roll-off and self-haul waste unless the materials were too mixed for accurate visual apportionment, resulting in the need to collect and sort a physical sample.

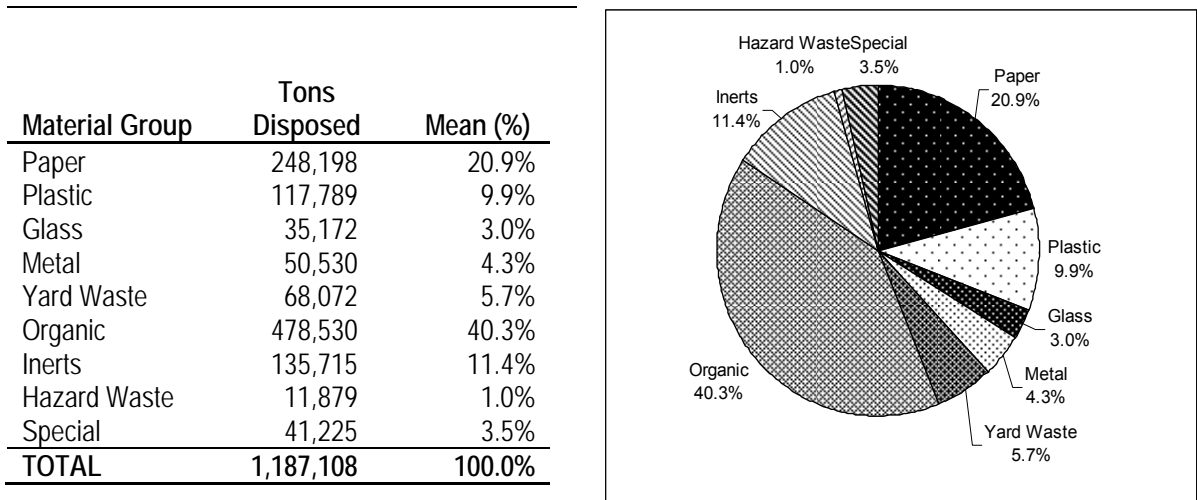
Table ES-4  
Sample Allocation by Jurisdiction and Waste Stream

Jurisdiction	SF Res	MF Res	Comm	Roll-Off	Self-Haul	Total	%
Alameda	21	15	38	22	43	139	6%
Albany	20	11	32	6	0	69	3%
Berkeley	22	14	38	19	73	166	7%
Castro Valley SD	20	14	35	8	14	91	4%
Dublin	21	12	38	2	4	77	3%
Emeryville	14	13	37	16	3	83	4%
Fremont	22	15	38	56	103	234	10%
Hayward	22	14	39	78	50	203	9%
Livermore	22	13	37	9	88	169	7%
Newark	21	13	39	20	24	117	5%
Oakland	22	15	40	149	153	379	16%
Oro Loma SD	22	14	36	5	4	81	3%
Piedmont	16	0	0	0	5	21	1%
Pleasanton	21	13	38	15	80	167	7%
San Leandro	22	12	38	42	74	188	8%
Union City	20	14	36	35	17	122	5%
Uninc. Alameda	5	0	9	0	0	14	1%
<b>Total Countywide</b>	<b>333</b>	<b>202</b>	<b>568</b>	<b>482</b>	<b>735</b>	<b>2,320</b>	
% of Total	14%	9%	24%	21%	32%		

The number of physical samples collected for each waste stream was selected based on the variability of the waste stream, with commercial waste being highly variable from load to load. Visual characterization was appropriate for roll-off and self-haul loads as a majority of waste material within these loads is homogeneous, and more representative data is obtained through sampling the entire load. More visual samples are appropriate for self-haul loads since the unit load weight is generally less than that of roll-off loads.

Samples from the same waste stream and jurisdiction were averaged to develop unique composition profiles. In order to obtain Countywide composition results for each of the five waste streams, the jurisdiction-specific data were weight-averaged based on the disposed waste tonnages of each jurisdiction within that waste stream. The overall Countywide characterization data were weight-averaged based on the disposed waste tonnages of each waste stream component within the overall waste stream. The overall composition of all waste disposed in Alameda County classified by major material group is presented as Figure ES-1. The quantity of waste covered by this Study is estimated to be 90 percent of the total disposal in 2008, taking into account the waste disposed of in out of county landfills.

Figure ES-1 Countywide Composition by Major Material Group

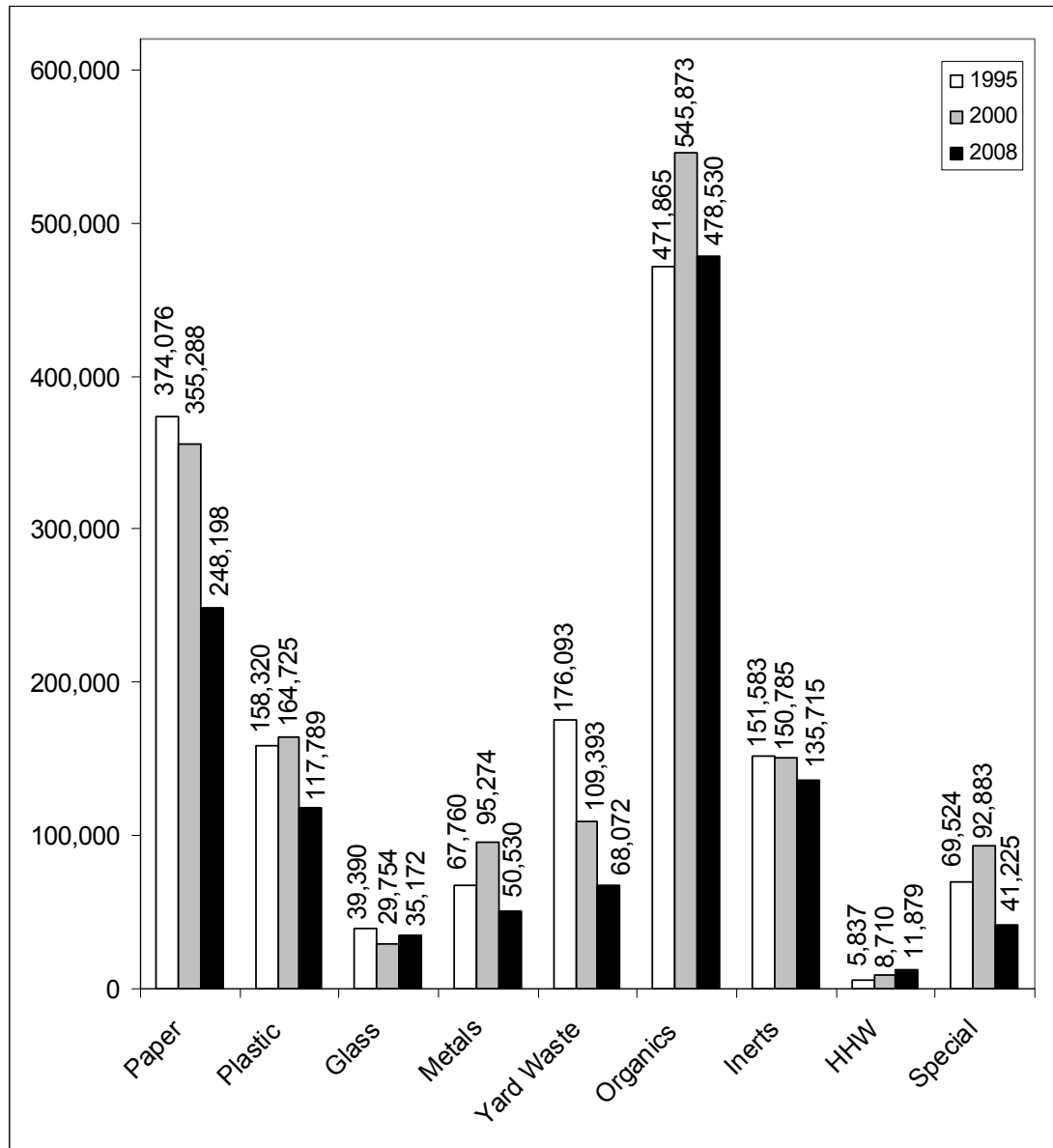


Note: see pg. ES-12 for a complete description of changes to material categories.

Figure ES-2 presents the comparison of major waste materials disposed in 2008 with results from the 1995 and 2000 studies. Because of the 24 percent decline in overall annual waste since 2000, most of the major materials have reduced quantities, with the exception of glass and household hazardous waste (HHW). Significant downward trends were identified for Paper, Plastic, Metals, Yard Waste, and Special Waste. Although certain materials have been modified from previous studies in order to address current data needs, the major material groups are directly comparable. The results shown represent waste disposal originating within Alameda County including that which is delivered by franchised haulers to out of County facilities, but does not include waste that may be self-hauled out of County.

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Figure ES-2 Historic Comparison of Countywide Composition by Weight (tons)

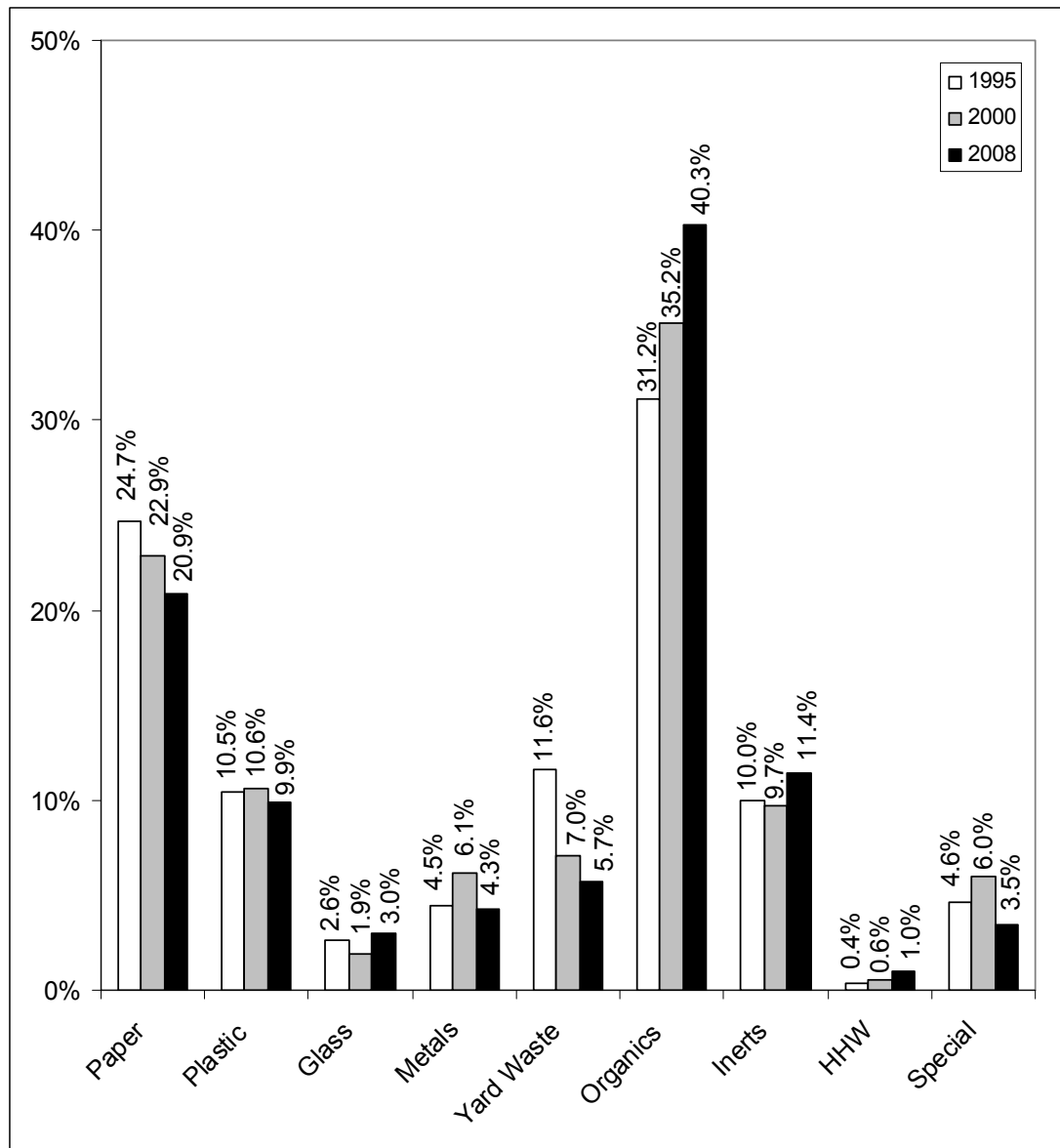


Note: see pg. ES-12 for a complete description of changes to material categories.

As previously mentioned, careful interpretation of the data is required due to the significant decrease in waste quantities. Figure ES-3 presents the historic comparison of major waste materials by mean percentage. As you can see, trends in the average amounts of material, although useful, are quite different than those shown in the tonnage estimates. It is important to note that oftentimes in waste characterization, a change to the average of one material may be explained as the direct result in the change of another material. For example, the reduced use or increased diversion of materials such as paper, plastic, glass, metals, and yard waste cause the averages for those materials to decline, while the averages of the remaining materials (i.e. organics) will increase. However, the increase in the mean of organics does not necessarily result in an overall tonnage increase, as shown in Figure ES-2.



Figure ES-3 Historic Comparison of Countywide Composition by Mean



Note: see pg ES-12 for a complete description of changes to material categories.

Current diversion programs widely used within the County include single-family residential curbside recycling and green waste/food scrap programs as well as varying programs for commercial, construction, and demolition (C&D), and HHW recycling/recovery. Single-family recyclables and green waste curbside collection programs have been widely used for a number of years throughout the County and continue to be effective. Many jurisdictions have included residential curbside food scrap recovery programs in recent years. Commercial recycling within the County has become more prevalent since 2000 with continual evolution and improvements, although programs differ from jurisdiction to jurisdiction and hauler to hauler. There are several recovery programs for C&D material and HHW throughout the County at

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various solid waste facilities. While C&D recovery programs currently target specific commercial, roll-off and self-haul loads for which the hauler identifies a significant amount of recoverable material, HHW programs are typically designed for public, or self-haul, customers.

Food waste represents the largest portion of the countywide waste stream, as it did in both 1995 and 2000. The amount of food waste has increased by mean and by weight. The overall increase in food waste could at least partially be due to the decrease in other high-value materials. A further evaluation of the quantity of food waste diverted would further support a more comprehensive evaluation of food scrap program performance.

The Countywide annual quantity of waste has decreased over the last eight years by 24 percent, with the largest reductions for commercial and roll-off waste streams. This phenomenon is likely the result of several factors, including implementation of new diversion programs and further participation of existing diversion programs. Nevertheless, the economic and housing downturn and continued advancements in technology most likely contributed significantly to this decline. Although it is impossible to measure the precise effect of each individual factor by itself, understanding their relationship with solid waste systems is important for proper interpretation or evaluation of results.

The ongoing economic recession which started during the 3<sup>rd</sup> Quarter of 2008 has affected every household, business, and industry in the Country in some way or another. The collapse of the construction industry has reduced the quantity of waste materials within commercial and roll-off waste including unused scraps (i.e. wood, gypsum board, metals), vegetative debris from clearing, and demolition debris if an existing structure was removed.

The strong global economy coupled with economic growth and modernization in Asia created significant demand for materials from 2005 to 2008. When the recession hit, the demand for materials plummeted along with prices. The national average price for most high-value recyclable material dropped 70 percent, with some materials losing all value. Based on the review of characterization results of this Study, high-value recyclables within Countywide residential and commercial waste streams have decreased since the 2000 study, indicating that recycling programs continue to be strong in Alameda County despite this.

Recent advancements in technology have also played a significant role in the solid waste industry, resulting in increased daily use of electronics such as computers and cell phones. In turn, there is an increase in associated HHW materials in the solid waste system. Although these materials are not allowed for landfill disposal, recovery programs are still improving to increase participation. The amount of HHW in the Alameda County residential waste stream is lower than that of New York, San Francisco, and Seattle based on the results of this Study. Furthermore, advanced use of electronics has decreased the use and related disposal of paper materials such as newspaper, mixed office paper, and high-grade paper.

Each of these special circumstances is believed to have contributed to the results of this 2008 Waste Characterization Study. Careful consideration of the effect on

specific material categories should be given to avoid misinterpretation of the statistical data.

Detailed 2008 Alameda County waste characterization results are presented throughout the remaining sections of this report. The following tables provide a summary of the Countywide results for each waste stream:

- Table ES-5 presents the 2008 Countywide compositions for each waste stream as well as the overall;
- Table ES-6 presents the 2008 Countywide waste disposal summary by waste stream;
- Table ES-7 presents the detailed historic comparison of overall Countywide waste;
- Table ES-8 presents the detailed historic comparison of Countywide single-family residential waste;
- Table ES-9 presents the detailed historic comparison of Countywide multi-family residential waste;
- Table ES-10 presents the detailed historic comparison of Countywide commercial waste;
- Table ES-11 presents the detailed historic comparison of Countywide roll-off waste; and
- Table ES-12 presents the detailed historic comparison of Countywide self-haul waste.

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The material categories have been modified to facilitate representative comparison with previous studies, except as specific material categories were not able to be matched with those of 2008 (marked as “NA” or not available). New major material categories *Other Inerts*, *HHW*, and *Special Waste* were separated from *Other Waste* in the 2000 Study. A summary of specific material changes from previous studies is provided below:

- *Mixed paper* includes *Text Books*, *Magazines*, and *Phone Books* from 2000
- *Compostable paper* was separated from *Other Paper*
- *HDPE Bottles* were combined
- *PET Bottles* were combined
- *Film Plastics* from 2000 was separated into *Plastic Bags* and *Other Film*
- *Mixed Plastics* from 2000 was separated into *Mixed Rigid Plastics*, *Expanded Polystyrene Blocks*, and *Other Plastics*
- *Recyclable Glass* categories were combined
- *Branches/Stumps* and *Prunings/Trimmings* were combined
- *Other Rubber* was included in *Other Organic Waste*
- *Wood-Unpainted* was separated into *Pallets* and *Untreated Lumber*
- *Manure* was separated from *Other Organic Waste*
- *Gypsum Board* was combined
- *Household Hazardous Waste* was divided into specific categories
- Electronics were moved from *Brown Goods* to *HHW* and separated into *Covered E-Waste* and *Other E-Waste*
- *Other Special Waste* was included

**Table ES-5  
2008 Countywide Waste Composition Summary**

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
<b>Paper</b>		<b>23.3%</b>	<b>25.6%</b>	<b>27.6%</b>	<b>21.9%</b>	<b>9.3%</b>	<b>20.9%</b>
	1 Uncoated Corrugated Cardboard	0.5%	1.3%	2.1%	6.9%	3.6%	3.1%
	2 High Grade Paper	0.4%	0.7%	1.2%	2.8%	0.9%	1.2%
	3 Newspaper	0.9%	1.3%	0.9%	0.7%	0.4%	0.8%
	4 Mixed Recyclable Paper	3.1%	4.3%	4.3%	7.0%	3.5%	4.5%
	5 Compostable Paper	17.5%	17.1%	18.0%	2.0%	0.3%	10.1%
	6 Other Paper	0.9%	0.9%	1.2%	2.5%	0.6%	1.3%
<b>Plastics</b>		<b>13.5%</b>	<b>13.8%</b>	<b>14.7%</b>	<b>6.7%</b>	<b>3.3%</b>	<b>9.9%</b>
	7 HDPE Bottles (#2)	0.5%	0.7%	0.6%	0.1%	0.0%	0.3%
	8 PETE Bottles (#1)	0.6%	0.8%	0.6%	0.1%	0.1%	0.4%
	9 Other Plastic Containers	1.0%	1.0%	0.8%	0.1%	0.1%	0.5%
	10 Plastic Bags	1.7%	1.7%	1.1%	0.1%	0.1%	0.8%
	11 Other Film	5.1%	4.5%	6.4%	3.5%	1.3%	4.1%
	12 Expanded Polystyrene Blocks	0.1%	0.2%	0.2%	0.2%	0.3%	0.2%
	13 Mixed Rigid Plastics	3.1%	3.6%	3.6%	1.5%	1.1%	2.4%
	14 Other Plastics	1.5%	1.3%	1.5%	1.2%	0.5%	1.2%
<b>Glass</b>		<b>2.8%</b>	<b>3.8%</b>	<b>2.6%</b>	<b>3.2%</b>	<b>2.8%</b>	<b>3.0%</b>
	15 Recyclable Glass Bottles/Containers	2.4%	3.3%	1.9%	1.2%	0.6%	1.7%
	16 Other Glass	0.4%	0.6%	0.7%	2.0%	2.2%	1.3%
<b>Metals</b>		<b>3.4%</b>	<b>4.4%</b>	<b>4.1%</b>	<b>4.8%</b>	<b>4.6%</b>	<b>4.3%</b>
	17 Aluminum Cans	0.2%	0.3%	0.2%	0.1%	0.1%	0.2%
	18 Other Non-Ferrous	0.5%	0.6%	0.5%	0.4%	0.6%	0.5%
	19 Steel Food and Beverage Cans	1.0%	0.9%	0.7%	0.1%	0.0%	0.5%
	20 Other Ferrous	1.8%	2.4%	2.5%	4.2%	3.7%	3.0%
	21 White Goods	0.0%	0.2%	0.1%	0.1%	0.2%	0.1%
<b>Yard Waste</b>		<b>2.7%</b>	<b>3.7%</b>	<b>4.3%</b>	<b>7.3%</b>	<b>9.5%</b>	<b>5.7%</b>
	22 Leaves/Grass/Chips	1.7%	2.7%	3.0%	3.5%	5.2%	3.3%
	23 Branches/Stumps/Prunings/Trimmings	1.0%	1.0%	1.3%	3.7%	4.3%	2.4%
<b>Organics</b>		<b>48.8%</b>	<b>42.8%</b>	<b>40.2%</b>	<b>35.1%</b>	<b>35.8%</b>	<b>40.3%</b>
	24 Food Waste	32.8%	25.9%	26.1%	11.5%	1.7%	18.7%
	25 Tires	0.0%	0.1%	0.2%	0.1%	0.0%	0.1%
	26 Untreated Lumber	0.5%	0.9%	2.1%	3.5%	6.0%	2.8%
	27 Pallets	0.0%	0.1%	0.9%	8.2%	0.9%	2.3%
	28 Treated Wood Waste	1.4%	1.8%	3.1%	6.2%	16.6%	6.4%
	29 Textiles and Leather	4.2%	6.1%	3.1%	2.3%	4.7%	3.9%
	30 Carpet	0.3%	0.6%	0.7%	0.9%	4.3%	1.4%
	31 Diapers	5.7%	4.8%	2.2%	0.1%	0.0%	2.3%
	32 Manure	2.9%	1.8%	0.6%	0.1%	0.0%	1.0%
	33 Other Organics	0.9%	0.7%	1.2%	2.1%	1.5%	1.3%
<b>Inerts</b>		<b>4.0%</b>	<b>3.9%</b>	<b>4.9%</b>	<b>15.5%</b>	<b>24.3%</b>	<b>11.4%</b>
	34 Crushable Inerts	1.1%	1.0%	2.1%	4.7%	10.1%	4.2%
	35 Other Inerts	2.4%	2.7%	2.1%	6.6%	7.2%	4.4%
	36 Gypsum Board	0.4%	0.2%	0.5%	2.7%	4.7%	1.9%
	37 Asphalt Roofing	0.0%	0.0%	0.2%	1.5%	2.4%	0.9%
<b>HHW</b>		<b>0.7%</b>	<b>1.0%</b>	<b>0.9%</b>	<b>1.1%</b>	<b>1.2%</b>	<b>1.0%</b>
	38 Paint/Adhesives	0.0%	0.1%	0.1%	0.1%	0.2%	0.1%
	39 Vehicle & Equipment Fluids	0.0%	0.1%	0.0%	0.0%	0.1%	0.0%
	40 Universal Hazardous Waste	0.1%	0.1%	0.1%	0.3%	0.3%	0.2%
	41 Medical Waste	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%
	42 Medicine	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
	43 Covered E-Waste	0.0%	0.3%	0.1%	0.1%	0.3%	0.2%
	44 Other E-Waste	0.3%	0.3%	0.4%	0.3%	0.2%	0.3%
	45 Other Hazardous Waste	0.1%	0.1%	0.1%	0.1%	0.2%	0.1%
<b>Special</b>		<b>0.7%</b>	<b>1.0%</b>	<b>0.8%</b>	<b>4.4%</b>	<b>9.0%</b>	<b>3.5%</b>
	46 Brown Goods	0.3%	0.4%	0.2%	0.2%	0.5%	0.3%
	47 Composite Bulky Items	0.3%	0.6%	0.5%	4.2%	8.5%	3.1%
	48 Other Special Waste	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
<b>TOTAL</b>		<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

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**Table ES-6  
2008 Countywide Overall Waste Disposal Summary (tons)**

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
<b>Paper</b>		<b>64,008</b>	<b>33,747</b>	<b>65,484</b>	<b>59,791</b>	<b>25,167</b>	<b>248,198</b>
	1 Uncoated Corrugated Cardboard	1,286	1,657	4,968	18,756	9,741	36,409
	2 High Grade Paper	989	960	2,734	7,533	2,358	14,575
	3 Newspaper	2,396	1,729	2,093	1,887	1,142	9,247
	4 Mixed Recyclable Paper	8,562	5,693	10,132	19,250	9,411	53,049
	5 Compostable Paper	48,192	22,555	42,789	5,470	885	119,891
	6 Other Paper	2,582	1,153	2,769	6,894	1,629	15,027
<b>Plastics</b>		<b>37,251</b>	<b>18,185</b>	<b>34,936</b>	<b>18,439</b>	<b>8,978</b>	<b>117,789</b>
	7 HDPE Bottles (#2)	1,397	966	1,438	238	53	4,092
	8 PETE Bottles (#1)	1,755	1,062	1,374	329	144	4,664
	9 Other Plastic Containers	2,653	1,288	1,852	161	177	6,131
	10 Plastic Bags	4,630	2,191	2,565	217	172	9,775
	11 Other Film	14,038	5,994	15,213	9,576	3,400	48,221
	12 Expanded Polystyrene Blocks	384	252	454	417	807	2,313
	13 Mixed Rigid Plastics	8,401	4,733	8,524	4,182	2,884	28,724
	14 Other Plastics	3,994	1,699	3,517	3,319	1,340	13,870
<b>Glass</b>		<b>7,696</b>	<b>5,048</b>	<b>6,141</b>	<b>8,710</b>	<b>7,577</b>	<b>35,172</b>
	15 Recyclable Glass Bottles/Containers	6,588	4,309	4,473	3,304	1,655	20,329
	16 Other Glass	1,108	739	1,668	5,406	5,922	14,843
<b>Metals</b>		<b>9,476</b>	<b>5,877</b>	<b>9,624</b>	<b>13,216</b>	<b>12,337</b>	<b>50,530</b>
	17 Aluminum Cans	540	378	454	308	150	1,831
	18 Other Non-Ferrous	1,248	797	1,279	981	1,637	5,942
	19 Steel Food and Beverage Cans	2,748	1,216	1,758	233	107	6,062
	20 Other Ferrous	4,895	3,212	5,896	11,473	9,975	35,450
	21 White Goods	45	275	236	221	467	1,244
<b>Yard Waste</b>		<b>7,404</b>	<b>4,873</b>	<b>10,242</b>	<b>19,861</b>	<b>25,692</b>	<b>68,072</b>
	22 Leaves/Grass/Chips	4,724	3,613	7,232	9,628	14,013	39,210
	23 Branches/Stumps/Prunings/Trimmings	2,680	1,260	3,010	10,233	11,679	28,862
<b>Organics</b>		<b>134,332</b>	<b>56,510</b>	<b>95,309</b>	<b>96,049</b>	<b>96,330</b>	<b>478,530</b>
	24 Food Waste	90,186	34,185	62,023	31,571	4,492	222,457
	25 Tires	137	176	473	385	83	1,254
	26 Untreated Lumber	1,483	1,183	5,070	9,567	16,110	33,413
	27 Pallets	8	99	2,253	22,372	2,554	27,287
	28 Treated Wood Waste	3,811	2,337	7,355	17,088	44,807	75,399
	29 Textiles and Leather	11,596	8,071	7,292	6,267	12,642	45,868
	30 Carpet	927	749	1,558	2,393	11,541	17,168
	31 Diapers	15,773	6,365	5,172	302	109	27,721
	32 Manure	8,034	2,384	1,307	229	71	12,026
	33 Other Organics	2,376	962	2,806	5,873	3,920	15,937
<b>Inerts</b>		<b>11,042</b>	<b>5,201</b>	<b>11,521</b>	<b>42,468</b>	<b>65,484</b>	<b>135,715</b>
	34 Crushable Inerts	3,095	1,383	4,926	12,734	27,137	49,275
	35 Other Inerts	6,698	3,602	4,897	18,167	19,404	52,769
	36 Gypsum Board	1,190	207	1,169	7,396	12,605	22,567
	37 Asphalt Roofing	59	9	528	4,171	6,338	11,105
<b>HHW</b>		<b>2,050</b>	<b>1,374</b>	<b>2,194</b>	<b>2,944</b>	<b>3,317</b>	<b>11,879</b>
	38 Paint/Adhesives	104	182	201	409	460	1,356
	39 Vehicle & Equipment Fluids	67	96	103	0	182	447
	40 Universal Hazardous Waste	389	70	124	947	737	2,267
	41 Medical Waste	159	130	158	203	0	649
	42 Medicine	143	49	65	0	3	261
	43 Covered E-Waste	137	378	343	235	716	1,809
	44 Other E-Waste	849	357	1,041	749	590	3,587
	45 Other Hazardous Waste	202	112	159	402	628	1,503
<b>Special</b>		<b>1,820</b>	<b>1,267</b>	<b>1,865</b>	<b>11,943</b>	<b>24,331</b>	<b>41,225</b>
	46 Brown Goods	874	479	538	414	1,372	3,677
	47 Composite Bulky Items	934	769	1,114	11,529	22,959	37,304
	48 Other Special Waste	11	20	213	0	0	244
<b>TOTAL</b>		<b>275,079</b>	<b>132,081</b>	<b>237,315</b>	<b>273,420</b>	<b>269,213</b>	<b>1,187,108</b>

**Table ES-7  
Overall Countywide Detailed Historic Comparison**

Material Group	Material	Mean Comparison			Weight Comparison (tons)		
		1995	2000	2008	1995	2000	2008
<b>Paper</b>		<b>24.7%</b>	<b>22.9%</b>	<b>20.9%</b>	<b>374,076</b>	<b>355,288</b>	<b>248,198</b>
	1 Uncoated Corrugated Cardboard	4.7%	4.9%	3.1%	71,386	76,602	36,409
	2 High Grade Paper	2.3%	2.2%	1.2%	35,163	34,869	14,575
	3 Newspaper	2.6%	2.7%	0.8%	39,964	42,189	9,247
	4 Mixed Recyclable Paper	6.3%	5.1%	4.5%	95,276	79,142	53,049
	5 Compostable Paper	NA	NA	10.1%	NA	NA	119,891
	6 Other Paper	8.7%	7.9%	1.3%	132,286	122,485	15,027
<b>Plastics</b>		<b>10.5%</b>	<b>10.6%</b>	<b>9.9%</b>	<b>158,320</b>	<b>164,725</b>	<b>117,789</b>
	7 HDPE Bottles (#2)	0.5%	0.8%	0.3%	8,149	12,376	4,092
	8 PETE Bottles (#1)	0.2%	0.4%	0.4%	3,685	6,964	4,664
	9 Other Plastic Containers	NA	0.3%	0.5%	NA	5,338	6,131
	10 Plastic Bags	NA	NA	0.8%	NA	NA	9,775
	11 Other Film	3.7%	4.3%	4.1%	56,402	66,753	48,221
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	2,313
	13 Mixed Rigid Plastics	NA	NA	2.4%	NA	NA	28,724
	14 Other Plastics	5.9%	4.7%	1.2%	90,084	73,294	13,870
<b>Glass</b>		<b>2.6%</b>	<b>1.9%</b>	<b>3.0%</b>	<b>39,390</b>	<b>29,754</b>	<b>35,172</b>
	15 Recyclable Glass Bottles/Containers	2.0%	1.4%	1.7%	30,463	22,248	20,329
	16 Other Glass	0.6%	0.5%	1.3%	8,927	7,506	14,843
<b>Metals</b>		<b>4.5%</b>	<b>6.1%</b>	<b>4.3%</b>	<b>67,760</b>	<b>95,274</b>	<b>50,530</b>
	17 Aluminum Cans	0.2%	0.3%	0.2%	3,438	4,075	1,831
	18 Other Non-Ferrous	0.4%	0.7%	0.5%	6,805	10,589	5,942
	19 Steel Food and Beverage Cans	0.6%	0.6%	0.5%	9,814	8,652	6,062
	20 Other Ferrous	2.9%	4.3%	3.0%	43,415	66,238	35,450
	21 White Goods	0.3%	0.4%	0.1%	4,290	5,720	1,244
<b>Yard Waste</b>		<b>11.6%</b>	<b>7.0%</b>	<b>5.7%</b>	<b>176,093</b>	<b>109,393</b>	<b>68,072</b>
	22 Leaves/Grass/Chips	6.2%	3.5%	3.3%	93,330	54,328	39,210
	23 Branches/Stumps/Prunings/Trimmings	5.5%	3.5%	2.4%	82,763	55,064	28,862
<b>Organics</b>		<b>31.2%</b>	<b>35.2%</b>	<b>40.3%</b>	<b>471,865</b>	<b>545,873</b>	<b>478,530</b>
	24 Food Waste	10.5%	11.9%	18.7%	159,218	184,717	222,457
	25 Tires	0.2%	0.4%	0.1%	3,705	5,637	1,254
	26 Untreated Lumber	8.3%	8.8%	2.8%	125,598	136,741	33,413
	27 Pallets	NA	NA	2.3%	NA	NA	27,287
	28 Treated Wood Waste	3.7%	5.5%	6.4%	55,336	85,357	75,399
	29 Textiles and Leather	5.1%	2.3%	3.9%	77,479	36,073	45,868
	30 Carpet	NA	2.5%	1.4%	NA	38,408	17,168
	31 Diapers	1.7%	1.6%	2.3%	25,130	24,695	27,721
	32 Manure	NA	NA	1.0%	NA	NA	12,026
	33 Other Organics	1.7%	2.2%	1.3%	25,400	34,243	15,937
<b>Inerts</b>		<b>10.0%</b>	<b>9.7%</b>	<b>11.4%</b>	<b>151,583</b>	<b>150,785</b>	<b>135,715</b>
	34 Crushable Inerts	2.7%	3.6%	4.2%	41,219	56,503	49,275
	35 Other Inerts	3.2%	2.8%	4.4%	48,821	43,359	52,769
	36 Gypsum Board	1.7%	2.0%	1.9%	25,669	30,720	22,567
	37 Asphalt Roofing	2.4%	1.3%	0.9%	35,873	20,203	11,105
<b>HHW</b>		<b>0.4%</b>	<b>0.6%</b>	<b>1.0%</b>	<b>5,837</b>	<b>8,710</b>	<b>11,879</b>
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	1,356
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	447
	40 Universal Hazardous Waste	NA	NA	0.2%	NA	NA	2,267
	41 Medical Waste	NA	NA	0.1%	NA	NA	649
	42 Medicine	NA	NA	0.0%	NA	NA	261
	43 Covered E-Waste	NA	NA	0.2%	NA	NA	1,809
	44 Other E-Waste	NA	NA	0.3%	NA	NA	3,587
	45 Other Hazardous Waste	0.4%	0.6%	0.1%	5,837	8,710	1,503
<b>Special</b>		<b>4.6%</b>	<b>6.0%</b>	<b>3.5%</b>	<b>69,524</b>	<b>92,883</b>	<b>41,225</b>
	46 Brown Goods	1.3%	1.1%	0.3%	19,872	17,346	3,677
	47 Composite Bulky Items	3.3%	4.9%	3.1%	49,652	75,538	37,304
	48 Other Special Waste	NA	NA	0.0%	NA	NA	244
<b>TOTAL</b>		<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>1,514,448</b>	<b>1,552,683</b>	<b>1,187,108</b>

Note: see pg ES-12 for a complete description of changes to material categories.

# EXECUTIVE SUMMARY

**Table ES-8  
Countywide Single-Family Residential Detailed Historic Comparison**

Material Group	Material	Mean Comparison			Weight Comparison (tons)		
		1995	2000	2008	1995	2000	2008
<b>Paper</b>		<b>32.9%</b>	<b>33.3%</b>	<b>23.3%</b>	<b>109,551</b>	<b>110,895</b>	<b>64,008</b>
	1 Uncoated Corrugated Cardboard	3.2%	2.6%	0.5%	10,701	8,737	1,286
	2 High Grade Paper	2.2%	1.9%	0.4%	7,364	6,352	989
	3 Newspaper	4.8%	5.8%	0.9%	16,001	19,417	2,396
	4 Mixed Recyclable Paper	8.5%	8.4%	3.1%	28,148	27,941	8,562
	5 Compostable Paper	NA	NA	17.5%	NA	NA	48,192
	6 Other Paper	14.2%	14.6%	0.9%	47,337	48,447	2,582
<b>Plastics</b>		<b>10.5%</b>	<b>12.3%</b>	<b>13.5%</b>	<b>34,994</b>	<b>40,896</b>	<b>37,251</b>
	7 HDPE Bottles (#2)	0.8%	0.9%	0.5%	2,508	2,874	1,397
	8 PETE Bottles (#1)	0.5%	0.7%	0.6%	1,577	2,445	1,755
	9 Other Plastic Containers	NA	0.5%	1.0%	NA	1,630	2,653
	10 Plastic Bags	NA	NA	1.7%	NA	NA	4,630
	11 Other Film	4.9%	6.4%	5.1%	16,433	21,378	14,038
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	384
	13 Mixed Rigid Plastics	NA	NA	3.1%	NA	NA	8,401
	14 Other Plastics	4.3%	3.8%	1.5%	14,476	12,569	3,994
<b>Glass</b>		<b>4.1%</b>	<b>3.1%</b>	<b>2.8%</b>	<b>13,616</b>	<b>10,473</b>	<b>7,696</b>
	15 Recyclable Glass Bottles/Containers	3.7%	2.7%	2.4%	12,248	9,107	6,588
	16 Other Glass	0.4%	0.4%	0.4%	1,369	1,366	1,108
<b>Metals</b>		<b>3.7%</b>	<b>3.2%</b>	<b>3.4%</b>	<b>12,318</b>	<b>10,529</b>	<b>9,476</b>
	17 Aluminum Cans	0.3%	0.3%	0.2%	1,160	1,103	540
	18 Other Non-Ferrous	0.6%	0.6%	0.5%	1,997	2,108	1,248
	19 Steel Food and Beverage Cans	1.4%	1.1%	1.0%	4,686	3,721	2,748
	20 Other Ferrous	1.3%	1.0%	1.8%	4,474	3,484	4,895
	21 White Goods	0.0%	0.0%	0.0%	0	113	45
<b>Yard Waste</b>		<b>12.9%</b>	<b>5.1%</b>	<b>2.7%</b>	<b>42,859</b>	<b>16,939</b>	<b>7,404</b>
	22 Leaves/Grass/Chips	8.8%	3.3%	1.7%	29,156	10,817	4,724
	23 Branches/Stumps/Prunings/Trimmings	4.1%	1.8%	1.0%	13,703	6,122	2,680
<b>Organics</b>		<b>32.4%</b>	<b>38.5%</b>	<b>48.8%</b>	<b>107,785</b>	<b>128,088</b>	<b>134,332</b>
	24 Food Waste	21.2%	23.5%	32.8%	70,494	78,274	90,186
	25 Tires	0.0%	0.1%	0.0%	3	434	137
	26 Untreated Lumber	0.6%	0.9%	0.5%	1,916	2,970	1,483
	27 Pallets	NA	NA	0.0%	NA	NA	8
	28 Treated Wood Waste	0.5%	0.9%	1.4%	1,752	2,853	3,811
	29 Textiles and Leather	4.2%	3.8%	4.2%	14,024	12,481	11,596
	30 Carpet	NA	0.9%	0.3%	NA	3,154	927
	31 Diapers	4.7%	4.5%	5.7%	15,613	15,066	15,773
	32 Manure	NA	NA	2.9%	NA	NA	8,034
	33 Other Organics	1.2%	3.9%	0.9%	3,984	12,856	2,376
<b>Inerts</b>		<b>2.3%</b>	<b>2.5%</b>	<b>4.0%</b>	<b>7,528</b>	<b>8,238</b>	<b>11,042</b>
	34 Crushable Inerts	0.4%	0.7%	1.1%	1,438	2,289	3,095
	35 Other Inerts	1.8%	1.4%	2.4%	5,972	4,725	6,698
	36 Gypsum Board	0.0%	0.3%	0.4%	74	977	1,190
	37 Asphalt Roofing	0.0%	0.1%	0.0%	43	247	59
<b>HHW</b>		<b>0.6%</b>	<b>0.6%</b>	<b>0.7%</b>	<b>1,856</b>	<b>2,139</b>	<b>2,050</b>
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	104
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	67
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	389
	41 Medical Waste	NA	NA	0.1%	NA	NA	159
	42 Medicine	NA	NA	0.1%	NA	NA	143
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	137
	44 Other E-Waste	NA	NA	0.3%	NA	NA	849
	45 Other Hazardous Waste	0.6%	0.6%	0.1%	1,856	2,139	202
<b>Special</b>		<b>0.8%</b>	<b>1.4%</b>	<b>0.7%</b>	<b>2,515</b>	<b>4,506</b>	<b>1,820</b>
	46 Brown Goods	0.7%	0.9%	0.3%	2,316	3,112	874
	47 Composite Bulky Items	0.1%	0.4%	0.3%	199	1,394	934
	48 Other Special Waste	NA	NA	0.0%	NA	NA	11
<b>TOTAL</b>		<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>333,023</b>	<b>332,703</b>	<b>275,079</b>

Note: see pg ES-12 for a complete description of changes to material categories.



**Table ES-9  
Countywide Multi-Family Residential Detailed Historical Comparison**

Material Group	Material	Mean Comparison			Weight Comparison (tons)		
		1995	2000	2008	1995	2000	2008
<b>Paper</b>		<b>32.1%</b>	<b>32.5%</b>	<b>25.6%</b>	<b>35,961</b>	<b>39,917</b>	<b>33,747</b>
	1 Uncoated Corrugated Cardboard	4.4%	3.6%	1.3%	4,895	4,384	1,657
	2 High Grade Paper	2.6%	2.6%	0.7%	2,952	3,213	960
	3 Newspaper	6.5%	5.6%	1.3%	7,254	6,846	1,729
	4 Mixed Recyclable Paper	7.4%	7.5%	4.3%	8,316	9,198	5,693
	5 Compostable Paper	NA	NA	17.1%	NA	NA	22,555
	6 Other Paper	11.2%	13.2%	0.9%	12,544	16,277	1,153
<b>Plastics</b>		<b>10.0%</b>	<b>11.4%</b>	<b>13.8%</b>	<b>11,238</b>	<b>14,008</b>	<b>18,185</b>
	7 HDPE Bottles (#2)	1.1%	0.8%	0.7%	1,286	964	966
	8 PETE Bottles (#1)	0.6%	0.7%	0.8%	696	856	1,062
	9 Other Plastic Containers	NA	0.5%	1.0%	NA	640	1,288
	10 Plastic Bags	NA	NA	1.7%	NA	NA	2,191
	11 Other Film	4.0%	5.8%	4.5%	4,435	7,086	5,994
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	252
	13 Mixed Rigid Plastics	NA	NA	3.6%	NA	NA	4,733
	14 Other Plastics	4.3%	3.6%	1.3%	4,821	4,461	1,699
<b>Glass</b>		<b>5.2%</b>	<b>3.7%</b>	<b>3.8%</b>	<b>5,818</b>	<b>4,505</b>	<b>5,048</b>
	15 Recyclable Glass Bottles/Containers	4.7%	3.4%	3.3%	5,310	4,149	4,309
	16 Other Glass	0.5%	0.3%	0.6%	509	356	739
<b>Metals</b>		<b>4.7%</b>	<b>3.8%</b>	<b>4.4%</b>	<b>5,310</b>	<b>4,636</b>	<b>5,877</b>
	17 Aluminum Cans	0.5%	0.4%	0.3%	565	440	378
	18 Other Non-Ferrous	0.4%	0.7%	0.6%	494	817	797
	19 Steel Food and Beverage Cans	1.3%	0.9%	0.9%	1,511	1,143	1,216
	20 Other Ferrous	2.1%	1.8%	2.4%	2,397	2,177	3,212
	21 White Goods	0.3%	0.0%	0.2%	343	59	275
<b>Yard Waste</b>		<b>8.0%</b>	<b>7.0%</b>	<b>3.7%</b>	<b>8,971</b>	<b>8,558</b>	<b>4,873</b>
	22 Leaves/Grass/Chips	6.8%	4.7%	2.7%	7,645	5,735	3,613
	23 Branches/Stumps/Prunings/Trimmings	1.2%	2.3%	1.0%	1,326	2,823	1,260
<b>Organics</b>		<b>32.3%</b>	<b>36.3%</b>	<b>42.8%</b>	<b>36,158</b>	<b>44,604</b>	<b>56,510</b>
	24 Food Waste	16.7%	20.9%	25.9%	18,708	25,708	34,185
	25 Tires	0.6%	0.4%	0.1%	653	451	176
	26 Untreated Lumber	1.0%	2.0%	0.9%	1,165	2,443	1,183
	27 Pallets	NA	NA	0.1%	NA	NA	99
	28 Treated Wood Waste	1.8%	1.3%	1.8%	1,996	1,587	2,337
	29 Textiles and Leather	7.8%	3.6%	6.1%	8,768	4,464	8,071
	30 Carpet	NA	1.1%	0.6%	NA	1,383	749
	31 Diapers	2.8%	3.5%	4.8%	3,183	4,329	6,365
	32 Manure	NA	NA	1.8%	NA	NA	2,384
	33 Other Organics	1.5%	3.4%	0.7%	1,684	4,238	962
<b>Inerts</b>		<b>2.2%</b>	<b>2.3%</b>	<b>3.9%</b>	<b>2,474</b>	<b>2,804</b>	<b>5,201</b>
	34 Crushable Inerts	0.6%	0.6%	1.0%	723	752	1,383
	35 Other Inerts	1.4%	1.4%	2.7%	1,607	1,762	3,602
	36 Gypsum Board	0.1%	0.2%	0.2%	90	284	207
	37 Asphalt Roofing	0.0%	0.0%	0.0%	55	5	9
<b>HHW</b>		<b>1.0%</b>	<b>0.8%</b>	<b>1.0%</b>	<b>1,135</b>	<b>980</b>	<b>1,374</b>
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	182
	39 Vehicle & Equipment Fluids	NA	NA	0.1%	NA	NA	96
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	70
	41 Medical Waste	NA	NA	0.1%	NA	NA	130
	42 Medicine	NA	NA	0.0%	NA	NA	49
	43 Covered E-Waste	NA	NA	0.3%	NA	NA	378
	44 Other E-Waste	NA	NA	0.3%	NA	NA	357
	45 Other Hazardous Waste	1.0%	0.8%	0.1%	1,135	980	112
<b>Special</b>		<b>4.5%</b>	<b>2.3%</b>	<b>1.0%</b>	<b>5,022</b>	<b>2,861</b>	<b>1,267</b>
	46 Brown Goods	0.9%	1.1%	0.4%	1,043	1,297	479
	47 Composite Bulky Items	3.6%	1.3%	0.6%	3,980	1,564	769
	48 Other Special Waste	NA	NA	0.0%	NA	NA	20
<b>TOTAL</b>		<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>112,086</b>	<b>122,872</b>	<b>132,081</b>

Note: see pg ES-12 for a complete description of changes to material categories.

# EXECUTIVE SUMMARY

**Table ES-10  
Countywide Commercial Detailed Historical Comparison**

Material Group	Material	Mean Comparison			Weight Comparison (tons)			
		1995	2000	2008	1995	2000	2008	
Paper		36.9%	31.3%	27.6%	97,589	110,976	65,484	
	1 Uncoated Corrugated Cardboard	6.2%	7.0%	2.1%	16,454	24,827	4,968	
	2 High Grade Paper	4.6%	4.4%	1.2%	12,194	15,566	2,734	
	3 Newspaper	4.1%	3.0%	0.9%	10,895	10,776	2,093	
	4 Mixed Recyclable Paper	7.7%	5.6%	4.3%	20,445	19,827	10,132	
	5 Compostable Paper	NA	NA	18.0%	NA	NA	42,789	
	6 Other Paper	14.2%	11.3%	1.2%	37,600	39,979	2,769	
Plastics		12.0%	13.9%	14.7%	31,798	49,087	34,936	
	7 HDPE Bottles (#2)	0.9%	1.1%	0.6%	2,313	3,921	1,438	
	8 PETE Bottles (#1)	0.3%	0.6%	0.6%	871	2,035	1,374	
	9 Other Plastic Containers	NA	0.4%	0.8%	NA	1,403	1,852	
	10 Plastic Bags	NA	NA	1.1%	NA	NA	2,565	
	11 Other Film	4.7%	6.0%	6.4%	12,553	21,276	15,213	
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	454	
	13 Mixed Rigid Plastics	NA	NA	3.6%	NA	NA	8,524	
		14 Other Plastics	6.1%	5.8%	1.5%	16,061	20,453	3,517
	Glass		3.0%	2.3%	2.6%	7,873	8,203	6,141
		15 Recyclable Glass Bottles/Containers	2.4%	2.0%	1.9%	6,367	7,247	4,473
		16 Other Glass	0.6%	0.3%	0.7%	1,505	956	1,668
	Metals		5.3%	5.5%	4.1%	13,990	19,593	9,624
		17 Aluminum Cans	0.3%	0.4%	0.2%	808	1,413	454
18 Other Non-Ferrous		0.5%	0.6%	0.5%	1,192	2,109	1,279	
19 Steel Food and Beverage Cans		0.7%	0.7%	0.7%	1,785	2,591	1,758	
20 Other Ferrous		3.5%	3.6%	2.5%	9,208	12,589	5,896	
21 White Goods		0.4%	0.3%	0.1%	997	890	236	
Yard Waste		4.9%	4.2%	4.3%	13,002	14,806	10,242	
	22 Leaves/Grass/Chips	3.1%	2.1%	3.0%	8,193	7,593	7,232	
	23 Branches/Stumps/Prunings/Trimmings	1.8%	2.0%	1.3%	4,810	7,213	3,010	
Organics		31.8%	35.2%	40.2%	84,216	124,894	95,309	
	24 Food Waste	14.9%	16.2%	26.1%	39,486	57,429	62,023	
	25 Tires	0.7%	0.9%	0.2%	1,771	3,282	473	
	26 Untreated Lumber	5.6%	6.4%	2.1%	14,700	22,624	5,070	
	27 Pallets	NA	NA	0.9%	NA	NA	2,253	
	28 Treated Wood Waste	2.1%	4.0%	3.1%	5,461	14,134	7,355	
	29 Textiles and Leather	4.9%	2.6%	3.1%	12,893	9,247	7,292	
	30 Carpet	NA	1.8%	0.7%	NA	6,406	1,558	
	31 Diapers	1.3%	1.3%	2.2%	3,389	4,577	5,172	
	32 Manure	NA	NA	0.6%	NA	NA	1,307	
		33 Other Organics	2.5%	2.0%	1.2%	6,516	7,195	2,806
	Inerts		3.1%	3.8%	4.9%	8,299	13,465	11,521
		34 Crushable Inerts	1.4%	2.2%	2.1%	3,784	7,847	4,926
		35 Other Inerts	1.3%	0.9%	2.1%	3,358	3,298	4,897
36 Gypsum Board		0.4%	0.5%	0.5%	961	1,709	1,169	
37 Asphalt Roofing		0.1%	0.2%	0.2%	196	611	528	
HHW		0.5%	0.4%	0.9%	1,362	1,578	2,194	
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	201	
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	103	
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	124	
	41 Medical Waste	NA	NA	0.1%	NA	NA	158	
	42 Medicine	NA	NA	0.0%	NA	NA	65	
	43 Covered E-Waste	NA	NA	0.1%	NA	NA	343	
	44 Other E-Waste	NA	NA	0.4%	NA	NA	1,041	
		45 Other Hazardous Waste	0.5%	0.4%	0.1%	1,362	1,578	159
	Special		2.4%	3.3%	0.8%	6,407	11,796	1,865
46 Brown Goods		1.5%	1.8%	0.2%	3,902	6,538	538	
47 Composite Bulky Items		0.9%	1.5%	0.5%	2,505	5,258	1,114	
48 Other Special Waste		NA	NA	0.1%	NA	NA	213	
<b>TOTAL</b>		<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>264,535</b>	<b>354,397</b>	<b>237,315</b>	

Note: see pg ES-12 for a complete description of changes to material categories.

**Table ES-11  
Countywide Roll-Off Waste Detailed Historical Comparison**

Material Group	Material	Mean Comparison			Weight Comparison (tons)		
		1995	2000	2008	1995	2000	2008
<b>Paper</b>		<b>25.1%</b>	<b>18.0%</b>	<b>21.9%</b>	<b>85,265</b>	<b>73,322</b>	<b>59,791</b>
	1 Uncoated Corrugated Cardboard	8.6%	7.2%	6.9%	29,128	29,412	18,756
	2 High Grade Paper	2.5%	1.9%	2.8%	8,609	7,834	7,533
	3 Newspaper	0.7%	0.9%	0.7%	2,223	3,705	1,887
	4 Mixed Recyclable Paper	6.1%	4.2%	7.0%	20,664	17,074	19,250
	5 Compostable Paper	NA	NA	2.0%	NA	NA	5,470
	6 Other Paper	7.3%	3.8%	2.5%	24,642	15,298	6,894
<b>Plastics</b>		<b>16.7%</b>	<b>11.3%</b>	<b>6.7%</b>	<b>56,532</b>	<b>45,879</b>	<b>18,439</b>
	7 HDPE Bottles (#2)	0.3%	0.8%	0.1%	965	3,287	238
	8 PETE Bottles (#1)	0.1%	0.3%	0.1%	362	1,228	329
	9 Other Plastic Containers	NA	0.3%	0.1%	NA	1,254	161
	10 Plastic Bags	NA	NA	0.1%	NA	NA	217
	11 Other Film	5.8%	3.7%	3.5%	19,742	14,894	9,576
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	417
	13 Mixed Rigid Plastics	NA	NA	1.5%	NA	NA	4,182
	14 Other Plastics	10.5%	6.2%	1.2%	35,463	25,216	3,319
<b>Glass</b>		<b>1.6%</b>	<b>0.9%</b>	<b>3.2%</b>	<b>5,397</b>	<b>3,728</b>	<b>8,710</b>
	15 Recyclable Glass Bottles/Containers	1.3%	0.3%	1.2%	4,327	1,208	3,304
	16 Other Glass	0.3%	0.6%	2.0%	1,071	2,520	5,406
<b>Metals</b>		<b>4.7%</b>	<b>9.2%</b>	<b>4.8%</b>	<b>15,801</b>	<b>37,365</b>	<b>13,216</b>
	17 Aluminum Cans	0.2%	0.2%	0.1%	529	957	308
	18 Other Non-Ferrous	0.3%	0.9%	0.4%	1,010	3,601	981
	19 Steel Food and Beverage Cans	0.4%	0.2%	0.1%	1,306	873	233
	20 Other Ferrous	3.4%	7.3%	4.2%	11,550	29,711	11,473
	21 White Goods	0.4%	0.5%	0.1%	1,406	2,224	221
<b>Yard Waste</b>		<b>5.2%</b>	<b>2.8%</b>	<b>7.3%</b>	<b>17,539</b>	<b>11,388</b>	<b>19,861</b>
	22 Leaves/Grass/Chips	2.4%	1.5%	3.5%	8,106	5,922	9,628
	23 Branches/Stumps/Prunings/Trimmings	2.8%	1.3%	3.7%	9,433	5,466	10,233
<b>Organics</b>		<b>30.1%</b>	<b>35.2%</b>	<b>35.1%</b>	<b>102,184</b>	<b>143,255</b>	<b>96,049</b>
	24 Food Waste	5.6%	5.3%	11.5%	18,966	21,708	31,571
	25 Tires	0.1%	0.1%	0.1%	175	570	385
	26 Untreated Lumber	13.3%	17.3%	3.5%	45,107	70,232	9,567
	27 Pallets	NA	NA	8.2%	NA	NA	22,372
	28 Treated Wood Waste	4.7%	7.5%	6.2%	15,872	30,335	17,088
	29 Textiles and Leather	4.1%	1.4%	2.3%	13,833	5,773	6,267
	30 Carpet	NA	2.2%	0.9%	NA	9,093	2,393
	31 Diapers	0.4%	0.1%	0.1%	1,293	405	302
	32 Manure	NA	NA	0.1%	NA	NA	229
	33 Other Organics	2.0%	1.3%	2.1%	6,938	5,138	5,873
<b>Inerts</b>		<b>11.5%</b>	<b>13.0%</b>	<b>15.5%</b>	<b>39,056</b>	<b>52,650</b>	<b>42,468</b>
	34 Crushable Inerts	3.1%	5.0%	4.7%	10,378	20,160	12,734
	35 Other Inerts	2.7%	3.6%	6.6%	9,247	14,507	18,167
	36 Gypsum Board	3.1%	2.6%	2.7%	10,409	10,726	7,396
	37 Asphalt Roofing	2.7%	1.8%	1.5%	9,022	7,258	4,171
<b>HHW</b>		<b>0.1%</b>	<b>0.7%</b>	<b>1.1%</b>	<b>343</b>	<b>2,785</b>	<b>2,944</b>
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	409
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.3%	NA	NA	947
	41 Medical Waste	NA	NA	0.1%	NA	NA	203
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.1%	NA	NA	235
	44 Other E-Waste	NA	NA	0.3%	NA	NA	749
	45 Other Hazardous Waste	0.1%	0.7%	0.1%	343	2,785	402
<b>Special</b>		<b>5.0%</b>	<b>8.9%</b>	<b>4.4%</b>	<b>17,127</b>	<b>36,095</b>	<b>11,943</b>
	46 Brown Goods	1.0%	0.8%	0.2%	3,357	3,180	414
	47 Composite Bulky Items	4.1%	8.1%	4.2%	13,770	32,915	11,529
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
<b>TOTAL</b>		<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>339,245</b>	<b>406,468</b>	<b>273,420</b>

Note: see pg ES-12 for a complete description of changes to material categories.

# EXECUTIVE SUMMARY

**Table ES-12  
Countywide Self-Haul Waste Detailed Historical Comparison**

Material Group	Material	Mean Comparison			Weight Comparison (tons)			
		1995	2000	2008	1995	2000	2008	
Paper		9.8%	6.0%	9.3%	45,711	20,206	25,167	
	1 Uncoated Corrugated Cardboard	2.2%	2.8%	3.6%	10,207	9,249	9,741	
	2 High Grade Paper	0.9%	0.6%	0.9%	4,045	1,911	2,358	
	3 Newspaper	0.8%	0.4%	0.4%	3,591	1,446	1,142	
	4 Mixed Recyclable Paper	3.8%	1.5%	3.5%	17,704	5,105	9,411	
	5 Compostable Paper	NA	NA	0.3%	NA	NA	885	
	6 Other Paper	2.2%	0.7%	0.6%	10,164	2,495	1,629	
Plastics		5.1%	4.4%	3.3%	23,757	14,865	8,978	
	7 HDPE Bottles (#2)	0.2%	0.4%	0.0%	1,077	1,332	53	
	8 PETE Bottles (#1)	0.0%	0.1%	0.1%	178	399	144	
	9 Other Plastic Containers	NA	0.1%	0.1%	NA	411	177	
	10 Plastic Bags	NA	NA	0.1%	NA	NA	172	
	11 Other Film	0.7%	0.6%	1.3%	3,240	2,124	3,400	
	12 Expanded Polystyrene Blocks	NA	NA	0.3%	NA	NA	807	
	13 Mixed Rigid Plastics	NA	NA	1.1%	NA	NA	2,884	
	14 Other Plastics	4.1%	3.2%	0.5%	19,262	10,599	1,340	
	Glass		1.4%	0.8%	2.8%	6,686	2,847	7,577
		15 Recyclable Glass Bottles/Containers	0.5%	0.2%	0.6%	2,212	539	1,655
		16 Other Glass	1.0%	0.7%	2.2%	4,474	2,308	5,922
	Metals		4.4%	6.9%	4.6%	20,340	23,149	12,337
		17 Aluminum Cans	0.1%	0.0%	0.1%	375	163	150
18 Other Non-Ferrous		0.5%	0.6%	0.6%	2,111	1,954	1,637	
19 Steel Food and Beverage Cans		0.1%	0.1%	0.0%	525	325	107	
20 Other Ferrous		3.4%	5.4%	3.7%	15,785	18,274	9,975	
21 White Goods		0.3%	0.7%	0.2%	1,544	2,433	467	
Yard Waste		20.1%	17.2%	9.5%	93,722	57,692	25,692	
	22 Leaves/Grass/Chips	8.6%	7.2%	5.2%	40,230	24,256	14,013	
	23 Branches/Stumps/Prunings/Trimings	11.5%	9.9%	4.3%	53,492	33,436	11,679	
Organics		30.4%	31.2%	35.8%	141,524	105,032	96,330	
	24 Food Waste	2.5%	0.5%	1.7%	11,565	1,612	4,492	
	25 Tires	0.2%	0.3%	0.0%	1,103	901	83	
	26 Untreated Lumber	13.5%	11.4%	6.0%	62,710	38,465	16,110	
	27 Pallets	NA	NA	0.9%	NA	NA	2,554	
	28 Treated Wood Waste	6.5%	10.8%	16.6%	30,255	36,442	44,807	
	29 Textiles and Leather	6.0%	1.2%	4.7%	27,961	4,109	12,642	
	30 Carpet	NA	5.5%	4.3%	NA	18,370	11,541	
	31 Diapers	0.4%	0.1%	0.0%	1,652	317	109	
	32 Manure	NA	NA	0.0%	NA	NA	71	
	33 Other Organics	1.3%	1.4%	1.5%	6,278	4,816	3,920	
	Inerts		20.2%	21.9%	24.3%	94,226	73,608	65,484
		34 Crushable Inerts	5.3%	7.6%	10.1%	24,896	25,449	27,137
		35 Other Inerts	6.2%	5.7%	7.2%	28,637	19,062	19,404
36 Gypsum Board		3.0%	5.1%	4.7%	14,136	17,018	12,605	
37 Asphalt Roofing		5.7%	3.6%	2.4%	26,557	12,079	6,338	
HHW		0.2%	0.4%	1.2%	1,140	1,228	3,317	
	38 Paint/Adhesives	NA	NA	0.2%	NA	NA	460	
	39 Vehicle & Equipment Fluids	NA	NA	0.1%	NA	NA	182	
	40 Universal Hazardous Waste	NA	NA	0.3%	NA	NA	737	
	41 Medical Waste	NA	NA	0.0%	NA	NA	0	
	42 Medicine	NA	NA	0.0%	NA	NA	3	
	43 Covered E-Waste	NA	NA	0.3%	NA	NA	716	
	44 Other E-Waste	NA	NA	0.2%	NA	NA	590	
	45 Other Hazardous Waste	0.2%	0.4%	0.2%	1,140	1,228	628	
	Special		8.3%	11.2%	9.0%	38,452	37,616	24,331
46 Brown Goods		2.0%	1.0%	0.5%	9,254	3,220	1,372	
47 Composite Bulky Items		6.3%	10.2%	8.5%	29,198	34,396	22,959	
48 Other Special Waste		NA	NA	0.0%	NA	NA	0	
<b>TOTAL</b>		<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>465,559</b>	<b>336,243</b>	<b>269,213</b>	

Note: see pg ES-12 for a complete description of changes to material categories.