

Final Report

2008 Alameda County Waste Characterization Study

StopWaste.Org

June 2009

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This report has been prepared for the use of the client for the specific purposes identified in the report. The conclusions, observations, and recommendations contained herein attributed to R. W. Beck, Inc. (R. W. Beck) constitute the opinions of R. W. Beck. To the extent that statements, information, and opinions provided by the client or others have been used in the preparation of this report, R. W. Beck has relied upon the same to be accurate, and for which no assurances are intended and no representations or warranties are made. R. W. Beck makes no certification and gives no assurances except as explicitly set forth in this report.

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EXECUTIVE SUMMARY

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%
Total Countywide	275,079	132,081	237,315	273,420	269,213	1,187,108	100%
% of Total	23.2%	11.1%	20.0%	23.0%	22.7%		

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%
Total Countywide	1,514,446	1,552,683	1,187,108	-24%

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%
Total Countywide	1,514,450	1,552,683	1,187,108	-24%

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.

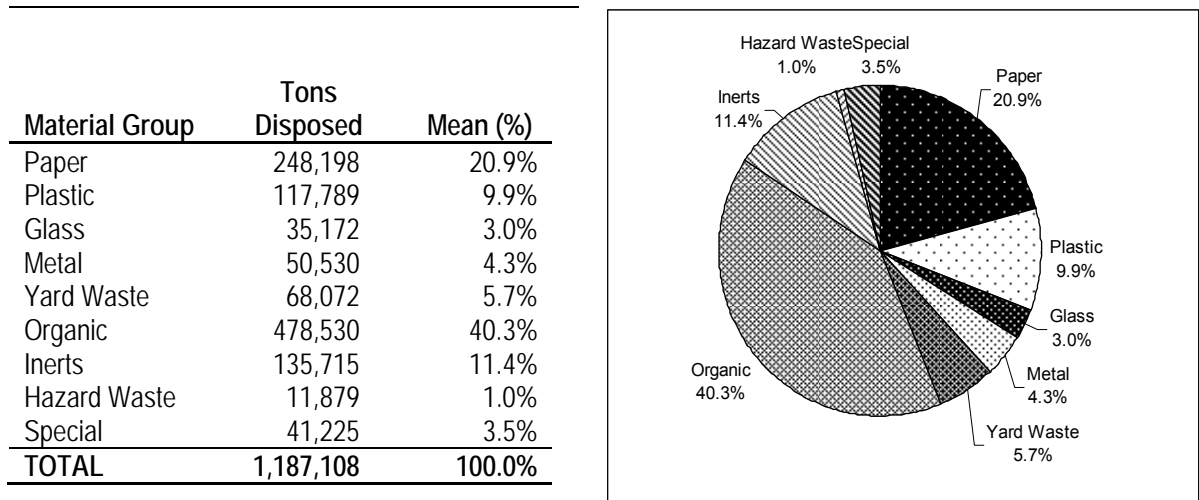
Table ES-4
Sample Allocation by Jurisdiction and Waste Stream

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%
Total Countywide	333	202	568	482	735	2,320	
% 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

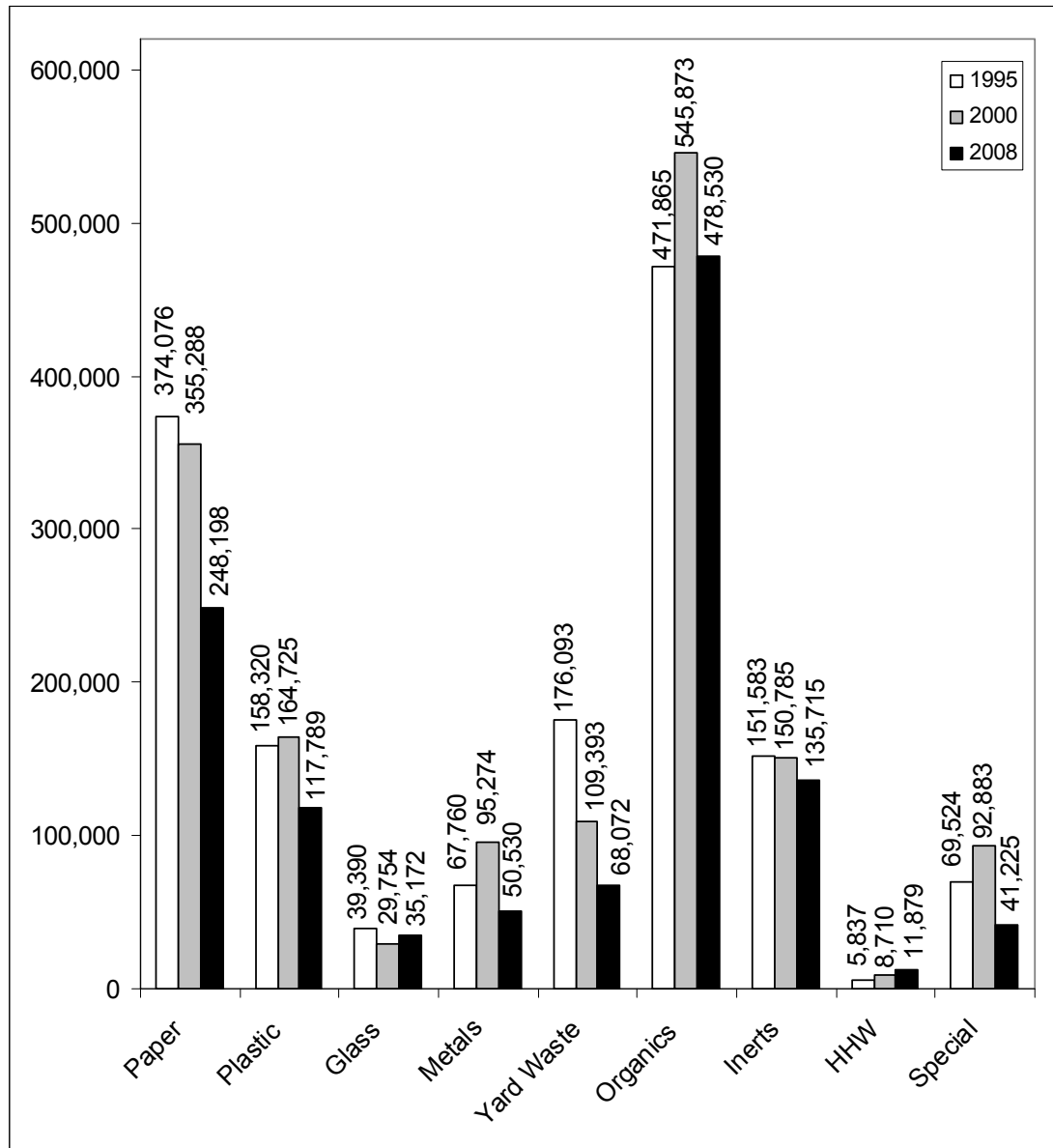


Note: see pg. ES-12 for a complete description of changes to material categories.

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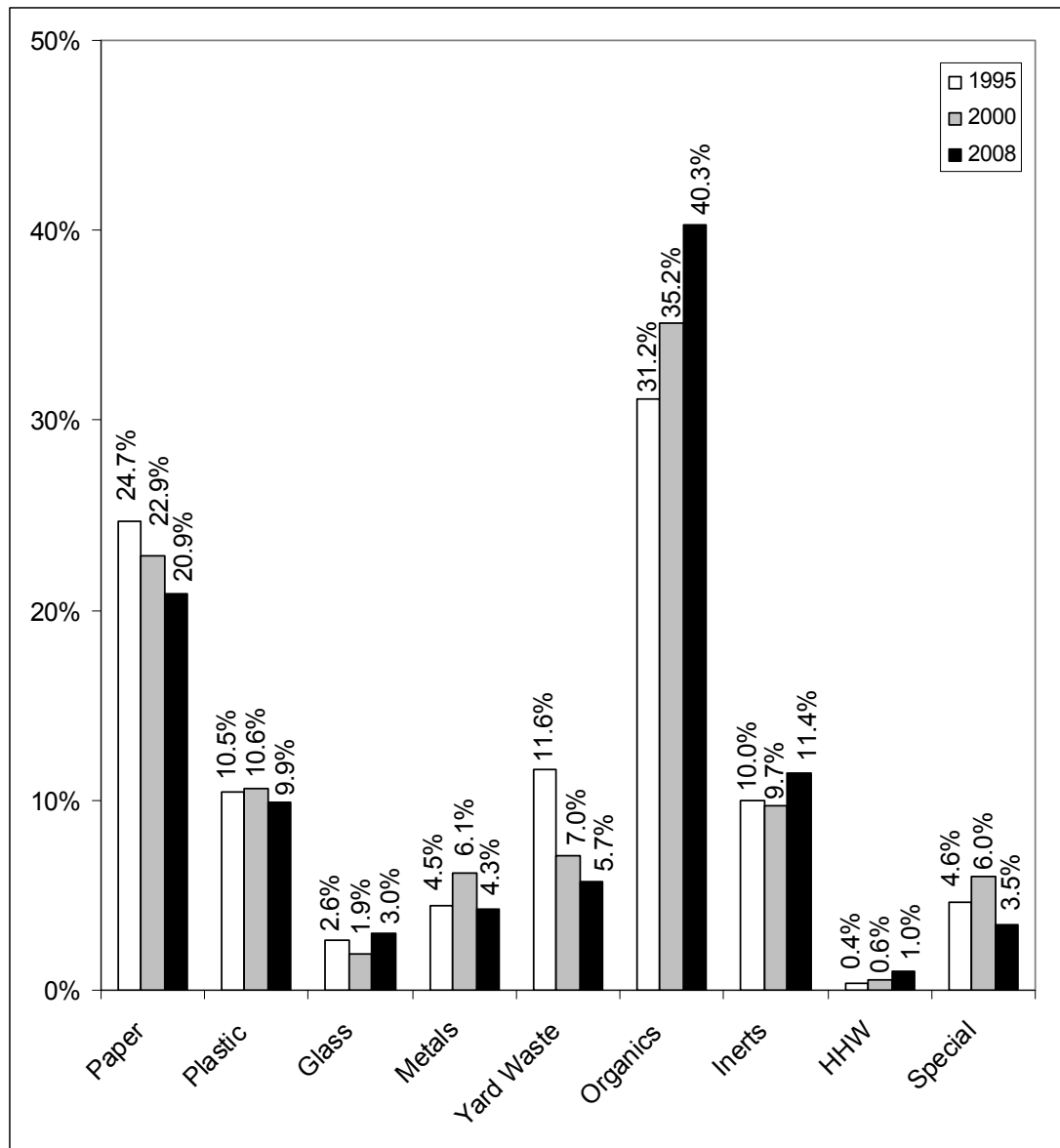
Figure ES-2 Historic Comparison of Countywide Composition by Weight (tons)



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 3rd 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
Paper		23.3%	25.6%	27.6%	21.9%	9.3%	20.9%
	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%
Plastics		13.5%	13.8%	14.7%	6.7%	3.3%	9.9%
	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%
Glass		2.8%	3.8%	2.6%	3.2%	2.8%	3.0%
	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%
Metals		3.4%	4.4%	4.1%	4.8%	4.6%	4.3%
	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%
Yard Waste		2.7%	3.7%	4.3%	7.3%	9.5%	5.7%
	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%
Organics		48.8%	42.8%	40.2%	35.1%	35.8%	40.3%
	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%
Inerts		4.0%	3.9%	4.9%	15.5%	24.3%	11.4%
	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%
HHW		0.7%	1.0%	0.9%	1.1%	1.2%	1.0%
	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%
Special		0.7%	1.0%	0.8%	4.4%	9.0%	3.5%
	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%
TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

EXECUTIVE SUMMARY

**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
Paper		64,008	33,747	65,484	59,791	25,167	248,198
	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
Plastics		37,251	18,185	34,936	18,439	8,978	117,789
	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
Glass		7,696	5,048	6,141	8,710	7,577	35,172
	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
Metals		9,476	5,877	9,624	13,216	12,337	50,530
	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
Yard Waste		7,404	4,873	10,242	19,861	25,692	68,072
	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
Organics		134,332	56,510	95,309	96,049	96,330	478,530
	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
Inerts		11,042	5,201	11,521	42,468	65,484	135,715
	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
HHW		2,050	1,374	2,194	2,944	3,317	11,879
	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
Special		1,820	1,267	1,865	11,943	24,331	41,225
	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
TOTAL		275,079	132,081	237,315	273,420	269,213	1,187,108

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

Material Group	Material	Mean Comparison			Weight Comparison (tons)		
		1995	2000	2008	1995	2000	2008
Paper		24.7%	22.9%	20.9%	374,076	355,288	248,198
	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
Plastics		10.5%	10.6%	9.9%	158,320	164,725	117,789
	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
Glass		2.6%	1.9%	3.0%	39,390	29,754	35,172
	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
Metals		4.5%	6.1%	4.3%	67,760	95,274	50,530
	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
Yard Waste		11.6%	7.0%	5.7%	176,093	109,393	68,072
	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
Organics		31.2%	35.2%	40.3%	471,865	545,873	478,530
	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
Inerts		10.0%	9.7%	11.4%	151,583	150,785	135,715
	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
HHW		0.4%	0.6%	1.0%	5,837	8,710	11,879
	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
Special		4.6%	6.0%	3.5%	69,524	92,883	41,225
	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
TOTAL		100.0%	100.0%	100.0%	1,514,448	1,552,683	1,187,108

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
Paper		32.9%	33.3%	23.3%	109,551	110,895	64,008
	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
Plastics		10.5%	12.3%	13.5%	34,994	40,896	37,251
	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
Glass		4.1%	3.1%	2.8%	13,616	10,473	7,696
	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
Metals		3.7%	3.2%	3.4%	12,318	10,529	9,476
	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
Yard Waste		12.9%	5.1%	2.7%	42,859	16,939	7,404
	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
Organics		32.4%	38.5%	48.8%	107,785	128,088	134,332
	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
Inerts		2.3%	2.5%	4.0%	7,528	8,238	11,042
	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
HHW		0.6%	0.6%	0.7%	1,856	2,139	2,050
	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
Special		0.8%	1.4%	0.7%	2,515	4,506	1,820
	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
TOTAL		100.0%	100.0%	100.0%	333,023	332,703	275,079

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
Paper		32.1%	32.5%	25.6%	35,961	39,917	33,747
	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
Plastics		10.0%	11.4%	13.8%	11,238	14,008	18,185
	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
Glass		5.2%	3.7%	3.8%	5,818	4,505	5,048
	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
Metals		4.7%	3.8%	4.4%	5,310	4,636	5,877
	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
Yard Waste		8.0%	7.0%	3.7%	8,971	8,558	4,873
	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
Organics		32.3%	36.3%	42.8%	36,158	44,604	56,510
	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
Inerts		2.2%	2.3%	3.9%	2,474	2,804	5,201
	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
HHW		1.0%	0.8%	1.0%	1,135	980	1,374
	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
Special		4.5%	2.3%	1.0%	5,022	2,861	1,267
	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
TOTAL		100.0%	100.0%	100.0%	112,086	122,872	132,081

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/Trimnings	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	
TOTAL		100.0%	100.0%	100.0%	264,535	354,397	237,315	

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
Paper		25.1%	18.0%	21.9%	85,265	73,322	59,791
	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
Plastics		16.7%	11.3%	6.7%	56,532	45,879	18,439
	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
Glass		1.6%	0.9%	3.2%	5,397	3,728	8,710
	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
Metals		4.7%	9.2%	4.8%	15,801	37,365	13,216
	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
Yard Waste		5.2%	2.8%	7.3%	17,539	11,388	19,861
	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
Organics		30.1%	35.2%	35.1%	102,184	143,255	96,049
	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
Inerts		11.5%	13.0%	15.5%	39,056	52,650	42,468
	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
HHW		0.1%	0.7%	1.1%	343	2,785	2,944
	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
Special		5.0%	8.9%	4.4%	17,127	36,095	11,943
	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
TOTAL		100.0%	100.0%	100.0%	339,245	406,468	273,420

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	
TOTAL		100.0%	100.0%	100.0%	465,559	336,243	269,213	

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

1.1 Project Background

StopWaste.Org (StopWaste) has retained R. W. Beck, Inc. (R. W. Beck) to complete an updated Waste Characterization Study (Study) for Alameda County, California (County). StopWaste is a public agency comprised of the Alameda County Waste Management Authority (Authority) and the Alameda County Source Reduction and Recycling Board (Recycling Board). StopWaste is among a small, elite number of regional organizations in the United States (U.S.) providing comprehensive support for waste reduction and recycling among its member agencies, with an emphasis on environmental, economic, and community sustainability goals.

Waste characterization studies are generally completed to better understand and monitor the local quantity and composition of solid waste generated and disposed within different generating sectors or jurisdictions. Because of evolving solid waste management policies and programs and potential changes in the solid waste stream, it is common for municipalities to complete waste characterization studies every five to six years. Historically, the County has performed many waste characterization studies to help monitor solid waste disposal and modify management programs. A list of all previous waste characterization studies is provided below:

- 1952 – University of California at Berkeley Study;
- 1967 – University of California at Berkeley Study;
- 1974 – Davis Street Transfer Station Waste Shed;
- 1977 – Davis Street Transfer Station Waste Shed;
- 1982-1983 – City of Berkeley;
- 1986 – City of Berkeley;
- 1988-1989 – City of Berkeley;
- 1990 – Alameda County retained engineering firm Brown & Caldwell to perform the first large scale waste characterization study to meet the requirement of California AB 939;
- 1994 – Waste Management of Alameda County performed an assessment of self-haul and roll-off waste to support their planning efforts for a materials recovery facility (MRF) at the Davis Street site that would recover materials from roll-off and self-haul loads;
- 1995 – The Authority retained engineering firm Emcon to update and expand the 1990 study; and
- 2000 – The Agency retained R. W. Beck to update and expand the 1995 study.

Section 1

Comprehensive studies completed in 1990, 1995, and 2000 have provided valuable information to assist StopWaste with development of waste management plans/programs and have also resulted in the construction of new diversion facilities within the County. These studies have provided the groundwork for Alameda County's enhanced diversion of recyclable and reusable material from landfills.

This report presents the results and findings of the Study completed by R. W. Beck in association with StopWaste and various solid waste facilities and haulers throughout the County. This Study is compatible with previous studies of 1995 and 2000 and complies with the California statutory and regulatory requirements for performing waste characterization studies, particularly the CIWMB Uniform Waste Disposal Characterization Method, last updated in November 2007.

1.2 Purpose and Objectives

Given Alameda County's current 61 percent regional diversion rate and aggressive approach to meeting its 75 percent goal, StopWaste requires current and detailed composition data for waste generated throughout the County. Significant changes to the local and Countywide waste management programs and policies, improvements in diversion and recycling activities, new MRF infrastructure, expanding reusable material markets, and modifications to the type of materials used by various manufacturing industries since the previous Countywide characterization study all support the need for updated waste composition data.

The primary objectives of this Study are to:

- Provide updated composition data for each of the 17 member agencies of the Authority, in addition to a Countywide aggregate;
- Compare the current composition and quantity data with that of previous studies to identify changes within each waste stream and measure the effect of previously implemented waste reduction programs; and
- Identify waste streams to be targeted for future waste reduction programs.

This Study has been designed for compatibility with previous comprehensive characterization studies completed in 1995 and 2000 in order to facilitate direct comparison to identify trends and relationships between current and historic composition data. Countywide composition results are aggregated based on waste flows by weight and presented for each waste stream and compared to those of previous studies to identify trends and conclusions.

The following discussion summarizes the information provided and organization of the remainder of this report:

Section 1 – Introduction – This section provides an explanation of existing conditions within Alameda County during the study period to assist in interpreting disposal trends and differences between waste streams. Section 1 also presents: demographic data such as population, housing, and median household income; current solid waste collection, disposal, and diversion practices; solid waste disposal quantities by jurisdiction

and waste stream; and current and historic per-capita and per-household disposal rates.

Section 2 – Methodology – This section summarizes key components of the Study that are important to understanding how it was performed, including: schedule of field activities; number of samples collected; material categories used; and data analyses performed.

Section 3 – Results and Findings – This section provides countywide composition results based on weight-averaged aggregation of data and historic comparisons for each waste stream. Results of the completed surveys and divertability analysis are also provided. Findings presented include: Countywide comparative analyses; error analysis; current program performance; potential targets for future diversion; and other factors affecting the Study.

Detailed composition results for each of the 14 jurisdictions, two sanitary districts, and unincorporated areas are provided as Appendix A.

1.3 County Demographic Overview

Encompassing approximately 821 square miles in total area, Alameda County is located along the eastern shore of the San Francisco Bay extending over 30 miles inland. The vast and varied geography of the region contributes to its relatively diverse demographics. The western portion of the County, including the cities of Berkeley, Fremont, Hayward, and Oakland, is largely urbanized with significant residential, commercial, and industrial commerce. The eastern portion is predominantly rural and suburban having large agricultural use with the exception of the incorporated areas of Dublin, Livermore, and Pleasanton. Since the last study was completed in 2000, most western unincorporated portions of the County have been incorporated into an existing jurisdiction or included in a sanitary district service area. There are currently only three routes that collect waste from unincorporated areas in the eastern part of the County. These changes complicate direct comparison of results for unincorporated county areas.

Population and household growth within the County has been significant since 2000, with increases of 6.1 percent and 6.4 percent, respectively. Historic trends in population and household growth for each jurisdiction since 1995 are shown in Figures 1-1 and 1-2. Table 1-1 presents current detailed housing data for each jurisdiction. A majority of housing in the County is single-family, which has grown 7.5 percent since 2000. Multi-family residences have increased 4.5 percent over the last eight years. Population and housing data used in this report was taken as of January 2008 and therefore do not account for changes throughout the year.

The largest cities in the County, each with a population over 100,000, include Oakland, Fremont, Hayward, and Berkeley. Smaller cities are Albany, Emeryville, and Piedmont. Castro Valley and Oro Loma Sanitary Districts were formed to provide solid waste collection to unincorporated, yet largely populated, portions of the County.

Table 1-1
Alameda County Population and Housing Units, Jan 2008
Housing Units

Jurisdiction	Single-Family	Multi-Family	Mobile Homes	Total Housing Units	Population
Alameda (City)	17,390	14,837	300	32,527	75,823
Albany	3,982	3,363	6	7,351	16,877
Berkeley	21,922	26,055	59	48,036	106,697
Castro Valley S.D. (1)	15,000	3,466	269	18,735	55,000
Dublin	9,442	6,559	28	16,029	46,934
Emeryville	667	5,284	37	5,988	9,727
Fremont	49,687	21,616	756	72,059	213,512
Hayward	27,801	18,171	2,301	48,273	149,205
Livermore	24,245	5,279	431	29,955	83,604
Newark	10,452	2,912	59	13,423	43,872
Oakland	79,434	84,163	456	164,053	420,183
Oro Loma S.D. (2)	17,689	6,534	507	24,730	66,085
Piedmont	3,787	69	8	3,864	11,100
Pleasanton	19,771	5,595	456	25,822	69,388
San Leandro	21,495	9,505	904	31,904	81,851
Union City	15,307	4,249	927	20,483	73,402
Uninc. County (2)	5,284	1,952	151	7,387	19,740
Total	343,355	219,609	7,655	570,619	1,543,000

Source: State of California, Department of Finance, *E-5 City/County Population, and Housing Estimates, 2008*

1 – Information provided by Castro Valley S.D.

2 – Housing Units and Population estimated using balance of units not listed with other cities and assuming allocation is based on percentage of waste flow: 77% for Oro Loma SD, and 23% for Uninc. County.

Economic data for Alameda County is summarized in Table 1-2. The number of business establishments have increased by 7.7 percent from 1999 to 2007, while gross sales from those establishments have risen 42 percent over that time. The median household incomes vary considerably across the County, ranging from \$45,359 to \$135,270 with an average of \$66,430, representing a five percent increase from 2000. The latest data available by the California Board of Equalization was from 2007 and therefore does not take into account effects of recent economic changes on the number of business establishments, gross sales, or median household incomes of various jurisdictions.

Figure 1-1 Historic Population by Jurisdiction

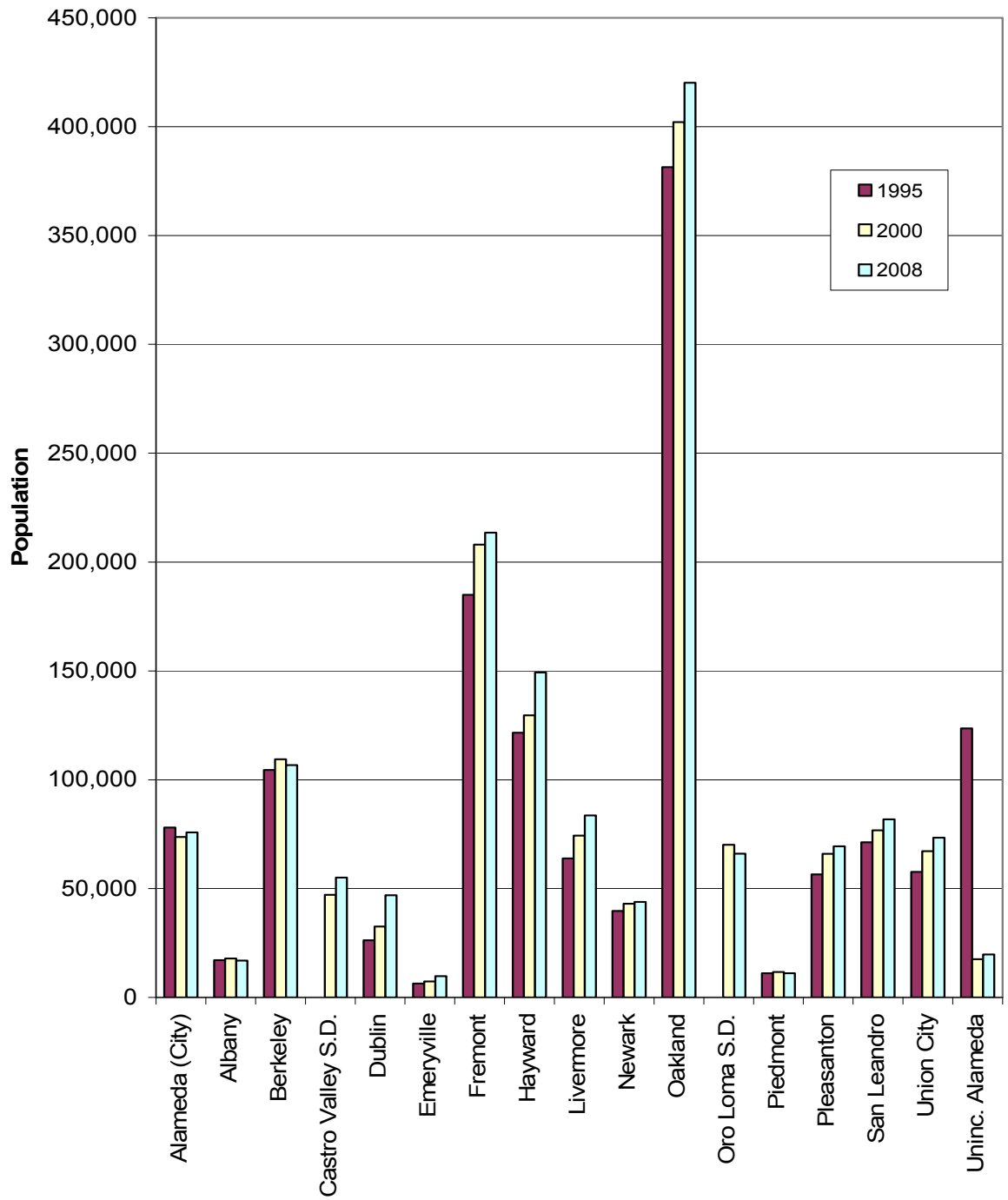


Figure 1-2 Historic Housing Units by Jurisdiction

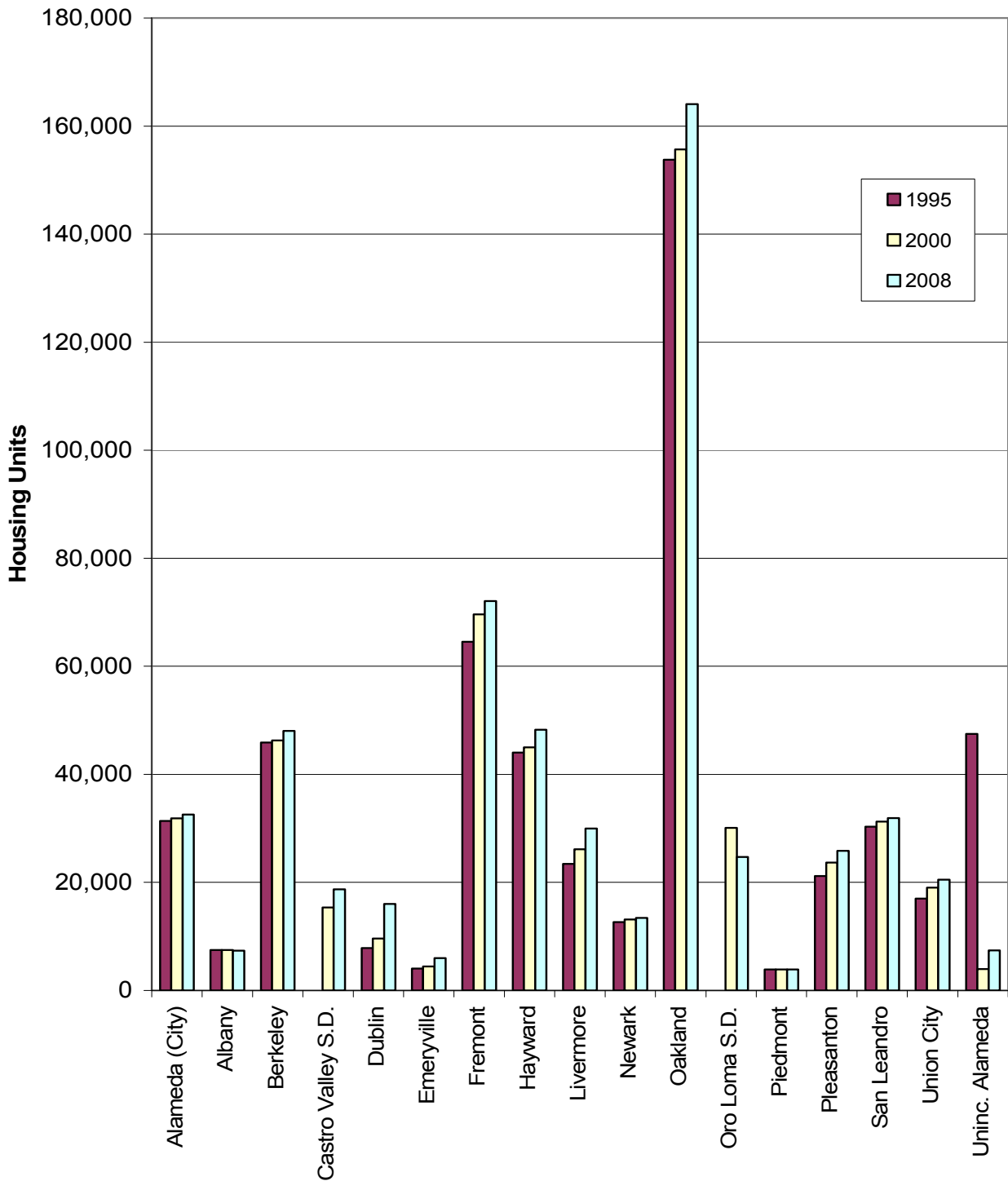


Table 1-2
Alameda County Economic Data, 2007

Jurisdiction	Business Establishments (1)	Gross Sales (\$ million) (1)	Median Household Income (\$) (2)
Alameda (City)	2,130	564.5	70,144.0
Albany	526	190.0	54,919.0
Berkeley	4,531	1,352.8	52,900.0
Castro Valley S.D.	699	1,098.3	73,756.0
Dublin	1,086	1,273.0	106,195.0
Emeryville	780	723.2	45,359.0
Fremont	5,189	3,142.1	88,645.0
Hayward	4,269	2,674.1	58,357.0
Livermore	2,290	1,815.7	94,813.0
Newark	1,202	891.0	78,367.0
Oakland	11,225	4,691.0	47,179.0
Oro Loma S.D.	1,446	2,272.3	67,929.0
Piedmont	191	17.1	134,270.0
Pleasanton	3,017	1,954.3	109,470.0
San Leandro	2,551	1,949.9	62,412.0
Union City	1,213	416.6	84,384.0
Uninc. County	265	805.4	NA
Total/Average	42,610	25,831.3	66,430.0

1 – Information from California Board of Equalization, *Taxable Sales, by City*, Calendar year 2007. Number of business establishments for sanitary districts and unincorporated county is based on percentage of waste flow: 38% for Castro Valley SD, 48% for Oro Loma SD, and 14% for Uninc. County.

2 – Based on Bay Area Census data with American Community Survey estimates for 2007.

1.4 Current Solid Waste Collection and Disposal Practices

Each jurisdiction within the County, with the exception of Berkeley, utilizes an exclusive franchise regulatory structure for a majority of the residential and non-residential solid waste collection within jurisdictional boundaries. Franchise agreements give a single solid waste hauler the sole responsibility of waste collection within a particular geographic region. In 2008, there were six franchised private haulers collecting waste within the County:

- Waste Management of Alameda County (WM),
- Allied Waste/BFI (AW),
- Pleasanton Garbage Service (PGS),
- ACI San Leandro Disposal (ACI),
- Amador Valley Industries (AVI), and
- Richmond Sanitary Service (RSS)

The City of Berkeley uses a mixed municipal and franchise agreement structure for solid waste collection. In addition to WM and Richmond Sanitary Service for limited

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collection of commercial waste, the City of Berkeley provides municipal collection services.

There are currently two PGS routes and one WM route that collect waste from Unincorporated parts of Alameda County.

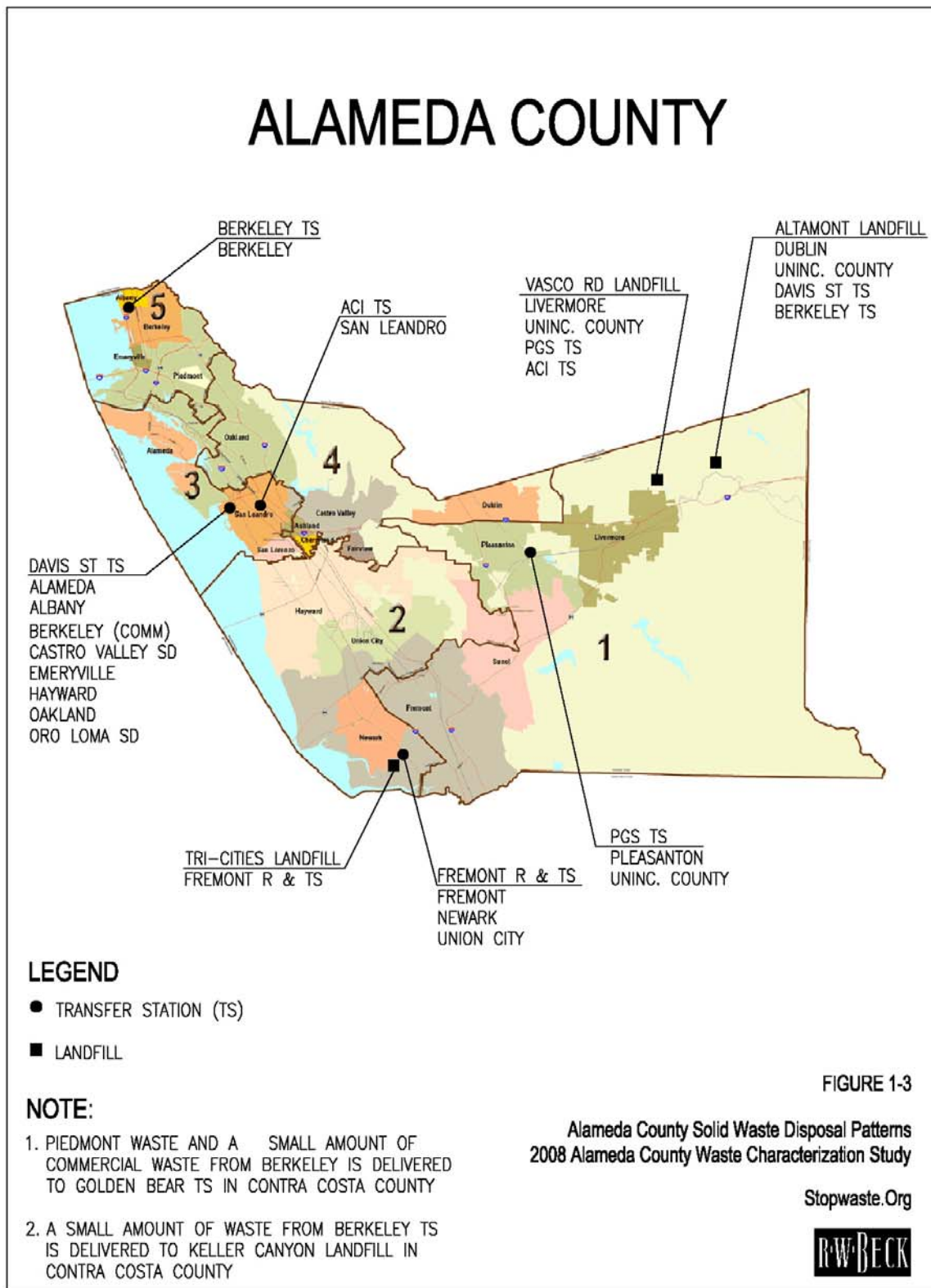
Each hauler delivers waste to a specified solid waste facility, either a landfill for direct disposal or a transfer station for consolidation and subsequent transportation to a landfill. There are currently six transfer stations and three landfills which handle solid waste deliveries from Alameda County. The Golden Bear Transfer Station is located to the north in Contra Costa County and delivers waste for disposal to the Potrero Hills Landfill in Solano County. Table 1-3 presents current franchise collection and disposal practices within the County.

Each solid waste facility that receives waste generated within Alameda County tracks every delivery by jurisdiction or sanitary district, truck number, and route number. In addition to the franchised haulers, a small fraction of non-residential waste is collected by non-franchised haulers, mainly from large institutions. Roll-off container service is provided by a number of various haulers through either regular or one-time pickups. Waste delivered by the general public is classified as self-haul waste and can be either residential or non-residential. Roll-off and self-haul waste deliveries are tracked by each solid waste facility as well. Waste streams and delivery methods are discussed in greater detail in Section 1.6.

**Table 1-3
Alameda County Solid Waste System Summary**

Jurisdiction	Hauler(s) ¹	Transfer Station	Landfill ²
Alameda (City)	ACI San Leandro Disposal	Davis Street TS	Altamont
Albany	Waste Management	Davis Street TS	Altamont
Berkeley	City of Berkeley (Res. and Comm.)	Berkeley TS	Altamont/ Keller Canyon
	Waste Management (Comm.)	Davis Street TS	Altamont
	Richmond Sanitary Service (Comm.)	Golden Bear TS	Potrero Hills
Castro Valley S.D.	Waste Management	Davis Street TS	Altamont
Dublin	Amador Valley Industries		Altamont
Emeryville	Waste Management	Davis Street TS	Altamont
Fremont	Allied Waste/BFI	Fremont R&TS	Tri-Cities
Hayward	Waste Management	Davis Street TS	Altamont
Livermore	Waste Management		Vasco Road
Newark	Waste Management	Fremont R&TS	Tri-Cities
Oakland	Waste Management	Davis Street TS	Altamont
Oro Loma S.D.	Waste Management	Davis Street TS	Altamont
Piedmont	Richmond Sanitary Service	Golden Bear TS	Potrero Hills
Pleasanton	Pleasanton Garbage Service	PGS TS	Vasco Road
San Leandro	ACI San Leandro Disposal	ACI TS	Vasco Road
Union City	Allied Waste/BFI	Fremont R&TS	Tri-Cities
Uninc. Alameda	Waste Management		Altamont/Vasco Road
	Pleasanton Garbage Service	PGS TS	Vasco Road

Figure 1-3 Alameda County Solid Waste Disposal Patterns



1.5 Summary of Current Diversion Programs

Since the 2000 waste characterization study, most of the jurisdictions in the County have added collection of food scraps in the plant trimmings, and used motor oil filters. Additionally, since the passage of state legislation creating an advanced recycling fee on e-waste, most of the jurisdictions have implemented e-waste recovery, and a few have battery and universal waste recovery programs.

More communities are collecting aerosol cans and scrap metal and narrow neck plastic bottles, in their community recycling programs. A few communities have discontinued curbside collection of aseptic packages while other jurisdictions have added them to their collection programs.

**Table 1-4
Municipally-Sponsored Residential Curbside Recycling Programs - 2008**

Jurisdictions	Material Collected																										
	ONP	OCC	Mixed Paper	Cereal Boxes	Phone Books	Bottles/Jars/Glass	Aerosol Cans	Aluminum Cans	Aluminum Foil / Pan	Tin Cans	Scrap Metal	Narrow Neck #1 PET	Narrow Neck #2 HDPE	Narrow Neck #3-#7	Styrofoam * #6	Drink Boxes	Milk Cartons	Motor Oil	Oil Filters	Yard Trimming	Food Scraps	Latex Paint	Tires	Batteries	E-Waste	Universal Waste	Cell Phones
Alameda (City)	√	√	√	√	√	√	√n	√	√	√	√	√	√	√		√	√	√	√	√	√				√	√	
Albany	√	√	√	√	√	√		√	√n	√	√n	√	√	D		√	√	√	√	√	√		√				
Berkeley	√	√	√	√	√	√		√	√	√	√n	√	√							√	√	S					
Castro Valley S.D.	√	√	√	√	√	√	√n	√	√		√	√	√n		D	D	√	√	√	√	√	√	√				
Dublin	√	√	√	√	√	√	√n	√	√n	√	√n	√	√		D	D	√n	√	√	√	√	√	√	√	√	√	
Emeryville	√	√	√	√	√	√		√		√		√	√				√	√	√	√	√	√	√	√	√	√	
Fremont	√	√	√	√	√	√		√	√	√	√n	√	√	√n	√n	√	√	√	√	√	√	√	√	√	√	√	
Hayward	√	√	√	√	√	√		√	√	√	√n	√	√	D		√	√	√	√	√	√	√	√	√	√	√	
Livermore	√	√	√	√	√	√	√	√		√		√	√n			√n	√n	√	√	√	√				√	√	
Newark	√	√	√	√	√	√		√		√		√	√	√		√	√	√	√	√	√	√	√	√	√	√	
Oakland	√	√	√	√	√	√		√	√	√	√n	√	√	√		√	√	√	√	√	√	√	√	√	√	√	
Ora Loma S.D.	√	√	√	√	√	√	√	√		√	√n	√	√	√	D	D	√	√	√	√			√	√	√	√	
Piedmont	√	√	√	√	√	√	√	√	√n	√	√n	√	√	√	√n	√	√			√	√	√	√	√	√	√	
Pleasanton	√	√	√	√	√	√		√		√	√n	√	√						√	√							
San Leandro	√	√	√	√	√	√	√n	√	√	√	√	√	√	√		√n	√n	√n	√	√	√	√	√	√	√	√	
Union City	√	√	√	√	√	√	√n	√	√	√	√	√	√	√n		√n	√n	√n	√	√	√	√	√	√	√	√	√

Source: ACWMA

- Legend: √
- S - Pick Up for Seniors and others who cannot drive
- D - Discontinued Recyclable since June 2000 Report
- √n - Added recyclable since June 2000 report
- New Programs since 2000

1.6 Solid Waste Streams and Generator Types Used in this Study

Five segments of the overall waste stream were defined to be consistent with previous characterization studies: single-family residential, multi-family residential, commercial, (or non-residential), roll-off containers, and self-haul. Single-family residential, multi-family residential, and commercial waste streams represent typical generator types with distinct compositions. Roll-off containers and self-haul waste streams represent delivery methods for non-generator specific waste received at solid waste facilities. The waste within these categories could potentially come from any of the three previously mentioned generator types in addition to institutional, including schools, government, and hospital operations, and industrial operations, such as manufacturing or construction. Self-haul waste is the only waste stream that is not largely collected by franchised haulers, with the exception of Berkeley.

For comparability with previous results, the 2008 study was designed to use the same five targeted waste streams. The results for roll-off and self-haul waste streams will also be presented by generator type for more detailed analysis.

For each jurisdiction in the County, a single hauler is franchised (with the exception of Berkeley, which provides municipal collection services in addition to other franchised haulers) to collect residential or non-residential waste and deliver it to a contracted solid waste facility. The five main waste stream segments used in reporting all results are defined in more detail below:

- A) *Single Family Residential:*** waste collected from single-family homes, generally within route-based automated or semi-automated side or rear-loaded packer trucks from curbside toters.
- B) *Multi-Family Residential:*** waste collected from apartments, condominiums, and other multi-family dwellings, generally within route-based front-end loaders from 1-cy to 8-cy dumpsters.
- C) *Commercial:*** waste collected from any non-residential source, such as: offices, restaurants, retail establishments, malls, institutions, warehouses, hotels, etc, generally within route-based front-end loaders from 1-cy to 8-cy dumpsters.
- D) *Roll-off containers:*** waste collected within roll-off containers, either compactor or open top, generally from a single generator on a regular schedule, i.e. one time per week. Typical waste generators include multi-family, commercial, industrial, or institutional. Roll-off containers can also be used for one-time, special, service.
- E) *Self-haul:*** a significant portion of the waste disposed in the County is delivered directly to disposal facilities by residents or commercial entities (e.g., contractors) other than franchise haulers.

Multi-family and commercial waste are typically collected and mixed within the same route truck prior to delivery at the transfer station or landfill. Roll-off container and

self-haul waste will be further classified into generator types based on information provided by each driver during the hauler survey.

1.7 Solid Waste Disposal Quantities

Total solid waste quantities for calendar year 2008 were provided by StopWaste staff through coordination with various solid waste facilities and haulers. Disposed waste quantities classified by jurisdiction and waste stream, as provided by StopWaste, are presented in Table 1-5. 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. 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.

**Table 1-5
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	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	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 (1)	20,283	1,236	11,124	41,436	17,858	91,937	7.7%
San Leandro	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	125	0	1,077	1,213	7,700	10,114	0.9%
Total Countywide	275,079	132,081	237,315	273,420	269,213	1,187,108	
% of Total	23.2%	11.1%	20.0%	23.0%	22.7%		

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.

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Figure 1-4 shows the allocation of Countywide waste generation by waste stream and Figure 1-5 shows the distribution of waste flow by jurisdiction.

Figure 1-4 Total Disposal by Waste Stream

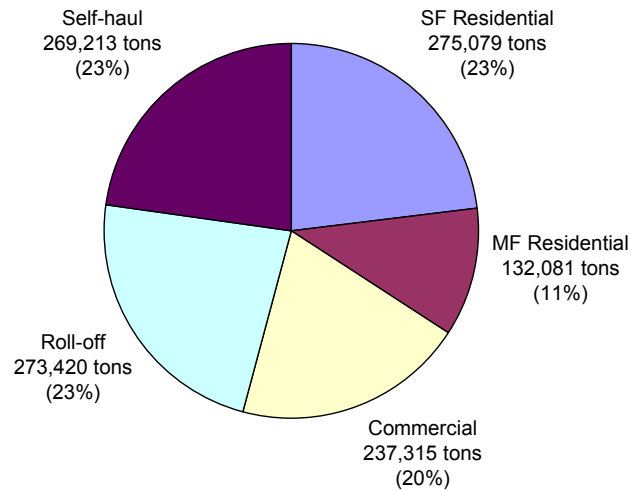
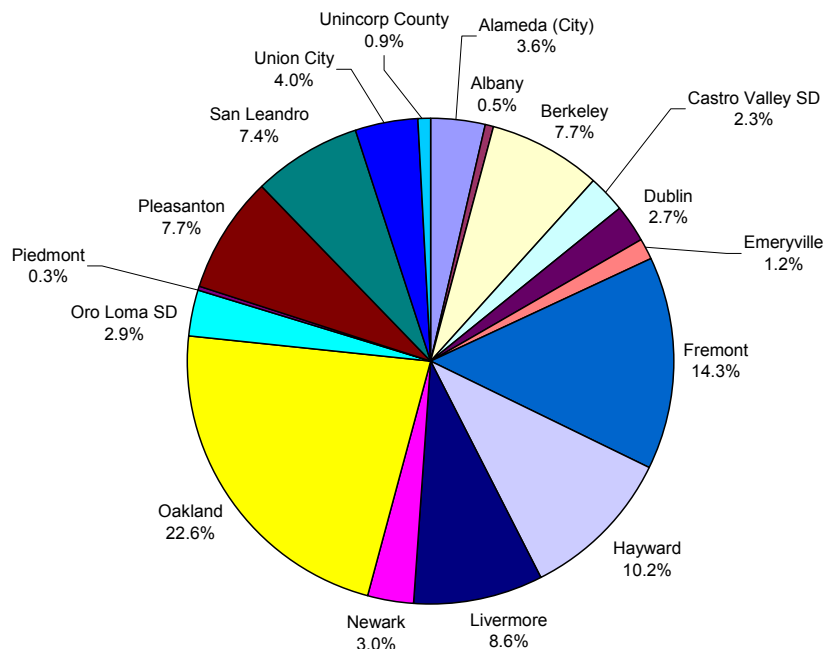


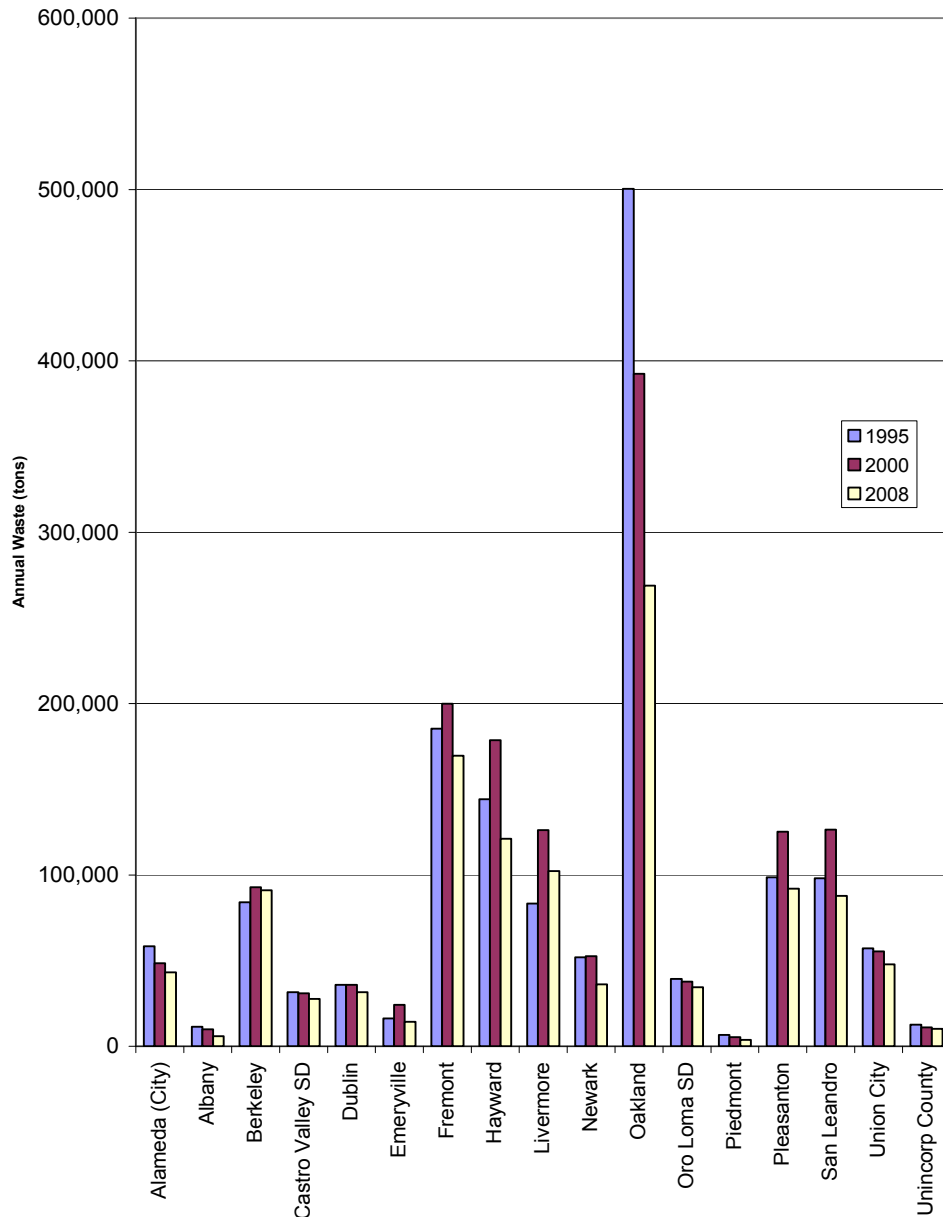
Figure 1-5 Total Disposal by Jurisdiction



Currently, the only waste generated within Alameda County delivered to facilities out of County is single-family residential from Piedmont (Golden Bear TS) and a small portion of the commercial waste from Berkeley. This represents less than two percent of the overall quantity of waste generated within the County. In 1995, approximately four percent of the total Countywide waste was disposed of outside the County. By 2000, this had risen to almost 20 percent.

Figure 1-6 and Table 1-6 presents the historic trends in overall solid waste disposal quantities generated within each jurisdiction. As shown, the amount of waste disposal throughout the County decreased by 24 percent from 2000 to 2008. Since the 2000 Study, total waste flows have decreased in every jurisdiction within the County.

Figure 1-6 Historic Solid Waste Disposal Summary



**Table 1-6
Historic Solid Waste Disposal by Jurisdiction (tons)**

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

Possible causes for the substantial decrease in waste disposal are (1) reduction in commercial and industrial activity due to the construction and economic downturn, (2) increased diversion of recyclable/reusable material, and/or (3) reduced waste flows as a result of either lower unit disposal rates or a decrease in the overall number of household/establishments generating waste. Economic factors affecting the waste stream composition are discussed in Section 3.4.4. Diversion Program performance is discussed further in Section 3.4.2. Alameda County had a combined diversion rate of 54 percent in 2000.

In order to further evaluate possible reasons for the overall decrease in waste, it is necessary to review historic trends in each of the five waste streams and unit disposal rates. Table 1-7 presents the change in each waste stream from 2000 to 2008. Although there were decreases in the disposal quantities of single-family residential and self-haul waste, the most significant reduction is within commercial and roll-off waste. The quantity of multi-family residential waste actually increased by seven percent over the last eight years, although this may be partially due to improved methodology for apportioning multi-family disposal.

Table 1-7
Historic Solid Waste Disposal by Waste Stream (tons)

Waste Stream	1990 ¹	1995	2000	2008	% Change from 2000 to 2008
Single-Family Residential	499,149	333,025	332,703	275,079	-17%
Multi-Family Residential	incl. in Comm	112,087	122,872	132,081	7%
Commercial	666,295	264,531	354,397	237,315	-33%
Roll-Off	264,499	339,246	406,468	273,420	-33%
Self-Haul	428,552	465,561	336,243	269,213	-20%
Total Countywide	1,858,495	1,514,450	1,552,683	1,187,108	-24%

1. 1990 Waste flows from the City of Berkeley (totaling 154,000 tons) are not included as they could not be precisely classified into these waste stream categories. Multi-family residential waste from 1990 was included in Commercial waste flows.

Unit disposal rates for residential and commercial sectors based on 2008 waste flows divided by population/businesses as of January 2008 are presented as Table 1-8. Disposal rates are expressed in units of pounds per person per day and pounds per business per day, and include the appropriate proportion of self-haul and roll-off waste. These proportions were calculated based on the number of samples that were identified to be either residential or non-residential. Residential waste accounts for approximately 20 percent of all roll-off loads, but represents 67 percent of all self-haul loads throughout the County. While the Countywide residential waste disposal rate estimate remained the same as 2000, the Countywide commercial disposal rate estimate for 2008 is approximately 47 percent lower than the 2000 rate. However, it is important to note that the number of households and establishments is based data from early 2008 and late 2007, respectively, and would not represent expected changes that occurred throughout the year due to unique nationwide economic conditions.

**Table 1-8
Solid Waste Unit Disposal Rates by Jurisdiction**

Jurisdiction	Residential Rate (lbs/person/day)	Commercial Rate (lbs/establishment/day)
Alameda (City)	1.6	53.3
Albany	1.2	25.0
Berkeley	2.4	54.5
Castro Valley SD	1.9	63.1
Dublin	2.2	62.9
Emeryville	2.2	72.9
Fremont	2.2	86.6
Hayward	2.1	83.3
Livermore	3.8	105.8
Newark	1.6	105.5
Oakland	2.0	56.3
Oro Loma SD	2.0	39.1
Piedmont	1.7	8.5
Pleasanton	2.9	101.1
San Leandro	3.0	91.2
Union City	1.6	116.2
Unincorp County	1.5	94.7
Total Countywide	2.2	73.0
2000 Averages	2.2	138.8

Note: 365 days per year used for all disposal rate calculations

Section 2 METHODOLOGY

2.1 Introduction

As previously mentioned, the methodology used to complete this Study is similar to that of previous studies, specifically the 2000 Study, to allow for comparison of results. Prior to beginning field work, R. W. Beck submitted an extensive Study Design detailing the proposed approach for completing field work. The final Study Design accepted by StopWaste is attached as Appendix C. This section briefly summarizes the field work completed and describes any notable changes from previous studies or deviations from the 2008 Study Design.

2.2 Field Activities

Field work completed by R. W. Beck during 2008 include collection and sorting of physical samples from waste generated within Alameda County in addition to visual observation/characterization of waste deliveries and associated hauler surveys. R. W. Beck coordinated directly with haulers and facilities to schedule and perform field activities associated with this Study. Consistent with previous studies, field work was performed over four seasons to account for seasonal variations in the waste stream. Table 2-1 summarizes the actual schedule of field activities and the number of days over which samples were collected at each facility.

Table 2-1
Field Activities Schedule

Season	ACI TS	Altamont LF	Berk TS	Davis Street TS	Fremont R & TS	Golden Bear TS	PGS TS	Vasco Road LF
<i>Winter</i> Feb 4 – 26, 08	2 days	1 day	2 days	12 days	7 days	1 day	3 days	2 days
<i>Spring</i> June 2 – 28, 08	2 days	2 days	2 days	11 days	7 days	1 day	3 days	2 days
<i>Summer</i> Aug 18 – Sept 10, 08	3 days	3 days	3 days	11 days	7 days	1 day	3 days	2 days
<i>Fall</i> Oct 27 – Nov 19, 08	3 days	2 days	3 days	11 days	7 days	1 day	3 days	2 days

A total of 1,100 physical waste samples (at least 200 pounds each) from single-family residential, multi-family residential, and commercial generating sectors and 1,200 visual surveys from roll-off container and self-haul waste deliveries were targeted for the 2008 Study. In order to optimize efficiency of the field work, all

physical sorting was completed at either Davis Street TS or Fremont R & TS. Due to contractual arrangements between haulers, municipalities, and solid waste facilities, it was not possible to reroute collection vehicles to different facilities for the purposes of this Study. Therefore, physical samples were collected at each of the other solid waste facilities in 96-gallon wheeled carts and transported by box truck to one of the two sorting facilities. Each physical sample was given a unique sample number so that sampling data such as waste stream and jurisdiction could be correlated to the composition data obtained from sorting that particular sample. Bulky items were weighed by the sampling manager at the time of sample collection. The weight of material for each category was independently recorded for each physical sample along with the remaining fines material. The sort manager performed a visual survey of the fines so the material could be apportioned back into the major material category within the database.

Visual characterizations and hauler surveys for roll-off and self-haul vehicles were scheduled and performed at each waste facility based on target sample estimates based on 2006 waste flow data. Samples were adjusted based on limitations of waste deliveries from smaller jurisdictions. For visual samples, the staff member conducted the hauler survey while the waste was being unloaded and obtained weight data, when available, in addition to a volumetric estimation of the load size. The hauler survey for self-haul vehicles had more questions than that for roll-off deliveries to include generator-specific information. Some facilities complete additional “floor-sorting” of this material to recover high-value recyclables. The visual characterization was completed on a volumetric basis for the entire load subsequent to any further recovery (or scavenging) of materials in order to capture only the waste destined for disposal. After visual characterization of the materials present, the observer conducted the divertability analysis to identify the product form present within each category, the amount recyclable and/or reusable, and the most common barrier to diversion. Upon data entry, the volume-based composition data was translated into weight-based data using empirical conversion factors.

Table 2-2 presents a breakdown of the total number of samples collected from each jurisdiction during the Study. Similar to previous studies, physical samples 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, resulting in the need to collect and sort a physical sample. As proposed in the Study Design, a similar number of samples for single-family residential, multi-family residential, and commercial waste streams were collected for each jurisdiction, except as limited by low waste flows. For roll-off and self-haul waste streams, the number of samples was based on historic annual waste flows and adjusted as necessary based on limited waste flows.

Table 2-2
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%
Total Countywide	333	202	568	482	735	2,320	
% of Total	14%	9%	24%	21%	32%		

As presented in the Study Design, we processed more physical samples of commercial waste because of the relatively high variability in these waste materials from sample to sample, or truck to truck. In contrast, residential waste is less variable and therefore a smaller, yet statistically valid and defensible, number of samples were collected.

The actual number of physical samples was adjusted from the targeted numbers provided in the Study Design report due to reallocation of samples originally allotted for Piedmont and unincorporated parts of the County. StopWaste staff confirmed that the only significant waste stream within Piedmont is single-family residential. Consistent with the 2000 Study, we characterized only this generator type for Piedmont. Due to continued annexations and expansion of sanitary district service areas since 2000, unincorporated portions of the County have diminished and there are very few areas remaining. Currently, there are only three routes each week that collect waste from unincorporated portions of the County (outside sanitary district service areas). Therefore, we reduced the number of samples accordingly and reallocated these samples to the other jurisdictions.

The purpose of significantly increasing the number of samples over the four seasons was to improve overall data accuracy. Loads delivered within roll-off containers and self-haul vehicles are typically homogeneous yet highly variable from load to load. This variability is largely a result of the diversity of generator types. For the purposes of this Study, it was assumed that the variability of these waste streams is directly correlated to the quantity of waste delivered from each jurisdiction. Therefore, the number of targeted visual samples was originally distributed according to actual 2006 waste flows for these waste streams. Field adjustments to the actual number of visual

samples performed for each jurisdiction were made as necessary based on the number of waste deliveries. No visual samples were completed for Albany self-haul vehicles, roll-off containers from Piedmont, or roll-off and self-haul vehicles from unincorporated portion of the County because the field team did not identify any deliveries during the time spent at the appropriate facilities.

Table 2-3 provides a summary of sample collection by waste stream compared with that of previous studies. Roll-off and self-haul waste combines to represent almost 46 percent of the total quantity of waste disposed within the County; approximately 53 percent of the total number of samples was collected for these waste streams. While self-haul deliveries are comparable by weight to roll-off waste, the load sizes are significantly smaller, meaning that there are a much larger number of deliveries. More samples of self-haul deliveries were appropriately collected for this reason.

Table 2-3
Historic Comparison of Sample Collection

Waste Stream	1995	2000	2008
Single-Family Residential	298	260	333
Multi-Family Residential	105	121	202
Commercial	512	477	568
Roll-Off	311	417	482
Self-Haul	573	800	735
Total	1,799	2,075	2,320

2.3 Divertability Analysis Protocol

Based on review of the 2000 study results, we were able to conclude that the amount of roll-off and self-haul waste within the County is significant. However, it was also evident that little is known about the type and state of materials within these waste streams since they are delivered directly to a solid waste facility. Further complicating evaluation of the waste streams is the variability of waste from load to load.

Current practices for diversion of materials from roll-off and self-haul waste streams are informal and sporadic. High-value materials are recovered at some solid waste facilities and not others; some facilities recover materials if surplus staff is available; and other facilities recover materials based on the availability of area on the tipping floor.

The purpose of the divertability analysis is to provide as much information as possible with regard to the product form, amount of material that is reusable and/or recyclable, and the common barriers to diversion. A better understanding of the predominant product forms will help direct target generator types or industries to promote recovery. It was also determined to be beneficial to identify the amount of material from roll-off and self-haul waste streams that could be reused and/or recycled. This approach was designed to easily identify certain materials that could be cost-effective sources of

diversion and provide information regarding the potential amount of material as well as whether additional effort is required for recovery (i.e. can the material be repaired or cleaned for reuse and/or are the materials able to be reprocessed into something else?).

From the visual observations of the selected loads, a subjective analysis was performed on whether an item was likely still in condition to be used in its current form by another person, or could have been easily recycled when it was discarded. The evaluation approached this analysis from a material type perspective, and by evaluating the load generator type.

So, for example, from a home renovation the largest volume items that could be diverted would be expected to be painted drywall, wood studs, wood cabinets, used appliances (dishwashers), and fixtures (sinks, tubs and toilets), electrical and plumbing (metals), flooring materials (wood linoleum and carpet). Some of these items may be reusable in their current form – the appliances if they were still working when removed, cabinets and fixtures if they were not damaged when removed. Where it was not obvious what condition they were in when removed, but arrived at the observation site badly damaged, they were counted as recyclable, not salvageable.

Household items, such as books, dishes, furniture, and clothing might be listed as reusable thrift items, instead of recyclables, based on condition of the load when it arrived, and a discussion with the driver. Yard cleanup divertable discards included mostly lawn furniture (wood and metal), clay and plastic pots, old garden tools, and plant trimmings.

Construction waste is often generated sequentially and many of the discards would be divertable, either through reuse or recycling. From small commercial buildings and houses the sequence is concrete foundation and dirty wood framing for the concrete is first, clean wood framing is second, then plumbing and electrical, then wallboard, large plastic paint buckets, cardboard boxes from fixtures and appliances, and finally carpet scraps and trimmings.

The divertability approach is detailed in the Study Design presented as Appendix C.

2.4 Material Categories

StopWaste.Org staff reviewed and recommended 2008 Study target material categories for sorting based on data needs and representative comparison with previous studies. Some material categories used in the past were aggregated into other categories or new categories were created as necessary. Major material categories within this Study remain directly comparable with the exception that Other Inerts, HHW, and Special Waste have been separated out from Other Waste as previously classified in 2000 and 1995. Nonetheless, major material categories used in 2008 are directly comparable to those used in 2000 and 1995 with only minor adjustment to reclassify Other Waste categories appropriately.

Table 2-4 presents the material categories used for this Study for comparison with previous studies. The most evident changes are the consolidation of some material categories (i.e. mixed paper, HDPE and PET bottles, and recyclable glass) and the

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break out of HHW categories into specific types of materials. Modifications were based on current priorities of StopWaste.

**Table 2-4
Comparison of Material Categories Between Historic Studies**

Material Groups	Material Categories 2008	Material Categories 2000	Material Categories 1995
Paper	Corrugated High Grade Newspaper Mixed Paper Compostable Paper Other Paper	Corrugated High Grade Newspaper Mixed Paper Text Books Magazines Phone Books Other Paper	Corrugated High Grade Newspaper Mixed Paper Text Books Magazines Phone Books Other Paper
Plastic	HDPE-Bottles PET-Bottles Plastic Bags Other Film Other Plastic Containers Mixed Rigid Plastic Expanded Polystyrene Blocks Other Plastic	HDPE-Bottles-Natural HDPE-Bottles-Colored HDPE-Wide PET-Slim PET-Wide Film Plastics Other Plastic Containers Mixed Plastic	HDPE-Narrow HDPE-Wide PET-Narrow PET-Wide Film Plastics Other Plastics
Glass	 Recyclable Glass Other Non-Recyclable	CRV Glass Other Recyc-Clear Other Recyc-Color Other Non-Recyclable	CRV Glass Other Recyc-Clear Other Recyc-Color Other Non-Recyclable
Metals	Aluminum Cans Steel Food and Bev Cans Other Ferrous Other Non-Ferrous White Goods	Aluminum Cans Steel Food and Bev Cans Other Ferrous Non-Ferrous White Goods	Aluminum Cans Steel Food and Bev Cans Other Ferrous Non-Ferrous White Goods
Yard Waste	Leaves and Grass Branches/Stumps/ Prunings/Trimmings	Leaves and Grass Branches and Stumps Prunings/Trimmings	Leaves and Grass (Wood-Unpainted) Branches and Brush
Other Organics	Food Waste Tires Untreated Lumber Pallets Treated Wood Waste Manure	Food Waste Tires Other Rubber Wood-unpainted Wood-Painted	Food Waste Tires Other Rubber Wood-unpainted Wood-Painted
	Textiles and Leather Carpet Diapers Other Organic Waste	Textiles and Leather Carpet Diapers Other Organic Waste	Textiles and Leather Diapers Other Organic Waste

Material Groups	Material Categories 2008	Material Categories 2000	Material Categories 1995
Other Inerts*	Crushable Inerts Other Inerts Asphalt Roofing Gypsum Board	Crushable Inerts Other Inerts Asphalt Roofing Gypsum Wallboard Painted Gypsum Wallboard Unpainted	Crushable Inerts Other Inerts Asphalt Roofing Gypsum Wallboard
HHW*	Paint/Adhesives Vehicle & Equipment Fluids Universal Hazardous Waste Medical Waste Medicine Covered E-Waste Other E-Waste Other Hazardous Waste	Household Haz. Waste	Household Haz. Waste
Special * Waste	Brown Goods Composite Bulky Items Other Special Waste	Brown Goods Composite Bulky Items	Brown Goods Composite Bulky Items

Note: **bold** lettering in table indicates that material category has changed since 2000 study.

*New major material categories which were included within Other Waste group in previous studies.

Each of the changes made from 2000 material categories are further explained 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

Material definitions used throughout the Study are presented in the Study Design within Appendix C.

2.5 How to Use this Report

This report presents a large amount of statistical data to facilitate comprehensive evaluation of the Alameda County solid waste disposal system. To properly interpret the results presented, it is necessary to understand the data and corresponding limitations.

For every sample collected, the weight of each material category was entered into the Study-specific database along with tagging information such as jurisdiction, waste stream, sample number, etc. Samples from the same jurisdiction and waste stream were grouped together to develop an average composition. The corresponding total annual quantity of waste for each composition (as provided by StopWaste) was then distributed based on the material category mean to obtain the amount of each material type disposed in tons. In order to evaluate the variability of material from one sample to another, confidence intervals were calculated for each material category.

The following definitions are provided for the statistical measures used in the remainder of this report:

Tons Disposed – The total disposed amount of each material category for a given sample set is provided by weight in tons. Tons disposed are calculated by allocating the total waste quantity for the sample set by each material’s mean.

Mean – The mean is calculated as the average composition of each material category (or major material group) expressed as a percentage of the total amount of material within the sample set.

Confidence intervals – The lower and upper confidence intervals indicate the likelihood that the population mean (i.e. the composition of the entire waste stream) falls close to the sample mean (i.e. the samples analyzed in the study). For comparison with previous studies, and in accordance with industry standard, the lower and upper bounds throughout this report have been calculated at a 90 percent level of confidence. The 90 percent confidence intervals define the upper and lower bounds for which we can be 90 percent confident that the particular material category’s mean value will fall between. If the confidence intervals are “wide” for a material category, it means there was greater variability of that material between samples.

Note that the standard deviation was not presented in this Study but is used in the calculation to determine confidence intervals.

3.1 Introduction

The purpose of this Study was to obtain current and statistically representative characterization data regarding the quantity and composition of solid waste disposed from each of StopWaste's member jurisdictions as well as an overall Countywide aggregate. Because the composition of each of the five selected waste streams is distinct in nature, a unique characterization is required for each waste stream.

The following composition results are based on field work, including sampling, surveying and sorting, performed by R. W. Beck during four seasons throughout calendar year 2008. The waste tonnages presented herein were provided by StopWaste staff based on information obtained from various solid waste haulers and facilities within the County and are comparable to waste tonnages determined in previous studies.

3.2 Countywide Composition and Quantity Data

The development of an overall Countywide waste characterization involves multiple levels of statistical analysis and aggregation of the individual sample data obtained from field work. All samples from the same jurisdiction and waste stream were grouped and averaged to develop a unique composition (i.e. material averages and confidence intervals). In order to obtain Countywide composition results for each of the five waste streams, the jurisdiction-specific data was weight-averaged based on the disposed waste tonnages of each jurisdiction within that waste stream.

This section presents Countywide characterization results for each waste stream as well as the overall Countywide characterization. Jurisdiction-specific results are provided as Appendix A of this report. Detailed Countywide results comparing historic confidence intervals are presented as Appendix B.

For each waste stream, the following tables and figures are provided for complete evaluation of the results:

- Composition profile summary showing allocation by major material group and associated table with tons of waste disposed, mean, and upper/lower bounds;
- Detailed composition table presenting tons of waste disposed, mean, and upper/lower bounds for each material category;
- Historic comparison bar chart of disposed waste tonnages from 1995 and 2000 studies for major material groups, and detailed historic comparison table of each material category;

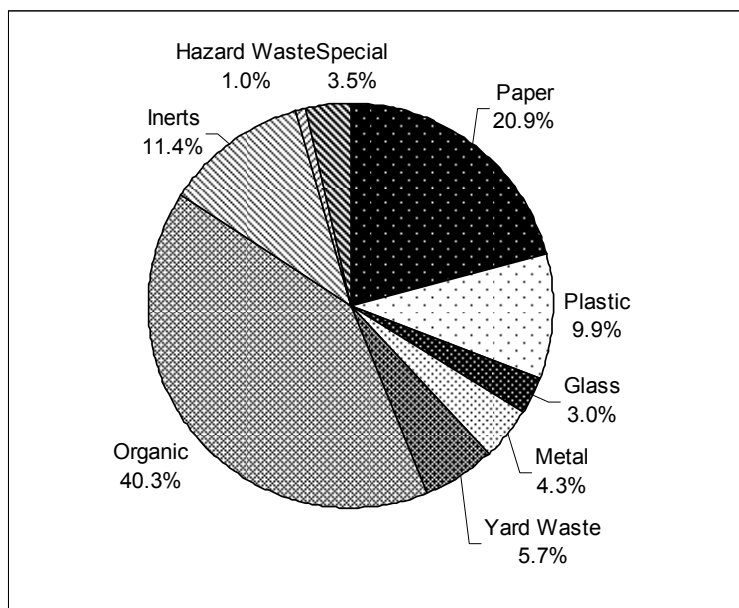
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- Summary of top 12 most common materials from 2000 Study with historic comparison and
- Summary of top 12 most common materials from 2008 Study with historic comparison.

3.2.1 Countywide Waste Stream

The overall composition of all waste disposed in Alameda County classified by major material group is presented as Figure 3-1. The largest portion of the overall waste stream is represented by Organics, with significant amounts of Paper, Plastics, and Inerts as well.

Figure 3-1 2008 Countywide Composition by Major Material Group



Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	248,198	20.9%	20.4%	21.5%
Plastic	117,789	9.9%	9.7%	10.2%
Glass	35,172	3.0%	2.8%	3.2%
Metal	50,530	4.3%	4.1%	4.5%
Yard Waste	68,072	5.7%	5.3%	6.3%
Organic	478,530	40.3%	39.3%	41.4%
Inerts	135,715	11.4%	10.6%	12.4%
Hazard Waste	11,879	1.0%	0.9%	1.1%
Special	41,225	3.5%	3.1%	4.0%
TOTAL	1,187,108	100.0%		

Table 3-1 presents the Countywide detailed characterization results.

Table 3-1
2008 Countywide Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		248,198	20.9%	20.4%	21.5%
	1 Uncoated Corrugated Cardboard	36,409	3.1%	2.9%	3.3%
	2 High Grade Paper	14,575	1.2%	1.1%	1.4%
	3 Newspaper	9,247	0.8%	0.7%	0.8%
	4 Mixed Recyclable Paper	53,049	4.5%	4.2%	4.8%
	5 Compostable Paper	119,891	10.1%	9.9%	10.3%
	6 Other Paper	15,027	1.3%	1.2%	1.4%
Plastics		117,789	9.9%	9.7%	10.2%
	7 HDPE Bottles (#2)	4,092	0.3%	0.3%	0.4%
	8 PETE Bottles (#1)	4,664	0.4%	0.4%	0.4%
	9 Other Plastic Containers	6,131	0.5%	0.5%	0.5%
	10 Plastic Bags	9,775	0.8%	0.8%	0.9%
	11 Other Film	48,221	4.1%	3.9%	4.2%
	12 Expanded Polystyrene Blocks	2,313	0.2%	0.2%	0.2%
	13 Mixed Rigid Plastics	28,724	2.4%	2.3%	2.5%
	14 Other Plastics	13,870	1.2%	1.1%	1.2%
Glass		35,172	3.0%	2.8%	3.2%
	15 Recyclable Glass Bottles/Containers	20,329	1.7%	1.6%	1.8%
	16 Other Glass	14,843	1.3%	1.1%	1.4%
Metals		50,530	4.3%	4.1%	4.5%
	17 Aluminum Cans	1,831	0.2%	0.1%	0.2%
	18 Other Non-Ferrous	5,942	0.5%	0.5%	0.6%
	19 Steel Food and Beverage Cans	6,062	0.5%	0.5%	0.5%
	20 Other Ferrous	35,450	3.0%	2.8%	3.2%
	21 White Goods	1,244	0.1%	0.1%	0.1%
Yard Waste		68,072	5.7%	5.3%	6.3%
	22 Leaves/Grass/Chips	39,210	3.3%	3.0%	3.7%
	23 Branches/Stumps/Prunings/Trimmings	28,862	2.4%	2.2%	2.8%
Organics		478,530	40.3%	39.3%	41.4%
	24 Food Waste	222,457	18.7%	18.2%	19.4%
	25 Tires	1,254	0.1%	0.1%	0.1%
	26 Untreated Lumber	33,413	2.8%	2.6%	3.1%
	27 Pallets	27,287	2.3%	2.1%	2.6%
	28 Treated Wood Waste	75,399	6.4%	5.8%	7.0%
	29 Textiles and Leather	45,868	3.9%	3.6%	4.1%
	30 Carpet	17,168	1.4%	1.2%	1.8%
	31 Diapers	27,721	2.3%	2.2%	2.4%
	32 Manure	12,026	1.0%	0.9%	1.1%
	33 Other Organics	15,937	1.3%	1.2%	1.5%
Inerts		135,715	11.4%	10.6%	12.4%
	34 Crushable Inerts	49,275	4.2%	3.7%	4.7%
	35 Other Inerts	52,769	4.4%	4.1%	4.9%
	36 Gypsum Board	22,567	1.9%	1.7%	2.2%
	37 Asphalt Roofing	11,105	0.9%	0.8%	1.2%
HHW		11,879	1.0%	0.9%	1.1%
	38 Paint/Adhesives	1,356	0.1%	0.1%	0.1%
	39 Vehicle & Equipment Fluids	447	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	2,267	0.2%	0.2%	0.2%
	41 Medical Waste	649	0.1%	0.0%	0.1%
	42 Medicine	261	0.0%	0.0%	0.0%
	43 Covered E-Waste	1,809	0.2%	0.1%	0.2%
	44 Other E-Waste	3,587	0.3%	0.3%	0.3%
	45 Other Hazardous Waste	1,503	0.1%	0.1%	0.2%
Special		41,225	3.5%	3.1%	4.0%
	46 Brown Goods	3,677	0.3%	0.3%	0.4%
	47 Composite Bulky Items	37,304	3.1%	2.8%	3.6%
	48 Other Special Waste	244	0.0%	0.0%	0.0%
TOTAL		1,187,108	100.0%		

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Figure 3-2 presents the comparison of major waste materials disposed in 2008 with results from the 1995 and 2000 studies. The 90 percent confidence bounds are shown with error bars. Because of the 24 percent decline in overall annual waste since 2000, most of the major material quantities are also lower, with the exception of glass and HHW. Significant downward trends for Paper, Plastic, Metals, Yard Waste, and Special Waste likely suggest improvements in diversion of these materials.

Figure 3-2 Historic Comparison of Countywide Composition (tons)

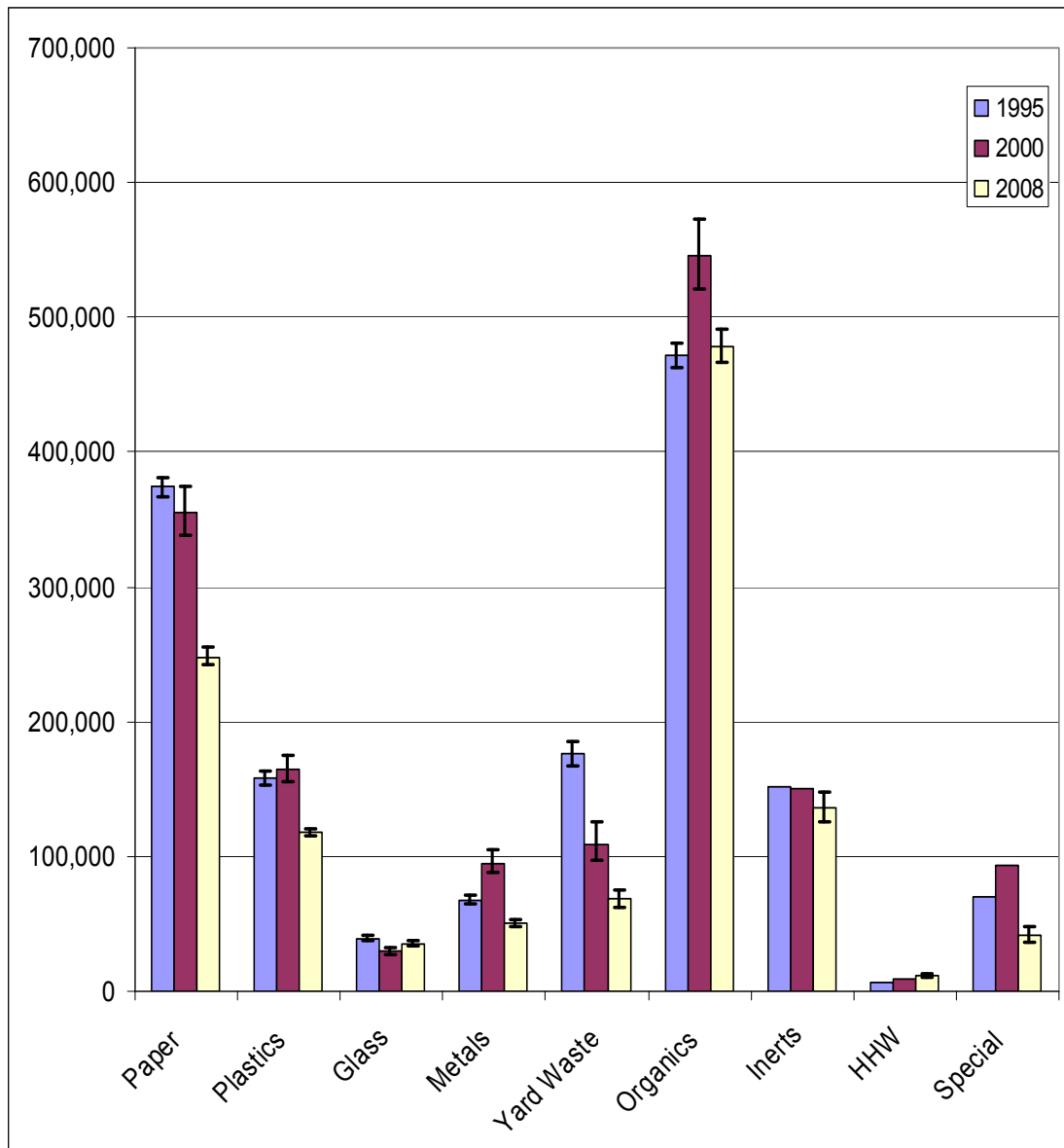


Table 3-2 presents a detailed historic comparison of the means and resulting weights of each specific material category from the 1995, 2000, and 2008 studies.

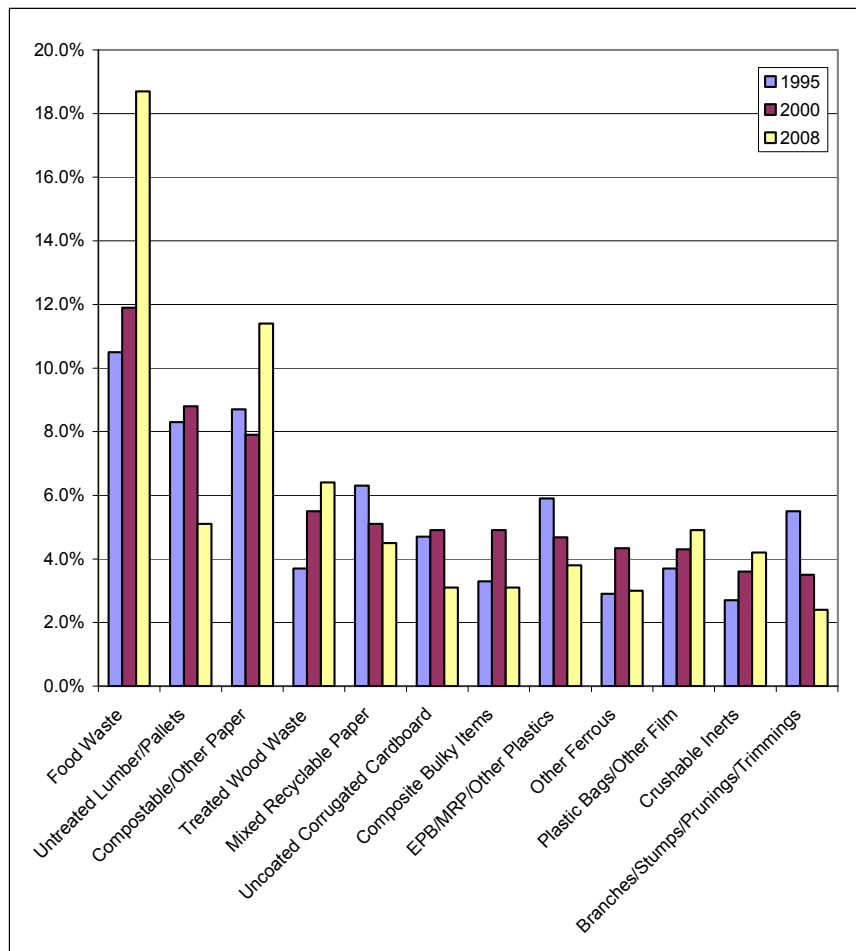
Figure 3-3 presents the most common materials by percentage within the 2000 Countywide waste stream and compares the amount of equivalent material in previous studies. Figure 3-4 identifies the 2008 most prevalent materials and provides comparison with previous studies.

Table 3-2
Overall Countywide Detailed Historical Comparison

Material Group	Material	Mean Comparison			Weight Comparison (tons)			
		1995	2000	2008	1995	2000	2008	
Paper		24.7%	22.9%	20.9%	374,076	355,288	248,198	
	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	
Plastics		10.5%	10.6%	9.9%	158,320	164,725	117,789	
	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	
	Glass		2.6%	1.9%	3.0%	39,390	29,754	35,172
		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
	Metals		4.5%	6.1%	4.3%	67,760	95,274	50,530
		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	35,540	
21 White Goods		0.3%	0.4%	0.1%	4,290	5,720	1,244	
Yard Waste		11.6%	7.0%	5.7%	176,093	109,393	68,072	
	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	
Organics		31.2%	35.2%	40.3%	471,865	545,873	478,530	
	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	
Inerts		10.0%	9.7%	11.4%	151,583	150,785	135,715	
	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	
HHW		0.4%	0.6%	1.0%	5,837	8,710	11,879	
	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	
	Special		4.6%	6.0%	3.5%	69,524	92,883	41,225
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	
TOTAL		100.0%	100.0%	100.0%	1,514,448	1,552,683	1,187,108	

Note: see Section 2.4 for a complete description of changes to material categories.

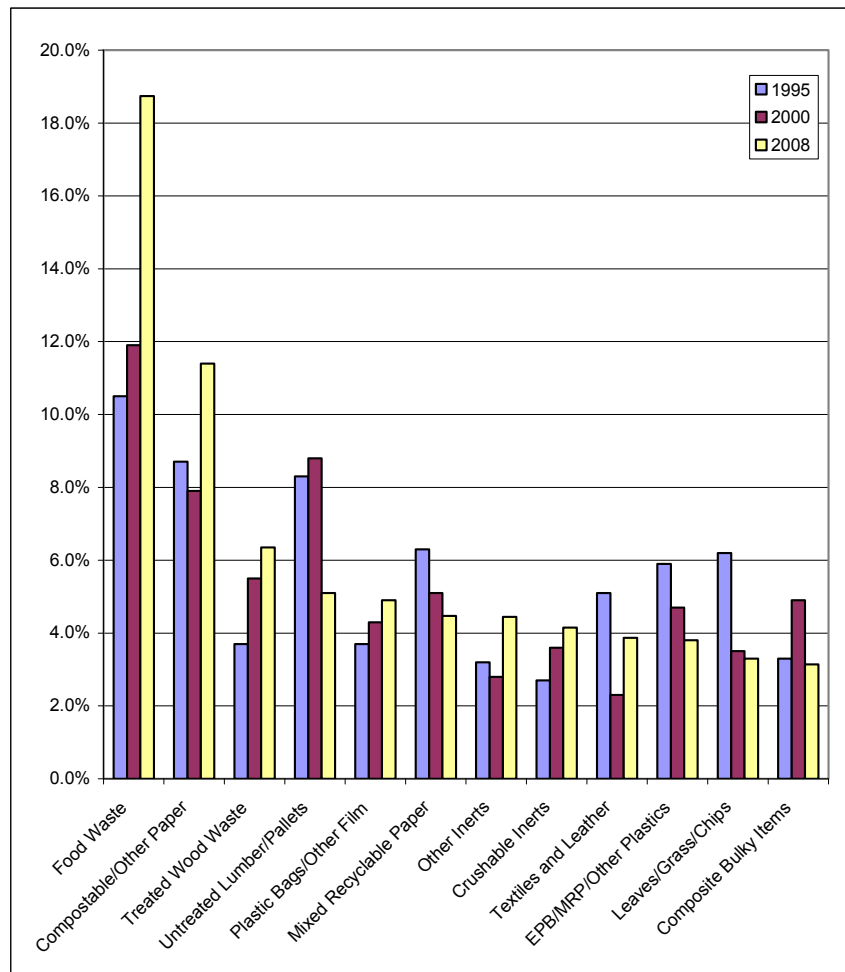
Figure 3-3 Comparison of 2000 Most Common Materials - Countywide



2000 Rank	Material	2000 Mean (%)	2000 Tonnage	2008 Rank	
1	Food Waste	11.9%	184,717	1	AB
2	Untreated Lumber/Pallets	8.8%	136,741	4	AB
3	Compostable/Other Paper	7.9%	122,485	2	A
4	Treated Wood Waste	5.5%	85,357	3	
5	Mixed Recyclable Paper	5.1%	79,143	6	*
6	Uncoated Corrugated Cardboard	4.9%	76,602	13	AB
7	Composite Bulky Items	4.9%	75,538	12	AB
8	EPB/MRP/Other Plastics	4.7%	73,294	10	*
9	Other Ferrous	4.3%	66,238	14	AB
10	Plastic Bags/Other Film	4.3%	66,753	5	*
11	Crushable Inerts	3.6%	56,503	8	
12	Branches/Stumps/Prunings/Trimming	3.5%	55,064	15	*
Total		69.4%	1,078,435		

Notes: "A" denotes statistically significant change (i.e. 90% confidence intervals do not overlap) in the mean from 2000 to 2008; "B" denotes statistically significant change in the tonnage from 2000 to 2008; * indicates significance of change cannot be directly determined. *Compostable Paper* is included in *Other Paper*; *Mixed Recyclable Paper* includes *Text books*, *Magazines*, and *Phone books*; *Other Film* includes *Plastic bags*; *Other Plastics* includes *Expanded Polystyrene Blocks* and *Mixed Rigid Plastics*; and *Untreated Lumber* includes *Pallets*.

Figure 3-4 Comparison of 2008 Most Common Materials - Countywide



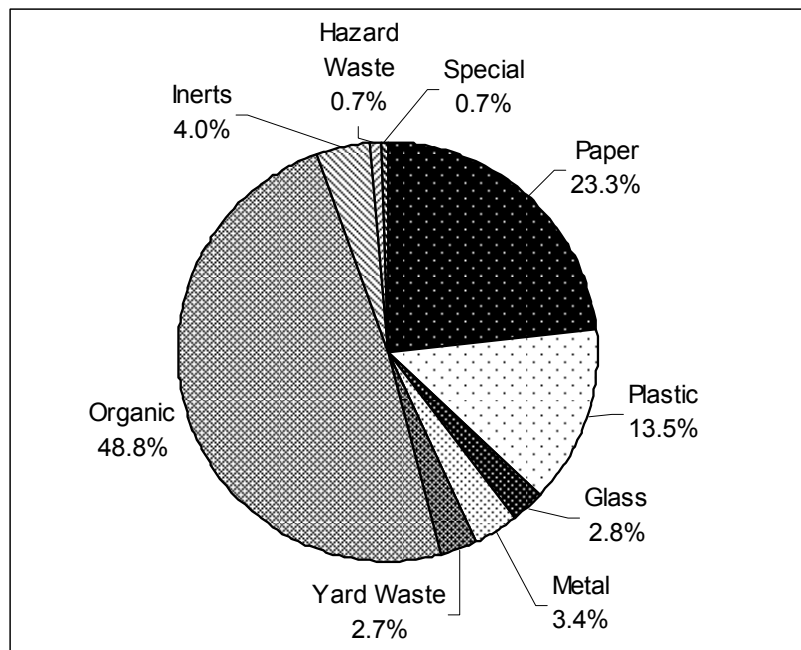
2008 Rank	Material	2008 Mean (%)	2008 Tonnage	2000 Rank	
1	Food Waste	18.7%	222,457	1	AB
2	Compostable/Other Paper	11.4%	134,918	3	*
3	Treated Wood Waste	6.4%	75,399	4	
4	Untreated Lumber/Pallets	5.1%	60,700	2	AB
5	Plastic Bags/Other Film	4.9%	57,996	10	*
6	Mixed Recyclable Paper	4.5%	53,049	5	*
7	Other Inerts	4.4%	52,769	14	A
8	Crushable Inerts	4.2%	49,275	11	
9	Textiles and Leather	3.9%	45,868	17	B
10	EPB/MRP/Other Plastics	3.8%	44,907	8	*
11	Leaves/Grass/Chips	3.3%	39,210	13	B
12	Composite Bulky Items	3.1%	37,304	7	AB
Total		73.7%	873,851		

Notes: "A" denotes statistically significant change (i.e. 90% confidence intervals do not overlap) in the mean from 2000 to 2008; "B" denotes statistically significant change in the tonnage from 2000 to 2008; * indicates significance of change cannot be directly determined. *Compostable Paper* is included in *Other Paper*; *Mixed Recyclable Paper* includes *Text books, Magazines, and Phone books*; *Other Film* includes *Plastic bags*; *Other Plastics* includes *Expanded Polystyrene Blocks and Mixed Rigid Plastics*; and *Untreated Lumber* includes *Pallets*.

3.2.2 Single-Family Residential Waste

The aggregate composition of all single-family residential waste disposed in Alameda County classified by major material group is presented as Figure 3-5. The largest portion of the single-family residential waste stream is represented by Organics, with significant amounts of Paper and Plastics. Single-family residential waste has typically low variability from load to load as shown by the narrow confidence intervals.

Figure 3-5 2008 Countywide Single-Family Residential Composition by Major Material Group



90 % Confidence Interval

Material Group	Tons Disposed	Mean (%)	Lower Bound	Upper Bound
Paper	64,008	23.3%	22.6%	23.9%
Plastic	37,251	13.5%	13.2%	13.9%
Glass	7,696	2.8%	2.6%	3.0%
Metal	9,476	3.4%	3.3%	3.6%
Yard Waste	7,404	2.7%	2.3%	3.2%
Organic	134,332	48.8%	47.9%	49.8%
Inerts	11,042	4.0%	3.6%	4.5%
Hazard Waste	2,050	0.7%	0.6%	0.9%
Special	1,820	0.7%	0.5%	0.8%
TOTAL	275,079	100.0%		

Table 3-3 presents the Countywide single-family residential detailed characterization results.

Table 3-3
2008 Countywide Single-Family Residential Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		64,008	23.3%	22.6%	23.9%
	1 Uncoated Corrugated Cardboard	1,286	0.5%	0.4%	0.5%
	2 High Grade Paper	989	0.4%	0.3%	0.4%
	3 Newspaper	2,396	0.9%	0.7%	1.0%
	4 Mixed Recyclable Paper	8,562	3.1%	2.9%	3.4%
	5 Compostable Paper	48,192	17.5%	17.0%	18.1%
	6 Other Paper	2,582	0.9%	0.9%	1.0%
Plastics		37,251	13.5%	13.2%	13.9%
	7 HDPE Bottles (#2)	1,397	0.5%	0.5%	0.5%
	8 PETE Bottles (#1)	1,755	0.6%	0.6%	0.7%
	9 Other Plastic Containers	2,653	1.0%	0.9%	1.0%
	10 Plastic Bags	4,630	1.7%	1.6%	1.8%
	11 Other Film	14,038	5.1%	4.8%	5.4%
	12 Expanded Polystyrene Blocks	384	0.1%	0.1%	0.2%
	13 Mixed Rigid Plastics	8,401	3.1%	2.9%	3.2%
	14 Other Plastics	3,994	1.5%	1.4%	1.6%
Glass		7,696	2.8%	2.6%	3.0%
	15 Recyclable Glass Bottles/Containers	6,588	2.4%	2.2%	2.6%
	16 Other Glass	1,108	0.4%	0.3%	0.5%
Metals		9,476	3.4%	3.3%	3.6%
	17 Aluminum Cans	540	0.2%	0.2%	0.2%
	18 Other Non-Ferrous	1,248	0.5%	0.4%	0.5%
	19 Steel Food and Beverage Cans	2,748	1.0%	0.9%	1.1%
	20 Other Ferrous	4,895	1.8%	1.6%	2.0%
	21 White Goods	45	0.0%	0.0%	0.0%
Yard Waste		7,404	2.7%	2.3%	3.2%
	22 Leaves/Grass/Chips	4,724	1.7%	1.5%	2.1%
	23 Branches/Stumps/Prunings/Trimnings	2,680	1.0%	0.8%	1.2%
Organics		134,332	48.8%	47.9%	49.8%
	24 Food Waste	90,186	32.8%	31.8%	33.8%
	25 Tires	137	0.0%	0.0%	0.1%
	26 Untreated Lumber	1,483	0.5%	0.5%	0.7%
	27 Pallets	8	0.0%	0.0%	0.0%
	28 Treated Wood Waste	3,811	1.4%	1.2%	1.6%
	29 Textiles and Leather	11,596	4.2%	3.9%	4.5%
	30 Carpet	927	0.3%	0.3%	0.5%
	31 Diapers	15,773	5.7%	5.4%	6.2%
	32 Manure	8,034	2.9%	2.5%	3.4%
	33 Other Organics	2,376	0.9%	0.7%	1.0%
Inerts		11,042	4.0%	3.6%	4.5%
	34 Crushable Inerts	3,095	1.1%	1.0%	1.3%
	35 Other Inerts	6,698	2.4%	2.1%	2.8%
	36 Gypsum Board	1,190	0.4%	0.3%	0.6%
	37 Asphalt Roofing	59	0.0%	0.0%	0.1%
HHW		2,050	0.7%	0.6%	0.9%
	38 Paint/Adhesives	104	0.0%	0.0%	0.1%
	39 Vehicle & Equipment Fluids	67	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	389	0.1%	0.1%	0.2%
	41 Medical Waste	159	0.1%	0.0%	0.1%
	42 Medicine	143	0.1%	0.0%	0.1%
	43 Covered E-Waste	137	0.0%	0.0%	0.1%
	44 Other E-Waste	849	0.3%	0.2%	0.4%
	45 Other Hazardous Waste	202	0.1%	0.1%	0.1%
Special		1,820	0.7%	0.5%	0.8%
	46 Brown Goods	874	0.3%	0.3%	0.4%
	47 Composite Bulky Items	934	0.3%	0.3%	0.5%
	48 Other Special Waste	11	0.0%	0.0%	0.0%
TOTAL		275,079	100.0%		

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Figure 3-6 presents the comparison of major waste materials disposed by single-family residences in 2008 with results from the 1995 and 2000 studies. Annual single-family residential waste quantities have decreased by 17 percent since 2000. Only Organics and Inerts tonnages have increased during the last eight years. Significant downward trends for Paper, Yard Waste, and Special Waste likely suggest improvements in diversion of these materials. The large increase in Organics is primarily attributed to food waste. One factor explaining this change may be significant reductions in the quantities of other materials. Other contributing factors may include increases in population, housing units, and behavior.

Figure 3-6 Historic Comparison of Countywide Single-Family Residential Composition

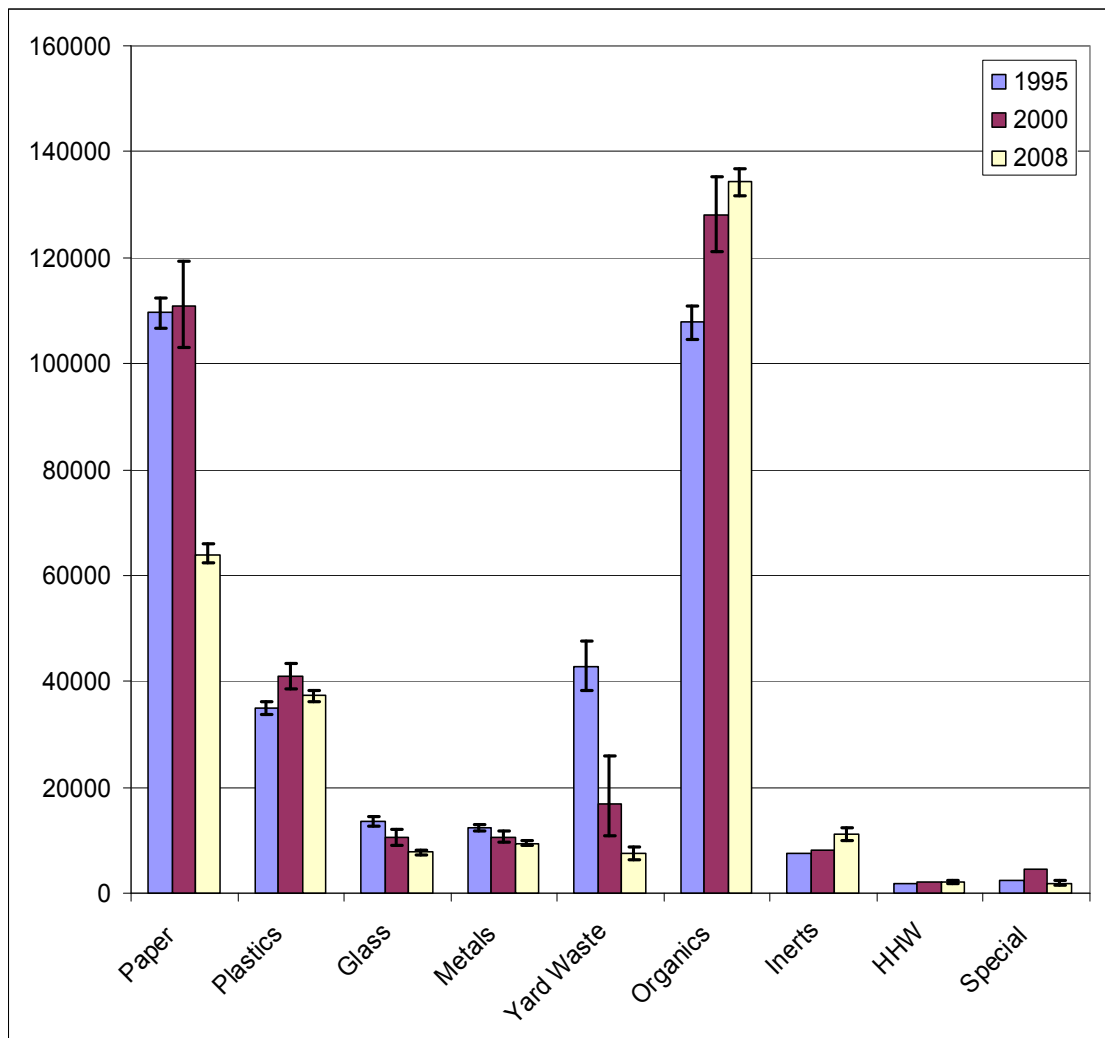


Table 3-4 presents a detailed historic comparison of the single-family residential means and resulting weights of each specific material category from the 1995, 2000, and 2008 studies.

Figure 3-7 presents the most common materials by percentage within the 2000 Countywide single-family residential waste stream and compares the amount of equivalent material in previous studies, while Figure 3-8 identifies the 2008 most prevalent materials and compares the results of previous studies.

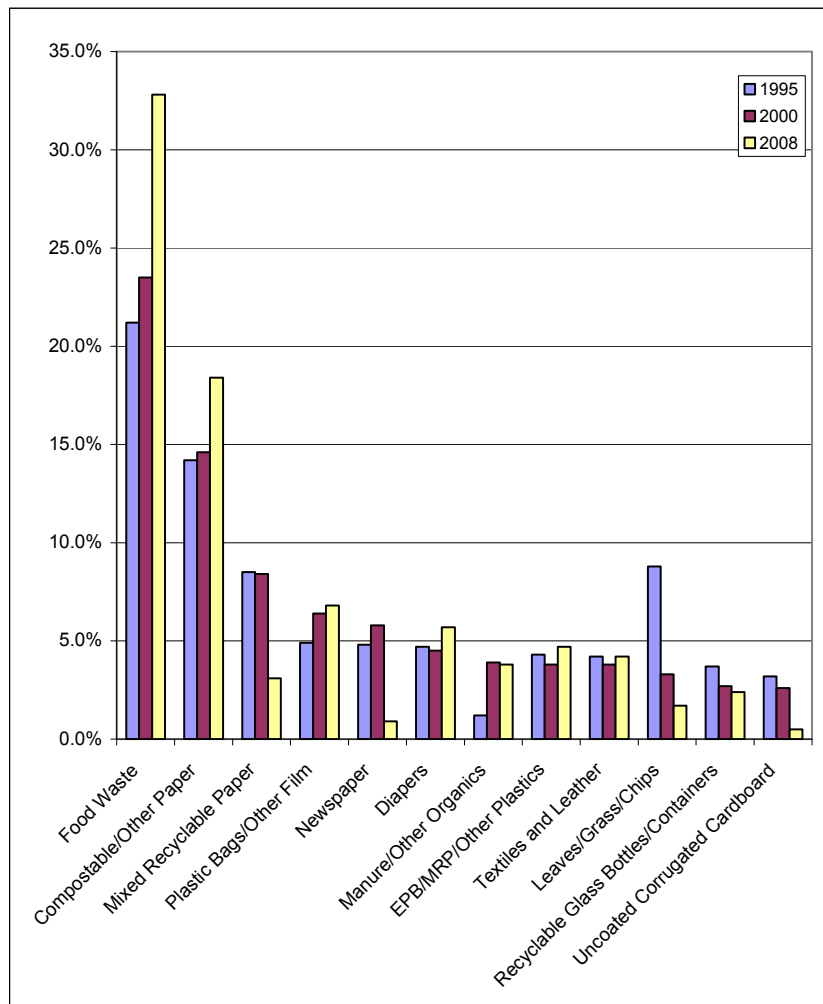
**Table 3-4
Countywide Single-Family Residential Detailed Historical Comparison**

Material Group	Material	Mean Comparison			Weight Comparison (tons)			
		1995	2000	2008	1995	2000	2008	
Paper		32.9%	33.3%	23.3%	109,551	110,895	64,008	
	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	
Plastics		10.5%	12.3%	13.5%	34,994	40,896	37,251	
	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
	Glass		4.1%	3.1%	2.8%	13,616	10,473	7,696
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	
Metals		3.7%	3.2%	3.4%	12,318	10,529	9,476	
	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	
Yard Waste		12.9%	5.1%	2.7%	42,859	16,939	7,404	
	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	
Organics		32.4%	38.5%	48.8%	107,785	128,088	134,332	
	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	
Inerts		2.3%	2.5%	4.0%	7,528	8,238	11,042	
	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	
HHW		0.6%	0.6%	0.7%	1,856	2,139	2,050	
	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	
Special		0.8%	1.4%	0.7%	2,515	4,506	1,820	
	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	
TOTAL		100.0%	100.0%	100.0%	333,023	332,703	275,079	

Note: see Section 2.4 for a complete description of changes to material categories.

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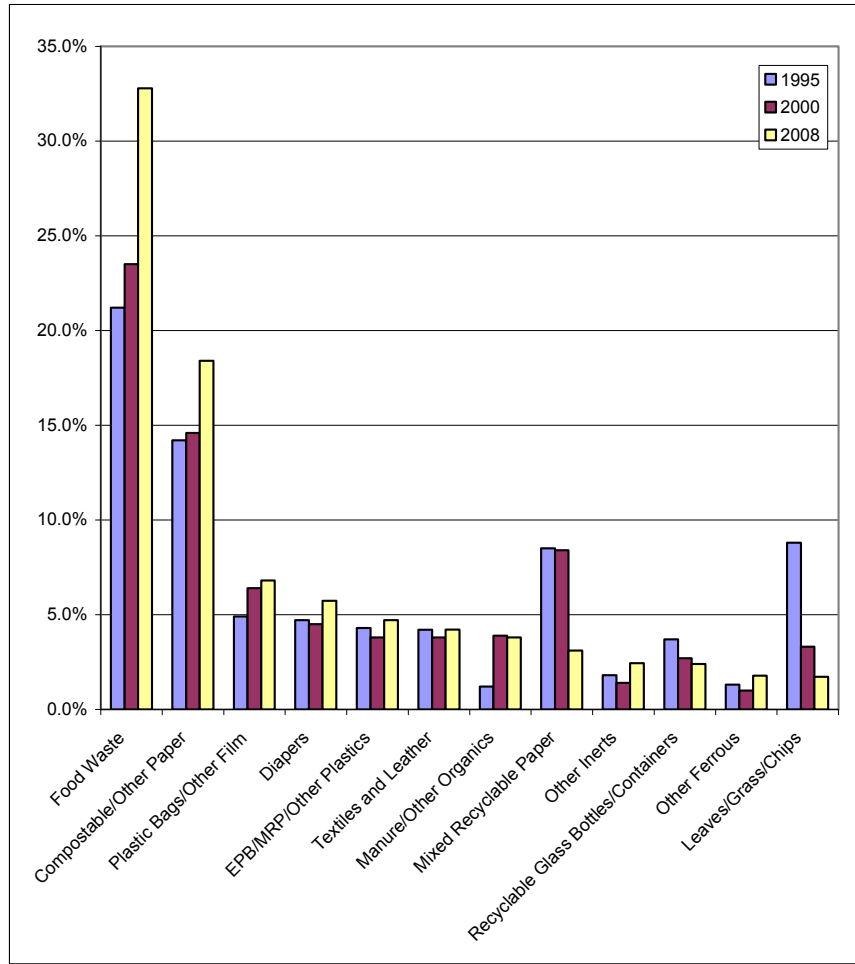
Figure 3-7 Comparison of 2000 Most Common Materials – Countywide SF Residential



2000 Rank	Material	2000 Mean (%)	2000 Tonnage	2008 Rank	
1	Food Waste	23.5%	78,274	1	AB
2	Compostable/Other Paper	14.6%	48,447	2	A
3	Mixed Recyclable Paper	8.4%	27,941	8	*
4	Plastic Bags/Other Film	6.4%	21,378	3	*
5	Newspaper	5.8%	19,417	18	AB
6	Diapers	4.5%	15,066	4	A
7	Manure/Other Organics	3.9%	12,856	7	*
8	EPB/MRP/Other Plastics	3.8%	12,569	5	*
9	Textiles and Leather	3.8%	12,481	6	
10	Leaves/Grass/Chips	3.3%	10,817	12	AB
11	Recyclable Glass Bottles/Containers	2.7%	9,106	10	*
12	Uncoated Corrugated Cardboard	2.6%	8,737	22	AB
Total		83.3%	277,089		

Notes: “A” denotes statistically significant change (i.e. 90% confidence intervals do not overlap) in the mean from 2000 to 2008; “B” denotes statistically significant change in the tonnage from 2000 to 2008; * indicates significance of change cannot be directly determined. *Compostable Paper* is included in *Other Paper*; *Mixed Recyclable Paper* includes *Text books, Magazines, and Phone books*; *Other Film* includes *Plastic bags*; *Other Plastics* includes *Expanded Polystyrene Block & Mixed Rigid Plastics*; *Other Organics* includes *Other Rubber*; and *Recyclable Glass Bottles/Containers* includes *CRV Glass, Other Recyclable Glass (ORG)-Clear, and ORG-Color*.

Figure 3-8 Comparison of 2008 Most Common Materials – Countywide SF Residential



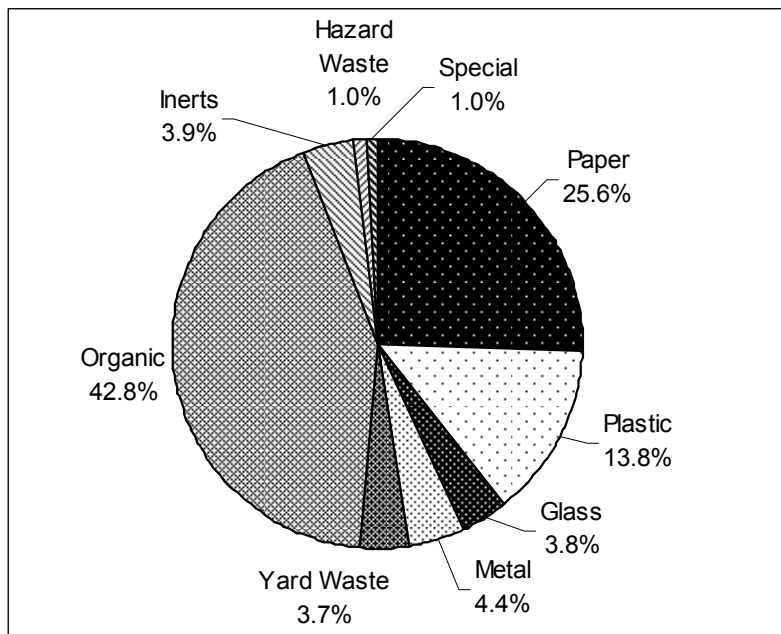
2008 Rank	Material	2008 Mean (%)	2008 Tonnage	2000 Rank	
1	Food Waste	32.8%	90,186	1	AB
2	Compostable/Other Paper	18.4%	48,192	2	*
3	Plastic Bags/Other Film	6.8%	18,668	4	*
4	Diapers	5.7%	15,773	6	A
5	EPB/MRP/Other Plastics	4.7%	12,779	8	*
6	Textiles and Leather	4.2%	11,596	9	
7	Manure/Other Organics	3.8%	10,410	7	*
8	Mixed Recyclable Paper	3.1%	8,562	3	AB
9	Other Inerts	2.4%	6,698	15	A
10	Recyclable Glass Bottles/Containers	2.4%	6,588	11	*
11	Other Ferrous	1.8%	4,895	17	AB
12	Leaves/Grass/Chips	1.7%	4,724	10	AB
Total		87.9%	239,072		

Notes: “A” denotes statistically significant change (i.e. 90% confidence intervals do not overlap) in the mean from 2000 to 2008; “B” denotes statistically significant change in the tonnage from 2000 to 2008; * indicates significance of change cannot be directly determined. *Compostable Paper* is included in *Other Paper*; *Mixed Recyclable Paper* includes *Text books, Magazines, and Phone books*; *Other Film* includes *Plastic bags*; *Other Plastics* includes *Expanded Polystyrene Block & Mixed Rigid Plastics*; and *Recyclable Glass Bottles/Containers* includes *CRV Glass, Other Recyclable Glass (ORG)-Clear, and ORG-Color*.

3.2.3 Multi-Family Residential Waste

The Countywide multi-family residential waste composition classified by major material group is presented as Figure 3-9. The largest portion of the multi-family residential waste stream is represented by Organics, with significant amounts of Paper and Plastics.

Figure 3-9 2008 Countywide Multi-Family Residential Composition by Major Material Group



90 % Confidence Interval

Material Group	Tons Disposed	Mean (%)	Lower Bound	Upper Bound
Paper	33,747	25.6%	24.7%	26.4%
Plastic	18,185	13.8%	13.2%	14.4%
Glass	5,048	3.8%	3.5%	4.2%
Metal	5,877	4.4%	4.1%	4.9%
Yard Waste	4,873	3.7%	3.2%	4.4%
Organic	56,510	42.8%	41.5%	44.1%
Inerts	5,201	3.9%	3.4%	4.6%
Hazard Waste	1,374	1.0%	0.8%	1.4%
Special	1,267	1.0%	0.6%	1.6%
TOTAL	132,081	100.0%		

Table 3-5 presents the Countywide multi-family residential detailed characterization results.

Table 3-5
2008 Countywide Multi-Family Residential Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		33,747	25.6%	24.7%	26.4%
	1 Uncoated Corrugated Cardboard	1,657	1.3%	1.1%	1.5%
	2 High Grade Paper	960	0.7%	0.6%	0.9%
	3 Newspaper	1,729	1.3%	1.1%	1.7%
	4 Mixed Recyclable Paper	5,693	4.3%	3.9%	4.9%
	5 Compostable Paper	22,555	17.1%	16.3%	17.9%
	6 Other Paper	1,153	0.9%	0.8%	1.0%
Plastics		18,185	13.8%	13.2%	14.4%
	7 HDPE Bottles (#2)	966	0.7%	0.7%	0.8%
	8 PETE Bottles (#1)	1,062	0.8%	0.7%	0.9%
	9 Other Plastic Containers	1,288	1.0%	0.9%	1.1%
	10 Plastic Bags	2,191	1.7%	1.5%	1.9%
	11 Other Film	5,994	4.5%	4.2%	4.9%
	12 Expanded Polystyrene Blocks	252	0.2%	0.2%	0.2%
	13 Mixed Rigid Plastics	4,733	3.6%	3.3%	4.0%
	14 Other Plastics	1,699	1.3%	1.2%	1.4%
Glass		5,048	3.8%	3.5%	4.2%
	15 Recyclable Glass Bottles/Containers	4,309	3.3%	3.0%	3.6%
	16 Other Glass	739	0.6%	0.5%	0.7%
Metals		5,877	4.4%	4.1%	4.9%
	17 Aluminum Cans	378	0.3%	0.2%	0.3%
	18 Other Non-Ferrous	797	0.6%	0.5%	0.7%
	19 Steel Food and Beverage Cans	1,216	0.9%	0.9%	1.0%
	20 Other Ferrous	3,212	2.4%	2.1%	2.9%
	21 White Goods	275	0.2%	0.1%	0.5%
Yard Waste		4,873	3.7%	3.2%	4.4%
	22 Leaves/Grass/Chips	3,613	2.7%	2.3%	3.4%
	23 Branches/Stumps/Prunings/Trimnings	1,260	1.0%	0.8%	1.2%
Organics		56,510	42.8%	41.5%	44.1%
	24 Food Waste	34,185	25.9%	24.6%	27.2%
	25 Tires	176	0.1%	0.0%	0.4%
	26 Untreated Lumber	1,183	0.9%	0.7%	1.3%
	27 Pallets	99	0.1%	0.0%	0.2%
	28 Treated Wood Waste	2,337	1.8%	1.5%	2.2%
	29 Textiles and Leather	8,071	6.1%	5.5%	6.8%
	30 Carpet	749	0.6%	0.4%	0.8%
	31 Diapers	6,365	4.8%	4.4%	5.4%
	32 Manure	2,384	1.8%	1.5%	2.3%
	33 Other Organics	962	0.7%	0.6%	1.0%
Inerts		5,201	3.9%	3.4%	4.6%
	34 Crushable Inerts	1,383	1.0%	0.8%	1.5%
	35 Other Inerts	3,602	2.7%	2.4%	3.2%
	36 Gypsum Board	207	0.2%	0.1%	0.3%
	37 Asphalt Roofing	9	0.0%	0.0%	0.0%
HHW		1,374	1.0%	0.8%	1.4%
	38 Paint/Adhesives	182	0.1%	0.1%	0.2%
	39 Vehicle & Equipment Fluids	96	0.1%	0.0%	0.1%
	40 Universal Hazardous Waste	70	0.1%	0.0%	0.1%
	41 Medical Waste	130	0.1%	0.1%	0.2%
	42 Medicine	49	0.0%	0.0%	0.1%
	43 Covered E-Waste	378	0.3%	0.1%	0.5%
	44 Other E-Waste	357	0.3%	0.2%	0.5%
	45 Other Hazardous Waste	112	0.1%	0.0%	0.2%
Special		1,267	1.0%	0.6%	1.6%
	46 Brown Goods	479	0.4%	0.2%	0.6%
	47 Composite Bulky Items	769	0.6%	0.2%	1.2%
	48 Other Special Waste	20	0.0%	0.0%	0.0%
TOTAL		132,081	100.0%		

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Figure 3-10 presents the 2008 multi-family residential quantities of disposed major waste materials in comparison with results from the 1995 and 2000 studies. The 90 percent confidence bounds are shown with error bars. Multi-family residential waste quantities have increased by seven percent since 2000, with notable increases in the percentages of Plastics, Metals, Organics, and Inerts. Some downward trends were identified for Paper, Yard Waste, and Special Waste. The increase in food waste is the primary cause for upward trending Organics tonnage.

Figure 3-10 Historic Comparison of Countywide Multi-Family Residential Composition

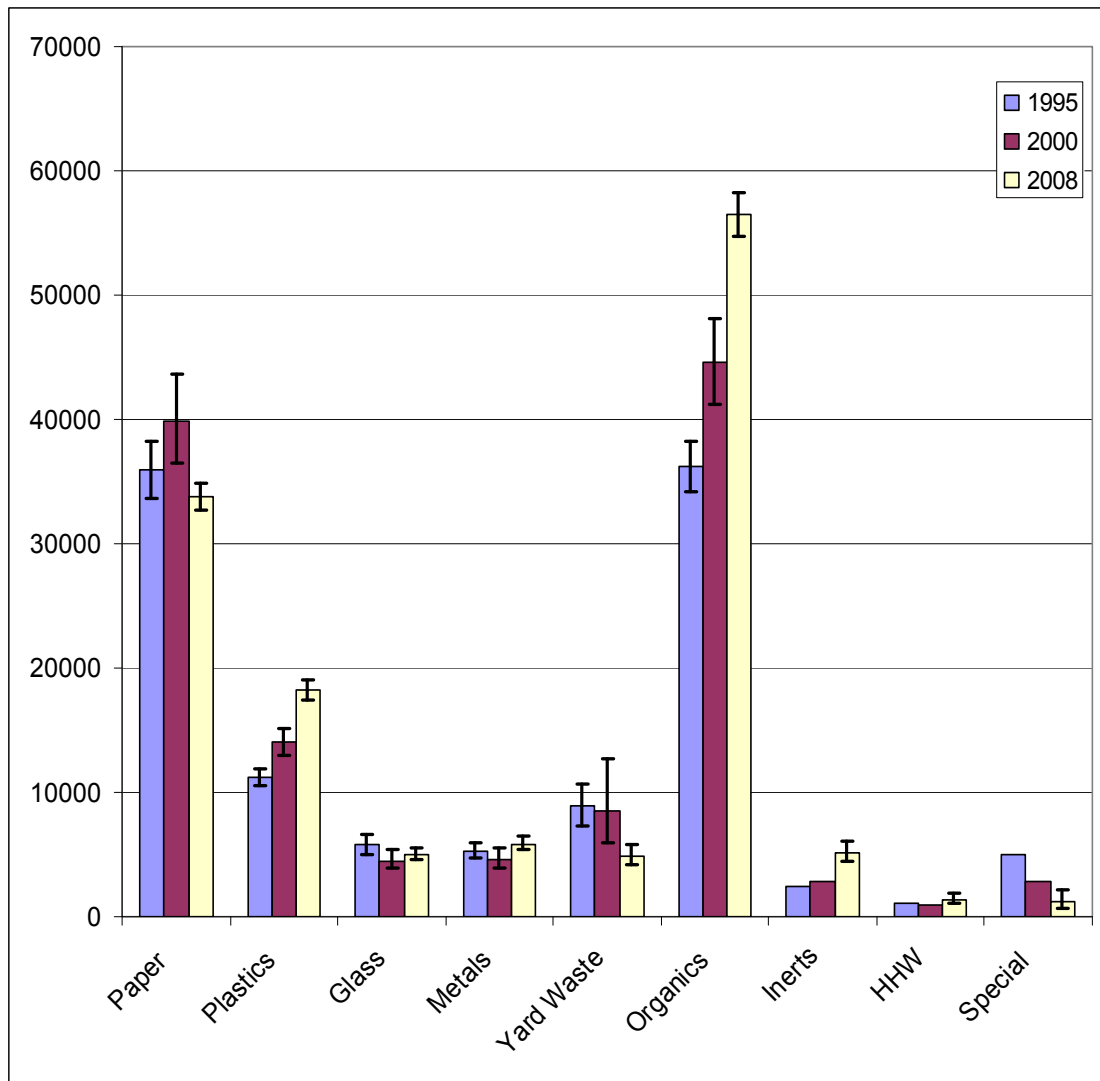


Table 3-6 presents a detailed historic comparison of the multi-family residential means and resulting weights of each specific material category from the 1995, 2000, and 2008 studies.

Figure 3-11 presents the most common materials by percentage within the 2000 Countywide multi-family residential waste stream and compares the amount of equivalent material in previous studies, while Figure 3-12 identifies the 2008 most prevalent materials and compares the results of previous studies.

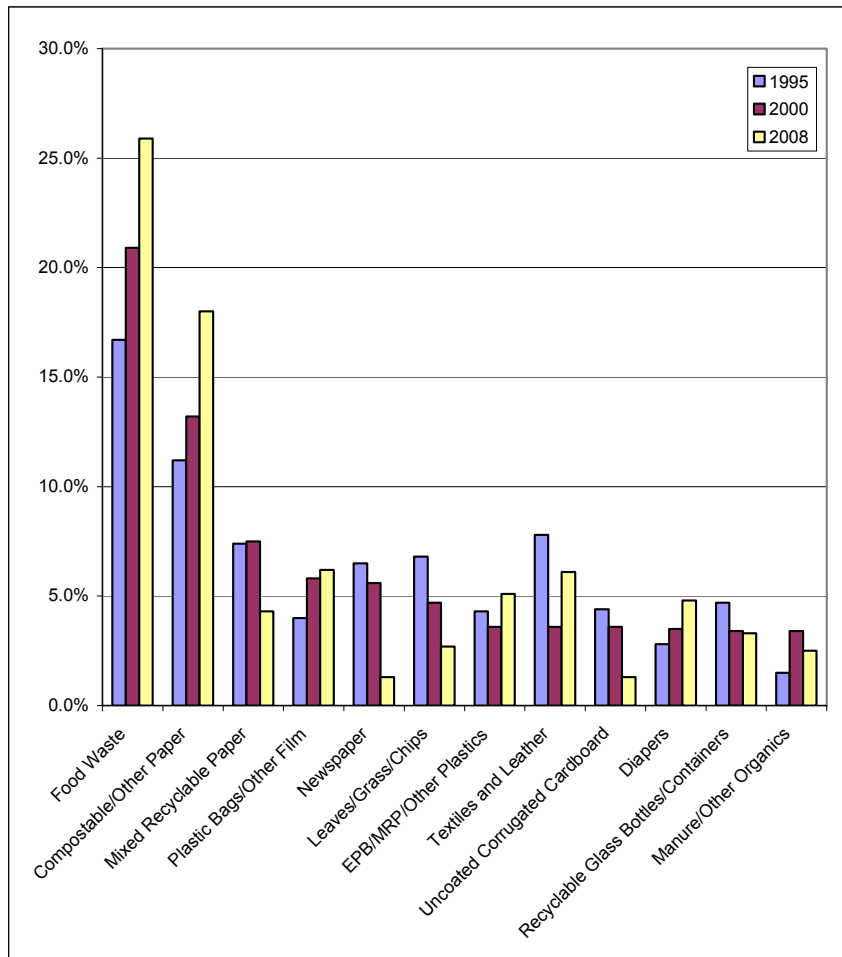
**Table 3-6
Countywide Multi-Family Residential Detailed Historical Comparison**

Material Group	Material	Mean Comparison			Weight Comparison (tons)			
		1995	2000	2008	1995	2000	2008	
Paper		32.1%	32.5%	25.6%	35,961	39,917	33,747	
	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	
Plastics		10.0%	11.4%	13.8%	11,238	14,008	18,185	
	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	
	Glass		5.2%	3.7%	3.8%	5,818	4,505	5,048
		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
	Metals		4.7%	3.8%	4.4%	5,310	4,636	5,877
		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	
Yard Waste		8.0%	7.0%	3.7%	8,971	8,558	4,873	
	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	
Organics		32.3%	36.3%	42.8%	36,158	44,604	56,510	
	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	
	Inerts		2.2%	2.3%	3.9%	2,474	2,804	5,201
		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	
HHW		1.0%	0.8%	1.0%	1,135	980	1,374	
	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	
	Special		4.5%	2.3%	1.0%	5,022	2,861	1,267
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	
TOTAL		100.0%	100.0%	100.0%	112,086	122,872	132,081	

Note: see Section 2.4 for a complete description of changes to material categories.

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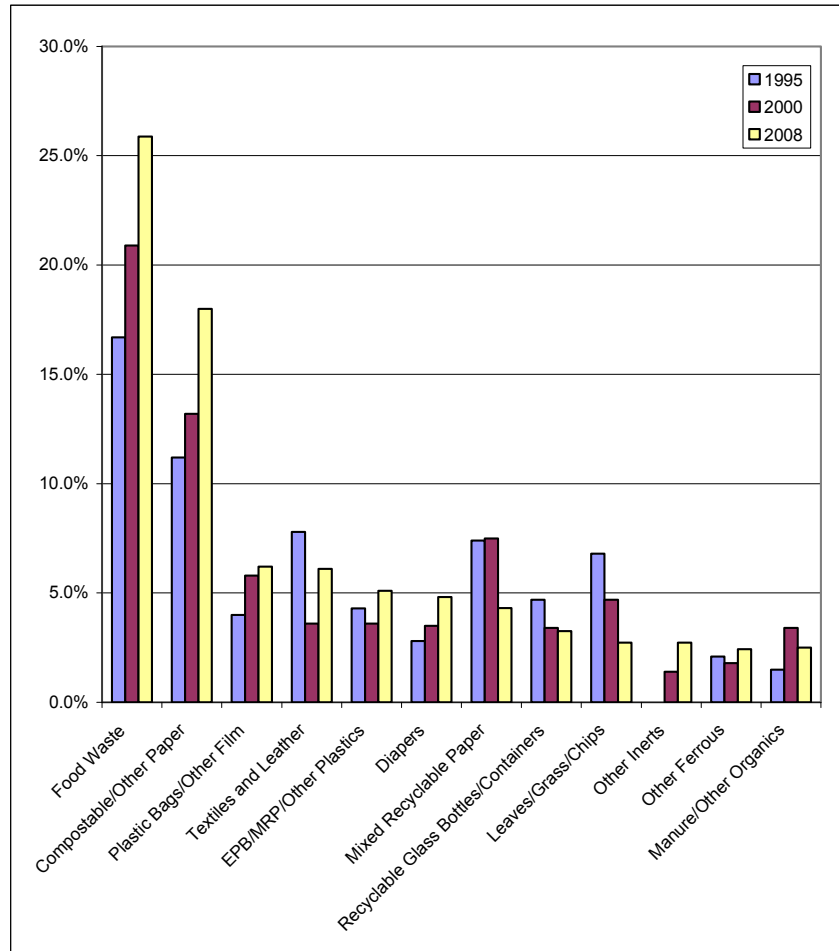
Figure 3-11 Comparison of 2000 Most Common Materials – Countywide MF Residential



2000 Rank	Material	2000 Mean (%)	2000 Tonnage	2008 Rank	
1	Food Waste	20.9%	25,708	1	AB
2	Compostable/Other Paper	13.2%	16,277	2	AB
3	Mixed Recyclable Paper	7.5%	9,198	7	*
4	Plastic Bags/Other Film	5.8%	7,086	3	*
5	Newspaper	5.6%	6,846	14	AB
6	Leaves/Grass/Chips	4.7%	5,735	9	
7	EPB/MRP/Other Plastics	3.6%	4,461	5	*
8	Textiles and Leather	3.6%	4,464	4	AB
9	Uncoated Corrugated Cardboard	3.6%	4,384	13	AB
10	Diapers	3.5%	4,329	6	AB
11	Recyclable Glass Bottles/Containers	3.4%	4,149	8	*
12	Manure/Other Organics	3.4%	4,238	12	*
Total		78.8%	96,875		

Notes: “A” denotes statistically significant change (i.e. 90% confidence intervals do not overlap) in the mean from 2000 to 2008; “B” denotes statistically significant change in the tonnage from 2000 to 2008; * indicates significance of change cannot be directly determined. *Compostable Paper* is included in *Other Paper*; *Mixed Recyclable Paper* includes *Text books, Magazines, and Phone books*; *Other Film* includes *Plastic bags*; *Other Plastics* includes *Expanded Polystyrene Block & Mixed Rigid Plastics*; *Other Organics* includes *Other Rubber*; and *Recyclable Glass Bottles/Containers* includes *CRV Glass, Other Recyclable Glass (ORG)-Clear, and ORG-Color*.

Figure 3-12 Comparison of 2008 Most Common Materials – Countywide MF Residential



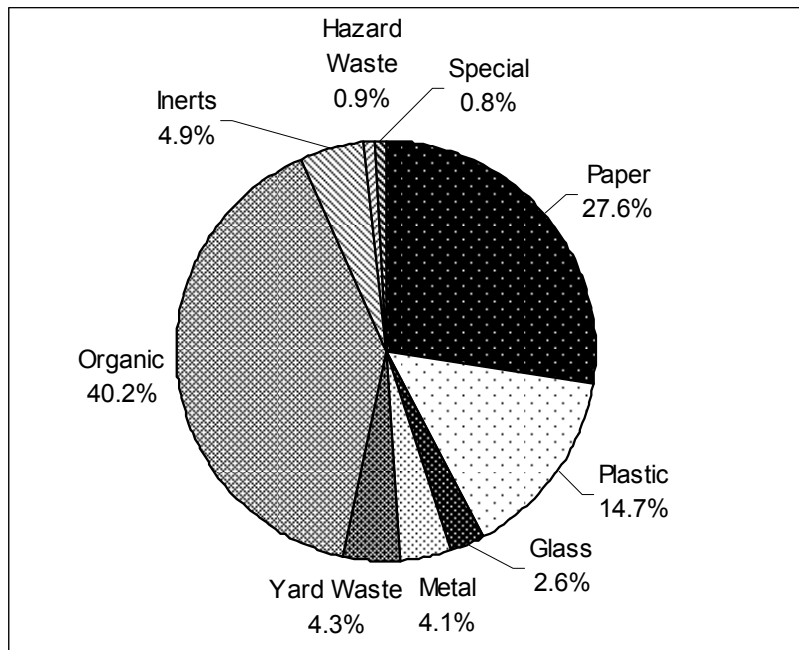
2008 Rank	Material	2008 Mean (%)	2008 Tonnage	2000 Rank	
1	Food Waste	25.9%	34,185	1	AB
2	Compostable/Other Paper	18.0%	23,708	2	AB
3	Plastic Bags/Other Film	6.2%	8,185	4	*
4	Textiles and Leather	6.1%	8,071	8	AB
5	EPB/MRP/Other Plastics	5.1%	6,684	7	*
6	Diapers	4.8%	6,365	10	AB
7	Mixed Recyclable Paper	4.3%	5,693	3	*
8	Recyclable Glass Bottles/Containers	3.3%	4,309	11	
9	Leaves/Grass/Chips	2.7%	3,613	6	
10	Other Inerts	2.7%	3,602	17	AB
11	Other Ferrous	2.4%	3,212	16	
12	Manure/Other Organics	2.5%	3,346	12	*
Total		84.1%	110,974		

Notes: “A” denotes statistically significant change (i.e. 90% confidence intervals do not overlap) in the mean from 2000 to 2008; “B” denotes statistically significant change in the tonnage from 2000 to 2008; * indicates significance of change cannot be directly determined. *Compostable Paper* is included in *Other Paper*; *Mixed Recyclable Paper* includes *Text books, Magazines, and Phone books*; *Other Film* includes *Plastic bags*; *Other Plastics* includes *Expanded Polystyrene Block & Mixed Rigid Plastics*; *Other Organics* includes *Other Rubber*; and *Recyclable Glass Bottles/Containers* includes *CRV Glass, Other Recyclable Glass (ORG)-Clear, and ORG-Color*.

3.2.4 Commercial Waste

Commercial waste is typically more variable than residential waste from load to load, with differing materials depending upon the industry served. The Countywide commercial waste composition classified by major material group is presented as Figure 3-13. The largest portion of this waste stream is represented by Organics and Paper, with a significant amount of Plastics.

Figure 3-13 2008 Countywide Commercial Composition by Major Material Group



90 % Confidence Interval

Material Group	Tons Disposed	Mean (%)	Lower Bound	Upper Bound
Paper	65,484	27.6%	26.7%	28.6%
Plastic	34,936	14.7%	14.3%	15.2%
Glass	6,141	2.6%	2.4%	2.9%
Metal	9,624	4.1%	3.8%	4.4%
Yard Waste	10,242	4.3%	3.9%	4.8%
Organic	95,309	40.2%	39.0%	41.4%
Inerts	11,521	4.9%	4.4%	5.5%
Hazard Waste	2,194	0.9%	0.8%	1.1%
Special	1,865	0.8%	0.6%	1.0%
TOTAL	237,315	100.0%		

Detailed characterization results for Countywide commercial waste are presented as Table 3-7.

**Table 3-7
2008 Countywide Commercial Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		65,484	27.6%	26.7%	28.6%
	1 Uncoated Corrugated Cardboard	4,968	2.1%	1.9%	2.3%
	2 High Grade Paper	2,734	1.2%	1.0%	1.3%
	3 Newspaper	2,093	0.9%	0.8%	1.0%
	4 Mixed Recyclable Paper	10,132	4.3%	3.9%	4.7%
	5 Compostable Paper	42,789	18.0%	17.3%	18.8%
	6 Other Paper	2,769	1.2%	1.1%	1.3%
Plastics		34,936	14.7%	14.3%	15.2%
	7 HDPE Bottles (#2)	1,438	0.6%	0.6%	0.7%
	8 PETE Bottles (#1)	1,374	0.6%	0.5%	0.6%
	9 Other Plastic Containers	1,852	0.8%	0.7%	0.8%
	10 Plastic Bags	2,565	1.1%	1.0%	1.2%
	11 Other Film	15,213	6.4%	6.1%	6.7%
	12 Expanded Polystyrene Blocks	454	0.2%	0.2%	0.2%
	13 Mixed Rigid Plastics	8,524	3.6%	3.4%	3.8%
	14 Other Plastics	3,517	1.5%	1.4%	1.6%
Glass		6,141	2.6%	2.4%	2.9%
	15 Recyclable Glass Bottles/Containers	4,473	1.9%	1.7%	2.1%
	16 Other Glass	1,668	0.7%	0.6%	0.9%
Metals		9,624	4.1%	3.8%	4.4%
	17 Aluminum Cans	454	0.2%	0.2%	0.2%
	18 Other Non-Ferrous	1,279	0.5%	0.5%	0.6%
	19 Steel Food and Beverage Cans	1,758	0.7%	0.7%	0.8%
	20 Other Ferrous	5,896	2.5%	2.2%	2.8%
	21 White Goods	236	0.1%	0.0%	0.2%
Yard Waste		10,242	4.3%	3.9%	4.8%
	22 Leaves/Grass/Chips	7,232	3.0%	2.7%	3.5%
	23 Branches/Stumps/Prunings/Trimmings	3,010	1.3%	1.1%	1.5%
Organics		95,309	40.2%	39.0%	41.4%
	24 Food Waste	62,023	26.1%	24.9%	27.5%
	25 Tires	473	0.2%	0.2%	0.3%
	26 Untreated Lumber	5,070	2.1%	1.8%	2.5%
	27 Pallets	2,253	0.9%	0.8%	1.2%
	28 Treated Wood Waste	7,355	3.1%	2.7%	3.6%
	29 Textiles and Leather	7,292	3.1%	2.8%	3.4%
	30 Carpet	1,558	0.7%	0.5%	0.9%
	31 Diapers	5,172	2.2%	2.0%	2.5%
	32 Manure	1,307	0.6%	0.5%	0.7%
	33 Other Organics	2,806	1.2%	1.1%	1.3%
Inerts		11,521	4.9%	4.4%	5.5%
	34 Crushable Inerts	4,926	2.1%	1.8%	2.5%
	35 Other Inerts	4,897	2.1%	1.9%	2.3%
	36 Gypsum Board	1,169	0.5%	0.4%	0.7%
	37 Asphalt Roofing	528	0.2%	0.2%	0.3%
HHW		2,194	0.9%	0.8%	1.1%
	38 Paint/Adhesives	201	0.1%	0.1%	0.1%
	39 Vehicle & Equipment Fluids	103	0.0%	0.0%	0.1%
	40 Universal Hazardous Waste	124	0.1%	0.0%	0.1%
	41 Medical Waste	158	0.1%	0.1%	0.1%
	42 Medicine	65	0.0%	0.0%	0.0%
	43 Covered E-Waste	343	0.1%	0.1%	0.2%
	44 Other E-Waste	1,041	0.4%	0.4%	0.6%
	45 Other Hazardous Waste	159	0.1%	0.0%	0.1%
Special		1,865	0.8%	0.6%	1.0%
	46 Brown Goods	538	0.2%	0.2%	0.3%
	47 Composite Bulky Items	1,114	0.5%	0.4%	0.6%
	48 Other Special Waste	213	0.1%	0.1%	0.1%
TOTAL		237,315	100.0%		

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The historic comparison of Countywide commercial waste is presented as Figure 3-14. The overall annual amount of commercial waste within the County has decreased by 33 percent since 2000. The most notably downward trends were Paper, Metals, and Special Waste, while upward trends (based on the mean) include Organics and Inerts. Other major material categories remained relatively unchanged.

Figure 3-14 Historic Comparison of Countywide Commercial Composition

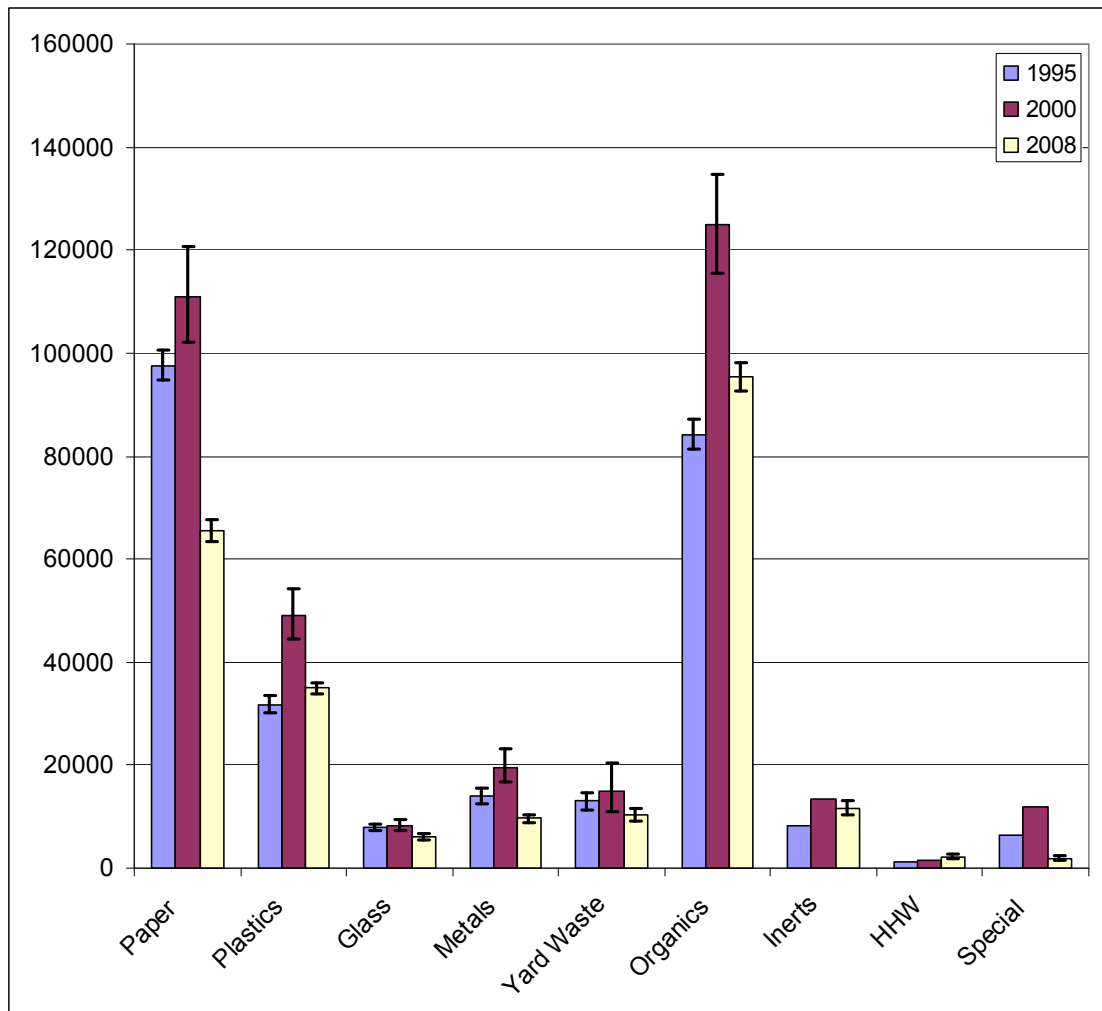


Table 3-8 presents a detailed historic comparison of the commercial waste means and resulting weights of each specific material category from the 1995, 2000, and 2008 studies.

Figure 3-15 presents the most common materials by percentage within the 2000 Countywide commercial waste stream and compares the amount of equivalent material in previous studies, while Figure 3-16 identifies the 2008 most prevalent materials and compares the results of previous studies.

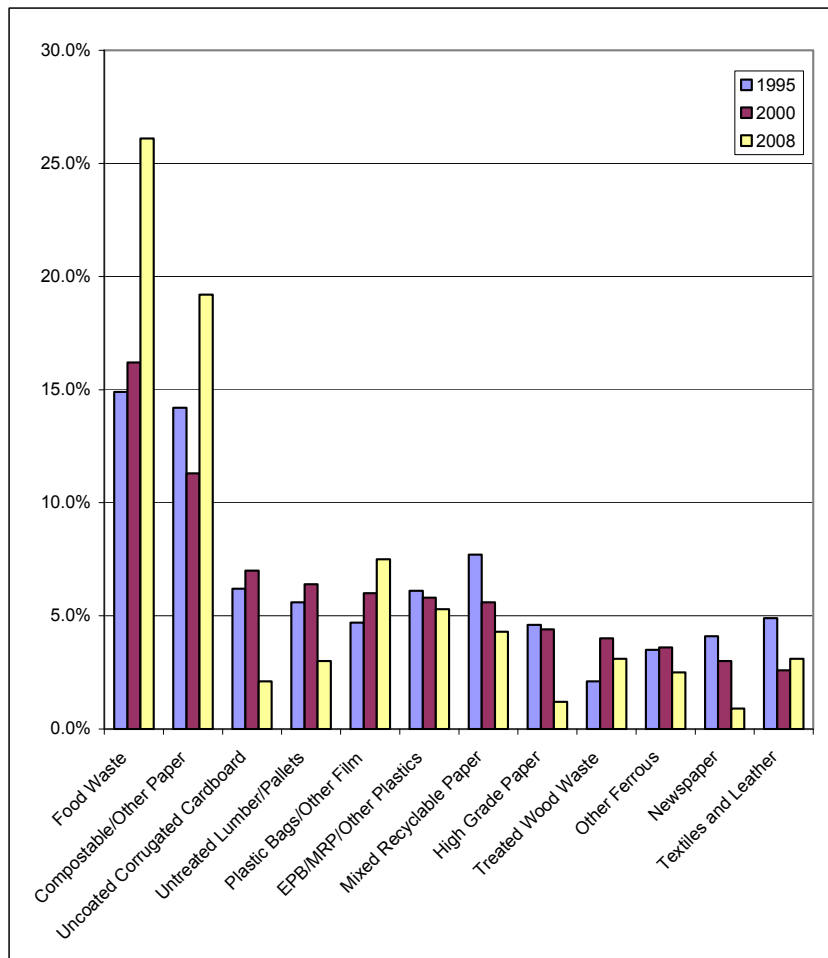
Table 3-8
Countywide Commercial Detailed Historical Comparison

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
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
TOTAL		100.0%	100.0%	100.0%	264,535	354,397	237,315

Note: see Section 2.4 for a complete description of changes to material categories.

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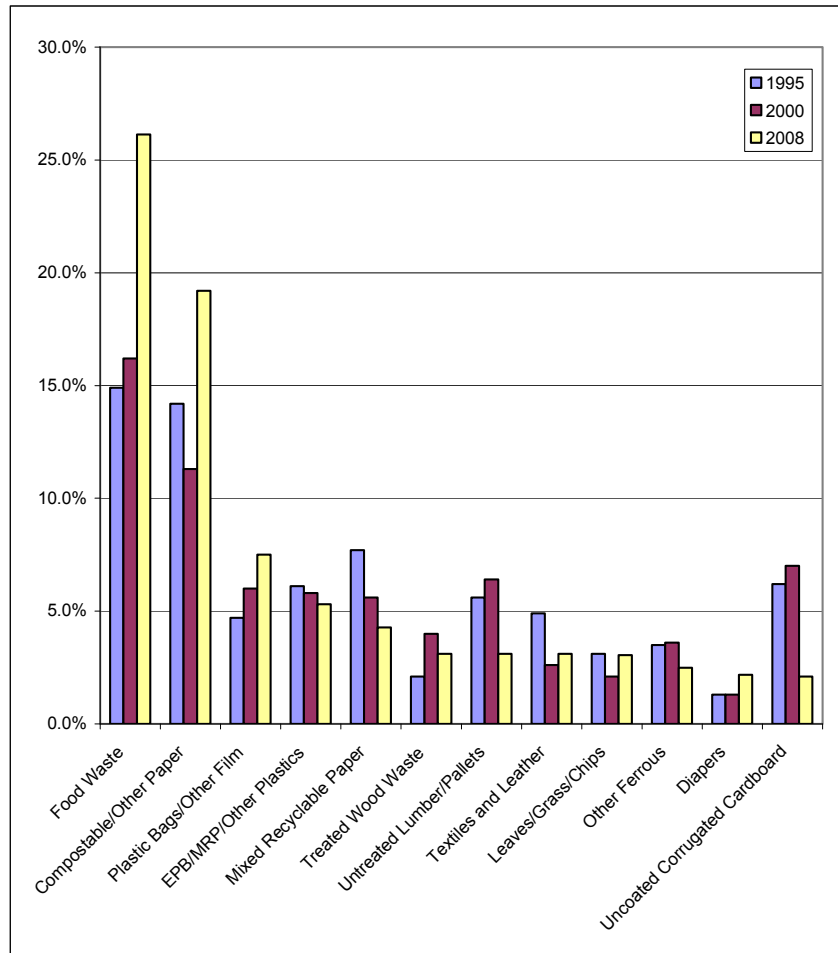
Figure 3-15 Comparison of 2000 Most Common Materials – Countywide Commercial



2000 Rank	Material	2000 Mean (%)	2000 Tonnage	2008 Rank	
1	Food Waste	16.2%	57,429	1	A
2	Compostable/Other Paper	11.3%	39,979	2	*
3	Uncoated Corrugated Cardboard	7.0%	24,827	12	AB
4	Untreated Lumber/Pallets	6.4%	22,624	7	AB
5	Plastic Bags/Other Film	6.0%	21,276	3	*
6	EPB/MRP/Other Plastics	5.8%	20,453	4	*
7	Mixed Recyclable Paper	5.6%	19,826	5	*
8	High Grade Paper	4.4%	15,566	15	AB
9	Treated Wood Waste	4.0%	14,134	6	B
10	Other Ferrous	3.6%	12,589	10	AB
11	Newspaper	3.0%	10,776	16	AB
12	Textiles and Leather	2.6%	9,247	8	
Total		75.9%	268,726		

Notes: "A" denotes statistically significant change (i.e. 90% confidence intervals do not overlap) in the mean from 2000 to 2008; "B" denotes statistically significant change in the tonnage from 2000 to 2008; * indicates significance of change cannot be directly determined. *Compostable Paper* is included in *Other Paper*; *Mixed Recyclable Paper* includes *Text books, Magazines, and Phone books*; *Other Film* includes *Plastic bags*; *Other Plastics* includes *Expanded Polystyrene Block & Mixed Rigid Plastics*; *Other Organics* includes *Other Rubber*; and *Recyclable Glass Bottles/Containers* includes *CRV Glass, Other Recyclable Glass (ORG)-Clear, and ORG-Color*.

Figure 3-16 Comparison of 2008 Most Common Materials – Countywide Commercial



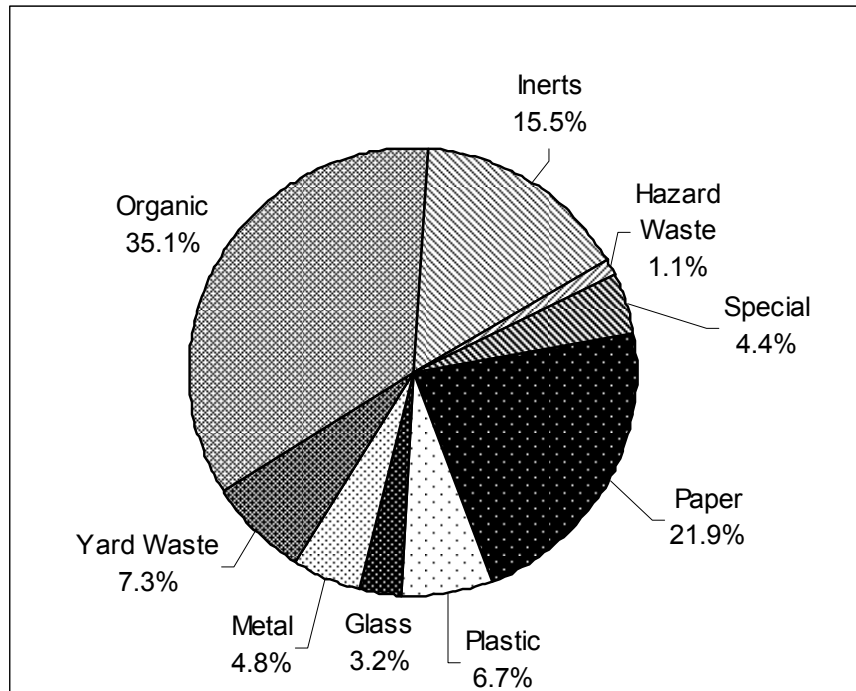
2008 Rank	Material	2008 Mean (%)	2008 Tonnage	2000 Rank	
1	Food Waste	26.1%	62,023	1	A
2	Compostable/Other Paper	19.2%	45,558	2	*
3	Plastic Bags/Other Film	7.5%	17,778	5	*
4	EPB/MRP/Other Plastics	5.3%	12,495	6	*
5	Mixed Recyclable Paper	4.3%	10,132	7	*
6	Treated Wood Waste	3.1%	7,355	9	B
7	Untreated Lumber/Pallets	3.1%	7,323	4	AB
8	Textiles and Leather	3.1%	7,292	12	
9	Leaves/Grass/Chips	3.0%	7,232	15	
10	Other Ferrous	2.5%	5,896	10	AB
11	Diapers	2.2%	5,172	21	A
12	Uncoated Corrugated Cardboard	2.1%	4,968	3	AB
Total		81.5%	193,223		

Notes: “A” denotes statistically significant change (i.e. 90% confidence intervals do not overlap) in the mean from 2000 to 2008; “B” denotes statistically significant change in the tonnage from 2000 to 2008; * indicates significance of change cannot be directly determined. *Compostable Paper* is included in *Other Paper*; *Mixed Recyclable Paper* includes *Text books, Magazines, and Phone books*; *Other Film* includes *Plastic bags*; *Other Plastics* includes *Expanded Polystyrene Block & Mixed Rigid Plastics*; *Other Organics* includes *Other Rubber*; *Recyclable Glass Bottles/Containers* includes *CRV Glass, Other Recyclable Glass (ORG)-Clear, and ORG-Color*; and *Untreated Lumber* includes *Pallets*.

3.2.5 Roll-Off Container Waste

Waste delivered within roll-off containers accounts for about 23 percent of the overall Countywide waste stream and can come from a variety of generator types and industries. This waste stream is highly variable from load to load, but materials within each load are often relatively homogeneous. Figure 3-17 presents the roll-off composition profile by major material group. The largest portion of the overall waste stream is represented by Organics and Paper, with a significant amount of Inerts.

Figure 3-17 2008 Countywide Roll-off Composition by Major Material Group



90 % Confidence Interval

Material Group	Tons Disposed	Mean (%)	Lower Bound	Upper Bound
Paper	59,791	21.9%	20.1%	23.9%
Plastic	18,439	6.7%	6.1%	7.5%
Glass	8,710	3.2%	2.7%	3.9%
Metal	13,216	4.8%	4.3%	5.5%
Yard Waste	19,861	7.3%	6.2%	8.7%
Organic	96,049	35.1%	32.5%	37.9%
Inerts	42,468	15.5%	13.5%	18.0%
Hazard Waste	2,944	1.1%	0.8%	1.4%
Special	11,943	4.4%	3.5%	5.5%
TOTAL	273,420	100.0%		

Table 3-9 presents detailed characterization results for Countywide roll-off waste.

Table 3-9
2008 Countywide Roll-Off Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		59,791	21.9%	20.1%	23.9%
	1 Uncoated Corrugated Cardboard	18,756	6.9%	6.1%	7.8%
	2 High Grade Paper	7,533	2.8%	2.3%	3.3%
	3 Newspaper	1,887	0.7%	0.5%	0.9%
	4 Mixed Recyclable Paper	19,250	7.0%	6.2%	8.1%
	5 Compostable Paper	5,470	2.0%	1.8%	2.3%
	6 Other Paper	6,894	2.5%	2.0%	3.2%
Plastics		18,439	6.7%	6.1%	7.5%
	7 HDPE Bottles (#2)	238	0.1%	0.1%	0.1%
	8 PETE Bottles (#1)	329	0.1%	0.1%	0.1%
	9 Other Plastic Containers	161	0.1%	0.0%	0.1%
	10 Plastic Bags	217	0.1%	0.1%	0.1%
	11 Other Film	9,576	3.5%	3.1%	4.0%
	12 Expanded Polystyrene Blocks	417	0.2%	0.1%	0.2%
	13 Mixed Rigid Plastics	4,182	1.5%	1.3%	1.9%
	14 Other Plastics	3,319	1.2%	1.0%	1.4%
Glass		8,710	3.2%	2.7%	3.9%
	15 Recyclable Glass Bottles/Containers	3,304	1.2%	1.0%	1.5%
	16 Other Glass	5,406	2.0%	1.5%	2.6%
Metals		13,216	4.8%	4.3%	5.5%
	17 Aluminum Cans	308	0.1%	0.1%	0.1%
	18 Other Non-Ferrous	981	0.4%	0.2%	0.5%
	19 Steel Food and Beverage Cans	233	0.1%	0.1%	0.1%
	20 Other Ferrous	11,473	4.2%	3.7%	4.9%
	21 White Goods	221	0.1%	0.1%	0.1%
Yard Waste		19,861	7.3%	6.2%	8.7%
	22 Leaves/Grass/Chips	9,628	3.5%	2.9%	4.4%
	23 Branches/Stumps/Prunings/Trimmings	10,233	3.7%	3.2%	4.6%
Organics		96,049	35.1%	32.5%	37.9%
	24 Food Waste	31,571	11.5%	9.8%	13.8%
	25 Tires	385	0.1%	0.1%	0.2%
	26 Untreated Lumber	9,567	3.5%	3.0%	4.1%
	27 Pallets	22,372	8.2%	7.1%	9.6%
	28 Treated Wood Waste	17,088	6.2%	5.4%	7.3%
	29 Textiles and Leather	6,267	2.3%	1.8%	2.9%
	30 Carpet	2,393	0.9%	0.7%	1.2%
	31 Diapers	302	0.1%	0.1%	0.2%
	32 Manure	229	0.1%	0.0%	0.5%
	33 Other Organics	5,873	2.1%	1.8%	2.7%
Inerts		42,468	15.5%	13.5%	18.0%
	34 Crushable Inerts	12,734	4.7%	4.0%	5.5%
	35 Other Inerts	18,167	6.6%	5.5%	8.1%
	36 Gypsum Board	7,396	2.7%	2.2%	3.5%
	37 Asphalt Roofing	4,171	1.5%	1.1%	2.1%
HHW		2,944	1.1%	0.8%	1.4%
	38 Paint/Adhesives	409	0.1%	0.1%	0.2%
	39 Vehicle & Equipment Fluids	0	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	947	0.3%	0.2%	0.5%
	41 Medical Waste	203	0.1%	0.1%	0.1%
	42 Medicine	0	0.0%	0.0%	0.0%
	43 Covered E-Waste	235	0.1%	0.1%	0.1%
	44 Other E-Waste	749	0.3%	0.2%	0.4%
	45 Other Hazardous Waste	402	0.1%	0.1%	0.3%
Special		11,943	4.4%	3.5%	5.5%
	46 Brown Goods	414	0.2%	0.1%	0.2%
	47 Composite Bulky Items	11,529	4.2%	3.4%	5.4%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		273,420	100.0%		

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Figure 3-18 presents the historic comparison of major waste materials within roll-off container waste. The 90 percent confidence bounds are shown with error bars. Annual roll-off waste quantities have decreased by 33 percent since 2000. Paper, Glass, and Yard Waste percentages have each increased during the last eight years, while Plastics, Metals, and Special Waste have significantly decreased. While total Organics have remained relatively constant, by percentage, the amount of untreated wood has decreased substantially while the quantity of food waste has increased.

Figure 3-18 Historic Comparison of Countywide Roll-Off Composition

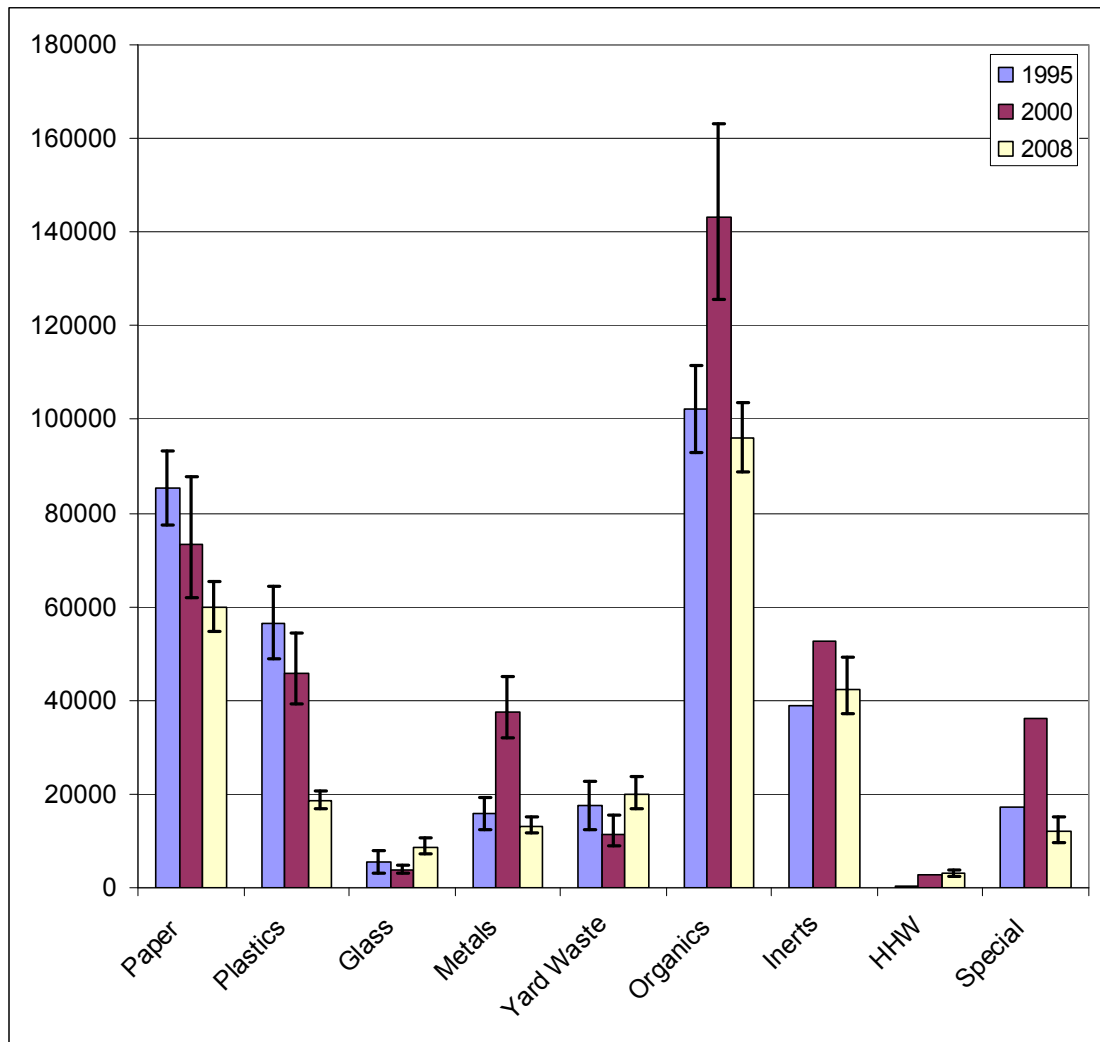


Table 3-10 presents a detailed historic comparison of the Countywide roll-off waste means and weights of each category for 1995, 2000, and 2008 studies.

Figure 3-19 compares the most common materials by percentage within the 2000 Countywide roll-off waste stream with that of previous studies, while Figure 3-20 identifies the 2008 most prevalent materials for comparison.

Table 3-11 presents roll-off waste compositions for each generator type. Any load identified as construction, whether from residential or commercial sectors, was included as construction.

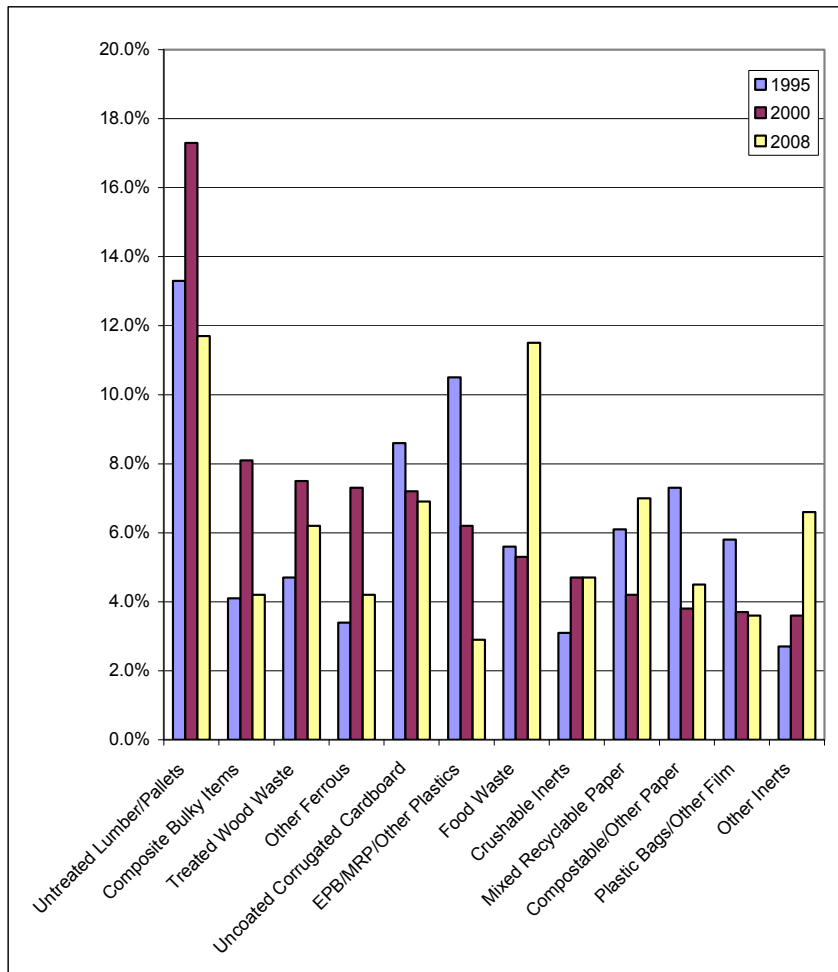
**Table 3-10
Countywide Roll-Off Waste Detailed Historical Comparison**

Material Group	Material	Mean Comparison			Weight Comparison (tons)		
		1995	2000	2008	1995	2000	2008
Paper		25.1%	18.0%	21.9%	85,265	73,322	59,791
	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
Plastics		16.7%	11.3%	6.7%	56,532	45,879	18,439
	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
Glass		1.6%	0.9%	3.2%	5,397	3,728	8,710
	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
Metals		4.7%	9.2%	4.8%	15,801	37,365	13,216
	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
Yard Waste		5.2%	2.8%	7.3%	17,539	11,388	19,861
	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
Organics		30.1%	35.2%	35.1%	102,184	143,255	96,049
	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
Inerts		11.5%	13.0%	15.5%	39,056	52,650	42,468
	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
HHW		0.1%	0.7%	1.1%	343	2,785	2,944
	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
Special		5.0%	8.9%	4.4%	17,127	36,095	11,943
	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
TOTAL		100.0%	100.0%	100.0%	339,245	406,468	273,420

Note: see Section 2.4 for a complete description of changes to material categories.

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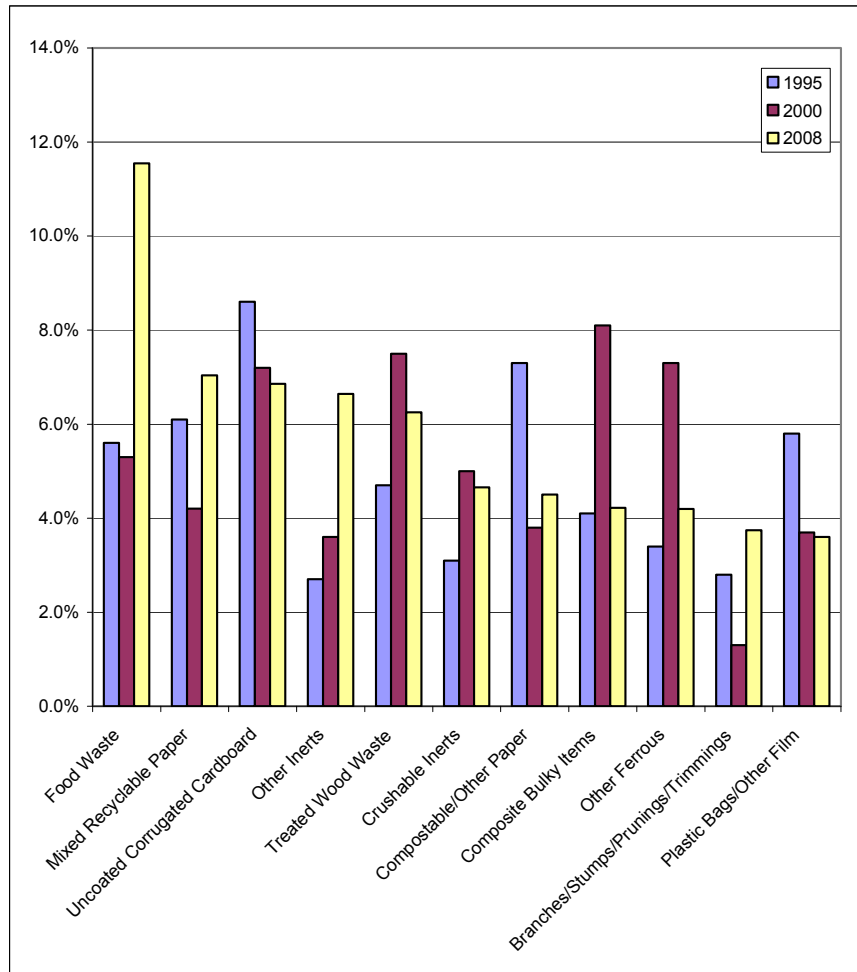
Figure 3-19 Comparison of 2000 Most Common Materials – Countywide Roll-off Waste



2000 Rank	Material	2000 Mean (%)	2000 Tonnage	2008 Rank	
1	Untreated Lumber/Pallets	17.3%	70,232	1	AB
2	Composite Bulky Items	8.1%	32,915	9	AB
3	Treated Wood Waste	7.5%	30,335	6	B
4	Other Ferrous	7.3%	29,711	10	AB
5	Uncoated Corrugated Cardboard	7.2%	29,412	4	B
6	EPB/MRP/Other Plastics	6.2%	25,216	15	AB
7	Food Waste	5.3%	21,708	2	A
8	Crushable Inerts	4.7%	20,160	7	B
9	Mixed Recyclable Paper	4.2%	17,073	3	*
10	Compostable/Other Paper	3.8%	15,298	8	*
11	Plastic Bags/Other Film	3.7%	14,894	12	*
12	Other Inerts	3.6%	14,507	5	A
Total		78.9%	321,461		

Notes: “A” denotes statistically significant change (i.e. 90% confidence intervals do not overlap) in the mean from 2000 to 2008; “B” denotes statistically significant change in the tonnage from 2000 to 2008; * indicates significance of change cannot be directly determined. *Compostable Paper* is included in *Other Paper*; *Mixed Recyclable Paper* includes *Text books, Magazines, and Phone books*; *Other Film* includes *Plastic bags*; *Other Plastics* includes *Expanded Polystyrene Block & Mixed Rigid Plastics*; and *Untreated Lumber* includes *Pallets*.

Figure 3-20 Comparison of 2008 Most Common Materials – Countywide Roll-off Waste



2008 Rank	Material	2008 Mean (%)	2008 Tonnage	2000 Rank	
1	Untreated Lumber/Pallets	11.7%	31,939	1	B
2	Food Waste	11.5%	31,571	7	A
3	Mixed Recyclable Paper	7.0%	19,250	9	*
4	Uncoated Corrugated Cardboard	6.9%	18,756	5	B
5	Other Inerts	6.6%	18,167	12	A
6	Treated Wood Waste	6.2%	17,088	3	B
7	Crushable Inerts	4.7%	12,734	8	B
8	Compostable/Other Paper	4.5%	12,364	10	
9	Composite Bulky Items	4.2%	11,529	2	AB
10	Other Ferrous	4.2%	11,473	4	AB
11	Branches/Stumps/Prunings/Trimblings	3.7%	10,233	19	*
12	Plastic Bags/Other Film	3.6%	9,793	11	
Total		75.0%	204,898		

Notes: “A” denotes statistically significant change (i.e. 90% confidence intervals do not overlap) in the mean from 2000 to 2008; “B” denotes statistically significant change in the tonnage from 2000 to 2008; * indicates significance of change cannot be directly determined. *Compostable Paper* is included in *Other Paper*; *Mixed Recyclable Paper* includes *Text books, Magazines, and Phone books*; *Other Film* includes *Plastic bags*; and *Untreated Lumber* includes *Pallets*.

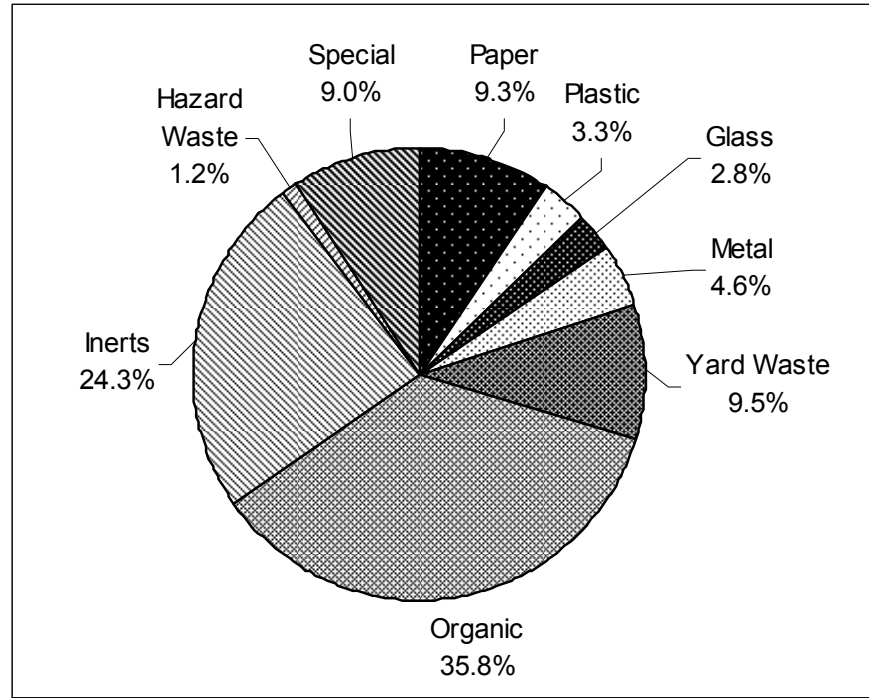
**Table 3-11
Waste Composition of 2008 Countywide Roll-off Loads by Generator Sector**

Material Group	Material	Residential	Commercial	Construction	Manufacturing
Paper		10.3%	23.8%	2.0%	28.7%
	1 Uncoated Corrugated Cardboard	1.9%	7.6%	0.9%	9.0%
	2 High Grade Paper	0.3%	3.1%	0.3%	4.6%
	3 Newspaper	0.9%	0.7%	0.3%	1.0%
	4 Mixed Recyclable Paper	6.5%	7.7%	0.2%	4.3%
	5 Compostable Paper	0.5%	2.1%	0.1%	2.3%
	6 Other Paper	0.1%	2.5%	0.2%	7.6%
Plastics		3.0%	7.2%	0.6%	8.5%
	7 HDPE Bottles (#2)	0.0%	0.1%	0.0%	0.1%
	8 PETE Bottles (#1)	0.1%	0.1%	0.0%	0.1%
	9 Other Plastic Containers	0.0%	0.1%	0.0%	0.0%
	10 Plastic Bags	0.1%	0.1%	0.0%	0.1%
	11 Other Film	2.2%	3.5%	0.1%	4.8%
	12 Expanded Polystyrene Blocks	0.0%	0.2%	0.0%	0.0%
	13 Mixed Rigid Plastics	0.6%	1.7%	0.3%	1.7%
	14 Other Plastics	0.1%	1.4%	0.2%	1.7%
Glass		3.7%	2.8%	9.3%	3.9%
	15 Recyclable Glass Bottles/Containers	3.0%	1.0%	0.1%	1.5%
	16 Other Glass	0.7%	1.7%	9.2%	2.4%
Metals		6.2%	4.8%	6.1%	2.1%
	17 Aluminum Cans	0.0%	0.1%	0.0%	0.1%
	18 Other Non-Ferrous	0.2%	0.4%	0.3%	0.1%
	19 Steel Food and Beverage Cans	0.1%	0.1%	0.0%	0.1%
	20 Other Ferrous	5.8%	4.1%	5.7%	1.8%
	21 White Goods	0.0%	0.1%	0.0%	0.0%
Yard Waste		11.9%	7.0%	2.5%	8.0%
	22 Leaves/Grass/Chips	3.5%	3.3%	1.9%	7.7%
	23 Branches/Stumps/Prunings/Trimmings	8.4%	3.7%	0.6%	0.3%
Organics		33.4%	35.6%	20.5%	38.3%
	24 Food Waste	9.4%	13.0%	0.0%	10.5%
	25 Tires	0.2%	0.2%	0.0%	0.0%
	26 Untreated Lumber	4.6%	3.0%	4.1%	6.9%
	27 Pallets	2.9%	9.3%	3.8%	8.7%
	28 Treated Wood Waste	12.1%	5.9%	9.1%	1.0%
	29 Textiles and Leather	2.5%	2.2%	0.4%	4.3%
	30 Carpet	1.0%	0.7%	3.0%	1.8%
	31 Diapers	0.2%	0.1%	0.0%	0.0%
	32 Manure	0.0%	0.1%	0.0%	0.1%
	33 Other Organics	0.3%	1.3%	0.0%	4.9%
Inerts		16.0%	14.0%	57.9%	8.4%
	34 Crushable Inerts	7.9%	4.2%	15.1%	0.9%
	35 Other Inerts	1.8%	6.8%	28.8%	2.1%
	36 Gypsum Board	0.5%	2.5%	8.8%	1.6%
	37 Asphalt Roofing	5.8%	0.5%	5.1%	3.8%
HHW		1.6%	1.2%	0.0%	0.2%
	38 Paint/Adhesives	0.0%	0.2%	0.0%	0.0%
	39 Vehicle & Equipment Fluids	0.0%	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	0.2%	0.4%	0.0%	0.1%
	41 Medical Waste	0.0%	0.1%	0.0%	0.0%
	42 Medicine	0.0%	0.0%	0.0%	0.0%
	43 Covered E-Waste	0.1%	0.1%	0.0%	0.0%
	44 Other E-Waste	1.3%	0.2%	0.0%	0.1%
	45 Other Hazardous Waste	0.0%	0.2%	0.0%	0.0%
Special		14.0%	3.7%	1.1%	1.8%
	46 Brown Goods	0.4%	0.1%	0.2%	0.1%
	47 Composite Bulky Items	13.6%	3.5%	0.8%	1.8%
	48 Other Special Waste	0.0%	0.0%	0.0%	0.0%
TOTAL		100.0%	100.0%	100.0%	100.0%

3.2.6 Self-Haul Waste

Self-haul waste represents 23 percent of the overall Countywide waste stream and can come from a variety of generator types and industries. Similar to roll-off waste, self-haul waste is typically homogeneous from load to load. Figure 3-21 presents the self-haul composition profile by major material group. The largest portion of the overall waste stream is represented by Organics and Inerts, with a significant amount of Paper, Special Waste, and Yard Waste.

Figure 3-21 2008 Countywide Self-Haul Composition by Major Material Group



90 % Confidence Interval

Material Group	Tons Disposed	Mean (%)	Lower Bound	Upper Bound
Paper	25,167	9.3%	8.4%	10.4%
Plastic	8,978	3.3%	3.0%	3.7%
Glass	7,577	2.8%	2.4%	3.3%
Metal	12,337	4.6%	4.1%	5.1%
Yard Waste	25,692	9.5%	8.3%	11.1%
Organic	96,330	35.8%	33.4%	38.3%
Inerts	65,484	24.3%	21.9%	27.0%
Hazard Waste	3,317	1.2%	1.1%	1.5%
Special	24,331	9.0%	7.9%	10.5%
TOTAL	269,213	100.0%		

Table 3-12 presents detailed characterization results for Countywide self-haul waste.

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**Table 3-12
2008 Countywide Self-Haul Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		25,167	9.3%	8.4%	10.4%
	1 Uncoated Corrugated Cardboard	9,741	3.6%	3.2%	4.1%
	2 High Grade Paper	2,358	0.9%	0.8%	1.0%
	3 Newspaper	1,142	0.4%	0.4%	0.5%
	4 Mixed Recyclable Paper	9,411	3.5%	3.1%	4.1%
	5 Compostable Paper	885	0.3%	0.3%	0.4%
	6 Other Paper	1,629	0.6%	0.5%	0.7%
Plastics		8,978	3.3%	3.0%	3.7%
	7 HDPE Bottles (#2)	53	0.0%	0.0%	0.0%
	8 PETE Bottles (#1)	144	0.1%	0.0%	0.1%
	9 Other Plastic Containers	177	0.1%	0.1%	0.1%
	10 Plastic Bags	172	0.1%	0.1%	0.1%
	11 Other Film	3,400	1.3%	1.1%	1.4%
	12 Expanded Polystyrene Blocks	807	0.3%	0.2%	0.4%
	13 Mixed Rigid Plastics	2,884	1.1%	0.9%	1.2%
	14 Other Plastics	1,340	0.5%	0.4%	0.6%
Glass		7,577	2.8%	2.4%	3.3%
	15 Recyclable Glass Bottles/Containers	1,655	0.6%	0.5%	0.7%
	16 Other Glass	5,922	2.2%	1.9%	2.6%
Metals		12,337	4.6%	4.1%	5.1%
	17 Aluminum Cans	150	0.1%	0.0%	0.1%
	18 Other Non-Ferrous	1,637	0.6%	0.5%	0.7%
	19 Steel Food and Beverage Cans	107	0.0%	0.0%	0.0%
	20 Other Ferrous	9,975	3.7%	3.3%	4.2%
	21 White Goods	467	0.2%	0.1%	0.2%
Yard Waste		25,692	9.5%	8.3%	11.1%
	22 Leaves/Grass/Chips	14,013	5.2%	4.5%	6.2%
	23 Branches/Stumps/Prunings/Trimmings	11,679	4.3%	3.7%	5.2%
Organics		96,330	35.8%	33.4%	38.3%
	24 Food Waste	4,492	1.7%	1.4%	2.0%
	25 Tires	83	0.0%	0.0%	0.0%
	26 Untreated Lumber	16,110	6.0%	5.3%	6.8%
	27 Pallets	2,554	0.9%	0.8%	1.2%
	28 Treated Wood Waste	44,807	16.6%	15.0%	18.6%
	29 Textiles and Leather	12,642	4.7%	4.2%	5.4%
	30 Carpet	11,541	4.3%	3.6%	5.2%
	31 Diapers	109	0.0%	0.0%	0.1%
	32 Manure	71	0.0%	0.0%	0.0%
	33 Other Organics	3,920	1.5%	1.2%	1.7%
Inerts		65,484	24.3%	21.9%	27.0%
	34 Crushable Inerts	27,137	10.1%	8.9%	11.6%
	35 Other Inerts	19,404	7.2%	6.2%	8.4%
	36 Gypsum Board	12,605	4.7%	4.1%	5.4%
	37 Asphalt Roofing	6,338	2.4%	1.9%	2.9%
HHW		3,317	1.2%	1.1%	1.5%
	38 Paint/Adhesives	460	0.2%	0.1%	0.2%
	39 Vehicle & Equipment Fluids	182	0.1%	0.1%	0.1%
	40 Universal Hazardous Waste	737	0.3%	0.2%	0.3%
	41 Medical Waste	0	0.0%	0.0%	0.0%
	42 Medicine	3	0.0%	0.0%	0.0%
	43 Covered E-Waste	716	0.3%	0.2%	0.3%
	44 Other E-Waste	590	0.2%	0.2%	0.3%
	45 Other Hazardous Waste	628	0.2%	0.2%	0.4%
Special		24,331	9.0%	7.9%	10.5%
	46 Brown Goods	1,372	0.5%	0.4%	0.6%
	47 Composite Bulky Items	22,959	8.5%	7.4%	9.9%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		269,213	100.0%		

Figure 3-22 presents the historic comparison of major waste materials within self-haul waste. Annual self-haul waste quantities have decreased by approximately 20 percent since 2000. Increases by mean in Paper, Glass, Organics, and HHW dominate, while notable downward trends include Metals, Yard Waste, and Special Waste.

Figure 3-22 Historic Comparison of Countywide Self-Haul Composition

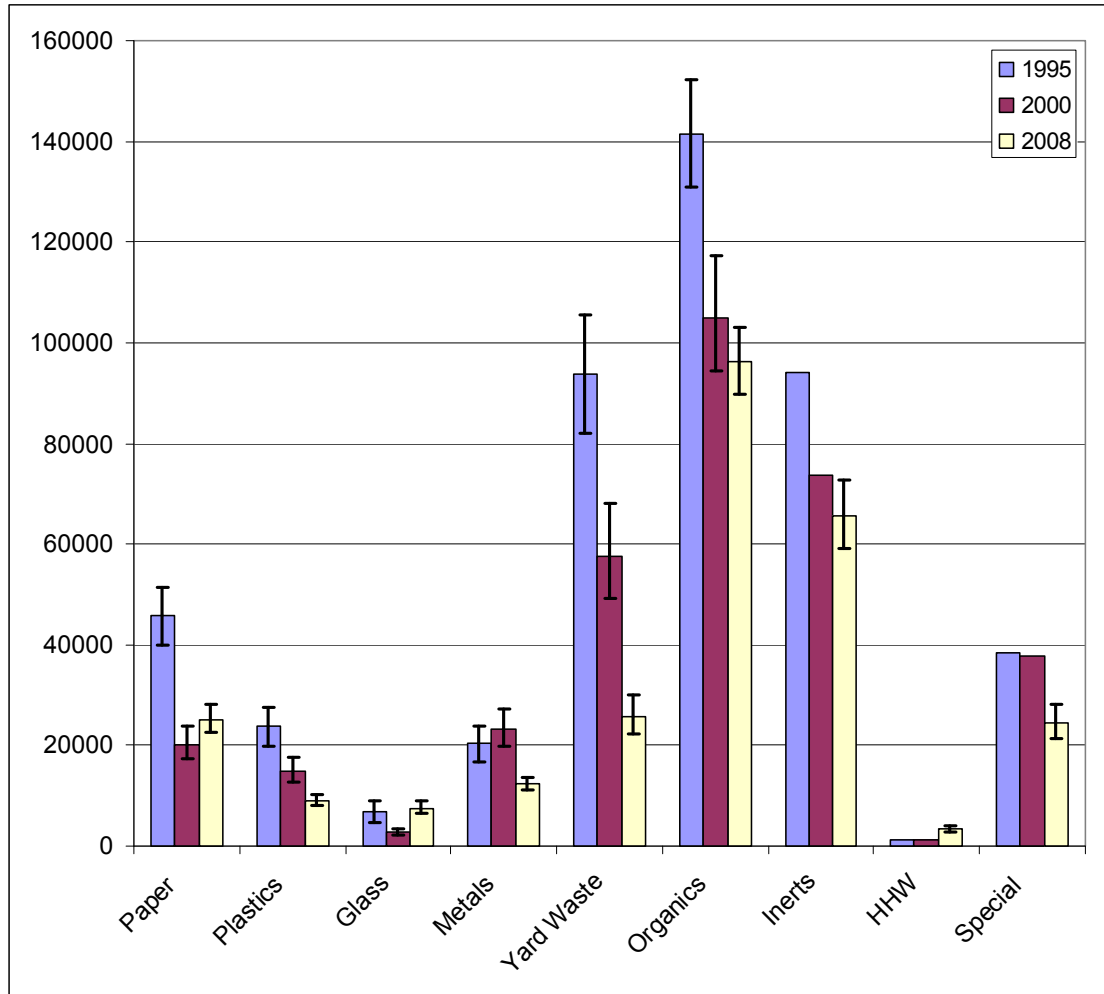


Table 3-13 presents a detailed historic comparison of the Countywide self-haul waste means and resulting weights of each specific material category from the 1995, 2000, and 2008 studies.

Figure 3-23 presents the most common materials by percentage within the 2000 Countywide self-haul waste stream and compares the amount of equivalent material in previous studies, while Figure 3-24 identifies the 2008 most prevalent materials and compares the results of previous studies.

Table 3-14 presents self-haul waste compositions for each generator type. Any load identified as construction, whether from residential or commercial sectors, was included as construction.

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**Table 3-13
Countywide Self-Haul Waste Detailed Historical Comparison**

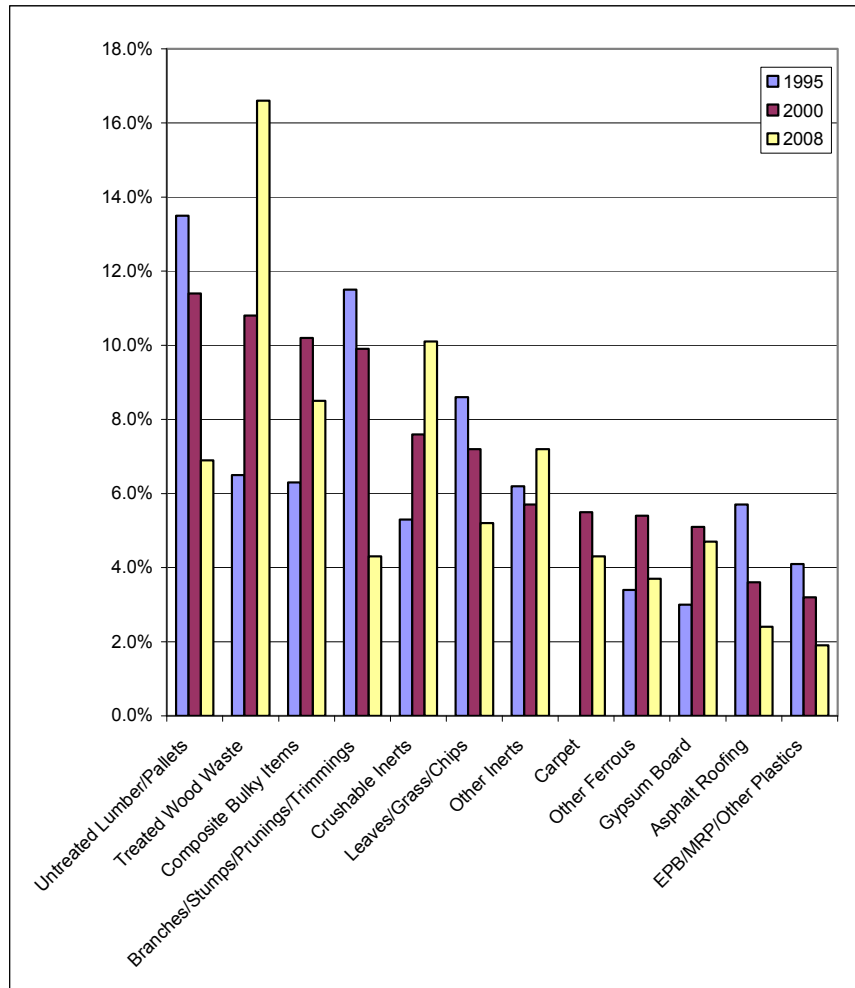
Material Group	Material	Mean Comparison			Weight Comparison (tons)		
		1995	2000	2008	1995	2000	2008
Paper		9.8%	6.0%	9.3%	45,711	20,206	25,167
	1 Uncoated Corrugated Cardboard	2.2%	2.8%	3.6%	10,207	9,249	9,741
	2 High Grade Paper	0.9%	0.6%	0.9%	4,045	1,911	2,358
	3 Newspaper	0.8%	0.4%	0.4%	3,591	1,446	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/Trimmings	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
TOTAL		100.0%	100.0%	100.0%	465,559	336,243	269,213

Note: see Section 2.4 for a complete description of changes to material categories.

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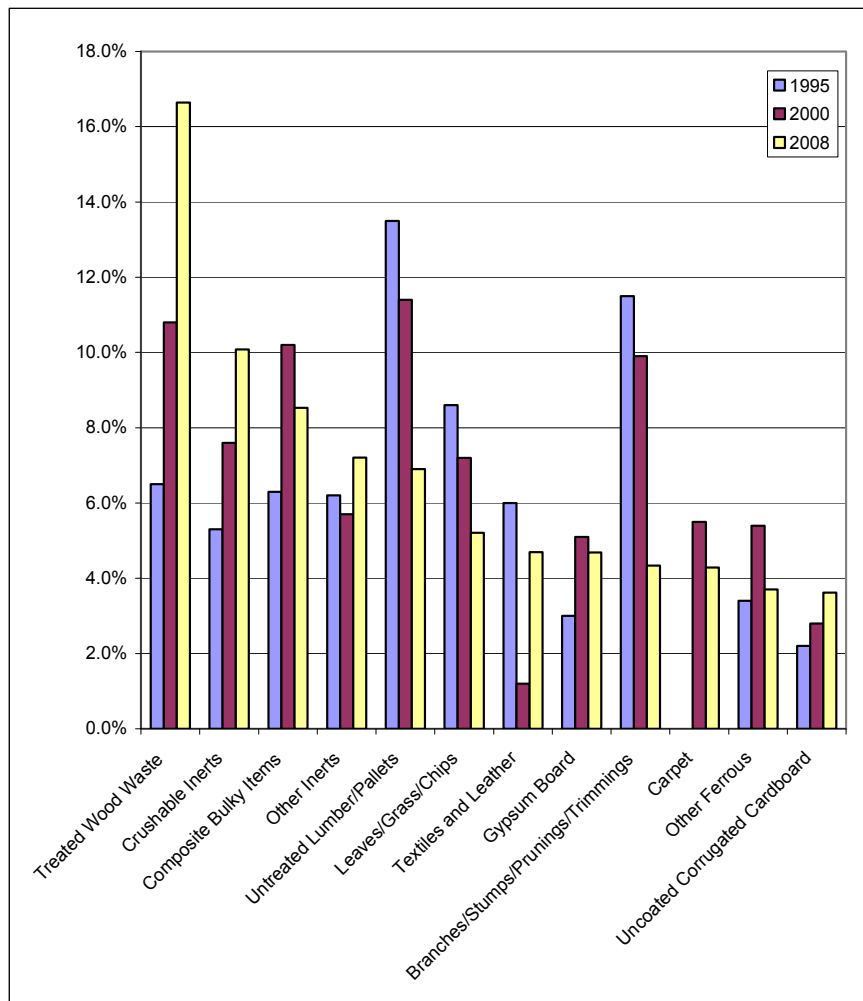
Figure 3-23 Comparison of 2000 Most Common Materials – Countywide Self-Haul Waste



2000 Rank	Material	2000 Mean (%)	2000 Tonnage	2008 Rank	
1	Untreated Lumber/Pallets	11.4%	38,465	5	AB
2	Treated Wood Waste	10.8%	36,442	1	A
3	Composite Bulky Items	10.2%	34,396	3	B
4	Branches/Stumps/Prunings/Trimming	9.9%	33,436	9	AB
5	Crushable Inerts	7.6%	25,449	2	
6	Leaves/Grass/Chips	7.2%	24,256	6	B
7	Other Inerts	5.7%	19,062	4	
8	Carpet	5.5%	18,370	10	B
9	Other Ferrous	5.4%	18,274	11	AB
10	Gypsum Board	5.1%	17,018	8	*
11	Asphalt Roofing	3.6%	12,079	14	B
12	EPB/MRP/Other Plastics	3.2%	10,599	17	*
Total		85.6%	287,846		

Notes: “A” denotes statistically significant change (i.e. 90% confidence intervals do not overlap) in the mean from 2000 to 2008; “B” denotes statistically significant change in the tonnage from 2000 to 2008; * indicates significance of change cannot be directly determined. *Other Plastics* includes *Expanded Polystyrene Block & Mixed Rigid Plastics*; and *Untreated Lumber* includes *Pallets*.

Figure 3-24 Comparison of 2008 Most Common Materials – Countywide Self-Haul Waste



2008 Rank	Material	2008 Mean (%)	2008 Tonnage	2000 Rank	
1	Treated Wood Waste	16.6%	44,807	2	A
2	Crushable Inerts	10.1%	27,137	5	
3	Composite Bulky Items	8.5%	22,959	3	B
4	Other Inerts	7.2%	19,404	7	
5	Untreated Lumber/Pallets	6.9%	18,664	1	AB
6	Leaves/Grass/Chips	5.2%	14,013	6	B
7	Textiles and Leather	4.7%	12,642	14	AB
8	Gypsum Board	4.7%	12,605	10	*
9	Branches/Stumps/Prunings/Trimming	4.3%	11,679	4	B
10	Carpet	4.3%	11,541	8	B
11	Other Ferrous	3.7%	9,975	9	AB
12	Uncoated Corrugated Cardboard	3.6%	9,741	13	
Total		79.9%	215,168		

Notes: “A” denotes statistically significant change (i.e. 90% confidence intervals do not overlap) in the mean from 2000 to 2008; “B” denotes statistically significant change in the tonnage from 2000 to 2008; * indicates significance of change cannot be directly determined. *Untreated Lumber* includes *Pallets*.

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**Table 3-14
Waste Composition of 2008 Countywide Self-Haul Loads by Generator Sector**

Material Group	Material	Residential	Commercial	Construction	Manufacturing
Paper		7.4%	13.0%	4.1%	29.8%
	1 Uncoated Corrugated Cardboard	3.3%	5.1%	1.4%	5.7%
	2 High Grade Paper	0.3%	1.6%	0.1%	9.0%
	3 Newspaper	0.3%	0.6%	0.3%	0.0%
	4 Mixed Recyclable Paper	2.8%	5.1%	1.6%	0.0%
	5 Compostable Paper	0.3%	0.4%	0.1%	0.0%
	6 Other Paper	0.3%	0.1%	0.6%	15.0%
Plastics		2.5%	12.0%	1.4%	3.7%
	7 HDPE Bottles (#2)	0.0%	0.0%	0.0%	0.0%
	8 PETE Bottles (#1)	0.0%	0.1%	0.0%	0.1%
	9 Other Plastic Containers	0.0%	0.3%	0.0%	0.0%
	10 Plastic Bags	0.1%	0.1%	0.0%	0.0%
	11 Other Film	0.8%	3.6%	0.5%	1.4%
	12 Expanded Polystyrene Blocks	0.0%	4.4%	0.0%	0.1%
	13 Mixed Rigid Plastics	1.1%	1.9%	0.3%	0.0%
	14 Other Plastics	0.4%	1.6%	0.5%	2.1%
Glass		2.7%	2.5%	1.6%	0.0%
	15 Recyclable Glass Bottles/Containers	0.6%	0.5%	0.2%	0.0%
	16 Other Glass	2.1%	2.0%	1.4%	0.0%
Metals		5.1%	4.1%	2.3%	0.5%
	17 Aluminum Cans	0.1%	0.1%	0.0%	0.0%
	18 Other Non-Ferrous	0.6%	0.4%	0.5%	0.0%
	19 Steel Food and Beverage Cans	0.1%	0.0%	0.0%	0.0%
	20 Other Ferrous	4.2%	3.1%	1.9%	0.5%
	21 White Goods	0.2%	0.5%	0.0%	0.0%
Yard Waste		12.8%	12.0%	1.0%	0.0%
	22 Leaves/Grass/Chips	7.2%	8.1%	0.6%	0.0%
	23 Branches/Stumps/Prunings/Trimmings	5.6%	3.9%	0.4%	0.0%
Organics		36.8%	28.8%	33.6%	66.1%
	24 Food Waste	1.9%	1.3%	0.7%	0.0%
	25 Tires	0.0%	0.0%	0.0%	0.0%
	26 Untreated Lumber	6.5%	3.6%	6.0%	0.0%
	27 Pallets	0.3%	3.8%	2.3%	0.0%
	28 Treated Wood Waste	17.8%	10.1%	21.1%	0.0%
	29 Textiles and Leather	4.3%	4.5%	1.6%	50.6%
	30 Carpet	4.8%	3.8%	1.6%	0.0%
	31 Diapers	0.0%	0.0%	0.0%	0.0%
	32 Manure	0.0%	0.0%	0.0%	0.0%
	33 Other Organics	1.2%	1.7%	0.2%	15.5%
Inerts		21.2%	11.4%	53.2%	0.0%
	34 Crushable Inerts	10.5%	3.1%	20.1%	0.0%
	35 Other Inerts	4.6%	2.0%	17.3%	0.0%
	36 Gypsum Board	5.0%	6.1%	4.9%	0.0%
	37 Asphalt Roofing	1.1%	0.1%	10.9%	0.0%
HHW		1.2%	1.1%	0.5%	0.0%
	38 Paint/Adhesives	0.1%	0.0%	0.1%	0.0%
	39 Vehicle & Equipment Fluids	0.0%	0.0%	0.1%	0.0%
	40 Universal Hazardous Waste	0.2%	0.5%	0.3%	0.0%
	41 Medical Waste	0.0%	0.0%	0.0%	0.0%
	42 Medicine	0.0%	0.0%	0.0%	0.0%
	43 Covered E-Waste	0.5%	0.5%	0.0%	0.0%
	44 Other E-Waste	0.1%	0.0%	0.0%	0.0%
	45 Other Hazardous Waste	0.2%	0.1%	0.0%	0.0%
Special		10.3%	15.2%	2.3%	0.0%
	46 Brown Goods	0.7%	0.4%	0.0%	0.0%
	47 Composite Bulky Items	9.6%	14.8%	2.2%	0.0%
	48 Other Special Waste	0.0%	0.0%	0.0%	0.0%
TOTAL		100.0%	100.0%	100.0%	100.0%

3.3 Divertability Analysis and Survey Results

This section provides a summary of results for the divertability analysis performed for roll-off container and self-haul waste streams. Combined, the waste disposed from roll-off and self-haul waste delivery methods accounts for approximately 48 percent of the overall Countywide waste stream. Mature curbside recycling programs have effectively diverted materials from landfills for residential and commercial customers for several years. However, diversion programs for materials delivered directly to solid waste facilities within roll-offs and/or public vehicles are not uniformly established, if present at all. These waste streams may represent the next frontier of diversion, but previous characterization data has provided only limited information regarding the potential divertability of these materials.

As proposed in the Study Design, for each visual characterization performed, additional data was obtained by field staff in order to obtain a better understanding of the type and state of materials being delivered to solid waste facilities.

The following results of the divertability analysis are provided in table format for roll-off container waste and self-haul waste:

- Most common product forms,
- Amount of each type of material that was determined to be recyclable and/or reusable, and
- Most common barrier to diversion for each type of material.

Any notable field observations and/or limitations of the data are specifically addressed in the appropriate subsection.

3.3.1 Roll-Off Container Waste

Table 3-15 presents the common product forms identified for Countywide roll-off container waste. Most common product forms observed were shipping boxes and flexible film with significant amounts of tissues/paper towels, structural ferrous metal, and dimensional lumber. The number of samples where these materials were found is identified in Table 3-15.

Results of the Countywide roll-off waste divertability analysis, including the amount of material identified as reusable and/or recyclable, are presented as Table 3-16. The most prevalent reusable materials include pallets, mixed rigid plastics, and bulky items (i.e. furniture). Large amounts of recyclable materials are present in uncorrugated cardboard, other film, other ferrous, yard waste, untreated lumber and pallets, and inerts.

Table 3-17 identifies the most common barriers to diversion for potentially divertable materials present within roll-off waste. Although common barriers vary by major material category, frequent barriers included materials that were mixed, contaminated, or present in an amount too small to recover. In some instances, there was found to be no barrier to diversion.

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**Table 3-15
Common Material Product Forms – Countywide Roll-Off Waste**

Material	Product	Num. of Samples	% of Total Samples
Uncoated Corrugated Cardboard	Kraft Paper	17	3.53%
	Shipping Boxes	262	54.36%
High Grade Paper	Colored Bond	1	0.21%
	Computer	13	2.70%
	White Bond	23	4.77%
Mixed Recyclable Paper	Books	2	0.41%
	Catalogs	7	1.45%
	Coated Boxboard	20	4.15%
	Junk Mail	5	1.04%
	Magazines	15	3.11%
Compostable Paper	Food	38	7.88%
	Industrial	2	0.41%
	Tissues/Papertowels	82	17.01%
Other Paper	Aseptic	5	1.04%
	Air Filters	1	0.21%
	Glue-coated	2	0.41%
	Industrial	1	0.21%
	Other Household	1	0.21%
	Roll Tubes	2	0.41%
	Wax-coated	16	3.32%
HDPE Bottles (#2)	Equipment Fluid	1	0.21%
	Natural-Colored	5	1.04%
PETE Bottles (#1)	Soda small	5	1.04%
Other Plastic Containers	#1 - #7 Containers	2	0.41%
	#3 - #7 Bottles	1	0.21%
Plastic Bags	Clear	1	0.21%
	Colored	1	0.21%
Other Film	Flexible Film	243	50.41%
	Food Bags	14	2.90%
	Sheet	45	9.34%
	Shrink Warp	1	0.21%
Expanded Polystyrene Blocks	Cooler	2	0.41%
	Packaging	27	5.60%
Mixed Rigid Plastics	5 gal and 55 gal buckets	86	17.84%
	Automobile Parts	5	1.04%
	Blisterpacks	2	0.41%
	Food Service	8	1.66%
	Industrial	21	4.36%
	Other Household	26	5.39%
	Pallets	1	0.21%
	Pipe	14	2.90%
	Plastic Bins	2	0.41%
	Structural	1	0.21%
	Toys	22	4.56%
	Other Plastics	Industrial	4
Other Household		1	0.21%
Plastic Strapping		9	1.87%
Polyethylene Foam		19	3.94%
Polystyrene		4	0.83%
Recyclable Glass Bottles/Containers	Colored bottles	2	0.41%
	Fiberglass	1	0.21%
Other Glass	Fixtures/Bulbs	1	0.21%
	Industrial	2	0.41%
	Windows/Mirrors	13	2.70%
	Structural	5	1.04%
Other Non-Ferrous	Industrial	4	0.83%
	Other Household	2	0.41%
	Structural	5	1.04%
Other Ferrous	Furniture	13	2.70%
	Industrial	16	3.32%
	Other Household	14	2.90%
	Structural	78	16.18%
White Goods	Cooking Appliances	1	0.21%
	Industrial	1	0.21%
	Refrigerator	4	0.83%
	Water Heater	3	0.62%

Material	Product	Num. of Samples	% of Total Samples
Leaves/Grass/Chips	Grass	11	2.28%
	Leaves	50	10.37%
	Wood Chips	3	0.62%
Branches/Stumps/Prunings/Trimmings	Branches	40	8.30%
	Prunings/Trimmings	9	1.87%
	Stumps	7	1.45%
Food Waste	Cocoa shells	1	0.21%
	Meats	12	2.49%
	Packaged Food	16	3.32%
	Salt	1	0.21%
Tires	Vegetables/fruits	30	6.22%
	Automobile	4	0.83%
Untreated Lumber	Large Vehicles	1	0.21%
	Dimensional	74	15.35%
Treated Wood Waste	Industrial	3	0.62%
	Plywood	21	4.36%
	Creosote/Other	23	4.77%
Textiles and Leather	Painted	42	8.71%
	Particulate/chipboard	71	14.73%
	Clothes	42	8.71%
Carpet	Decorative	2	0.41%
	Industrial	2	0.41%
	Other Household	5	1.04%
	Rope	1	0.21%
	Shoes	12	2.49%
	Stuffed Animals	4	0.83%
Other Organics	Padding	14	2.90%
	Plastic	2	0.41%
	Rugs	22	4.56%
	Air Filter	1	0.21%
Crushable Inerts	Industrial	1	0.21%
	Other Household	1	0.21%
	Rubber Products	25	5.19%
	Sawdust	8	1.66%
	Vacuum bag	2	0.41%
	Asphalt	1	0.21%
	Brick	4	0.83%
Other Inerts	Ceramics	12	2.49%
	Concrete	16	3.32%
	Rock	5	1.04%
	Tile	7	1.45%
	Ceiling Tiles	3	0.62%
	Insulation	25	5.19%
	Plaster	3	0.62%
Paint/Adhesives	Sawdust	1	0.21%
	Silica Dust	1	0.21%
	Soil	38	7.88%
Universal Hazardous Waste	Paint/stain	1	0.21%
	Fluorescent Lights	1	0.21%
Medical Waste	Small batteries	1	0.21%
	Blood bandages	2	0.41%
Covered E-Waste	Surgical instruments	2	0.41%
	Computer monitors	1	0.21%
Other E-Waste	TVs	1	0.21%
	Computer-related	2	0.41%
Brown Goods	Kitchen	3	0.62%
	Tools	1	0.21%
Composite Bulky Items	Furniture	38	7.88%
	Household Equipment	5	1.04%
	Industrial	3	0.62%
	Mattresses	41	8.51%
	Other Household	1	0.21%

Table 3-16
Total Potentially Divertable Material – Countywide Roll-Off Waste

Material Group	Material	Material Tonnage	Percent Reusable	Reusable Tonnage	Percent Recyclable	Recyclable Tonnage
Paper		47,426		729		16,621
	1 Uncoated Corrugated Cardboard	18,756	2.9%	547	63.3%	11,881
	2 High Grade Paper	7,533	0.0%	0	23.1%	1,737
	3 Newspaper	1,887	1.1%	21	4.4%	83
	4 Mixed Recyclable Paper	19,250	0.8%	161	15.2%	2,921
Plastics		15,120		759		5,910
	7 HDPE Bottles (#2)	238	0.0%	0	4.7%	11
	8 PETE Bottles (#1)	329	0.0%	0	1.8%	6
	9 Other Plastic Containers	161	1.3%	2	4.4%	7
	10 Plastic Bags	217	0.0%	0	0.0%	0
	11 Other Film	9,576	1.6%	156	57.9%	5,549
	12 Expanded Polystyrene Blocks	417	0.1%	0	6.6%	28
	13 Mixed Rigid Plastics	4,182	14.4%	600	7.4%	309
Glass		8,710		215		899
	15 Recyclable Glass Bottles/Containers	3,304	0.0%	0	2.4%	81
	16 Other Glass	5,406	4.0%	215	15.1%	819
Metals		13,216		106		5,147
	17 Aluminum Cans	308	0.0%	0	0.0%	0
	18 Other Non-Ferrous	981	0.0%	0	7.4%	73
	19 Steel Food and Beverage Cans	233	0.0%	0	2.1%	5
	20 Other Ferrous	11,473	0.9%	106	43.8%	5,025
	21 White Goods	221	0.0%	0	20.0%	44
Yard Waste		19,861		163		11,029
	22 Leaves/Grass/Chips	9,628	0.4%	37	54.2%	5,217
	23 Branches/Stumps/Prunings/Trimnings	10,233	1.2%	126	56.8%	5,811
Organics		63,946		7,822		17,557
	25 Tires	385	0.0%	0	31.3%	120
	26 Untreated Lumber	9,567	6.3%	604	38.8%	3,707
	27 Pallets	22,372	29.1%	6,516	43.9%	9,829
	28 Treated Wood Waste	17,088	1.6%	275	2.7%	455
	29 Textiles and Leather	6,267	4.5%	283	18.5%	1,159
	30 Carpet	2,393	1.4%	34	41.0%	982
	33 Other Organics	5,873	1.9%	111	22.2%	1,304
Inerts		42,468		803		9,559
	34 Crushable Inerts	12,734	4.3%	550	33.6%	4,276
	35 Other Inerts	18,167	0.9%	158	26.0%	4,723
	36 Gypsum Board	7,396	0.0%	0	5.0%	370
	37 Asphalt Roofing	4,171	2.3%	95	4.5%	190
HHW		2,944		10		41
	38 Paint/Adhesives	409	0.0%	0	0.0%	0
	39 Vehicle & Equipment Fluids	0	0.0%	0	0.0%	0
	40 Universal Hazardous Waste	947	0.0%	0	0.0%	0
	41 Medical Waste	203	0.0%	0	0.0%	0
	42 Medicine	0	0.0%	0	0.0%	0
	43 Covered E-Waste	235	4.2%	10	4.2%	10
	44 Other E-Waste	749	0.0%	0	4.2%	31
	45 Other Hazardous Waste	402	0.0%	0	0.0%	0
Special		11,943		1,193		705
	46 Brown Goods	414	3.8%	16	3.8%	16
	47 Composite Bulky Items	11,529	10.2%	1,177	6.0%	689
TOTAL		225,634		11,800		67,468
PERCENT OF TOTAL				5%		30%

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**Table 3-17
Most Common Barriers to Diversion – Countywide Roll-Off Waste**

Material	Barrier	Num. of Samples	% of Total Samples
Uncoated Corrugated Cardboard	Amount too small	28	5.81%
	Broken	11	2.28%
	Contaminated	4	0.83%
	Damp/wet	32	6.64%
	Mixed	28	5.81%
High Grade Paper	None	144	29.88%
	Amount too small	1	0.21%
	Contaminated	2	0.41%
	Damp/wet	4	0.83%
	Mixed	4	0.83%
Newspaper	None	14	2.90%
	Damp/wet	2	0.41%
Mixed Recyclable Paper	None	1	0.21%
	Amount too small	3	0.62%
Compostable Paper	Amount too small	3	0.62%
	Contaminated	1	0.21%
	Damp/wet	2	0.41%
	Mixed	3	0.62%
	None	17	3.53%
Other Paper	Amount too small	2	0.41%
	Contaminated	3	0.62%
	Damp/wet	3	0.62%
	Mixed	1	0.21%
	None	5	1.04%
HDPE Bottles (#2)	None	1	0.21%
PETE Bottles (#1)	Contaminated	1	0.21%
	None	5	1.04%
Other Plastic Containers	Amount too small	1	0.21%
	None	1	0.21%
	Amount too small	10	2.07%
	Contaminated	7	1.45%
Other Film	Damp/wet	4	0.83%
	Mixed	97	20.12%
	None	109	22.61%
	Broken	2	0.41%
	Contaminated	1	0.21%
Expanded Polystyrene Blocks	Damp/wet	1	0.21%
	None	3	0.62%
	Amount too small	3	0.62%
	Broken	5	1.04%
Mixed Rigid Plastics	Contaminated	1	0.21%
	Mixed	11	2.28%
	None	5	1.04%
	Amount too small	2	0.41%
Other Plastics	Contaminated	4	0.83%
	Damp/wet	1	0.21%
	None	3	0.62%
	None	1	0.21%
Recyclable Glass Bottles/Containers	None	1	0.21%
Other Glass	Mixed	6	1.24%
	None	2	0.41%
Other Non-Ferrous	Amount too small	2	0.41%
	Mixed	2	0.41%
	None	4	0.83%
	None	1	0.21%
Other Ferrous	Amount too small	9	1.87%
	Broken	4	0.83%
	Mixed	23	4.77%
	None	52	10.79%
White Goods	Broken	1	0.21%
	None	2	0.41%

Material	Barrier	Num. of Samples	% of Total Samples
Leaves/Grass/Chips	Amount too small	2	0.41%
	Mixed	15	3.11%
	None	32	6.64%
Branches/Stumps/Prunings/Trimnings	Amount too small	3	0.62%
	Mixed	6	1.24%
	None	35	7.26%
Food Waste	Amount too small	4	0.83%
	Contaminated	3	0.62%
	Mixed	9	1.87%
	None	12	2.49%
Tires	Amount too small	3	0.62%
	None	2	0.41%
Untreated Lumber	Amount too small	4	0.83%
	Broken	3	0.62%
	Contaminated	30	6.22%
	Mixed	7	1.45%
Pallets	None	21	4.36%
	Amount too small	2	0.41%
	Broken	26	5.39%
Treated Wood Waste	Mixed	2	0.41%
	None	15	3.11%
	Amount too small	1	0.21%
Textiles and Leather	Broken	1	0.21%
	Contaminated	1	0.21%
	None	2	0.41%
Carpet	Amount too small	5	1.04%
	Broken	3	0.62%
	Contaminated	3	0.62%
	Damp/wet	8	1.66%
	Mixed	5	1.04%
Diapers	None	15	3.11%
	Amount too small	1	0.21%
	None	17	3.53%
Manure	None	1	0.21%
	Amount too small	3	0.62%
Other Organics	Mixed	4	0.83%
	None	11	2.28%
	Amount too small	6	1.24%
Crushable Inerts	Broken	1	0.21%
	Mixed	5	1.04%
	None	11	2.28%
	Amount too small	2	0.41%
Other Inerts	Mixed	11	2.28%
	None	10	2.07%
	Broken	1	0.21%
Gypsum Board	Contaminated	2	0.41%
	None	1	0.21%
	None	1	0.21%
Asphalt Roofing	None	1	0.21%
Medical Waste	Contaminated	1	0.21%
Covered E-Waste	None	1	0.21%
Other E-Waste	None	1	0.21%
Brown Goods	Broken	1	0.21%
Composite Bulky Items	Broken	4	0.83%
	Contaminated	1	0.21%
	Damp/wet	1	0.21%
	Mixed	1	0.21%
	None	1	0.21%

Tables 3-18 through 3-20 present a summary of hauler responses to a brief survey completed for sampled loads of roll-off waste.

Table 3-18
Roll-Off Survey Results – Generator Type

Generator Type	Answers	Percent
Residential	53	11.00%
Commercial	323	67.01%
Industrial	47	9.75%
Institutional	59	12.24%
	482	100.00%

Table 3-19
Roll-Off Survey Results – Vehicle Type

Vehicle Type	Answers	Percent
Large Open RO (more than 25 CY)	132	27.39%
Small Open RO (less than 25 CY)	258	53.53%
Compactor RO	92	19.09%
	482	100.00%

Table 3-20
Roll-Off Survey Results – Load Composition

Load Composition	Answers	Percent
Green Waste	20	4.15%
Construction	8	1.66%
Demolition	18	3.73%
Roofing	2	0.41%
Other Inerts	115	23.86%
Mixed	331	64.52%
Other	8	1.66%
	482	100.00%

3.3.2 Self-Haul Waste

Table 3-21 presents the common product forms identified for Countywide self-haul waste. Most common product forms observed were shipping boxes and flexible film with significant amounts of structural ferrous metal, painted wood waste, particle board, and dimensional lumber. The number of samples where these materials were found is identified in Table 3-21.

Results of the Countywide self-haul waste divertability analysis, including the amount of material identified as reusable and/or recyclable, are presented as Table 3-22. The most prevalent reusable materials include pallets, mixed rigid plastics, textiles, and bulky items (i.e. furniture). Large amounts of recyclable materials are present in corrugated cardboard, other film, other ferrous, yard waste, carpet, untreated lumber and pallets, and inerts.

Table 3-23 identifies the most common barriers to diversion for potentially divertable materials present within self-haul waste. Although common barriers vary by major material category, frequently identified barriers include materials that were mixed, contaminated, broken, damp/wet, or present in an amount too small to recover. In some instances, there was found to be no barrier to diversion.

Table 3-21
Common Material Product Forms – Countywide Self-Haul Waste

Material	Product	Num. of Samples	% of Total Samples
Uncoated Corrugated Cardboard	Kraft Paper	25	3.40%
	Shipping Boxes	194	26.39%
High Grade Paper	Books	1	0.14%
	Colored Bond	2	0.27%
	Computer	3	0.41%
	White Bond	13	1.77%
Mixed Recyclable Paper	Catalogs	11	1.50%
	Coated Boxboard	14	1.90%
	Junk Mail	11	1.50%
	Magazines	14	1.90%
Compostable Paper	Wrapping Paper	1	0.14%
	Food	16	2.18%
Other Paper	Tissues/Papertowels	21	2.86%
	Aesepic	1	0.14%
HDPE Bottles (#2)	Glue-coated	1	0.14%
	Natural-Colored	1	0.14%
PETE Bottles (#1)	Wax-coated	9	1.22%
	Food	1	0.14%
Other Plastic Containers	Soda large	3	0.41%
	Soda small	3	0.41%
Plastic Bags	#1 - #7 Containers	4	0.54%
	#3 - #7 Bottles	1	0.14%
	Other Household	4	0.54%
Other Film	Clear	3	0.41%
	Colored	3	0.41%
Expanded Polystyrene Blocks	Bubble Wrap	1	0.14%
	Flexible Film	198	26.94%
	Food Bags	5	0.68%
	Other Household	1	0.14%
	Sheet	19	2.59%
Mixed Rigid Plastics	Cooler	1	0.14%
	Packaging	33	4.49%
	5 gal and 55 gal buckets	63	8.57%
	Automobile Parts	8	1.09%
	Blisterpacks	1	0.14%
	Food Service	4	0.54%
	Industrial	5	0.68%
	Other Household	51	6.94%
	Other Households	1	0.14%
	Pipe	32	4.35%
Other Plastics	Plastic Bins	1	0.14%
	Signs	1	0.14%
	Toys	48	6.53%
	Foam	1	0.14%
	Linoleum	4	0.54%
	Other Household	18	2.45%
	Other Polystyrene	1	0.14%
	Plastic Strapping	5	0.68%
	Polyethylene Foam	5	0.68%
	Polystyrene	2	0.27%
Recyclable Glass Bottles/Containers	Styrofoam	3	0.41%
	Clear bottles	1	0.14%
	Colored bottles	3	0.41%
Other Glass	Containers	1	0.14%
	Fiberglass	5	0.68%
	Other Household	3	0.41%
Other Non-Ferrous	Windows/Mirrors	36	4.90%
	Furniture	3	0.41%
	Other Household	3	0.41%
Other Ferrous	Structural	15	2.04%
	Furniture	15	2.04%
	Industrial	7	0.95%
	Other Household	42	5.71%
White Goods	Structural	120	16.33%
	Air Filter	1	0.14%
	Clothes Appliances	1	0.14%
	Cooking Appliances	2	0.27%
	Industrial	1	0.14%
	Other Household	1	0.14%
	Refrigerator	5	0.68%
Water Heater	1	0.14%	

Material	Product	Num. of Samples	% of Total Samples
Leaves/Grass/Chips	Grass	31	4.22%
	Leaves	35	4.76%
	Wood Chips	5	0.68%
Branches/Stumps/Prunings/Trimmings	Branches	56	7.62%
	Prunings/Trimmings	32	4.35%
	Stumps	10	1.36%
Food Waste	Meats	1	0.14%
	Packaged Food	5	0.68%
	Vegetables/fruits	7	0.95%
Tires	Automobile	1	0.14%
	Bicycle	2	0.27%
Untreated Lumber	Dimensional	153	20.82%
	Other Household	1	0.14%
	Plywood	63	8.57%
Treated Wood Waste	Creosote/Other	58	7.89%
	Furniture	3	0.41%
	Other Household	1	0.14%
	Painted	140	19.05%
	Particle/chipboard	172	23.40%
Textiles and Leather	Clothes	101	13.74%
	Decorative	30	4.08%
	Leather	5	0.68%
	Other Household	9	1.22%
	Rug	1	0.14%
	Shoes	31	4.22%
Carpet	Stuffed Animals	15	2.04%
	Padding	32	4.35%
	Plastic	8	1.09%
Other Organics	Rugs	68	9.25%
	Foam	1	0.14%
	Insulation	1	0.14%
	Other Household	5	0.68%
	Rubber Products	21	2.86%
Crushable Inerts	Sawdust	15	2.04%
	Vacuum bag	2	0.27%
	Brick	17	2.31%
	Ceramics	22	2.99%
	Concrete	60	8.16%
Other Inerts	Rock	14	1.90%
	Tile	53	7.21%
	Ceiling Tiles	4	0.54%
	Fiberglass	2	0.27%
	Insulation	28	3.81%
Paint/Adhesives	Linoleum	2	0.27%
	Plaster	2	0.27%
	Soil	58	7.89%
Vehicle & Equipment Fluids	Paint/stain	3	0.41%
Universal Hazardous Waste	Oil	1	0.14%
	Fluorescent Lights	1	0.14%
Covered E-Waste	Small batteries	2	0.27%
	Computer monitors	1	0.14%
	Portable DVDs	1	0.14%
	Speakers	1	0.14%
Other E-Waste	TVs	7	0.95%
	Computer-related	1	0.14%
	Speakers	1	0.14%
Other Hazardous Waste	Thinner	1	0.14%
Brown Goods	Entertainment	1	0.14%
	Kitchen	4	0.54%
	Other Household	3	0.41%
	Tools	10	1.36%
Composite Bulky Items	Furniture	60	8.16%
	Household Equipment	17	2.31%
	Industrial	2	0.27%
	Mattresses	32	4.35%
	Other Household	1	0.14%

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**Table 3-22
Total Potentially Divertable Material – Countywide Self-Haul Waste**

Material Group	Material	Material Tonnage	Percent Reusable	Reusable Tonnage	Percent Recyclable	Recyclable Tonnage
Paper		22,653		355		8,310
	1 Uncoated Corrugated Cardboard	9,741	2.5%	244	57.8%	5,626
	2 High Grade Paper	2,358	3.8%	91	25.0%	590
	3 Newspaper	1,142	0.0%	0	11.4%	130
	4 Mixed Recyclable Paper	9,411	0.2%	21	20.9%	1,965
Plastics		7,637		526		1,962
	7 HDPE Bottles (#2)	53	0.8%	0	3.2%	2
	8 PETE Bottles (#1)	144	0.0%	0	2.1%	3
	9 Other Plastic Containers	177	1.6%	3	8.7%	15
	10 Plastic Bags	172	0.7%	1	3.1%	5
	11 Other Film	3,400	0.9%	30	49.8%	1,693
	12 Expanded Polystyrene Blocks	807	0.0%	0	8.5%	68
	13 Mixed Rigid Plastics	2,884	17.1%	492	6.1%	175
Glass		7,577		287		1,178
	15 Recyclable Glass Bottles/Containers	1,655	1.5%	24	10.3%	170
	16 Other Glass	5,922	4.4%	263	17.0%	1,008
Metals		12,337		408		4,618
	17 Aluminum Cans	150	0.0%	0	0.0%	0
	18 Other Non-Ferrous	1,637	3.1%	50	17.0%	279
	19 Steel Food and Beverage Cans	107	0.0%	0	2.9%	3
	20 Other Ferrous	9,975	3.6%	357	42.1%	4,199
	21 White Goods	467	0.0%	0	29.4%	137
Yard Waste		25,692		0		16,313
	22 Leaves/Grass/Chips	14,013	0.0%	0	58.3%	8,165
	23 Branches/Stumps/Prunings/Trimmings	11,679	0.0%	0	69.8%	8,148
Organics		91,767		5,299		21,583
	25 Tires	83	7.7%	6	15.4%	13
	26 Untreated Lumber	16,110	3.5%	571	55.1%	8,880
	27 Pallets	2,554	34.6%	883	48.8%	1,246
	28 Treated Wood Waste	44,807	2.8%	1,241	2.9%	1,288
	29 Textiles and Leather	12,642	17.3%	2,192	23.8%	3,006
	30 Carpet	11,541	1.5%	170	56.1%	6,475
	33 Diapers	109	0.0%	0	0.0%	0
	34 Other Organics	3,920	6.0%	236	17.2%	675
Inerts		65,484		1,066		22,001
	35 Crushable Inerts	27,137	1.3%	339	50.7%	13,751
	36 Other Inerts	19,404	2.8%	544	26.0%	5,043
	37 Gypsum Board	12,605	0.4%	54	17.2%	2,172
	Asphalt Roofing	6,338	2.0%	129	16.3%	1,035
HHW		3,317		39		236
	38 Paint/Adhesives	460	0.0%	0	0.0%	0
	39 Vehicle & Equipment Fluids	182	0.0%	0	25.0%	45
	40 Universal Hazardous Waste	737	0.0%	0	0.0%	0
	41 Medical Waste	0	0.0%	0	0.0%	0
	42 Medicine	3	0.0%	0	0.0%	0
	43 Covered E-Waste	716	1.6%	11	18.8%	134
	44 Other E-Waste	590	4.8%	28	9.5%	56
	45 Other Hazardous Waste	628	0.0%	0	0.0%	0
Special		24,331		4,381		651
	46 Brown Goods	1,372	1.3%	17	6.3%	86
	47 Composite Bulky Items	22,959	19.0%	4,364	2.5%	565
TOTAL		260,795		12,361		76,851
PERCENT OF TOTAL				5%		29%

Table 3-23
Most Common Barriers to Diversion – Countywide Self-Haul Waste

Material	Barrier	Num. of Samples	% of Total Samples
Uncoated Corrugated Cardboard	Amount too small	21	2.86%
	Broken	2	0.27%
	Contaminated	2	0.27%
	Damp/wet	17	2.31%
	Mixed	20	2.72%
	None	142	19.32%
High Grade Paper	Amount too small	2	0.27%
	Contaminated	1	0.14%
	Damp/wet	1	0.14%
	None	11	1.50%
Newspaper	Amount too small	1	0.14%
	None	1	0.14%
Mixed Recyclable Paper	Amount too small	6	0.82%
	Contaminated	2	0.27%
	Damp/wet	4	0.54%
	Mixed	1	0.14%
	None	19	2.59%
Compostable Paper	Amount too small	1	0.14%
	Contaminated	1	0.14%
	Damp/wet	10	1.36%
	None	2	0.27%
HDPE Bottles (#2)	Amount too small	1	0.14%
	Damp/wet	1	0.14%
	None	1	0.14%
PETE Bottles (#1)	Amount too small	2	0.27%
	None	2	0.27%
Other Plastic Containers	Amount too small	1	0.14%
	Broken	1	0.14%
	Contaminated	1	0.14%
	Mixed	1	0.14%
Plastic Bags	Broken	1	0.14%
	Contaminated	1	0.14%
	Mixed	2	0.27%
Other Film	Amount too small	7	0.95%
	Contaminated	2	0.27%
	Damp/wet	4	0.54%
	Mixed	103	14.01%
	None	78	10.61%
Expanded Polystyrene Blocks	Amount too small	2	0.27%
	Broken	1	0.14%
	Contaminated	3	0.41%
	Mixed	1	0.14%
	None	2	0.27%
Mixed Rigid Plastics	Amount too small	5	0.68%
	Broken	5	0.68%
	Contaminated	2	0.27%
	Mixed	6	0.82%
	None	6	0.82%
Other Plastics	Amount too small	1	0.14%
	Broken	1	0.14%
	Contaminated	2	0.27%
	Mixed	3	0.41%
	None	1	0.14%
Recyclable Glass Bottles/Containers	Amount too small	4	0.54%
	None	3	0.41%
Other Glass	Amount too small	3	0.41%
	Broken	2	0.27%
	Mixed	14	1.90%
	None	6	0.82%
Aluminum Cans	None	1	0.14%
Other Non-Ferrous	Amount too small	3	0.41%
	Broken	1	0.14%
	Contaminated	1	0.14%
	Mixed	6	0.82%
	None	3	0.41%
Steel Food and Beverage Cans	Amount too small	1	0.14%
	Contaminated	1	0.14%
	Amount too small	28	3.81%
	Broken	5	0.68%
Other Ferrous	Amount too small	28	3.81%
	Broken	5	0.68%
	Contaminated	2	0.27%
	Mixed	30	4.08%
	None	76	10.34%

Material	Barrier	Num. of Samples	% of Total Samples
White Goods	Mixed	1	0.14%
	None	4	0.54%
Leaves/Grass/Chips	Amount too small	6	0.82%
	Contaminated	2	0.27%
	Mixed	15	2.04%
	None	37	5.03%
Branches/Stumps/Prunings/Trimmings	Amount too small	11	1.50%
	Mixed	17	2.31%
	None	47	6.39%
Food Waste	Amount too small	1	0.14%
	Mixed	1	0.14%
	None	2	0.27%
Tires	Amount too small	1	0.14%
	Mixed	1	0.14%
Untreated Lumber	Amount too small	15	2.04%
	Broken	3	0.41%
	Contaminated	93	12.65%
	Damp/wet	2	0.27%
	Mixed	12	1.63%
Pallets	Amount too small	1	0.14%
	Broken	6	0.82%
	None	4	0.54%
Treated Wood Waste	Amount too small	1	0.14%
	Broken	2	0.27%
	Contaminated	1	0.14%
	Mixed	2	0.27%
Textiles and Leather	Amount too small	11	1.50%
	Broken	2	0.27%
	Contaminated	2	0.27%
	Damp/wet	30	4.08%
	Mixed	7	0.95%
Carpet	Amount too small	6	0.82%
	Contaminated	1	0.14%
	Damp/wet	2	0.27%
	Mixed	5	0.68%
Manure	Amount too small	56	7.62%
	None	1	0.14%
	Amount too small	2	0.27%
	Damp/wet	1	0.14%
	Mixed	4	0.54%
Crushable Inerts	Amount too small	14	1.90%
	Broken	2	0.27%
	Contaminated	4	0.54%
	Mixed	34	4.63%
Other Inerts	Amount too small	37	5.03%
	Amount too small	5	0.68%
	Broken	1	0.14%
	Contaminated	3	0.41%
	Mixed	9	1.22%
Gypsum Board	Amount too small	22	2.99%
	Amount too small	3	0.41%
	Mixed	6	0.82%
	None	11	1.50%
Asphalt Roofing	Amount too small	1	0.14%
	Mixed	4	0.54%
	None	1	0.14%
Covered E-Waste	None	4	0.54%
Brown Goods	Broken	2	0.27%
	None	1	0.14%
Composite Bulky Items	Broken	4	0.54%
	Mixed	4	0.54%
	None	2	0.27%

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The hauler of each self-haul load selected for visual characterization was interviewed, when possible, to obtain general information concerning the hauler's gender, ethnicity, primary language, interest in recycling, as well as characteristics about the waste being delivered such as generator sector, facility usage, and vehicle type.

The results presented as Tables 3-24 to 3-28 summarize responses provided. The number of responses is less than the number of visual samples performed due to lack of participation by haulers.

Table 3-24
Self-Haul Survey Results - Gender

Gender	Answers	Percent
Male	697	94.83%
Female	29	3.95%
N/A	9	1.22%
	735	100.00%

Table 3-25
Self-Haul Survey Results - Ethnicity

Ethnicity	Answers	Percent
Caucasian	330	44.90%
Latino/Mexican	211	28.71%
Asian	90	12.24%
African American	58	7.89%
Indian	9	1.22%
Other	23	3.13%
N/A	14	1.90%
	735	100.00%

Table 3-26
Self-Haul Survey Results - Language

Language	Answers	Percent
English	595	80.95%
Spanish	126	17.14%
Other	9	1.22%
N/A	5	0.68%
	735	100.0%

**Table 3-27
Self-Haul Survey Results – Generator Type**

Generator Type	Answers	Percent
Residential	618	84.08%
Commercial	101	13.74%
Industrial	6	0.82%
Institutional	10	1.36%
	735	100.00%

**Table 3-28
Self-Haul Survey Results – Vehicle Type**

Vehicle Type	Answers	Percent
Pickup	449	61.09%
Flat Bed	8	1.09%
End Dump	55	7.48%
Box Truck	55	7.48%
Trailer	71	9.66%
Van	59	8.03%
SUV	17	2.31%
Other	21	2.86%
	735	100.00%

**Table 3-29
Self-Haul Survey Results – Load Composition**

Load Composition	Answers	Percent
Green Waste	60	8.16%
Construction	13	1.77%
Demolition	73	9.93%
Roofing	11	1.50%
Other Inerts	19	2.59%
Mixed	320	43.54%
Other	239	32.52%
	735	100.00%

Table 3-30
Self-Haul Survey Results – Customer Regularity

Customer Regularity	Answers	Percent
1-4 per year	221	30.07%
1-3/month	258	35.10%
Once/week	55	7.48%
2x/week	100	13.61%
Everyday	37	5.03%
Don't know	1	0.14%
First Time	33	4.49%
N/A	30	4.08%
	735	100.00%

Table 3-31
Self-Haul Survey Results – Reasons Not to Recycle

Reason Not To Recycle	Answers	Percent
Too costly	57	6.91%
Not enough time	46	5.58%
Don't care	162	19.64%
No programs available	95	11.52%
Don't know where to	34	4.12%
Not my decision/I was told to	26	3.15%
Lack of information	78	9.45%
Don't have enough recyclables	179	21.70%
Bigger bins	27	3.27%
Other	121	14.67%
	825	100.00%

3.4 Summary of Findings

This section describes general findings of the 2008 Alameda Waste Characterization Study. Additional comparative analysis of Countywide results is provided for the purpose of assessing current program performance and potential targets for future diversion. Other factors that are likely to have affected the results of this Study are also presented in this section.

3.4.1 Comparative Analysis

Further evaluation of the waste characterization results provides additional insight as to the current status of solid waste disposal within Alameda County.

The following tables are provided for comparative analysis:

- Table 3-32 provides a historic comparison of Countywide disposal by major material group and the percentage of change from the 2000 Study
- Table 3-33 presents a comparison of the Countywide composition by waste stream
- Table 3-34 summarizes the distribution of each material category among the various waste streams
- Table 3-35 shows the Countywide annual solid waste material tonnages
- Table 3-36 presents the Countywide aggregate waste material proportions by combined generator type, including residential, commercial, construction, and manufacturing (residential includes all single-family and multi-family waste plus the proportion of waste from roll-off and self-haul loads identified as residential; commercial includes commercial waste and the proportion of waste from roll-off and self-haul loads identified as commercial; construction represents the amount of waste from roll-off and self-haul loads that was identified as construction or demolition debris regardless of whether it was from residential or commercial sources; and manufacturing represents all other waste from roll-off and self-haul loads that was identified as industrial)
- Table 3-37 calculates the Countywide aggregate material tonnages by generator type based on the compositions provided by Table 3-36
- Table 3-38 calculates the Countywide aggregate material mass fraction by generator type based on the tonnages provided by Table 3-37
- Table 3-39 compares the Countywide single-family residential waste composition results to other recent regional waste characterization studies.
- Table 3-40 compares the Countywide multi-family residential waste composition results to other recent regional waste characterization studies.

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Table 3-32
Countywide Comparison of Disposed Major Waste Materials

Material Group ¹	1990	1995	2000	2008	% Change from 2000 to 2008
Paper	561,175	373,037	355,288	248,198	-30%
Plastic	112,810	159,628	164,725	117,789	-28%
Glass	112,370	39,528	29,754	35,172	18%
Metals	95,671	65,928	95,274	50,530	-47%
Yard Waste	289,631	177,926	109,393	68,072	-38%
Organics	447,414	470,913	545,873	478,530	-12%
Inerts	318,897	148,694	150,784	135,715	-10%
HHW	NA	5,559	8,710	11,879	36%
Special	66,199	73,236	92,884	41,225	-56%
Total	2,004,167	1,514,450	1,552,683	1,187,108	-24%

1. Although material sub-categories have been modified to suit the specific data needs of each study, major material categories from all studies are relatively consistent and provide a useful macro-level comparison of trends and changes in the waste stream. One exception is that electronics were moved from Special to HHW in the 2008 Study.

Note: 2008 Waste flows provided by StopWaste.Org.

**Table 3-33
2008 Countywide Waste Composition Summary**

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
Paper		23.3%	25.6%	27.6%	21.9%	9.3%	20.9%
	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%
Plastics		13.5%	13.8%	14.7%	6.7%	3.3%	9.9%
	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%
Glass		2.8%	3.8%	2.6%	3.2%	2.8%	3.0%
	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%
Metals		3.4%	4.4%	4.1%	4.8%	4.6%	4.3%
	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%
Yard Waste		2.7%	3.7%	4.3%	7.3%	9.5%	5.7%
	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%
Organics		48.8%	42.8%	40.2%	35.1%	35.8%	40.3%
	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%
Inerts		4.0%	3.9%	4.9%	15.5%	24.3%	11.4%
	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%
HHW		0.7%	1.0%	0.9%	1.1%	1.2%	1.0%
	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%
Special		0.7%	1.0%	0.8%	4.4%	9.0%	3.5%
	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%
TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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**Table 3-34
2008 Countywide Distribution of Materials**

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
Paper		25.8%	13.6%	26.4%	24.1%	10.1%	100.0%
	1 Uncoated Corrugated Cardboard	3.5%	4.6%	13.6%	51.5%	26.8%	100.0%
	2 High Grade Paper	6.8%	6.6%	18.8%	51.7%	16.2%	100.0%
	3 Newspaper	25.9%	18.7%	22.6%	20.4%	12.4%	100.0%
	4 Mixed Recyclable Paper	16.1%	10.7%	19.1%	36.3%	17.7%	100.0%
	5 Compostable Paper	40.2%	18.8%	35.7%	4.6%	0.7%	100.0%
	6 Other Paper	17.2%	7.7%	18.4%	45.9%	10.8%	100.0%
Plastics		31.6%	15.4%	29.7%	15.7%	7.6%	100.0%
	7 HDPE Bottles (#2)	34.1%	23.6%	35.1%	5.8%	1.3%	100.0%
	8 PETE Bottles (#1)	37.6%	22.8%	29.5%	7.1%	3.1%	100.0%
	9 Other Plastic Containers	43.3%	21.0%	30.2%	2.6%	2.9%	100.0%
	10 Plastic Bags	47.4%	22.4%	26.2%	2.2%	1.8%	100.0%
	11 Other Film	29.1%	12.4%	31.5%	19.9%	7.1%	100.0%
	12 Expanded Polystyrene Blocks	16.6%	10.9%	19.6%	18.0%	34.9%	100.0%
	13 Mixed Rigid Plastics	29.2%	16.5%	29.7%	14.6%	10.0%	100.0%
	14 Other Plastics	28.8%	12.3%	25.4%	23.9%	9.7%	100.0%
Glass		21.9%	14.4%	17.5%	24.8%	21.5%	100.0%
	15 Recyclable Glass Bottles/Containers	32.4%	21.2%	22.0%	16.3%	8.1%	100.0%
	16 Other Glass	7.5%	5.0%	11.2%	36.4%	39.9%	100.0%
Metals		18.8%	11.6%	19.0%	26.2%	24.4%	100.0%
	17 Aluminum Cans	29.5%	20.6%	24.8%	16.8%	8.2%	100.0%
	18 Other Non-Ferrous	21.0%	13.4%	21.5%	16.5%	27.6%	100.0%
	19 Steel Food and Beverage Cans	45.3%	20.1%	29.0%	3.8%	1.8%	100.0%
	20 Other Ferrous	13.8%	9.1%	16.6%	32.4%	28.1%	100.0%
	21 White Goods	3.6%	22.1%	19.0%	17.7%	37.5%	100.0%
Yard Waste		10.9%	7.2%	15.0%	29.2%	37.7%	100.0%
	22 Leaves/Grass/Chips	12.0%	9.2%	18.4%	24.6%	35.7%	100.0%
	23 Branches/Stumps/Prunings/Trimmings	9.3%	4.4%	10.4%	35.5%	40.5%	100.0%
Organics		28.1%	11.8%	19.9%	20.1%	20.1%	100.0%
	24 Food Waste	40.5%	15.4%	27.9%	14.2%	2.0%	100.0%
	25 Tires	10.9%	14.0%	37.7%	30.7%	6.6%	100.0%
	26 Untreated Lumber	4.4%	3.5%	15.2%	28.6%	48.2%	100.0%
	27 Pallets	0.0%	0.4%	8.3%	82.0%	9.4%	100.0%
	28 Treated Wood Waste	5.1%	3.1%	9.8%	22.7%	59.4%	100.0%
	29 Textiles and Leather	25.3%	17.6%	15.9%	13.7%	27.6%	100.0%
	30 Carpet	5.4%	4.4%	9.1%	13.9%	67.2%	100.0%
	31 Diapers	56.9%	23.0%	18.7%	1.1%	0.4%	100.0%
	32 Manure	66.8%	19.8%	10.9%	1.9%	0.6%	100.0%
	33 Other Organics	14.9%	6.0%	17.6%	36.9%	24.6%	100.0%
Inerts		8.1%	3.8%	8.5%	31.3%	48.3%	100.0%
	34 Crushable Inerts	6.3%	2.8%	10.0%	25.8%	55.1%	100.0%
	35 Other Inerts	12.7%	6.8%	9.3%	34.4%	36.8%	100.0%
	36 Gypsum Board	5.3%	0.9%	5.2%	32.8%	55.9%	100.0%
	37 Asphalt Roofing	0.5%	0.1%	4.8%	37.6%	57.1%	100.0%
HHW		17.3%	11.6%	18.5%	24.8%	27.9%	100.0%
	38 Paint/Adhesives	7.7%	13.5%	14.8%	30.2%	33.9%	100.0%
	39 Vehicle & Equipment Fluids	15.0%	21.4%	23.0%	0.0%	40.7%	100.0%
	40 Universal Hazardous Waste	17.2%	3.1%	5.5%	41.8%	32.5%	100.0%
	41 Medical Waste	24.5%	20.0%	24.3%	31.2%	0.0%	100.0%
	42 Medicine	54.8%	19.0%	25.0%	0.0%	1.3%	100.0%
	43 Covered E-Waste	7.6%	20.9%	19.0%	13.0%	39.6%	100.0%
	44 Other E-Waste	23.7%	10.0%	29.0%	20.9%	16.5%	100.0%
	45 Other Hazardous Waste	13.4%	7.5%	10.6%	26.7%	41.8%	100.0%
Special		4.4%	3.1%	4.5%	29.0%	59.0%	100.0%
	46 Brown Goods	23.8%	13.0%	14.6%	11.3%	37.3%	100.0%
	47 Composite Bulky Items	2.5%	2.1%	3.0%	30.9%	61.5%	100.0%
	48 Other Special Waste	4.6%	8.0%	87.4%	0.0%	0.0%	100.0%
TOTAL		23.2%	11.1%	20.0%	23.0%	22.7%	100.0%

Table 3-35
2008 Countywide Waste Disposal Summary (tons)

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
Paper		64,008	33,747	65,484	59,791	25,167	248,198
	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
Plastics		37,251	18,185	34,936	18,439	8,978	117,789
	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
Glass		7,696	5,048	6,141	8,710	7,577	35,172
	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
Metals		9,476	5,877	9,624	13,216	12,337	50,530
	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
Yard Waste		7,404	4,873	10,242	19,861	25,692	68,072
	22 Leaves/Grass/Chips	4,724	3,613	7,232	9,628	14,013	39,210
	23 Branches/Stumps/Prunings/Trimings	2,680	1,260	3,010	10,233	11,679	28,862
Organics		134,332	56,510	95,309	96,049	96,330	478,530
	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
Inerts		11,042	5,201	11,521	42,468	65,484	135,715
	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
HHW		2,050	1,374	2,194	2,944	3,317	11,879
	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
Special		1,820	1,267	1,865	11,943	24,331	41,225
	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
TOTAL		275,079	132,081	237,315	273,420	269,213	1,187,108

Section 3

**Table 3-36
2008 Countywide Aggregate Waste Composition by Generator Type**

Material Group	Material	Residential	Commercial	Construction	Manufacturing
Paper		18.3%	24.9%	3.4%	28.8%
	1 Uncoated Corrugated Cardboard	1.6%	4.6%	1.2%	8.7%
	2 High Grade Paper	0.4%	2.0%	0.2%	5.0%
	3 Newspaper	0.8%	0.8%	0.3%	0.9%
	4 Mixed Recyclable Paper	3.5%	5.8%	1.1%	3.9%
	5 Compostable Paper	11.3%	10.0%	0.1%	2.1%
	6 Other Paper	0.7%	1.7%	0.5%	8.3%
Plastics		9.7%	11.3%	1.1%	8.1%
	7 HDPE Bottles (#2)	0.4%	0.3%	0.0%	0.1%
	8 PETE Bottles (#1)	0.5%	0.4%	0.0%	0.1%
	9 Other Plastic Containers	0.6%	0.4%	0.0%	0.0%
	10 Plastic Bags	1.1%	0.6%	0.0%	0.1%
	11 Other Film	3.5%	5.0%	0.4%	4.5%
	12 Expanded Polystyrene Blocks	0.1%	0.5%	0.0%	0.0%
	13 Mixed Rigid Plastics	2.4%	2.7%	0.3%	1.6%
	14 Other Plastics	1.0%	1.4%	0.4%	1.7%
Glass		3.0%	2.7%	4.2%	3.5%
	15 Recyclable Glass Bottles/Containers	2.1%	1.4%	0.2%	1.4%
	16 Other Glass	1.0%	1.2%	4.1%	2.2%
Metals		4.3%	4.4%	3.6%	2.0%
	17 Aluminum Cans	0.2%	0.2%	0.0%	0.1%
	18 Other Non-Ferrous	0.5%	0.5%	0.4%	0.1%
	19 Steel Food and Beverage Cans	0.6%	0.4%	0.0%	0.1%
	20 Other Ferrous	2.8%	3.2%	3.1%	1.7%
	21 White Goods	0.1%	0.1%	0.0%	0.0%
Yard Waste		6.4%	6.0%	1.5%	7.4%
	22 Leaves/Grass/Chips	3.7%	3.5%	1.0%	7.1%
	23 Branches/Stumps/Prunings/Trimnings	2.8%	2.5%	0.5%	0.3%
Organics		43.1%	37.4%	29.2%	40.6%
	24 Food Waste	20.8%	18.8%	0.5%	9.6%
	25 Tires	0.1%	0.2%	0.0%	0.0%
	26 Untreated Lumber	2.6%	2.6%	5.4%	6.4%
	27 Pallets	0.3%	4.6%	2.8%	8.0%
	28 Treated Wood Waste	7.0%	4.8%	17.1%	0.9%
	29 Textiles and Leather	4.6%	2.8%	1.2%	8.2%
	30 Carpet	1.8%	0.9%	2.1%	1.7%
	31 Diapers	3.5%	1.2%	0.0%	0.0%
	32 Manure	1.7%	0.3%	0.0%	0.1%
	33 Other Organics	0.9%	1.3%	0.2%	5.8%
Inerts		9.9%	9.2%	54.7%	7.7%
	34 Crushable Inerts	4.3%	3.1%	18.4%	0.8%
	35 Other Inerts	3.1%	4.0%	21.1%	1.9%
	36 Gypsum Board	1.8%	1.7%	6.2%	1.5%
	37 Asphalt Roofing	0.6%	0.3%	9.0%	3.5%
HHW		1.0%	1.1%	0.3%	0.2%
	38 Paint/Adhesives	0.1%	0.1%	0.1%	0.0%
	39 Vehicle & Equipment Fluids	0.0%	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	0.1%	0.2%	0.2%	0.1%
	41 Medical Waste	0.0%	0.1%	0.0%	0.0%
	42 Medicine	0.0%	0.0%	0.0%	0.0%
	43 Covered E-Waste	0.2%	0.1%	0.0%	0.0%
	44 Other E-Waste	0.3%	0.3%	0.0%	0.1%
	45 Other Hazardous Waste	0.1%	0.1%	0.0%	0.0%
Special		4.3%	3.1%	1.9%	1.7%
	46 Brown Goods	0.5%	0.2%	0.1%	0.1%
	47 Composite Bulky Items	3.9%	2.8%	1.8%	1.6%
	48 Other Special Waste	0.0%	0.0%	0.0%	0.0%
TOTAL		100.0%	100.0%	100.0%	100.0%

Table 3-37
2008 Countywide Aggregate Waste Disposal by Generator Type (tons)

Material Group	Material	Residential	Commercial	Construction	Manufacturing	Total
Paper		115,254	116,921	2,018	7,767	241,959
	1 Uncoated Corrugated Cardboard	9,823	21,814	719	2,344	34,700
	2 High Grade Paper	2,710	9,487	105	1,337	13,638
	3 Newspaper	5,073	3,671	160	239	9,143
	4 Mixed Recyclable Paper	21,794	27,038	684	1,052	50,567
	5 Compostable Paper	71,502	47,093	70	566	119,231
	6 Other Paper	4,353	7,819	280	2,229	14,680
Plastics		61,135	53,231	675	2,181	117,221
	7 HDPE Bottles (#2)	2,410	1,633	5	25	4,073
	8 PETE Bottles (#1)	2,923	1,656	15	33	4,627
	9 Other Plastic Containers	3,984	2,098	6	4	6,093
	10 Plastic Bags	6,967	2,758	14	16	9,755
	11 Other Film	22,203	23,376	218	1,212	47,010
	12 Expanded Polystyrene Blocks	705	2,362	10	10	3,086
	13 Mixed Rigid Plastics	15,400	12,566	172	422	28,560
	14 Other Plastics	6,543	6,781	236	457	14,017
Glass		19,078	12,438	2,505	953	34,974
	15 Recyclable Glass Bottles/Containers	13,005	6,688	91	368	20,152
	16 Other Glass	6,073	5,751	2,414	585	14,822
Metals		27,037	20,488	2,134	534	50,193
	17 Aluminum Cans	1,041	735	10	23	1,809
	18 Other Non-Ferrous	3,260	2,176	247	32	5,715
	19 Steel Food and Beverage Cans	4,101	1,938	3	24	6,066
	20 Other Ferrous	17,981	15,075	1,874	445	35,375
	21 White Goods	654	564	0	9	1,228
Yard Waste		40,685	28,314	896	1,985	71,881
	22 Leaves/Grass/Chips	23,266	16,642	600	1,900	42,408
	23 Branches/Stumps/Prunings/Trimnings	17,418	11,673	296	85	29,473
Organics		272,351	175,463	17,379	10,949	476,142
	24 Food Waste	131,024	88,010	269	2,579	221,882
	25 Tires	441	795	0	0	1,236
	26 Untreated Lumber	16,669	12,294	3,189	1,711	33,864
	27 Pallets	1,616	21,816	1,681	2,157	27,270
	28 Treated Wood Waste	44,217	22,436	10,164	245	77,062
	29 Textiles and Leather	28,795	13,145	731	2,221	44,892
	30 Carpet	11,146	4,179	1,247	448	17,020
	31 Diapers	22,280	5,403	0	0	27,683
	32 Manure	10,495	1,499	0	29	12,023
	33 Other Organics	5,668	5,885	98	1,558	13,209
Inerts		62,202	43,087	32,580	2,079	139,947
	34 Crushable Inerts	27,276	14,374	10,973	213	52,837
	35 Other Inerts	19,733	18,970	12,574	523	51,799
	36 Gypsum Board	11,105	8,156	3,705	397	23,363
	37 Asphalt Roofing	4,088	1,587	5,327	946	11,948
HHW		6,303	4,942	205	52	11,502
	38 Paint/Adhesives	567	581	34	0	1,182
	39 Vehicle & Equipment Fluids	229	103	30	0	361
	40 Universal Hazardous Waste	909	1,137	109	34	2,189
	41 Medical Waste	289	352	0	0	641
	42 Medicine	193	66	0	0	259
	43 Covered E-Waste	1,491	696	19	0	2,206
	44 Other E-Waste	1,905	1,411	0	18	3,334
	45 Other Hazardous Waste	720	596	14	0	1,330
Special		27,305	14,416	1,119	449	43,289
	46 Brown Goods	2,866	925	63	17	3,870
	47 Composite Bulky Items	24,409	13,277	1,056	432	39,175
	48 Other Special Waste	31	213	0	0	244
TOTAL		631,350	469,299	59,511	26,947	1,187,108

Section 3

**Table 3-38
2008 Countywide Aggregate Waste Disposal by Generator Type (mass fraction)**

Material Group	Material	Residential	Commercial	Construction	Manufacturing	Total
Paper		47.6%	48.3%	0.8%	3.2%	100.0%
	1 Uncoated Corrugated Cardboard	28.3%	62.9%	2.1%	6.8%	100.0%
	2 High Grade Paper	19.9%	69.6%	0.8%	9.8%	100.0%
	3 Newspaper	55.5%	40.2%	1.8%	2.6%	100.0%
	4 Mixed Recyclable Paper	43.1%	53.5%	1.4%	2.1%	100.0%
	5 Compostable Paper	60.0%	39.5%	0.1%	0.5%	100.0%
	6 Other Paper	29.7%	53.3%	1.9%	15.2%	100.0%
Plastics		52.2%	45.4%	0.6%	1.9%	100.0%
	7 HDPE Bottles (#2)	59.2%	40.1%	0.1%	0.6%	100.0%
	8 PETE Bottles (#1)	63.2%	35.8%	0.3%	0.7%	100.0%
	9 Other Plastic Containers	65.4%	34.4%	0.1%	0.1%	100.0%
	10 Plastic Bags	71.4%	28.3%	0.1%	0.2%	100.0%
	11 Other Film	47.2%	49.7%	0.5%	2.6%	100.0%
	12 Expanded Polystyrene Blocks	22.8%	76.5%	0.3%	0.3%	100.0%
	13 Mixed Rigid Plastics	53.9%	44.0%	0.6%	1.5%	100.0%
	14 Other Plastics	46.7%	48.4%	1.7%	3.3%	100.0%
Glass		54.5%	35.6%	7.2%	2.7%	100.0%
	15 Recyclable Glass Bottles/Containers	64.5%	33.2%	0.5%	1.8%	100.0%
	16 Other Glass	41.0%	38.8%	16.3%	3.9%	100.0%
Metals		53.9%	40.8%	4.3%	1.1%	100.0%
	17 Aluminum Cans	57.5%	40.6%	0.6%	1.3%	100.0%
	18 Other Non-Ferrous	57.0%	38.1%	4.3%	0.6%	100.0%
	19 Steel Food and Beverage Cans	67.6%	31.9%	0.0%	0.4%	100.0%
	20 Other Ferrous	50.8%	42.6%	5.3%	1.3%	100.0%
	21 White Goods	53.3%	45.9%	0.0%	0.8%	100.0%
Yard Waste		56.6%	39.4%	1.2%	2.8%	100.0%
	22 Leaves/Grass/Chips	54.9%	39.2%	1.4%	4.5%	100.0%
	23 Branches/Stumps/Prunings/Trimmings	59.1%	39.6%	1.0%	0.3%	100.0%
Organics		57.2%	36.9%	3.6%	2.3%	100.0%
	24 Food Waste	59.1%	39.7%	0.1%	1.2%	100.0%
	25 Tires	35.7%	64.3%	0.0%	0.0%	100.0%
	26 Untreated Lumber	49.2%	36.3%	9.4%	5.1%	100.0%
	27 Pallets	5.9%	80.0%	6.2%	7.9%	100.0%
	28 Treated Wood Waste	57.4%	29.1%	13.2%	0.3%	100.0%
	29 Textiles and Leather	64.1%	29.3%	1.6%	4.9%	100.0%
	30 Carpet	65.5%	24.6%	7.3%	2.6%	100.0%
	31 Diapers	80.5%	19.5%	0.0%	0.0%	100.0%
	32 Manure	87.3%	12.5%	0.0%	0.2%	100.0%
	33 Other Organics	42.9%	44.6%	0.7%	11.8%	100.0%
Inerts		44.4%	30.8%	23.3%	1.5%	100.0%
	34 Crushable Inerts	51.6%	27.2%	20.8%	0.4%	100.0%
	35 Other Inerts	38.1%	36.6%	24.3%	1.0%	100.0%
	36 Gypsum Board	47.5%	34.9%	15.9%	1.7%	100.0%
	37 Asphalt Roofing	34.2%	13.3%	44.6%	7.9%	100.0%
HHW		54.8%	43.0%	1.8%	0.4%	100.0%
	38 Paint/Adhesives	48.0%	49.1%	2.9%	0.0%	100.0%
	39 Vehicle & Equipment Fluids	63.4%	28.4%	8.2%	0.0%	100.0%
	40 Universal Hazardous Waste	41.5%	52.0%	5.0%	1.6%	100.0%
	41 Medical Waste	45.0%	55.0%	0.0%	0.0%	100.0%
	42 Medicine	74.6%	25.4%	0.0%	0.0%	100.0%
	43 Covered E-Waste	67.6%	31.6%	0.9%	0.0%	100.0%
	44 Other E-Waste	57.2%	42.3%	0.0%	0.5%	100.0%
	45 Other Hazardous Waste	54.2%	44.8%	1.0%	0.0%	100.0%
Special		63.1%	33.3%	2.6%	1.0%	100.0%
	46 Brown Goods	74.0%	23.9%	1.6%	0.4%	100.0%
	47 Composite Bulky Items	62.3%	33.9%	2.7%	1.1%	100.0%
	48 Other Special Waste	12.6%	87.4%	0.0%	0.0%	100.0%
TOTAL		53.2%	39.5%	5.0%	2.3%	100.0%

Table 3-39 and Table 3-40 compare the residential waste composition of Alameda County in 2008 with recent studies completed for New York City, San Francisco, and Seattle. Although the specific materials for those studies have been adjusted for appropriate comparison with this study, it is important to note that minor differences in methodologies are not accounted for and can result in an unknown level of variance. These tables are intended for informational purpose only to illustrate general similarities in waste compositions with other regions but should not be used for direct comparison or evaluation.

Table 3-39
Countywide Single-Family Residential Waste Composition Comparison with Other Recent Regional Studies

Material Group	Alameda County 2008 Mean (%)	NYC 2005 (1) Mean (%)	San Francisco 2005 (1) Mean (%)	Seattle 2003 (1) Mean (%)
Paper	23.3%	20.7%	20.5%	21.2%
Plastic	13.5%	12.5%	11.3%	10.1%
Glass	2.8%	1.6%	2.0%	3.4%
Metal	3.4%	3.5%	3.1%	3.6%
Yard Waste	2.7%	12.3%	1.8%	2.2%
Organic	48.8%	42.2%	58.0%	55.4%
Inerts	4.0%	5.5%	1.2%	2.9%
Hazard Waste	0.7%	1.7%	2.1%	0.9%
Special	0.7%	NA	NA	NA
TOTAL	100.0%	100.0%	100.0%	99.7%

Notes: All data taken from 2004-2005 NYC Waste Characterization Study, R. W. Beck, Inc.
 1 - Yard waste extrapolated from Organic; Untreated and treated wood included into Organic;
 Inerts includes appropriate C&D materials; HHW includes Appliances/Electronics

Table 3-40
Countywide Multi-Family Residential Waste Composition Comparison with Other Recent Regional Studies

Material Group	Alameda County 2008 Mean (%)	NYC 2005 (1) Mean (%)	San Francisco 2005 (1) Mean (%)	Seattle 2003 (1) Mean (%)
Paper	25.6%	24.3%	25.1%	25.0%
Plastic	13.8%	15.6%	11.4%	8.5%
Glass	3.8%	3.0%	4.3%	4.6%
Metal	4.4%	3.7%	3.3%	4.3%
Yard Waste	3.7%	2.6%	1.7%	3.1%
Organic	42.8%	45.4%	47.4%	46.5%
Inerts	3.9%	3.9%	4.0%	6.0%
Hazard Waste	1.0%	1.6%	2.5%	1.7%
Special	1.0%	NA	NA	NA
TOTAL	100.0%	100.1%	99.7%	99.7%

Notes: All data taken from 2004-2005 NYC Waste Characterization Study, R. W. Beck, Inc.
 1 - Yard waste extrapolated from Organic; Untreated and treated wood included into Organic;
 Inerts includes appropriate C&D materials; HHW includes Appliances/Electronics

3.4.2 Current Program Performance at a Glance

Detailed characterization results presented throughout this report provide the opportunity to evaluate the performance of current solid waste management programs within the County. This section broadly reviews program performance based on 2008 results compared to those of previous studies. Because this report focuses only on disposed solid waste, excluding recyclables, analysis of the design and performance of diversion programs within the County is beyond the scope of this study.

As shown in Table 1-7, 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: the economic and housing downturn that occurred throughout 2008 causing a severe decline in home sales and consumer spending (resulting in reduced commercial activity and industrial production); implementation of new diversion programs; and increased further participation of existing diversion programs. A more detailed discussion of the effect of economic conditions is provided later in Section 3.4.4, while this section focuses primarily on diversion programs.

Current diversion programs widely used within the County include single-family residential curbside recycling and green waste/food scrap programs, commercial recycling, C&D recycling, and HHW recovery.

Most jurisdictions within the County continue to use long established single-family residential curbside collection of fibers and containers for diversion of various types of high-value paper, plastic, glass, and metals (cans). Additionally, most jurisdictions have separately collected plant trimmings for years and more recently added food waste collection. The specific materials targeted by each jurisdiction are presented in Table 1-4. Review of the Countywide single-family residential waste characterization results indicate that existing programs continue to be effective. Further evaluation of diversion rates and/or annual quantities of recyclable material would support any precise conclusion about program performance.

Green waste curbside collection programs have been widely used for a number of years throughout the County and have relatively high participation rates. Based on single-family residential composition results for yard waste, these programs continue to be effective with a reduced mean of 2.8 percent from 5.1 percent in 2000. Residential food scrap collection has more recently been established in various jurisdictions, with some programs coming online as recent as the middle of 2008. Based on Countywide results, there continues to be a significant amount of food waste in the single-family residential waste stream. However, the fact that the average percentage of food waste is higher could at least partially be due to the decrease in other high-value materials. The lower overall single-family residential waste quantity (down 17 percent since 2000) supports the suggestion that food waste recovery programs are having a beneficial effect on the overall waste quantities. However, further evaluation of the quantity of food waste diverted would be needed to clearly support this conclusion.

Commercial recycling within the County has become more prevalent since 2000 with continual evolution and improvements. Some haulers have begun identifying “dry”

routes that primarily pick up various types of high-value paper vs. “wet” routes that generally collect waste from restaurants that have a large amount of food scraps and other organic material. Loads with significant amounts of these materials are either sent to sorting facilities for processing or composting facilities, as appropriate. Most solid waste facilities have started informally implementing “floor sorting” of commercial waste to recover high-value materials from certain loads. For the purposes of this Study, physical samples of commercial waste were collected subsequent to any scavenging. The percentage of high-value paper within the commercial waste stream has decreased substantially since 2000. Meanwhile, food waste has increased by approximately ten percent in the commercial waste stream. The overall Countywide quantity of commercial waste has decreased by 33 percent in the last eight years. Again, further evaluation of the amount of material diverted would be necessary to draw meaningful conclusion about specific program performance, but it is possible that the increase in food waste quantity is directly correlated to the population increase and the increase in the mean is attributed to the reduction of other materials.

Recycling programs for C&D material currently target specific commercial, roll-off and self-haul loads for which the hauler identifies a significant amount of recoverable material present. In some cases, C&D material is diverted to a separate sort line for processing and in other cases the facility performs “floor sorting” to segregate and consolidate similar materials. Upon review of characterization results related to typically recovered C&D materials, the percentage of each of these materials decreased with the exception of treated wood waste and crushable inerts within the self-haul waste stream.

Developing effective HHW diversion programs is important to keeping these materials out of landfills and preventing environmental impacts. The percentage of Countywide aggregate total HHW material appears to have increased to 1.0 percent from 0.6 percent over the last eight years. This Study classified the HHW material by sub-categories for a more detailed evaluation of composition. The increase in HHW disposal may be the result of a significant increase over recent years in the overall quantity and use of these products, such as electronics, batteries, and cleaning supplies, by the general public. More than half of the overall quantity of HHW was delivered as roll-off and self-haul waste.

3.4.3 Potential Targets for Future Programs

Potential improvements for future diversion programs may include increased participation in existing programs adding materials to be recovered within existing programs, extending existing programs operating for certain waste streams to previously non-targeted participants, and/or developing new programs or infrastructure to target a previously unrecovered material. This section will provide some general recommendations for future programs based on review of the Countywide characterization results. It is expected that each recommendation will require further evaluation as to the feasibility and cost-benefit of the potential diversion program as well as whether a sustainable market for such material exists. Specific database queries can be performed to look further into particular segments of each waste stream or jurisdiction results to facilitate feasibility review and the

potential capture. For example, a query could be performed to determine the composition of compactor roll-offs from Oakland and the associated quantity of food waste materials that would be diverted.

Clearly, the two materials of greatest interest based on presence by weight within each of the waste streams are compostable paper and food waste. Compostable paper represents 119,891 tons of annual waste, almost 95 percent of which is collected by route trucks as residential and/or commercial waste. Meanwhile, the amount of food waste in 2008 was 222,457 tons and almost 84 percent was collected from the curbside in route trucks. Although food scrap programs have been established for most areas of the County, the majority of diversion potential continues to be in composting or other biomass conversion (i.e. anaerobic digestion) of this material.

Based on a review of roll-off and self-haul waste divertability analysis results (Tables 3-9 to 3-14), there appears to be a significant amount of recyclable C&D material present in forms that could be recovered. Predominant targets for C&D recovery include ferrous metals, untreated lumber and pallets, crushable inerts, gypsum board, and some types of treated wood waste (particle board). Although some solid waste facilities have C&D processing, these facilities could be expanded to increase capacity and construction of new facilities should be considered. The operation of these facilities, including how a load is selected and processed, could be enhanced. Furthermore, a significant amount of the remaining roll-off and self haul waste streams are highly organic. C&D processing potentially could be modified to include an organic recovery component. The growth in the manufacturing and purchase of various plastic products continues. Significant quantities of other plastic containers, other film, and mixed rigid plastics are present within residential and commercial waste streams. Markets for these materials have been expanding in recent years and some MRFs are beginning limited recovery of these types of materials. The results of this Study show a significant amount of these types of plastic materials being disposed, thus and it may be beneficial to evaluate the potential of promoting diversion of these plastic materials via curbside recycling and subsequent processing at existing MRFs.

3.4.4 Other Factors Affecting Study Results

There were special circumstances throughout 2008 that likely had some influence on the results of this Study. 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 interpretation and evaluation of results.

Most prevalent is the ongoing economic recession which started during the 3rd Quarter of 2008. It has become widely accepted among economists that the severity of the recession is the worst since the Great Depression. Every household, business, and industry in the U.S. and around the world has been affected in some way or another. Directly relevant to the solid waste industry are the collapse of residential and (to a lesser degree) commercial construction and plummeting commodities costs. These factors are discussed below.

Arguably, a key component of the economic recession has been the collapse of construction industry. According to the East Bay Economic Development Alliance,

single-family residential permits within the County decreased by more than 56 percent from February 2008 to January 2009, while multi-family residential permits decreased by 30 percent. Overall construction permits, including residential and non-residential, fell 29 percent over the same time period. The so-called housing bubble throughout the early 2000's created large amounts of waste materials generated directly from construction and demolition activities. These materials included unused scraps (i.e. wood, gypsum board, metals), vegetative debris from clearing, and demolition debris if an existing structure was removed. Indirectly, new construction results in waste generation created by families and/or businesses moving and purging old possessions (i.e. clothes, appliances, furniture, etc.) and using boxes. Construction waste is typically delivered in roll-off containers, and some portion of the 34 percent decline in Countywide waste quantities is likely attributed to the reduction in C&D waste.

The strong global economy prior to 2008 created significant demand for materials, both raw and recycled. Significant population and economic growth in Asia combined with modernization bolstered the overall demand for materials and products. The cost of recyclable materials skyrocketed from 2005 through early 2008 and, coupled with the new "green" movement, created high demand for high-value materials. When the recession hit, the demand for materials plummeted along with recycled material prices. According to WasteNews, SecondaryMaterialsPricing.com, by the end of 2008 national average prices for recycled materials decreased 70-100 percent for paper products, 67-80 percent for plastics, 22-63 percent for aluminum and steel cans, and as much as 22 percent for glass. Based on the review of characterization results of this Study, there is an overall decrease in quantity of recyclables in the waste stream in 2008.

Recent advancements in technology have also played a significant role in the solid waste industry. Recent history suggests the longer technology is out, the lower the price. Specifically, the quantity and use of electronics has become more and more prevalent, with the majority of households using computers and cell phones daily. The first result of this is the increased production and amount of these types of materials, which are HHW. Although recovery programs continue to develop, these materials are increasingly found within every disposed waste stream. Compared to waste characterization results for New York, San Francisco, and Seattle, Alameda County actually has the lowest percentage of disposed HHW in single-family and multi-family waste streams. The other segment of the waste stream that is greatly affected by the advanced use of technology is paper. As more work is conducted over the internet and email, office and high-grade paper quantities decrease. As more news is obtained from the internet, lower quantities of newspaper are a result.

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.

Appendix A

RESULTS BY JURISDICTION

Introduction

StopWaste.Org (StopWaste) 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.

The primary objectives of this Study are to:

- 1) Provide updated characterization 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 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.

This report has been organized so that all Countywide aggregate results were presented and discussed within the main report and all jurisdiction-specific results are presented within this Appendix B.

The results presented herein will assist StopWaste and each member agency to evaluate options for achieving its 75 percent 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 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

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. Therefore, we have also provided data for roll-off and self-haul waste streams by generator type.

Waste characterization integrates annual solid waste quantities for a particular waste stream with corresponding composition profiles developed directly from data obtained during representative field sample collection and sorting. Annual quantities of waste disposed from within each member agency during calendar year 2008 were provided for each waste stream by StopWaste staff. Waste tonnages were obtained through coordination with current solid waste haulers and facilities. 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. Field sampling and sorting activities were completed in 4 seasons within calendar year 2008.

Material Categories

StopWaste.Org staff reviewed and recommended 2008 Study target material categories for sorting based on current critical data needs while maintaining representative comparison with previous studies. Major material categories used in 2008 are directly comparable to those used in 2000 and 1995 with only minor adjustment to reclassify Other Waste categories appropriately. Various changes made to specific material categories used in the 2000 study are further explained 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

Material definitions used throughout the Study are presented in the Study Design within Appendix A.

How to Use this Report

This report presents a large amount of statistical data to facilitate comprehensive evaluation of the Alameda County solid waste disposal system. To properly interpret the results presented, it is necessary to understand the data and corresponding limitations.

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. Affects of the recent economic downturn on solid waste disposal are discussed later.

For every sample collected, the weight of each material category was entered into the Study-specific database along with tagging information such as jurisdiction, waste stream, sample number, etc. Samples from the same jurisdiction and waste stream were grouped together to develop an average composition. The corresponding total annual quantity of waste for each composition (as provided by StopWaste) was then distributed based on the material category mean to obtain the amount of each material type disposed in tons. In order to evaluate the variability of material from one sample to another, confidence intervals were calculated for each material category.

The following definitions are provided for the statistical measures used in the remainder of this report:

Tons Disposed – The total disposed amount of each material category for a given sample set is provided by weight in tons. Tons disposed are calculated by allocating the total waste quantity for the sample set by each material's mean.

Mean – The mean is calculated as the average composition of each material category (or major material group) expressed as a percentage of the total amount of material within the sample set.

Confidence intervals – The lower and upper confidence intervals indicate the likelihood that the population mean (i.e. the composition of the entire waste stream) falls close to the sample mean (i.e. the samples analyzed in the study). For comparison with previous studies, and in accordance with industry standard, the lower and upper bounds throughout this report have been calculated at a 90 percent level of confidence. The 90 percent confidence intervals define the upper and lower bounds for which we can be 90 percent confident that the particular material category's mean

value will fall between. If the confidence intervals are “wide” for a material category, it means there was greater variability of that material between samples.

Note that the standard deviation was not presented in this Study but is used in the calculation to determine confidence intervals.

Percent change from 2000 – This value, expressed as a percentage, is calculated as the amount of increase or decrease in the mean from 2000 to 2008. The purpose of including this measurement is to allow convenient comparison of each material category on the basis of composition, rather than tonnage. Direct comparison of the compositions is necessary due to the significant decline in the overall quantity of waste since 2000. Adjustments were made as necessary to account for changes made to the material categories, see Section 2.4 for further details.

Summary of Tables and Figures

For each member agency, a separate section within this Appendix B presents and discusses jurisdiction-specific results. The following tables and figures are provided within each section:

- **Table 1 – Summary of Jurisdiction-Specific Waste Disposal Data:** Summary of demographic data associated with each jurisdiction and comparison with 2000 data.
- **Table 2 – Summary of Samples Obtained from Jurisdiction:** Summary of the number of samples collected during the 2008 study from each of the five waste streams.
- **Figure 1 – Overall Waste Composition By Major Material Group:** Summary of 2008 jurisdiction-wide composition data by major material group, including pie chart and table.
- **Figure 2 – Single-Family Residential Waste Composition By Major Material Group:** Summary of 2008 single-family residential composition data by major material group, including pie chart and table.
- **Figure 3 – Multi-Family Residential Waste Composition By Major Material Group:** Summary of 2008 multi-family residential composition data by major material group, including pie chart and table.
- **Figure 4 –Commercial Waste Composition By Major Material Group:** Summary of 2008 commercial composition data by major material group, including pie chart and table.
- **Figure 5 – Self-Haul Waste Composition By Major Material Group:** Summary of 2008 roll-off composition data by major material group, including pie chart and table.
- **Figure 6 –Roll-Off Waste Composition By Major Material Group:** Summary of 2008 roll-off composition data by major material group, including pie chart and table.

- **Figure 7 – Historic Comparison of Jurisdiction-wide Disposal:** Comparison of waste disposal by major material category from 1995, 2000, and 2008 studies.
- **Figure 8 – Top 12 Most Common Materials from 2008:** Presents the 12 material categories that made up the highest percentage of the jurisdiction’s disposed waste stream and the amount of that material present in previous studies.
- **Figure 9 – Top 12 Most Common Materials from 2000:** Presents the 12 material categories that made up the highest percentage of the jurisdiction’s disposed waste stream in the 2000 study and the amount of that material present in other studies.
- **Table 3 – Summary of Overall Material Proportions:** The amount of each specific material category present within each waste stream expressed as a percentage of the total amount of waste originating from the jurisdiction.
- **Table 4 – Summary of Overall Material Tonnages:** The amount of disposed waste for each specific material category present within each waste stream.
- **Table 5 – Jurisdiction-wide Waste Composition and Disposal:** Detailed 2008 composition data for each specific material category.
- **Table 6 – Single-Family Residential Waste Composition and Disposal:** Detailed 2008 composition data for each specific material category.
- **Table 7 – Multi-Family Residential Waste Composition and Disposal:** Detailed 2008 composition data for each specific material category.
- **Table 8 – Commercial Waste Composition and Disposal:** Detailed 2008 composition data for each specific material category.
- **Table 9 – Roll-Off Waste Composition and Disposal:** Detailed 2008 composition data for each specific material category.
- **Table 10 – Self-Haul Waste Composition and Disposal:** Detailed 2008 composition data for each specific material category.
- **Table 11 – Detailed Historic Comparison of Overall Jurisdiction-wide Waste:** Comparison of detailed composition and disposal data trends.
- **Table 12 – Detailed Historic Comparison of Single-Family Residential Waste:** Comparison of detailed composition and disposal data trends.
- **Table 13 – Detailed Historic Comparison of Multi-Family Residential Waste:** Comparison of detailed composition and disposal data trends.
- **Table 14 – Detailed Historic Comparison of Commercial Waste:** Comparison of detailed composition and disposal data trends.
- **Table 15 – Detailed Historic Comparison of Roll-Off Waste:** Comparison of detailed composition and disposal data trends.
- **Table 16 – Detailed Historic Comparison of Self-Haul Waste:** Comparison of detailed composition and disposal data trends.

Appendix A1

2008 WASTE CHARACTERIZATION RESULTS

CITY OF ALAMEDA

This section presents a summary of the composition and quantity of disposed waste from the City of Alameda. The 2008 Study results presented herein are based on compositions developed using data obtained from field sample collection and sorting activities performed over four seasons during calendar year 2008. A complete description of the Study and presentation of Countywide aggregate results for all of Alameda County are included in Section 3 of the report.

Table 1 summarizes selected demographic and waste disposal characteristics for the City of Alameda. The total amount of waste disposed in 2008 represents 3.6 percent of the Countywide waste stream, and decreased approximately 11 percent from 2000.

Table 1
City of Alameda Waste Disposal Data

	2000	2008
Population ¹	73,713	75,823
Housing Units	31,852	32,527
Number of Business Establishments ²	1,924	2,130
Waste Disposal (tons) ³	48,421	43,048
Single Family	13,947	11,951
Multi-Family	7,488	3,650
Commercial	10,784	12,303
Roll-off	8,411	6,424
Self-Haul	7,792	8,719
Residential Disposal Rate (lbs/capita/year) ⁴	582	1,387
Non-residential Disposal Rate (tons/establishment/year)	10	12

¹ Source: State of California, Department of Finance, City/County Population and Housing Estimates for 2000 and Jan 2008.

² Source: California Board of Equalization. "Taxable Sales in California (Sales & Use Tax)", 1999 and 2007.

³ Data provided by StopWaste.Org staff.

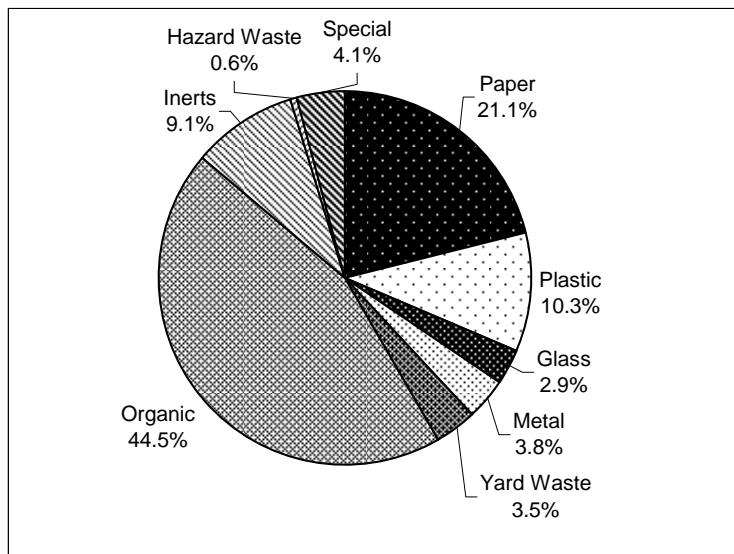
Table 2 presents the number of samples collected from each type of waste stream. Approximately 6 percent of the total number of samples collected were from this jurisdiction.

Table 2
Summary of Samples Obtained from City of Alameda

Waste Stream	Total Samples
Single-family	21
Multi-family	15
Commercial	38
Roll-off	22
Self-haul	43
Total	139

The following tables and figures are presented for waste originating from the City of Alameda. The introduction to Appendix B presents a summary of the information provided within each table or figure.

Figure 1 City of Alameda 2008 Aggregate Waste Composition by Major Material Group



Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	9,091	21.1%	18.9%	23.8%
Plastic	4,442	10.3%	9.5%	11.2%
Glass	1,242	2.9%	2.2%	3.8%
Metal	1,651	3.8%	3.0%	4.8%
Yard Waste	1,516	3.5%	2.2%	5.5%
Organic	19,158	44.5%	40.3%	48.9%
Inerts	3,937	9.1%	6.3%	12.6%
Hazard Waste	265	0.6%	0.4%	0.9%
Special	1,747	4.1%	2.2%	6.6%
TOTAL	43,048	100.0%		

2008 WASTE CHARACTERIZATION RESULTS CITY OF ALAMEDA

Figure 2 City of Alameda Single-Family Residential Composition by Major Material Group

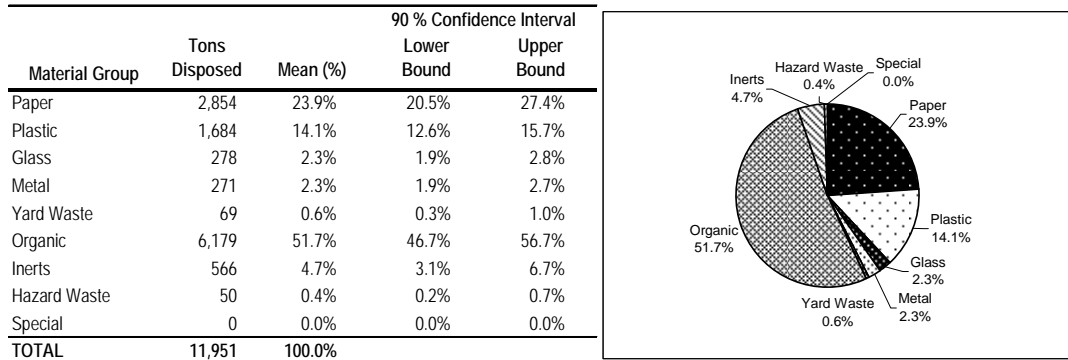


Figure 3 City of Alameda Multi-Family Residential Composition by Major Material Group

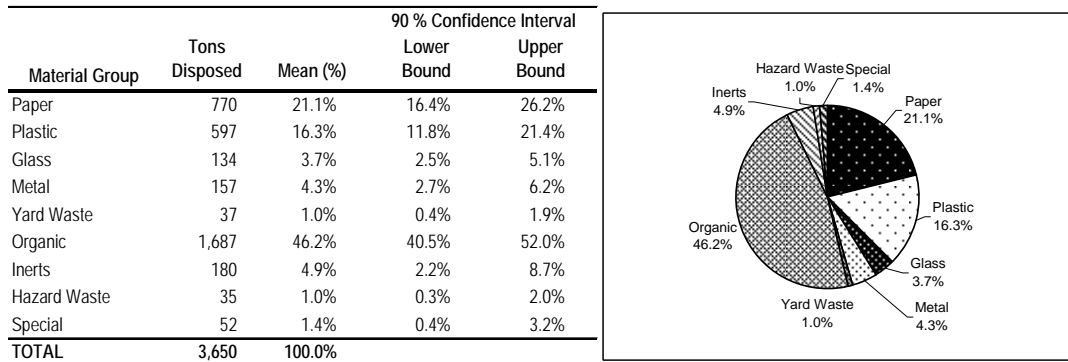


Figure 4 City of Alameda Commercial Composition by Major Material Group

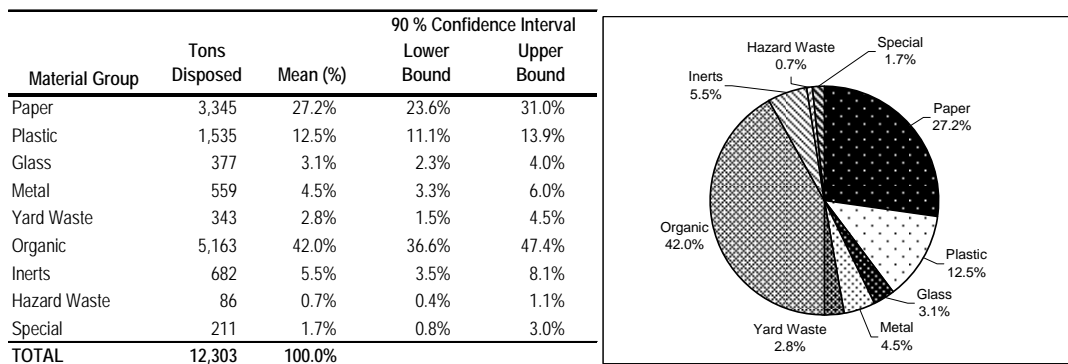


Figure 5 City of Alameda Roll-off Composition by Major Material Group

Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	1,254	19.5%	10.2%	30.9%
Plastic	360	5.6%	3.2%	8.6%
Glass	97	1.5%	0.5%	2.9%
Metal	75	1.2%	0.5%	2.1%
Yard Waste	757	11.8%	3.9%	23.1%
Organic	2,108	32.8%	19.1%	48.3%
Inerts	755	11.8%	4.8%	21.3%
Hazard Waste	7	0.1%	0.0%	0.2%
Special	1,011	15.7%	5.5%	29.9%
TOTAL	6,424	100.0%		

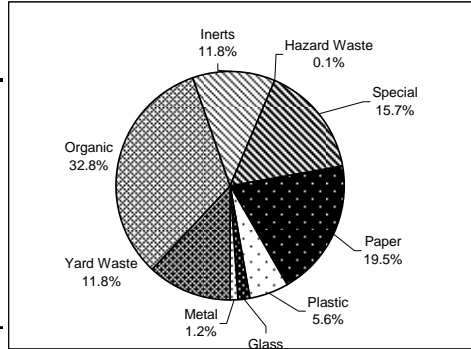
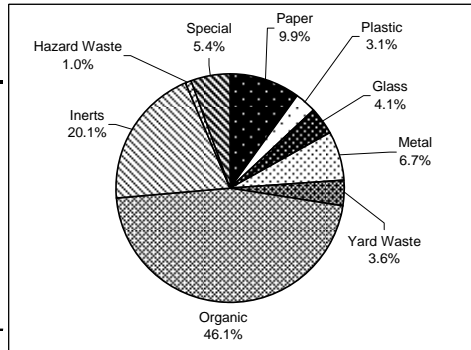


Figure 6 City of Alameda Self Hauler Composition by Major Material Group

Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	867	9.9%	5.7%	15.1%
Plastic	266	3.1%	2.0%	4.3%
Glass	355	4.1%	2.0%	6.8%
Metal	589	6.7%	4.5%	9.4%
Yard Waste	310	3.6%	1.7%	6.0%
Organic	4,021	46.1%	35.5%	56.9%
Inerts	1,753	20.1%	11.8%	29.9%
Hazard Waste	86	1.0%	0.5%	1.7%
Special	473	5.4%	2.5%	9.3%
TOTAL	8,719	100.0%		



2008 WASTE CHARACTERIZATION RESULTS
CITY OF ALAMEDA

Figure 7 Historic Comparison of City of Alameda Aggregate Disposal

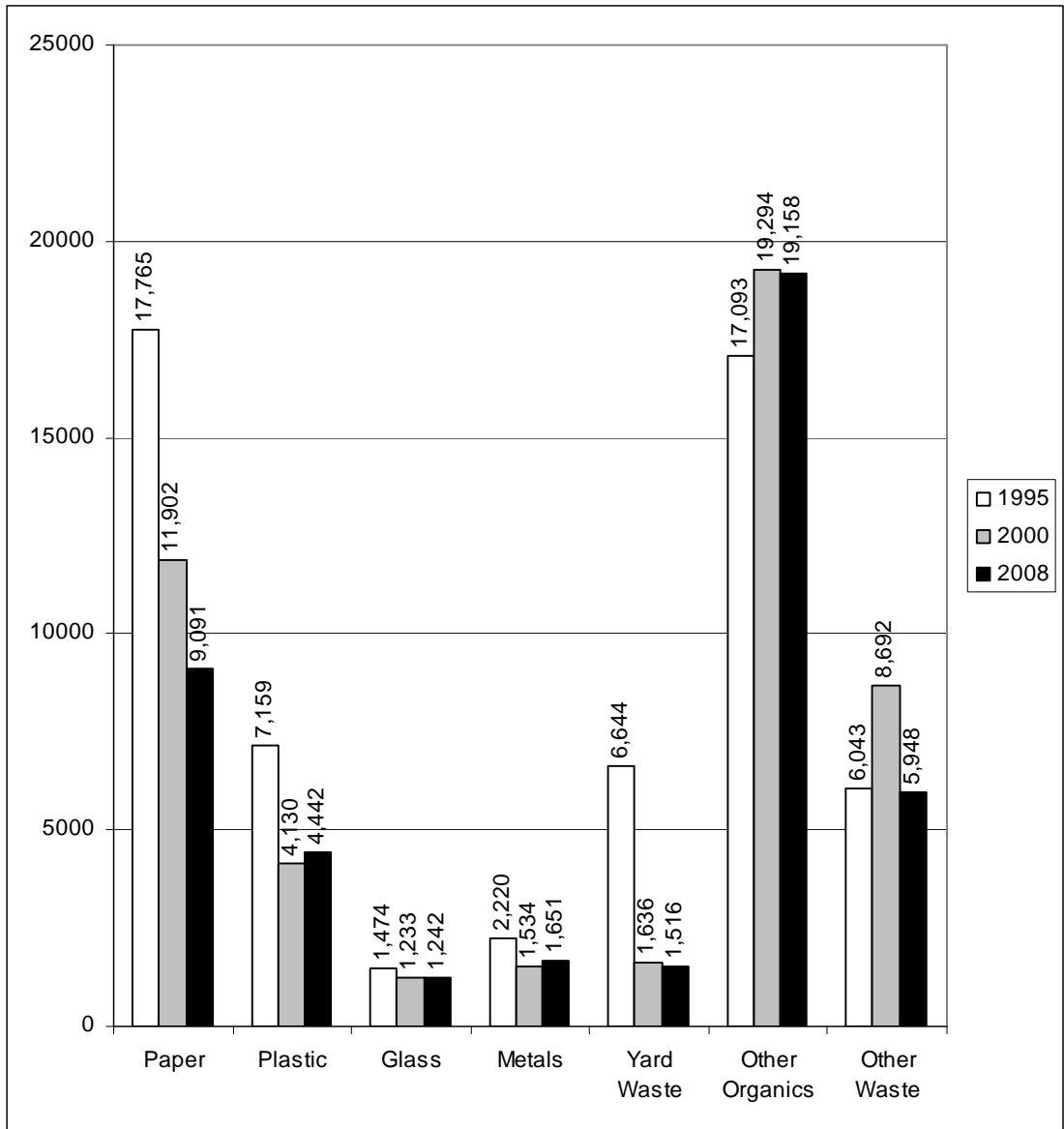
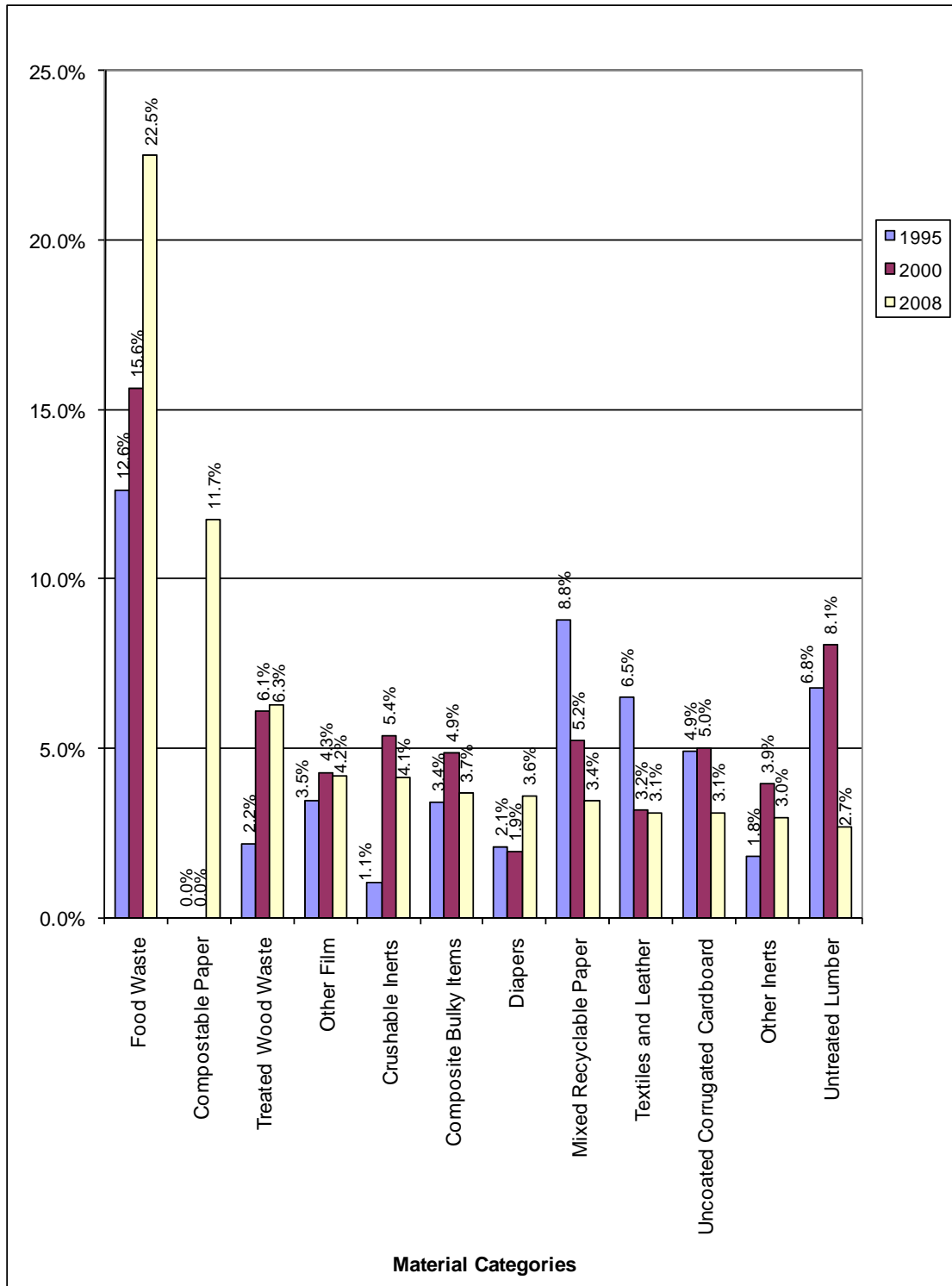


Figure 8 City of Alameda Top 12 Most Common Materials - Aggregate



2008 WASTE CHARACTERIZATION RESULTS
CITY OF ALAMEDA

Figure 9 City of Alameda Top 12 Most Common Materials from 2000

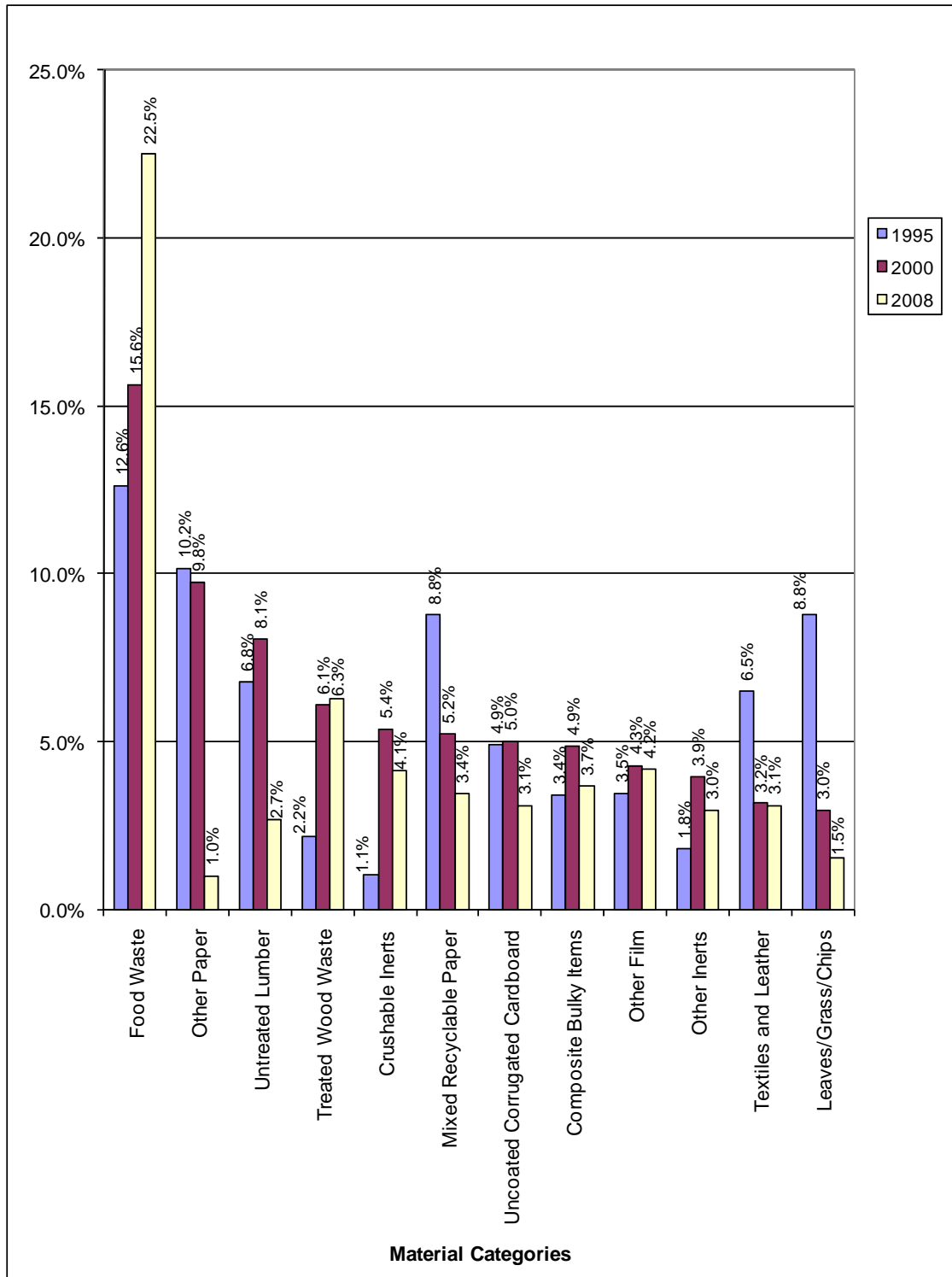


Table 3
Summary of Overall Material Proportions for City of Alameda

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Aggregated
Paper		23.9%	21.1%	27.2%	19.5%	9.9%	21.1%
	1 Uncoated Corrugated Cardboard	0.1%	0.6%	1.5%	11.3%	4.6%	3.1%
	2 High Grade Paper	0.3%	0.3%	1.5%	0.2%	0.3%	0.6%
	3 Newspaper	1.8%	1.1%	1.7%	0.4%	0.4%	1.2%
	4 Mixed Recyclable Paper	1.9%	3.8%	3.3%	5.7%	4.1%	3.4%
	5 Compostable Paper	19.1%	14.8%	17.0%	1.9%	0.2%	11.7%
	6 Other Paper	0.7%	0.5%	2.2%	0.1%	0.4%	1.0%
Plastics		14.1%	16.3%	12.5%	5.6%	3.1%	10.3%
	7 HDPE Bottles (#2)	0.5%	0.9%	0.5%	0.1%	0.0%	0.4%
	8 PETE Bottles (#1)	0.5%	0.8%	0.6%	0.2%	0.1%	0.4%
	9 Other Plastic Containers	1.1%	2.2%	0.8%	0.0%	0.1%	0.7%
	10 Plastic Bags	2.1%	3.3%	1.2%	0.0%	0.1%	1.2%
	11 Other Film	5.8%	4.0%	5.4%	4.2%	0.4%	4.2%
	12 Expanded Polystyrene Blocks	0.2%	0.2%	0.2%	0.0%	1.0%	0.3%
	13 Mixed Rigid Plastics	2.6%	4.1%	2.7%	0.6%	1.1%	2.2%
	14 Other Plastics	1.2%	0.9%	1.1%	0.5%	0.3%	0.9%
Glass		2.3%	3.7%	3.1%	1.5%	4.1%	2.9%
	15 Recyclable Glass Bottles/Containers	2.2%	2.8%	2.5%	0.7%	1.3%	1.9%
	16 Other Glass	0.2%	0.9%	0.6%	0.8%	2.7%	0.9%
Metals		2.3%	4.3%	4.5%	1.2%	6.7%	3.8%
	17 Aluminum Cans	0.1%	0.2%	0.2%	0.1%	0.0%	0.1%
	18 Other Non-Ferrous	0.4%	0.4%	0.4%	0.1%	1.0%	0.5%
	19 Steel Food and Beverage Cans	0.9%	1.0%	1.2%	0.0%	0.1%	0.7%
	20 Other Ferrous	0.8%	2.7%	2.6%	0.9%	5.3%	2.4%
	21 White Goods	0.1%	0.0%	0.2%	0.0%	0.3%	0.1%
Yard Waste		0.6%	1.0%	2.8%	11.8%	3.6%	3.5%
	22 Leaves/Grass/Chips	0.2%	0.6%	2.3%	3.4%	1.3%	1.5%
	23 Branches/Stumps/Prunings/Trimmings	0.3%	0.4%	0.5%	8.4%	2.2%	2.0%
Organics		51.7%	46.2%	42.0%	32.8%	46.1%	44.5%
	24 Food Waste	33.8%	29.3%	29.1%	14.3%	0.9%	22.5%
	25 Tires	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
	26 Untreated Lumber	0.0%	0.4%	0.6%	2.2%	10.5%	2.7%
	27 Pallets	0.0%	0.0%	0.7%	6.1%	3.0%	1.7%
	28 Treated Wood Waste	0.8%	1.4%	2.5%	6.1%	21.4%	6.3%
	29 Textiles and Leather	3.2%	5.0%	2.7%	4.1%	2.0%	3.1%
	30 Carpet	0.3%	0.7%	0.8%	0.0%	5.5%	1.5%
	31 Diapers	7.1%	5.7%	3.9%	0.0%	0.0%	3.6%
	32 Manure	5.5%	3.0%	0.4%	0.0%	0.1%	1.9%
	33 Other Organics	0.9%	0.8%	1.2%	0.0%	2.6%	1.2%
Inerts		4.7%	4.9%	5.5%	11.8%	20.1%	9.1%
	34 Crushable Inerts	2.3%	1.9%	3.4%	2.0%	10.3%	4.1%
	35 Other Inerts	2.4%	3.1%	2.2%	7.6%	1.3%	3.0%
	36 Gypsum Board	0.0%	0.0%	0.0%	2.2%	2.0%	0.7%
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0.0%	6.6%	1.3%
HHW		0.4%	1.0%	0.7%	0.1%	1.0%	0.6%
	38 Paint/Adhesives	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%
	39 Vehicle & Equipment Fluids	0.0%	0.0%	0.3%	0.0%	0.0%	0.1%
	40 Universal Hazardous Waste	0.1%	0.1%	0.0%	0.0%	0.0%	0.1%
	41 Medical Waste	0.1%	0.0%	0.1%	0.0%	0.0%	0.1%
	42 Medicine	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	43 Covered E-Waste	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
	44 Other E-Waste	0.0%	0.8%	0.1%	0.0%	0.0%	0.1%
	45 Other Hazardous Waste	0.1%	0.0%	0.0%	0.0%	0.9%	0.2%
Special		0.0%	1.4%	1.7%	15.7%	5.4%	4.1%
	46 Brown Goods	0.0%	1.0%	0.4%	0.0%	0.4%	0.3%
	47 Composite Bulky Items	0.0%	0.4%	0.9%	15.7%	5.0%	3.7%
	48 Other Special Waste	0.0%	0.0%	0.4%	0.0%	0.0%	0.1%
TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF ALAMEDA**

**Table 4
Summary of Overall Material Tonnages for City of Alameda**

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
Paper		2,854	770	3,345	1,254	867	9,091
	1 Uncoated Corrugated Cardboard	10	21	182	726	397	1,336
	2 High Grade Paper	34	12	182	11	24	262
	3 Newspaper	216	40	215	24	32	527
	4 Mixed Recyclable Paper	222	138	401	365	359	1,485
	5 Compostable Paper	2,283	541	2,091	122	17	5,053
	6 Other Paper	89	20	275	6	38	428
Plastics		1,684	597	1,535	360	266	4,442
	7 HDPE Bottles (#2)	60	34	64	4	3	165
	8 PETE Bottles (#1)	64	28	73	10	5	179
	9 Other Plastic Containers	126	79	98	1	5	309
	10 Plastic Bags	257	121	149	2	5	534
	11 Other Film	694	146	660	270	37	1,806
	12 Expanded Polystyrene Blocks	28	7	27	3	86	151
	13 Mixed Rigid Plastics	313	151	330	36	100	929
	14 Other Plastics	143	32	135	33	26	369
Glass		278	134	377	97	355	1,242
	15 Recyclable Glass Bottles/Containers	259	103	309	47	116	835
	16 Other Glass	19	31	69	50	238	407
Metals		271	157	559	75	589	1,651
	17 Aluminum Cans	17	7	24	7	4	58
	18 Other Non-Ferrous	46	16	45	9	87	204
	19 Steel Food and Beverage Cans	106	36	142	0	7	291
	20 Other Ferrous	94	98	324	59	463	1,039
	21 White Goods	7	0	24	0	28	60
Yard Waste		69	37	343	757	310	1,516
	22 Leaves/Grass/Chips	29	22	280	218	117	666
	23 Branches/Stumps/Prunings/Trimings	39	16	63	540	193	850
Organics		6,179	1,687	5,163	2,108	4,021	19,158
	24 Food Waste	4,037	1,068	3,580	917	81	9,683
	25 Tires	0	0	0	0	9	9
	26 Untreated Lumber	2	13	76	142	915	1,148
	27 Pallets	1	0	88	391	260	740
	28 Treated Wood Waste	93	51	309	393	1,867	2,713
	29 Textiles and Leather	387	181	334	260	178	1,340
	30 Carpet	37	26	103	0	477	643
	31 Diapers	853	209	481	1	0	1,545
	32 Manure	658	108	49	0	11	826
	33 Other Organics	111	30	144	3	223	512
Inerts		566	180	682	755	1,753	3,937
	34 Crushable Inerts	271	68	413	128	894	1,775
	35 Other Inerts	292	112	268	488	114	1,274
	36 Gypsum Board	0	0	0	139	171	311
	37 Asphalt Roofing	3	0	0	0	574	577
HHW		50	35	86	7	86	265
	38 Paint/Adhesives	6	0	16	0	0	22
	39 Vehicle & Equipment Fluids	0	1	35	0	0	36
	40 Universal Hazardous Waste	17	2	4	0	0	23
	41 Medical Waste	18	0	9	0	0	27
	42 Medicine	1	2	4	0	0	7
	43 Covered E-Waste	0	0	0	7	4	11
	44 Other E-Waste	2	30	15	0	3	50
	45 Other Hazardous Waste	7	0	3	0	79	89
Special		0	52	211	1,011	473	1,747
	46 Brown Goods	0	38	44	0	35	117
	47 Composite Bulky Items	0	14	115	1,011	438	1,578
	48 Other Special Waste	0	0	52	0	0	52
TOTAL		11,951	3,650	12,303	6,424	8,719	43,048

Table 5
City of Alameda Aggregate Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		9,091	21.1%	18.9%	23.8%
	1 Uncoated Corrugated Cardboard	1,336	3.1%	1.8%	4.8%
	2 High Grade Paper	262	0.6%	0.4%	0.8%
	3 Newspaper	527	1.2%	1.0%	1.6%
	4 Mixed Recyclable Paper	1,485	3.4%	2.6%	4.6%
	5 Compostable Paper	5,053	11.7%	10.8%	12.7%
	6 Other Paper	428	1.0%	0.7%	1.3%
Plastics		4,442	10.3%	9.5%	11.2%
	7 HDPE Bottles (#2)	165	0.4%	0.3%	0.4%
	8 PETE Bottles (#1)	179	0.4%	0.4%	0.5%
	9 Other Plastic Containers	309	0.7%	0.6%	0.9%
	10 Plastic Bags	534	1.2%	1.0%	1.5%
	11 Other Film	1,806	4.2%	3.8%	4.7%
	12 Expanded Polystyrene Blocks	151	0.3%	0.2%	0.6%
	13 Mixed Rigid Plastics	929	2.2%	1.9%	2.5%
	14 Other Plastics	369	0.9%	0.8%	1.0%
Glass		1,242	2.9%	2.2%	3.8%
	15 Recyclable Glass Bottles/Containers	835	1.9%	1.6%	2.3%
	16 Other Glass	407	0.9%	0.5%	1.6%
Metals		1,651	3.8%	3.0%	4.8%
	17 Aluminum Cans	58	0.1%	0.1%	0.2%
	18 Other Non-Ferrous	204	0.5%	0.3%	0.7%
	19 Steel Food and Beverage Cans	291	0.7%	0.6%	0.8%
	20 Other Ferrous	1,039	2.4%	1.7%	3.3%
	21 White Goods	60	0.1%	0.1%	0.2%
Yard Waste		1,516	3.5%	2.2%	5.5%
	22 Leaves/Grass/Chips	666	1.5%	1.0%	2.3%
	23 Branches/Stumps/Prunings/Trimmings	850	2.0%	1.0%	3.5%
Organics		19,158	44.5%	40.3%	48.9%
	24 Food Waste	9,683	22.5%	20.2%	25.3%
	25 Tires	9	0.0%	0.0%	0.0%
	26 Untreated Lumber	1,148	2.7%	1.3%	4.4%
	27 Pallets	740	1.7%	0.9%	3.0%
	28 Treated Wood Waste	2,713	6.3%	3.8%	9.2%
	29 Textiles and Leather	1,340	3.1%	2.5%	3.9%
	30 Carpet	643	1.5%	0.6%	2.7%
	31 Diapers	1,545	3.6%	3.1%	4.2%
	32 Manure	826	1.9%	1.5%	2.5%
	33 Other Organics	512	1.2%	0.7%	1.8%
Inerts		3,937	9.1%	6.3%	12.6%
	34 Crushable Inerts	1,775	4.1%	2.5%	6.2%
	35 Other Inerts	1,274	3.0%	2.1%	4.2%
	36 Gypsum Board	311	0.7%	0.3%	1.2%
	37 Asphalt Roofing	577	1.3%	0.2%	2.9%
HHW		265	0.6%	0.4%	0.9%
	38 Paint/Adhesives	22	0.1%	0.0%	0.1%
	39 Vehicle & Equipment Fluids	36	0.1%	0.0%	0.1%
	40 Universal Hazardous Waste	23	0.1%	0.0%	0.1%
	41 Medical Waste	27	0.1%	0.0%	0.1%
	42 Medicine	7	0.0%	0.0%	0.0%
	43 Covered E-Waste	11	0.0%	0.0%	0.0%
	44 Other E-Waste	50	0.1%	0.0%	0.2%
	45 Other Hazardous Waste	89	0.2%	0.1%	0.4%
Special		1,747	4.1%	2.2%	6.6%
	46 Brown Goods	117	0.3%	0.2%	0.5%
	47 Composite Bulky Items	1,578	3.7%	1.9%	6.1%
	48 Other Special Waste	52	0.1%	0.1%	0.2%
TOTAL		43,048	100.0%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF ALAMEDA**

**Table 6
City of Alameda Single-Family Residential Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		2,854	23.88%	20.50%	27.44%
	1 Uncoated Corrugated Cardboard	10	0.09%	0.04%	0.16%
	2 High Grade Paper	34	0.28%	0.10%	0.56%
	3 Newspaper	216	1.81%	0.67%	3.47%
	4 Mixed Recyclable Paper	222	1.86%	1.21%	2.64%
	5 Compostable Paper	2,283	19.10%	15.49%	23.00%
	6 Other Paper	89	0.74%	0.50%	1.04%
Plastics		1,684	14.09%	12.59%	15.66%
	7 HDPE Bottles (#2)	60	0.50%	0.34%	0.68%
	8 PETE Bottles (#1)	64	0.53%	0.40%	0.68%
	9 Other Plastic Containers	126	1.05%	0.72%	1.44%
	10 Plastic Bags	257	2.15%	1.55%	2.84%
	11 Other Film	694	5.81%	4.65%	7.08%
	12 Expanded Polystyrene Blocks	28	0.24%	0.10%	0.44%
	13 Mixed Rigid Plastics	313	2.62%	2.14%	3.15%
	14 Other Plastics	143	1.20%	0.93%	1.50%
Glass		278	2.33%	1.93%	2.76%
	15 Recyclable Glass Bottles/Containers	259	2.17%	1.73%	2.65%
	16 Other Glass	19	0.16%	0.07%	0.29%
Metals		271	2.27%	1.90%	2.68%
	17 Aluminum Cans	17	0.14%	0.10%	0.19%
	18 Other Non-Ferrous	46	0.39%	0.28%	0.51%
	19 Steel Food and Beverage Cans	106	0.89%	0.70%	1.10%
	20 Other Ferrous	94	0.79%	0.51%	1.13%
	21 White Goods	7	0.06%	0.02%	0.14%
Yard Waste		69	0.57%	0.29%	0.95%
	22 Leaves/Grass/Chips	29	0.25%	0.12%	0.43%
	23 Branches/Stumps/Prunings/Trimmings	39	0.33%	0.12%	0.63%
Organics		6,179	51.70%	46.69%	56.70%
	24 Food Waste	4,037	33.78%	28.46%	39.31%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	2	0.01%	0.00%	0.03%
	27 Pallets	1	0.01%	0.00%	0.01%
	28 Treated Wood Waste	93	0.77%	0.42%	1.24%
	29 Textiles and Leather	387	3.24%	2.31%	4.31%
	30 Carpet	37	0.31%	0.08%	0.68%
	31 Diapers	853	7.14%	5.52%	8.95%
	32 Manure	658	5.51%	2.96%	8.79%
	33 Other Organics	111	0.93%	0.50%	1.50%
Inerts		566	4.74%	3.07%	6.74%
	34 Crushable Inerts	271	2.27%	1.14%	3.78%
	35 Other Inerts	292	2.45%	1.56%	3.52%
	36 Gypsum Board	0	0.00%	0.00%	0.00%
	37 Asphalt Roofing	3	0.02%	0.01%	0.05%
HHW		50	0.42%	0.23%	0.67%
	38 Paint/Adhesives	6	0.05%	0.01%	0.10%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	17	0.14%	0.06%	0.25%
	41 Medical Waste	18	0.15%	0.05%	0.31%
	42 Medicine	1	0.01%	0.00%	0.02%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	2	0.02%	0.00%	0.03%
	45 Other Hazardous Waste	7	0.06%	0.02%	0.12%
Special		0	0.00%	0.00%	0.00%
	46 Brown Goods	0	0.00%	0.00%	0.00%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		11,951	100.00%		

Table 7
City of Alameda Multi-Family Residential Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		770	21.10%	16.45%	26.16%
	1 Uncoated Corrugated Cardboard	21	0.56%	0.20%	1.11%
	2 High Grade Paper	12	0.32%	0.08%	0.70%
	3 Newspaper	40	1.09%	0.36%	2.20%
	4 Mixed Recyclable Paper	138	3.77%	2.25%	5.67%
	5 Compostable Paper	541	14.82%	10.62%	19.57%
	6 Other Paper	20	0.55%	0.41%	0.70%
Plastics		597	16.35%	11.84%	21.43%
	7 HDPE Bottles (#2)	34	0.93%	0.61%	1.31%
	8 PETE Bottles (#1)	28	0.76%	0.62%	0.90%
	9 Other Plastic Containers	79	2.15%	0.95%	3.82%
	10 Plastic Bags	121	3.32%	1.60%	5.63%
	11 Other Film	146	4.01%	3.20%	4.91%
	12 Expanded Polystyrene Blocks	7	0.18%	0.06%	0.37%
	13 Mixed Rigid Plastics	151	4.13%	2.54%	6.08%
	14 Other Plastics	32	0.87%	0.65%	1.13%
Glass		134	3.68%	2.47%	5.13%
	15 Recyclable Glass Bottles/Containers	103	2.83%	1.79%	4.11%
	16 Other Glass	31	0.85%	0.36%	1.55%
Metals		157	4.30%	2.71%	6.23%
	17 Aluminum Cans	7	0.19%	0.12%	0.29%
	18 Other Non-Ferrous	16	0.44%	0.30%	0.60%
	19 Steel Food and Beverage Cans	36	0.97%	0.71%	1.28%
	20 Other Ferrous	98	2.70%	1.24%	4.68%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		37	1.02%	0.40%	1.91%
	22 Leaves/Grass/Chips	22	0.59%	0.22%	1.15%
	23 Branches/Stumps/Prunings/Trimings	16	0.43%	0.08%	1.04%
Organics		1,687	46.21%	40.50%	51.98%
	24 Food Waste	1,068	29.26%	22.77%	36.19%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	13	0.36%	0.13%	0.70%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	51	1.40%	0.47%	2.81%
	29 Textiles and Leather	181	4.96%	2.59%	8.04%
	30 Carpet	26	0.72%	0.14%	1.74%
	31 Diapers	209	5.73%	3.76%	8.08%
	32 Manure	108	2.96%	1.17%	5.54%
	33 Other Organics	30	0.83%	0.41%	1.40%
Inerts		180	4.94%	2.20%	8.70%
	34 Crushable Inerts	68	1.87%	0.49%	4.12%
	35 Other Inerts	112	3.07%	1.23%	5.71%
	36 Gypsum Board	0	0.00%	0.00%	0.00%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		35	0.97%	0.32%	1.95%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	1	0.02%	0.00%	0.05%
	40 Universal Hazardous Waste	2	0.06%	0.02%	0.11%
	41 Medical Waste	0	0.00%	0.00%	0.01%
	42 Medicine	2	0.05%	0.01%	0.11%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	30	0.83%	0.20%	1.88%
	45 Other Hazardous Waste	0	0.00%	0.00%	0.01%
Special		52	1.43%	0.36%	3.20%
	46 Brown Goods	38	1.05%	0.23%	2.46%
	47 Composite Bulky Items	14	0.38%	0.07%	0.94%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		3,650	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF ALAMEDA**

**Table 8
City of Alameda Commercial Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		3,345	27.19%	23.58%	30.96%
	1 Uncoated Corrugated Cardboard	182	1.48%	0.94%	2.14%
	2 High Grade Paper	182	1.48%	0.84%	2.29%
	3 Newspaper	215	1.75%	1.09%	2.56%
	4 Mixed Recyclable Paper	401	3.26%	2.18%	4.54%
	5 Compostable Paper	2,091	16.99%	14.74%	19.37%
	6 Other Paper	275	2.23%	1.29%	3.42%
Plastics		1,535	12.48%	11.12%	13.91%
	7 HDPE Bottles (#2)	64	0.52%	0.41%	0.66%
	8 PETE Bottles (#1)	73	0.59%	0.47%	0.72%
	9 Other Plastic Containers	98	0.80%	0.62%	1.00%
	10 Plastic Bags	149	1.21%	0.86%	1.63%
	11 Other Film	660	5.36%	4.54%	6.25%
	12 Expanded Polystyrene Blocks	27	0.22%	0.12%	0.35%
	13 Mixed Rigid Plastics	330	2.68%	2.01%	3.44%
	14 Other Plastics	135	1.10%	0.82%	1.42%
Glass		377	3.07%	2.29%	3.95%
	15 Recyclable Glass Bottles/Containers	309	2.51%	1.90%	3.20%
	16 Other Glass	69	0.56%	0.28%	0.94%
Metals		559	4.55%	3.27%	6.02%
	17 Aluminum Cans	24	0.19%	0.14%	0.25%
	18 Other Non-Ferrous	45	0.37%	0.27%	0.48%
	19 Steel Food and Beverage Cans	142	1.15%	0.72%	1.69%
	20 Other Ferrous	324	2.63%	1.58%	3.94%
	21 White Goods	24	0.20%	0.09%	0.36%
Yard Waste		343	2.79%	1.47%	4.50%
	22 Leaves/Grass/Chips	280	2.28%	1.13%	3.81%
	23 Branches/Stumps/Prunings/Trimnings	63	0.51%	0.23%	0.90%
Organics		5,163	41.97%	36.58%	47.45%
	24 Food Waste	3,580	29.10%	23.46%	35.09%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	76	0.62%	0.31%	1.03%
	27 Pallets	88	0.71%	0.28%	1.33%
	28 Treated Wood Waste	309	2.51%	1.39%	3.95%
	29 Textiles and Leather	334	2.71%	1.94%	3.60%
	30 Carpet	103	0.83%	0.36%	1.51%
	31 Diapers	481	3.91%	2.30%	5.92%
	32 Manure	49	0.40%	0.19%	0.67%
	33 Other Organics	144	1.17%	0.60%	1.93%
Inerts		682	5.54%	3.46%	8.09%
	34 Crushable Inerts	413	3.36%	1.71%	5.53%
	35 Other Inerts	268	2.18%	1.41%	3.12%
	36 Gypsum Board	0	0.00%	0.00%	0.00%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		86	0.70%	0.40%	1.09%
	38 Paint/Adhesives	16	0.13%	0.06%	0.24%
	39 Vehicle & Equipment Fluids	35	0.29%	0.13%	0.51%
	40 Universal Hazardous Waste	4	0.04%	0.02%	0.06%
	41 Medical Waste	9	0.07%	0.03%	0.13%
	42 Medicine	4	0.03%	0.01%	0.06%
	43 Covered E-Waste	0	0.00%	0.00%	0.01%
	44 Other E-Waste	15	0.12%	0.05%	0.21%
	45 Other Hazardous Waste	3	0.02%	0.01%	0.04%
Special		211	1.71%	0.77%	3.01%
	46 Brown Goods	44	0.35%	0.16%	0.63%
	47 Composite Bulky Items	115	0.94%	0.37%	1.76%
	48 Other Special Waste	52	0.42%	0.17%	0.78%
TOTAL		12,303	100.00%		

Table 9
City of Alameda Roll-Off Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		1,254	19.52%	10.24%	30.91%
	1 Uncoated Corrugated Cardboard	726	11.31%	4.20%	21.28%
	2 High Grade Paper	11	0.16%	0.05%	0.34%
	3 Newspaper	24	0.38%	0.13%	0.77%
	4 Mixed Recyclable Paper	365	5.68%	2.38%	10.30%
	5 Compostable Paper	122	1.89%	0.87%	3.30%
	6 Other Paper	6	0.10%	0.03%	0.20%
Plastics		360	5.60%	3.19%	8.63%
	7 HDPE Bottles (#2)	4	0.07%	0.03%	0.12%
	8 PETE Bottles (#1)	10	0.16%	0.07%	0.28%
	9 Other Plastic Containers	1	0.02%	0.01%	0.04%
	10 Plastic Bags	2	0.03%	0.01%	0.06%
	11 Other Film	270	4.20%	2.03%	7.10%
	12 Expanded Polystyrene Blocks	3	0.05%	0.02%	0.09%
	13 Mixed Rigid Plastics	36	0.56%	0.31%	0.89%
	14 Other Plastics	33	0.52%	0.25%	0.88%
Glass		97	1.51%	0.54%	2.94%
	15 Recyclable Glass Bottles/Containers	47	0.73%	0.26%	1.45%
	16 Other Glass	50	0.77%	0.21%	1.69%
Metals		75	1.17%	0.50%	2.12%
	17 Aluminum Cans	7	0.10%	0.04%	0.20%
	18 Other Non-Ferrous	9	0.14%	0.04%	0.30%
	19 Steel Food and Beverage Cans	0	0.00%	0.00%	0.00%
	20 Other Ferrous	59	0.92%	0.34%	1.78%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		757	11.79%	3.94%	23.09%
	22 Leaves/Grass/Chips	218	3.39%	1.12%	6.83%
	23 Branches/Stumps/Prunings/Trimmings	540	8.40%	2.33%	17.74%
Organics		2,108	32.82%	19.08%	48.26%
	24 Food Waste	917	14.27%	5.00%	27.26%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	142	2.21%	0.83%	4.24%
	27 Pallets	391	6.09%	1.74%	12.84%
	28 Treated Wood Waste	393	6.12%	2.26%	11.69%
	29 Textiles and Leather	260	4.05%	1.51%	7.75%
	30 Carpet	0	0.00%	0.00%	0.00%
	31 Diapers	1	0.02%	0.01%	0.04%
	32 Manure	0	0.00%	0.00%	0.00%
	33 Other Organics	3	0.04%	0.01%	0.10%
Inerts		755	11.75%	4.75%	21.32%
	34 Crushable Inerts	128	1.99%	0.66%	4.03%
	35 Other Inerts	488	7.59%	2.67%	14.75%
	36 Gypsum Board	139	2.17%	0.71%	4.40%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		7	0.10%	0.03%	0.22%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	0	0.00%	0.00%	0.00%
	41 Medical Waste	0	0.00%	0.00%	0.00%
	42 Medicine	0	0.00%	0.00%	0.00%
	43 Covered E-Waste	7	0.10%	0.03%	0.22%
	44 Other E-Waste	0	0.00%	0.00%	0.00%
	45 Other Hazardous Waste	0	0.00%	0.00%	0.00%
Special		1,011	15.74%	5.51%	29.93%
	46 Brown Goods	0	0.00%	0.00%	0.00%
	47 Composite Bulky Items	1,011	15.74%	5.51%	29.93%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		6,424	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF ALAMEDA**

**Table 10
City of Alameda Self Haul Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		867	9.9%	5.7%	15.1%
	1 Uncoated Corrugated Cardboard	397	4.6%	2.4%	7.3%
	2 High Grade Paper	24	0.3%	0.1%	0.5%
	3 Newspaper	32	0.4%	0.2%	0.6%
	4 Mixed Recyclable Paper	359	4.1%	2.0%	7.0%
	5 Compostable Paper	17	0.2%	0.1%	0.3%
	6 Other Paper	38	0.4%	0.2%	0.7%
Plastics		266	3.1%	2.0%	4.3%
	7 HDPE Bottles (#2)	3	0.0%	0.0%	0.1%
	8 PETE Bottles (#1)	5	0.1%	0.0%	0.1%
	9 Other Plastic Containers	5	0.1%	0.0%	0.1%
	10 Plastic Bags	5	0.1%	0.0%	0.1%
	11 Other Film	37	0.4%	0.3%	0.6%
	12 Expanded Polystyrene Blocks	86	1.0%	0.4%	1.7%
	13 Mixed Rigid Plastics	100	1.1%	0.7%	1.7%
	14 Other Plastics	26	0.3%	0.2%	0.5%
Glass		355	4.1%	2.0%	6.8%
	15 Recyclable Glass Bottles/Containers	116	1.3%	0.6%	2.3%
	16 Other Glass	238	2.7%	1.3%	4.8%
Metals		589	6.7%	4.5%	9.4%
	17 Aluminum Cans	4	0.0%	0.0%	0.1%
	18 Other Non-Ferrous	87	1.0%	0.5%	1.6%
	19 Steel Food and Beverage Cans	7	0.1%	0.0%	0.1%
	20 Other Ferrous	463	5.3%	3.3%	7.8%
	21 White Goods	28	0.3%	0.1%	0.6%
Yard Waste		310	3.6%	1.7%	6.0%
	22 Leaves/Grass/Chips	117	1.3%	0.6%	2.3%
	23 Branches/Stumps/Prunings/Trimings	193	2.2%	1.0%	4.0%
Organics		4,021	46.1%	35.5%	56.9%
	24 Food Waste	81	0.9%	0.4%	1.6%
	25 Tires	9	0.1%	0.0%	0.2%
	26 Untreated Lumber	915	10.5%	6.0%	16.0%
	27 Pallets	260	3.0%	1.3%	5.3%
	28 Treated Wood Waste	1,867	21.4%	13.5%	30.6%
	29 Textiles and Leather	178	2.0%	1.2%	3.1%
	30 Carpet	477	5.5%	2.5%	9.5%
	31 Diapers	0	0.0%	0.0%	0.0%
	32 Manure	11	0.1%	0.1%	0.2%
	33 Other Organics	223	2.6%	1.2%	4.4%
Inerts		1,753	20.1%	11.8%	29.9%
	34 Crushable Inerts	894	10.3%	5.4%	16.5%
	35 Other Inerts	114	1.3%	0.6%	2.2%
	36 Gypsum Board	171	2.0%	1.0%	3.3%
	37 Asphalt Roofing	574	6.6%	2.9%	11.7%
HHW		86	1.0%	0.5%	1.7%
	38 Paint/Adhesives	0	0.0%	0.0%	0.0%
	39 Vehicle & Equipment Fluids	0	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	0	0.0%	0.0%	0.0%
	41 Medical Waste	0	0.0%	0.0%	0.0%
	42 Medicine	0	0.0%	0.0%	0.0%
	43 Covered E-Waste	4	0.0%	0.0%	0.1%
	44 Other E-Waste	3	0.0%	0.0%	0.1%
	45 Other Hazardous Waste	79	0.9%	0.4%	1.6%
Special		473	5.4%	2.5%	9.3%
	46 Brown Goods	35	0.4%	0.2%	0.7%
	47 Composite Bulky Items	438	5.0%	2.3%	8.8%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		8,719	100.0%		

Table 11
City of Alameda Detailed Historic Comparison of overall Jurisdiction-wide Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		30.4%	24.6%	21.1%	17,772	11,902	9,091
	1 Uncoated Corrugated Cardboard	4.9%	5.0%	3.1%	2,879	2,428	1,336
	2 High Grade Paper	3.3%	2.3%	0.6%	1,915	1,133	262
	3 Newspaper	3.3%	2.2%	1.2%	1,911	1,088	527
	4 Mixed Recyclable Paper	8.8%	5.2%	3.4%	5,127	2,528	1,485
	5 Compostable Paper	NA	NA	11.7%	NA	NA	5,053
	6 Other Paper	10.2%	9.8%	1.0%	5,939	4,725	428
Plastics		12.3%	8.5%	10.3%	7,159	4,130	4,442
	7 HDPE Bottles (#2)	0.6%	0.6%	0.4%	362	275	165
	8 PETE Bottles (#1)	0.2%	0.5%	0.4%	128	219	179
	9 Other Plastic Containers	NA	0.4%	0.7%	NA	180	309
	10 Plastic Bags	NA	NA	1.2%	NA	NA	534
	11 Other Film	3.5%	4.3%	4.2%	2,032	2,083	1,806
	12 Expanded Polystyrene Blocks	NA	NA	0.3%	NA	NA	151
	13 Mixed Rigid Plastics	NA	NA	2.2%	NA	NA	929
	14 Other Plastics	7.9%	2.8%	0.9%	4,637	1,374	369
Glass		2.5%	2.5%	2.9%	1,472	1,233	1,242
	15 Recyclable Glass Bottles/Containers	2.1%	2.3%	1.9%	1,197	1,110	835
	16 Other Glass	0.5%	0.3%	0.9%	274	123	407
Metals		3.8%	3.2%	3.8%	2,219	1,534	1,651
	17 Aluminum Cans	0.3%	0.2%	0.1%	146	112	58
	18 Other Non-Ferrous	0.5%	0.5%	0.5%	298	219	204
	19 Steel Food and Beverage Cans	0.7%	0.7%	0.7%	397	362	291
	20 Other Ferrous	2.4%	1.7%	2.4%	1,378	841	1,039
	21 White Goods	0.0%	0.0%	0.1%	0	0	60
Yard Waste		11.4%	3.4%	3.5%	6,646	1,636	1,516
	22 Leaves/Grass/Chips	8.8%	3.0%	1.5%	5,139	1,438	666
	23 Branches/Stumps/Prunings/Trimnings	2.6%	0.4%	2.0%	1,507	198	850
Organics		31.4%	39.8%	44.5%	18,319	19,294	19,158
	24 Food Waste	12.6%	15.6%	22.5%	7,376	7,572	9,683
	25 Tires	0.1%	0.7%	0.0%	41	346	9
	26 Untreated Lumber	6.8%	8.1%	2.7%	3,965	3,903	1,148
	27 Pallets	NA	NA	1.7%	NA	NA	740
	28 Treated Wood Waste	2.2%	6.1%	6.3%	1,279	2,952	2,713
	29 Textiles and Leather	6.5%	3.2%	3.1%	3,796	1,535	1,340
	30 Carpet	NA	1.7%	1.5%	NA	828	643
	31 Diapers	2.1%	1.9%	3.6%	1,226	942	1,545
	32 Manure	NA	NA	1.9%	NA	NA	826
	33 Other Organics	1.1%	2.5%	1.2%	637	1,216	512
Inerts		3.1%	11.4%	9.1%	1,799	5,526	3,937
	34 Crushable Inerts	1.1%	5.4%	4.1%	619	2,603	1,775
	35 Other Inerts	1.8%	3.9%	3.0%	1,051	1,912	1,274
	36 Gypsum Board	0.1%	1.3%	0.7%	29	637	311
	37 Asphalt Roofing	0.2%	0.8%	1.3%	99	375	577
HHW		0.4%	0.8%	0.6%	234	405	265
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	22
	39 Vehicle & Equipment Fluids	NA	NA	0.1%	NA	NA	36
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	23
	41 Medical Waste	NA	NA	0.1%	NA	NA	27
	42 Medicine	NA	NA	0.0%	NA	NA	7
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	11
	44 Other E-Waste	NA	NA	0.1%	NA	NA	50
	45 Other Hazardous Waste	0.4%	0.8%	0.2%	234	405	89
Special		4.8%	5.7%	4.1%	2,786	2,760	1,747
	46 Brown Goods	1.4%	0.8%	0.3%	788	402	117
	47 Composite Bulky Items	3.4%	4.9%	3.7%	1,997	2,359	1,578
	48 Other Special Waste	NA	NA	0.1%	NA	NA	52
TOTAL		100.0%	100.0%	100.0%	58,397	48,421	43,048

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF ALAMEDA**

**Table 12
City of Alameda Detailed Historic Comparison of Single-Family Residence**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		36.2%	30.3%	23.9%	7,458	4,230	2,854
	1 Uncoated Corrugated Cardboard	2.3%	4.8%	0.1%	482	671	10
	2 High Grade Paper	3.4%	1.8%	0.3%	692	252	34
	3 Newspaper	4.3%	3.0%	1.8%	877	425	216
	4 Mixed Recyclable Paper	12.1%	6.6%	1.9%	2,484	914	222
	5 Compostable Paper	NA	NA	19.1%	NA	NA	2,283
	6 Other Paper	14.2%	14.1%	0.7%	2,923	1,967	89
Plastics		9.0%	10.8%	14.1%	1,852	1,504	1,684
	7 HDPE Bottles (#2)	0.4%	0.6%	0.5%	84	85	60
	8 PETE Bottles (#1)	0.3%	0.5%	0.5%	64	63	64
	9 Other Plastic Containers	NA	0.3%	1.1%	NA	45	126
	10 Plastic Bags	NA	NA	2.1%	NA	NA	257
	11 Other Film	4.6%	6.1%	5.8%	939	857	694
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	28
	13 Mixed Rigid Plastics	NA	NA	2.6%	NA	NA	313
	14 Other Plastics	3.7%	3.3%	1.2%	764	455	143
Glass		2.1%	3.0%	2.3%	441	425	278
	15 Recyclable Glass Bottles/Containers	1.9%	2.8%	2.2%	389	385	259
	16 Other Glass	0.3%	0.3%	0.2%	51	40	19
Metals		2.2%	2.8%	2.3%	459	389	271
	17 Aluminum Cans	0.2%	0.3%	0.1%	35	40	17
	18 Other Non-Ferrous	0.4%	0.5%	0.4%	80	71	46
	19 Steel Food and Beverage Cans	1.0%	1.1%	0.9%	202	147	106
	20 Other Ferrous	0.7%	0.9%	0.8%	142	131	94
	21 White Goods	0.0%	0.0%	0.1%	0	0	7
Yard Waste		19.5%	4.2%	0.6%	4,016	590	69
	22 Leaves/Grass/Chips	14.6%	3.0%	0.2%	2,999	420	29
	23 Branches/Stumps/Prunings/Trimmings	4.9%	1.2%	0.3%	1,017	170	39
Organics		28.1%	41.8%	51.7%	5,792	5,829	6,179
	24 Food Waste	17.3%	22.8%	33.8%	3,555	3,184	4,037
	25 Tires	0.0%	1.9%	0.0%	0	268	0
	26 Untreated Lumber	0.9%	0.9%	0.0%	192	123	2
	27 Pallets	NA	NA	0.0%	NA	NA	1
	28 Treated Wood Waste	0.1%	2.1%	0.8%	29	288	93
	29 Textiles and Leather	5.5%	3.6%	3.2%	1,137	509	387
	30 Carpet	NA	1.6%	0.3%	NA	227	37
	31 Diapers	3.4%	4.3%	7.1%	709	594	853
	32 Manure	NA	NA	5.5%	NA	NA	658
	33 Other Organics	0.8%	4.6%	0.9%	171	636	111
Inerts		2.3%	1.9%	4.7%	472	258	566
	34 Crushable Inerts	0.1%	0.3%	2.3%	19	49	271
	35 Other Inerts	2.1%	0.6%	2.4%	430	86	292
	36 Gypsum Board	0.1%	0.9%	0.0%	10	123	0
	37 Asphalt Roofing	0.1%	0.0%	0.0%	12	0	3
HHW		0.3%	0.3%	0.4%	68	43	50
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	6
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	17
	41 Medical Waste	NA	NA	0.1%	NA	NA	18
	42 Medicine	NA	NA	0.0%	NA	NA	1
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	2
	45 Other Hazardous Waste	0.3%	0.3%	0.1%	68	43	7
Special		0.2%	4.9%	0.0%	41	679	0
	46 Brown Goods	0.2%	1.2%	0.0%	41	161	0
	47 Composite Bulky Items	0.0%	3.7%	0.0%	0	518	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	20,597	13,947	11,951

**Table 13
City of Alameda Detailed Historic Comparison of Multi-Family Residential**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		44.8%	24.3%	21.1%	1,911	1,819	770
	1 Uncoated Corrugated Cardboard	4.2%	4.6%	0.6%	177	342	21
	2 High Grade Paper	5.2%	1.3%	0.3%	221	101	12
	3 Newspaper	7.6%	3.2%	1.1%	323	241	40
	4 Mixed Recyclable Paper	11.7%	6.1%	3.8%	500	454	138
	5 Compostable Paper	NA	NA	14.8%	NA	NA	541
	6 Other Paper	16.2%	9.1%	0.5%	691	681	20
Plastics		9.3%	9.0%	16.3%	395	670	597
	7 HDPE Bottles (#2)	0.5%	0.7%	0.9%	23	56	34
	8 PETE Bottles (#1)	0.6%	0.4%	0.8%	27	32	28
	9 Other Plastic Containers	NA	0.2%	2.2%	NA	18	79
	10 Plastic Bags	NA	NA	3.3%	NA	NA	121
	11 Other Film	4.7%	5.0%	4.0%	200	372	146
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	7
	13 Mixed Rigid Plastics	NA	NA	4.1%	NA	NA	151
	14 Other Plastics	3.4%	2.6%	0.9%	145	193	32
Glass		6.1%	4.3%	3.7%	258	325	134
	15 Recyclable Glass Bottles/Containers	5.8%	4.2%	2.8%	249	313	103
	16 Other Glass	0.2%	0.2%	0.9%	10	11	31
Metals		4.1%	2.7%	4.3%	175	205	157
	17 Aluminum Cans	0.8%	0.2%	0.2%	35	17	7
	18 Other Non-Ferrous	1.4%	0.9%	0.4%	60	67	16
	19 Steel Food and Beverage Cans	1.3%	1.1%	1.0%	55	82	36
	20 Other Ferrous	0.6%	0.5%	2.7%	25	40	98
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		2.9%	1.3%	1.0%	122	98	37
	22 Leaves/Grass/Chips	1.3%	1.3%	0.6%	57	95	22
	23 Branches/Stumps/Prunings/Trimmings	1.5%	0.0%	0.4%	65	3	16
Organics		30.6%	51.7%	46.2%	1,305	3,873	1,687
	24 Food Waste	20.6%	20.4%	29.3%	877	1,528	1,068
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	0.0%	13.3%	0.4%	1	993	13
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	0.4%	0.9%	1.4%	15	66	51
	29 Textiles and Leather	4.1%	5.8%	5.0%	175	437	181
	30 Carpet	NA	6.7%	0.7%	NA	499	26
	31 Diapers	4.1%	1.5%	5.7%	175	115	209
	32 Manure	NA	NA	3.0%	NA	NA	108
	33 Other Organics	1.4%	3.1%	0.8%	61	235	30
Inerts		1.7%	1.1%	4.9%	73	82	180
	34 Crushable Inerts	0.4%	0.5%	1.9%	17	35	68
	35 Other Inerts	1.3%	0.6%	3.1%	55	47	112
	36 Gypsum Board	0.0%	0.0%	0.0%	0	0	0
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	0	0
HHW		0.4%	0.3%	1.0%	17	24	35
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	1
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	2
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	2
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.8%	NA	NA	30
	45 Other Hazardous Waste	0.4%	0.3%	0.0%	17	24	0
Special		0.1%	5.2%	1.4%	6	390	52
	46 Brown Goods	0.1%	0.8%	1.0%	6	57	38
	47 Composite Bulky Items	0.0%	4.5%	0.4%	0	333	14
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	4,263	7,488	3,650

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF ALAMEDA**

**Table 14
City of Alameda Detailed Historic Comparison of Commercial Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		34.6%	38.5%	27.2%	4,474	4,149	3,345
	1 Uncoated Corrugated Cardboard	4.8%	5.1%	1.5%	620	547	182
	2 High Grade Paper	4.7%	5.2%	1.5%	601	565	182
	3 Newspaper	4.2%	3.0%	1.7%	540	327	215
	4 Mixed Recyclable Paper	6.9%	7.7%	3.3%	891	832	401
	5 Compostable Paper	NA	NA	17.0%	NA	NA	2,091
	6 Other Paper	14.1%	17.4%	2.2%	1,822	1,878	275
Plastics		12.4%	12.8%	12.5%	1,606	1,377	1,535
	7 HDPE Bottles (#2)	1.5%	1.0%	0.5%	194	113	64
	8 PETE Bottles (#1)	0.2%	1.0%	0.6%	27	111	73
	9 Other Plastic Containers	NA	0.8%	0.8%	NA	89	98
	10 Plastic Bags	NA	NA	1.2%	NA	NA	149
	11 Other Film	3.8%	6.3%	5.4%	484	678	660
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	27
	13 Mixed Rigid Plastics	NA	NA	2.7%	NA	NA	330
	14 Other Plastics	7.0%	3.6%	1.1%	900	386	135
Glass		3.7%	3.6%	3.1%	475	393	377
	15 Recyclable Glass Bottles/Containers	3.4%	3.5%	2.5%	439	375	309
	16 Other Glass	0.3%	0.2%	0.6%	36	18	69
Metals		6.3%	2.2%	4.5%	809	240	559
	17 Aluminum Cans	0.5%	0.3%	0.2%	66	36	24
	18 Other Non-Ferrous	0.5%	0.5%	0.4%	67	51	45
	19 Steel Food and Beverage Cans	1.0%	0.8%	1.2%	124	87	142
	20 Other Ferrous	4.3%	0.6%	2.6%	552	67	324
	21 White Goods	0.0%	0.0%	0.2%	0	0	24
Yard Waste		4.8%	2.6%	2.8%	621	279	343
	22 Leaves/Grass/Chips	2.8%	2.4%	2.3%	362	264	280
	23 Branches/Stumps/Prunings/Trimmings	2.0%	0.1%	0.5%	260	16	63
Organics		33.7%	36.3%	42.0%	4,359	3,909	5,163
	24 Food Waste	17.4%	19.8%	29.1%	2,252	2,136	3,580
	25 Tires	0.3%	0.7%	0.0%	39	77	0
	26 Untreated Lumber	5.2%	7.1%	0.6%	670	767	76
	27 Pallets	NA	NA	0.7%	NA	NA	88
	28 Treated Wood Waste	2.7%	0.8%	2.5%	345	89	309
	29 Textiles and Leather	4.3%	2.9%	2.7%	550	312	334
	30 Carpet	NA	0.5%	0.8%	NA	57	103
	31 Diapers	2.4%	1.9%	3.9%	311	203	481
	32 Manure	NA	NA	0.4%	NA	NA	49
	33 Other Organics	1.5%	2.5%	1.2%	191	266	144
Inerts		2.3%	1.8%	5.5%	296	194	682
	34 Crushable Inerts	1.0%	1.2%	3.4%	129	134	413
	35 Other Inerts	0.8%	0.2%	2.2%	107	26	268
	36 Gypsum Board	0.1%	0.3%	0.0%	17	30	0
	37 Asphalt Roofing	0.3%	0.0%	0.0%	43	5	0
HHW		0.5%	0.6%	0.7%	70	62	86
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	16
	39 Vehicle & Equipment Fluids	NA	NA	0.3%	NA	NA	35
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	4
	41 Medical Waste	NA	NA	0.1%	NA	NA	9
	42 Medicine	NA	NA	0.0%	NA	NA	4
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.1%	NA	NA	15
	45 Other Hazardous Waste	0.5%	0.6%	0.0%	70	62	3
Special		1.6%	1.7%	1.7%	208	180	211
	46 Brown Goods	0.2%	1.2%	0.4%	31	127	44
	47 Composite Bulky Items	1.4%	0.5%	0.9%	177	53	115
	48 Other Special Waste	NA	NA	0.4%	NA	NA	52
TOTAL		100.0%	100.0%	100.0%	12,919	10,784	12,303

Table 15
City of Alameda Detailed Historic Comparison of Roll-Off Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		21.3%	15.2%	19.5%	1,610	1,278	1,254
	1 Uncoated Corrugated Cardboard	12.9%	7.7%	11.3%	978	649	726
	2 High Grade Paper	1.0%	2.2%	0.2%	78	185	11
	3 Newspaper	0.5%	0.4%	0.4%	40	35	24
	4 Mixed Recyclable Paper	1.8%	2.9%	5.7%	138	248	365
	5 Compostable Paper	NA	NA	1.9%	NA	NA	122
	6 Other Paper	5.0%	1.9%	0.1%	377	161	6
Plastics		32.7%	5.4%	5.6%	2,469	453	360
	7 HDPE Bottles (#2)	0.7%	0.2%	0.1%	51	20	4
	8 PETE Bottles (#1)	0.1%	0.1%	0.2%	5	7	10
	9 Other Plastic Containers	NA	0.3%	0.0%	NA	23	1
	10 Plastic Bags	NA	NA	0.0%	NA	NA	2
	11 Other Film	3.5%	1.7%	4.2%	265	143	270
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	3
	13 Mixed Rigid Plastics	NA	NA	0.6%	NA	NA	36
	14 Other Plastics	28.4%	3.1%	0.5%	2,147	260	33
Glass		0.9%	0.4%	1.5%	68	36	97
	15 Recyclable Glass Bottles/Containers	0.6%	0.3%	0.7%	48	28	47
	16 Other Glass	0.3%	0.1%	0.8%	20	8	50
Metals		4.1%	5.8%	1.2%	309	485	75
	17 Aluminum Cans	0.1%	0.1%	0.1%	6	6	7
	18 Other Non-Ferrous	0.4%	0.2%	0.1%	31	16	9
	19 Steel Food and Beverage Cans	0.1%	0.2%	0.0%	6	16	0
	20 Other Ferrous	3.5%	5.3%	0.9%	266	447	59
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		5.2%	0.8%	11.8%	392	71	757
	22 Leaves/Grass/Chips	3.0%	0.7%	3.4%	226	63	218
	23 Branches/Stumps/Prunings/Trimmings	2.2%	0.1%	8.4%	166	8	540
Organics		30.7%	41.4%	32.8%	2,319	3,486	2,108
	24 Food Waste	1.6%	8.5%	14.3%	122	714	917
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	14.3%	11.5%	2.2%	1,080	970	142
	27 Pallets	NA	NA	6.1%	NA	NA	391
	28 Treated Wood Waste	9.7%	17.8%	6.1%	736	1,500	393
	29 Textiles and Leather	3.9%	2.6%	4.1%	291	215	260
	30 Carpet	NA	0.4%	0.0%	NA	36	0
	31 Diapers	0.3%	0.1%	0.0%	19	8	1
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	0.9%	0.5%	0.0%	70	42	3
Inerts		1.7%	12.8%	11.8%	129	1,079	755
	34 Crushable Inerts	0.1%	9.2%	2.0%	8	771	128
	35 Other Inerts	1.1%	2.8%	7.6%	79	234	488
	36 Gypsum Board	0.0%	0.9%	2.2%	0	75	139
	37 Asphalt Roofing	0.5%	0.0%	0.0%	41	0	0
HHW		0.1%	1.0%	0.1%	5	80	7
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	0
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.1%	NA	NA	7
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.1%	1.0%	0.0%	5	80	0
Special		3.4%	17.1%	15.7%	259	1,442	1,011
	46 Brown Goods	0.3%	0.4%	0.0%	19	34	0
	47 Composite Bulky Items	3.2%	16.7%	15.7%	240	1,408	1,011
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	7,561	8,411	6,424

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF ALAMEDA**

**Table 16
City of Alameda Detailed Historic Comparison of Self-Haul Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		17.7%	5.5%	9.9%	2,312	425	867
	1 Uncoated Corrugated Cardboard	4.8%	2.8%	4.6%	622	219	397
	2 High Grade Paper	2.5%	0.4%	0.3%	326	30	24
	3 Newspaper	1.0%	0.8%	0.4%	129	60	32
	4 Mixed Recyclable Paper	8.5%	1.0%	4.1%	1,110	79	359
	5 Compostable Paper	NA	NA	0.2%	NA	NA	17
	6 Other Paper	1.0%	0.5%	0.4%	125	38	38
Plastics		6.4%	1.6%	3.1%	840	126	266
	7 HDPE Bottles (#2)	0.1%	0.0%	0.0%	16	1	3
	8 PETE Bottles (#1)	0.0%	0.1%	0.1%	3	6	5
	9 Other Plastic Containers	NA	0.1%	0.1%	NA	5	5
	10 Plastic Bags	NA	NA	0.1%	NA	NA	5
	11 Other Film	1.1%	0.4%	0.4%	142	33	37
	12 Expanded Polystyrene Blocks	NA	NA	1.0%	NA	NA	86
	13 Mixed Rigid Plastics	NA	NA	1.1%	NA	NA	100
	14 Other Plastics	5.2%	1.0%	0.3%	679	81	26
Glass		1.8%	0.7%	4.1%	230	54	355
	15 Recyclable Glass Bottles/Containers	0.6%	0.1%	1.3%	74	9	116
	16 Other Glass	1.2%	0.6%	2.7%	155	45	238
Metals		3.6%	2.8%	6.7%	466	215	589
	17 Aluminum Cans	0.0%	0.2%	0.0%	4	13	4
	18 Other Non-Ferrous	0.4%	0.2%	1.0%	56	14	87
	19 Steel Food and Beverage Cans	0.1%	0.4%	0.1%	12	31	7
	20 Other Ferrous	3.0%	2.0%	5.3%	394	157	463
	21 White Goods	0.0%	0.0%	0.3%	0	0	28
Yard Waste		11.4%	7.7%	3.6%	1,492	598	310
	22 Leaves/Grass/Chips	11.4%	7.7%	1.3%	1,492	597	117
	23 Branches/Stumps/Prunings/Trimmings	0.0%	0.0%	2.2%	0	1	193
Organics		34.8%	28.2%	46.1%	4,548	2,197	4,021
	24 Food Waste	4.4%	0.1%	0.9%	571	10	81
	25 Tires	0.0%	0.0%	0.1%	0	0	9
	26 Untreated Lumber	15.5%	13.5%	10.5%	2,020	1,049	915
	27 Pallets	NA	NA	3.0%	NA	NA	260
	28 Treated Wood Waste	1.2%	12.9%	21.4%	153	1,008	1,867
	29 Textiles and Leather	12.6%	0.8%	2.0%	1,645	62	178
	30 Carpet	NA	0.1%	5.5%	NA	9	477
	31 Diapers	0.1%	0.3%	0.0%	16	22	0
	32 Manure	NA	NA	0.1%	NA	NA	11
	33 Other Organics	1.1%	0.5%	2.6%	144	37	223
Inerts		6.3%	50.2%	20.1%	821	3,912	1,753
	34 Crushable Inerts	3.4%	20.7%	10.3%	443	1,614	894
	35 Other Inerts	2.9%	19.5%	1.3%	379	1,519	114
	36 Gypsum Board	0.0%	5.2%	2.0%	0	408	171
	37 Asphalt Roofing	0.0%	4.7%	6.6%	0	370	574
HHW		0.6%	2.5%	1.0%	74	197	86
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	0
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	4
	44 Other E-Waste	NA	NA	0.0%	NA	NA	3
	45 Other Hazardous Waste	0.6%	2.5%	0.9%	74	197	79
Special		17.4%	0.9%	5.4%	2,272	69	473
	46 Brown Goods	5.3%	0.3%	0.4%	689	23	35
	47 Composite Bulky Items	12.1%	0.6%	5.0%	1,583	46	438
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	13,057	7,792	8,719

Appendix A2

2008 WASTE CHARACTERIZATION RESULTS

CITY OF ALBANY

This section presents a summary of the composition and quantity of disposed waste from the City of Albany. The 2008 Study results presented herein are based on compositions developed using data obtained from field sample collection and sorting activities performed over four seasons during calendar year 2008. A complete description of the Study and presentation of Countywide aggregate results are included in Section 3 of the report.

Table 1 summarizes selected demographic and waste disposal characteristics for the City of Albany. The total amount of waste disposed in 2008 represents 0.5 percent of the Countywide waste stream, and decreased approximately 40 percent from 2000.

Table 1
City of Albany Waste Disposal Data

	2000	2008
Population ¹	17,836	16,877
Housing Units	7,493	7,351
Number of Business Establishments ²	510	526
Waste Disposal (tons) ³	9,902	5,968
Single Family	3,350	1,873
Multi-Family	1,399	874
Commercial	2,209	1,358
Roll-off	2,396	1,257
Self-Haul	549	607
Residential Disposal Rate (lbs/capita/year) ⁴	533	402
Non-residential Disposal Rate (tons/establishment/year)	9	5

¹ Source: State of California, Department of Finance, City/County Population and Housing Estimates for 2000 and Jan 2008.

² Source: California Board of Equalization. "Taxable Sales in California (Sales & Use Tax)", 1999 and 2007.

³ Data provided by StopWaste.Org staff.

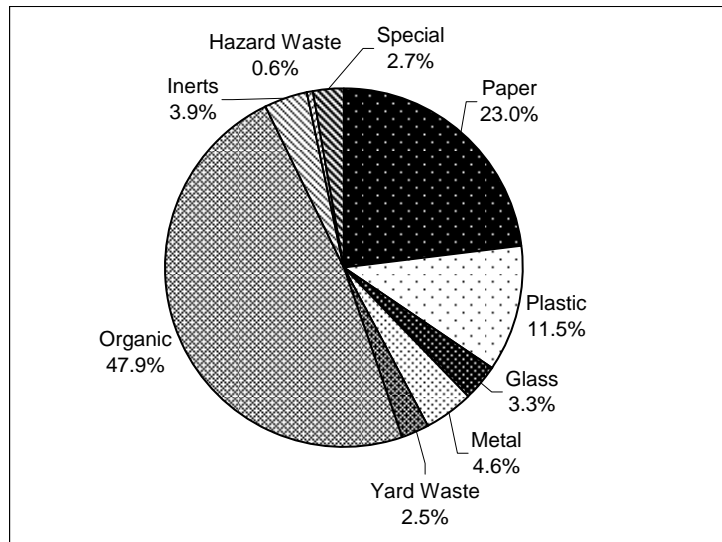
Table 2 presents the number of samples collected from each type of waste stream. Approximately 3 percent of the total number of samples collected were from this jurisdiction.

Table 2
Summary of Samples Obtained from City of Albany

Waste Stream	Total Samples
Single-family	20
Multi-family	11
Commercial	32
Roll-off	6
Self-haul	0
Total	69

The following tables and figures are presented for waste originating from the City of Albany. The introduction to Appendix B presents a summary of the information provided within each table or figure.

Figure 1 City of Albany 2008 Overall Waste Composition by Major Material Group



Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	1,375	23.0%	20.6%	25.8%
Plastic	684	11.5%	10.6%	12.4%
Glass	194	3.3%	2.4%	4.5%
Metal	275	4.6%	3.7%	6.1%
Yard Waste	148	2.5%	1.7%	3.7%
Organic	2,861	47.9%	43.9%	52.1%
Inerts	232	3.9%	3.0%	5.1%
Hazard Waste	37	0.6%	0.3%	1.0%
Special	162	2.7%	1.9%	4.8%
TOTAL	5,968	100.0%		

2008 WASTE CHARACTERIZATION RESULTS CITY OF ALBANY

Figure 2 City of Albany Single-Family Residential Composition by Major Material Group

Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	404	21.6%	19.6%	23.6%
Plastic	268	14.3%	12.8%	15.9%
Glass	35	1.9%	1.3%	2.5%
Metal	45	2.4%	2.0%	2.8%
Yard Waste	6	0.3%	0.1%	0.6%
Organic	988	52.8%	48.8%	56.7%
Inerts	116	6.2%	3.8%	9.2%
Hazard Waste	9	0.5%	0.3%	0.7%
Special	3	0.1%	0.0%	0.3%
TOTAL	1,873	100.0%		

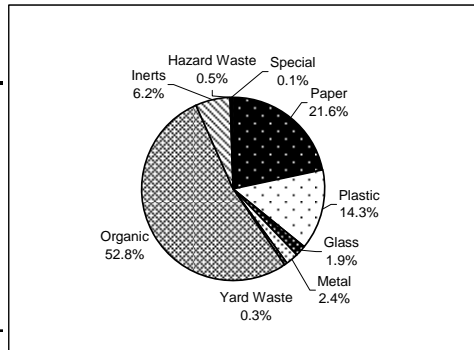


Figure 3 City of Albany Multi-Family Residential Composition by Major Material Group

Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	237	27.2%	23.3%	31.3%
Plastic	134	15.4%	14.0%	16.8%
Glass	25	2.8%	1.6%	4.4%
Metal	14	1.6%	1.3%	1.9%
Yard Waste	24	2.7%	0.8%	5.7%
Organic	410	46.9%	42.7%	51.2%
Inerts	19	2.2%	1.0%	3.9%
Hazard Waste	5	0.6%	0.2%	1.3%
Special	5	0.6%	0.1%	1.4%
TOTAL	874	100.0%		

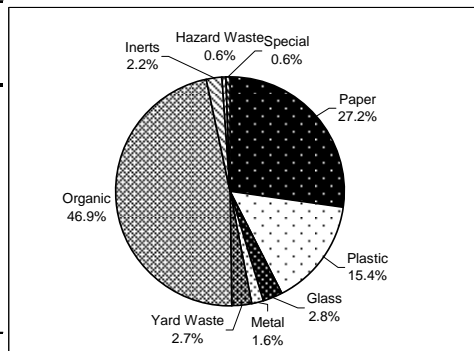


Figure 4 City of Albany Commercial Composition by Major Material Group

Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	400	29.4%	24.7%	34.4%
Plastic	174	12.8%	11.3%	14.3%
Glass	48	3.5%	2.0%	5.5%
Metal	68	5.0%	3.7%	6.6%
Yard Waste	40	2.9%	1.6%	4.7%
Organic	571	42.0%	35.7%	48.5%
Inerts	35	2.6%	1.4%	4.2%
Hazard Waste	19	1.4%	0.8%	2.3%
Special	4	0.3%	0.1%	0.6%
TOTAL	1,358	100.0%		

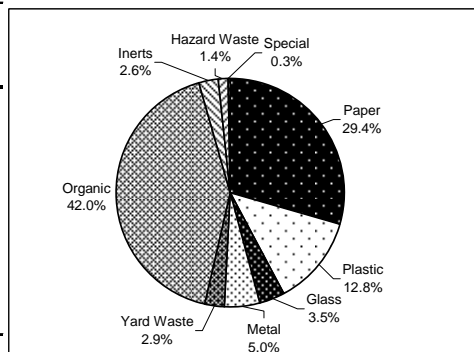


Figure 5 City of Albany Roll-off Composition by Major Material Group

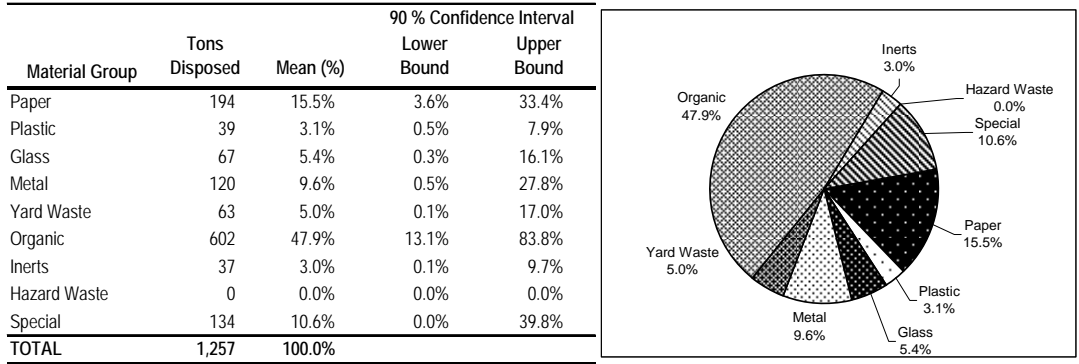


Figure 6 City of Albany Self Hauler Composition by Major Material Group

Not applicable: overall composition for Self-Haul waste quantity was used.

2008 WASTE CHARACTERIZATION RESULTS
CITY OF ALBANY

Figure 7 Historic Comparison of City of Albany Aggregate Disposal

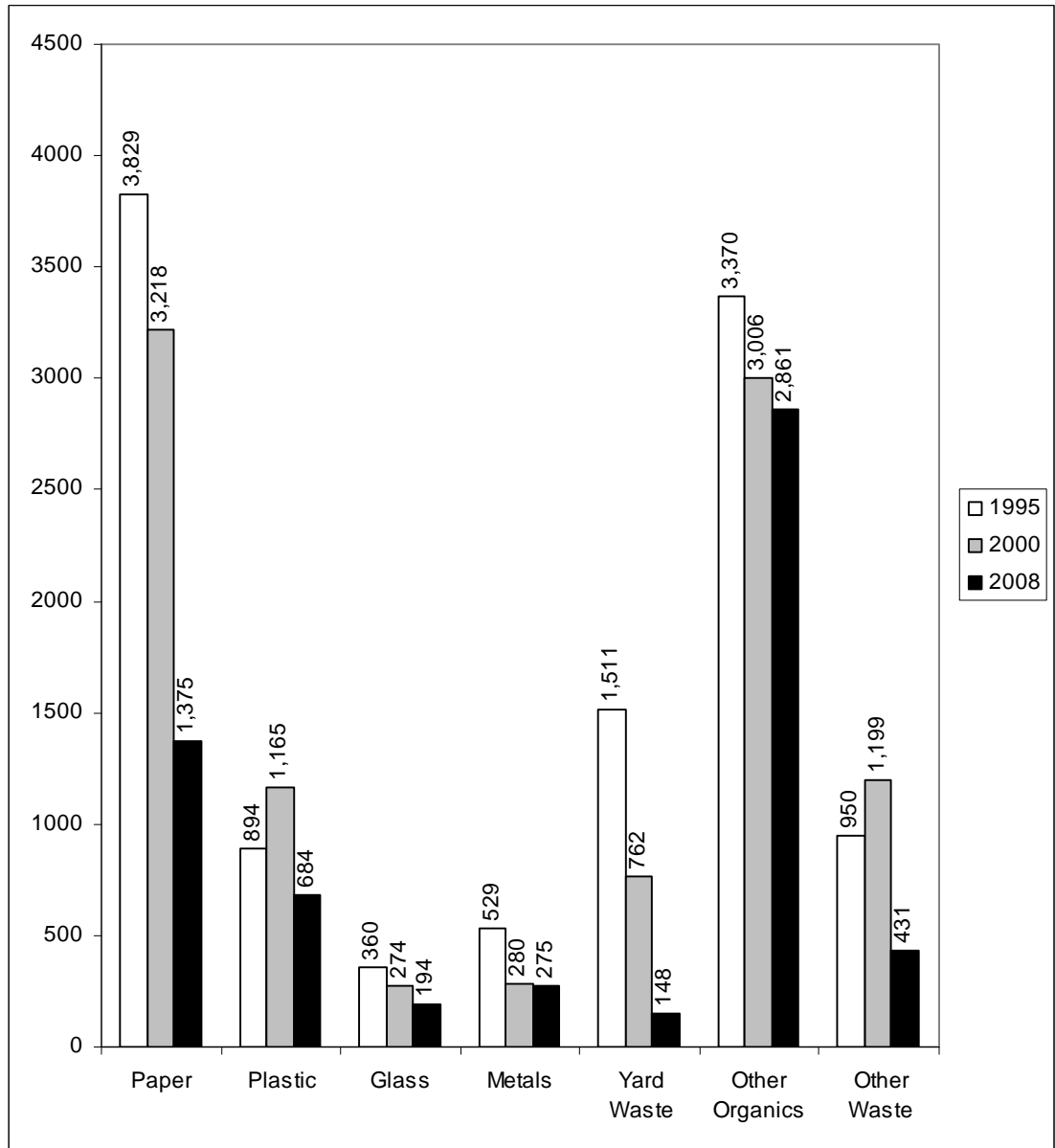
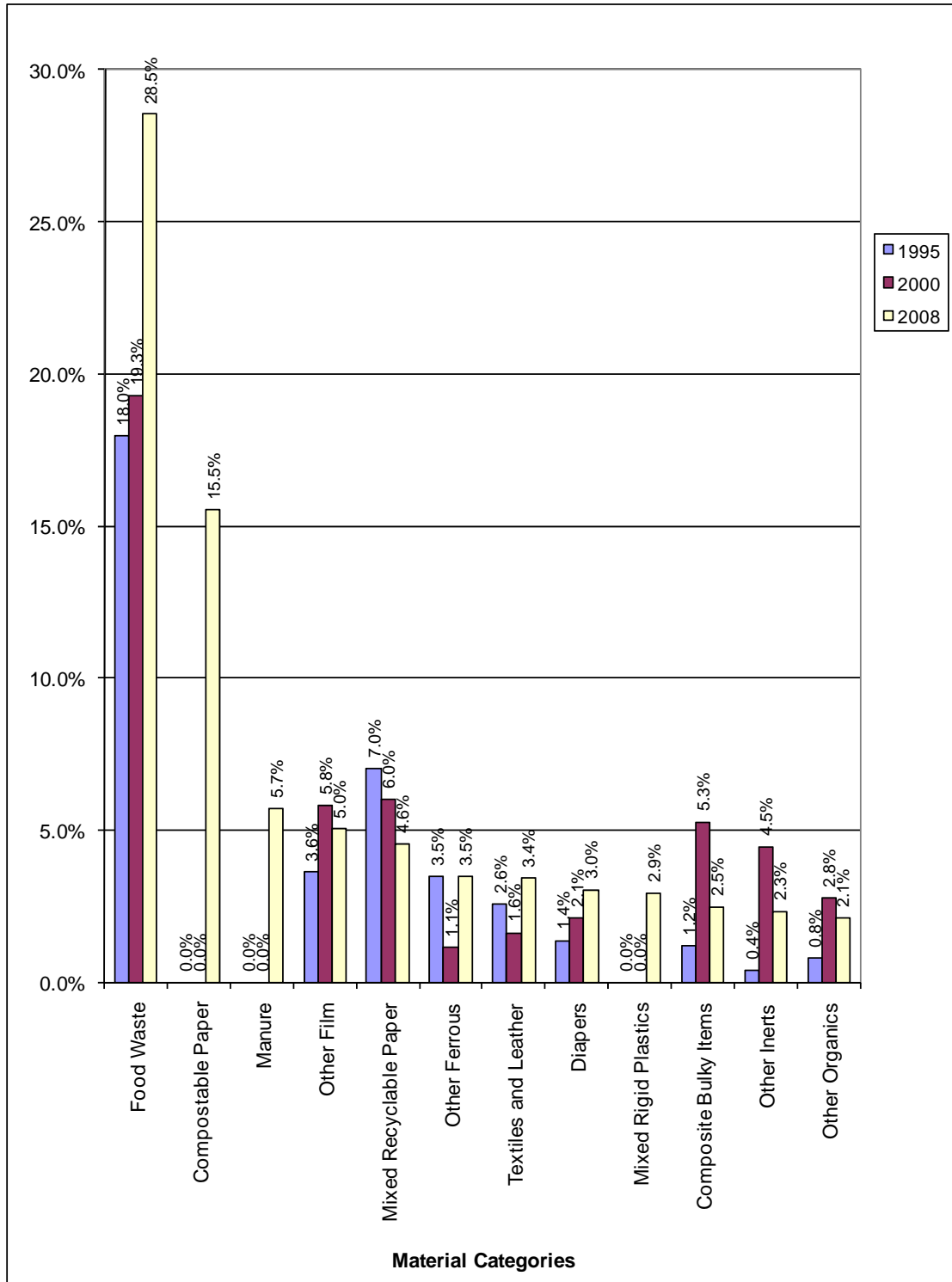


Figure 8 City of Albany Top 12 Most Common Materials – Aggregate



2008 WASTE CHARACTERIZATION RESULTS
CITY OF ALBANY

Figure 9: City of Albany Top 12 Most Common Materials from 2000

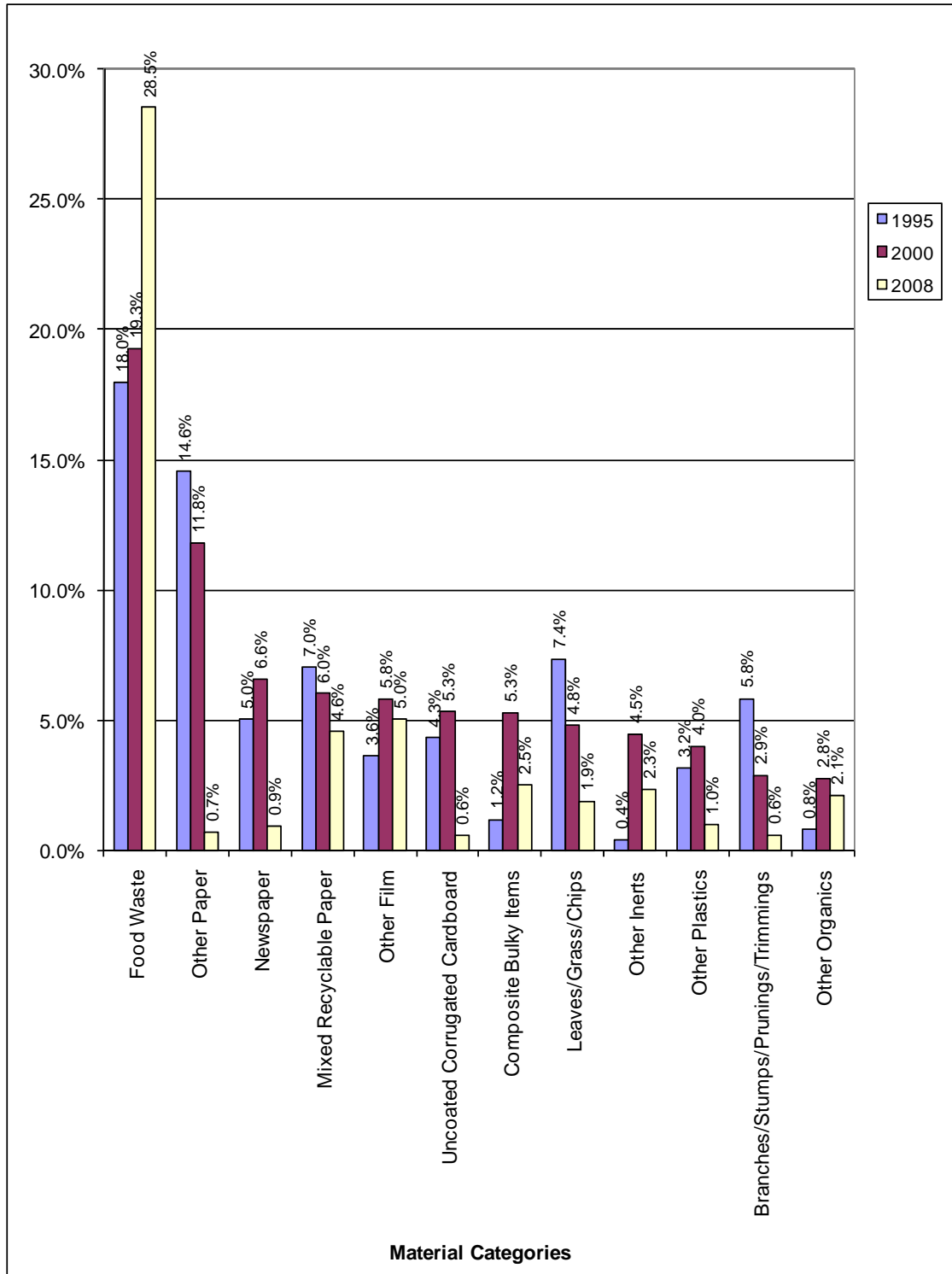


Table 3
Summary of Overall Material Proportions for City of Albany

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Aggregated
Paper		21.6%	27.2%	29.4%	15.5%	23.0%	23.0%
	1 Uncoated Corrugated Cardboard	0.1%	0.3%	1.2%	0.8%	0.6%	0.6%
	2 High Grade Paper	0.1%	0.5%	1.6%	1.0%	0.8%	0.8%
	3 Newspaper	0.6%	0.6%	1.5%	0.9%	0.9%	0.9%
	4 Mixed Recyclable Paper	2.0%	4.0%	6.1%	7.1%	4.6%	4.6%
	5 Compostable Paper	17.6%	21.0%	18.4%	5.5%	15.5%	15.5%
	6 Other Paper	1.1%	0.8%	0.7%	0.1%	0.7%	0.7%
Plastics		14.3%	15.4%	12.8%	3.1%	11.5%	11.5%
	7 HDPE Bottles (#2)	0.3%	0.6%	0.7%	0.0%	0.4%	0.4%
	8 PETE Bottles (#1)	0.3%	0.9%	0.5%	0.0%	0.4%	0.4%
	9 Other Plastic Containers	0.8%	0.9%	0.7%	0.0%	0.6%	0.6%
	10 Plastic Bags	1.3%	1.3%	1.0%	0.0%	0.9%	0.9%
	11 Other Film	6.4%	6.6%	5.2%	1.7%	5.0%	5.0%
	12 Expanded Polystyrene Blocks	0.1%	0.3%	0.2%	0.0%	0.1%	0.1%
	13 Mixed Rigid Plastics	3.6%	3.5%	3.3%	1.1%	2.9%	2.9%
	14 Other Plastics	1.3%	1.3%	1.1%	0.1%	1.0%	1.0%
Glass		1.9%	2.8%	3.5%	5.4%	3.3%	3.3%
	15 Recyclable Glass Bottles/Containers	1.6%	2.6%	1.3%	1.5%	1.7%	1.7%
	16 Other Glass	0.2%	0.2%	2.2%	3.8%	1.6%	1.6%
Metals		2.4%	1.6%	5.0%	9.6%	4.6%	4.6%
	17 Aluminum Cans	0.2%	0.2%	0.2%	0.0%	0.1%	0.1%
	18 Other Non-Ferrous	0.4%	0.4%	0.3%	0.4%	0.4%	0.4%
	19 Steel Food and Beverage Cans	0.8%	0.7%	0.8%	0.0%	0.6%	0.6%
	20 Other Ferrous	1.0%	0.2%	3.7%	9.1%	3.5%	3.5%
	21 White Goods	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Yard Waste		0.3%	2.7%	2.9%	5.0%	2.5%	2.5%
	22 Leaves/Grass/Chips	0.3%	1.7%	2.2%	4.1%	1.9%	1.9%
	23 Branches/Stumps/Prunings/Trimmings	0.1%	1.0%	0.8%	1.0%	0.6%	0.6%
Organics		52.8%	46.9%	42.0%	47.9%	47.9%	47.9%
	24 Food Waste	33.8%	31.3%	31.8%	15.2%	28.5%	28.5%
	25 Tires	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	26 Untreated Lumber	0.2%	0.3%	1.4%	1.3%	0.8%	0.8%
	27 Pallets	0.0%	0.0%	0.0%	7.9%	1.8%	1.8%
	28 Treated Wood Waste	1.3%	1.4%	2.0%	1.7%	1.6%	1.6%
	29 Textiles and Leather	4.0%	3.7%	3.7%	2.0%	3.4%	3.4%
	30 Carpet	0.0%	0.0%	0.4%	3.5%	0.9%	0.9%
	31 Diapers	5.5%	5.8%	0.6%	0.1%	3.0%	3.0%
	32 Manure	5.1%	1.4%	0.6%	15.2%	5.7%	5.7%
	33 Other Organics	2.9%	3.1%	1.6%	0.9%	2.1%	2.1%
Inerts		6.2%	2.2%	2.6%	3.0%	3.9%	3.9%
	34 Crushable Inerts	1.3%	0.4%	0.8%	2.4%	1.3%	1.3%
	35 Other Inerts	4.2%	1.8%	1.7%	0.6%	2.3%	2.3%
	36 Gypsum Board	0.6%	0.0%	0.1%	0.0%	0.2%	0.2%
	37 Asphalt Roofing	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
HHW		0.5%	0.6%	1.4%	0.0%	0.6%	0.6%
	38 Paint/Adhesives	0.2%	0.0%	0.1%	0.0%	0.1%	0.1%
	39 Vehicle & Equipment Fluids	0.0%	0.4%	0.1%	0.0%	0.1%	0.1%
	40 Universal Hazardous Waste	0.1%	0.1%	0.0%	0.0%	0.1%	0.1%
	41 Medical Waste	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
	42 Medicine	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	43 Covered E-Waste	0.0%	0.0%	0.4%	0.0%	0.1%	0.1%
	44 Other E-Waste	0.0%	0.0%	0.8%	0.0%	0.2%	0.2%
	45 Other Hazardous Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Special		0.1%	0.6%	0.3%	10.6%	2.7%	2.7%
	46 Brown Goods	0.1%	0.6%	0.3%	0.0%	0.2%	0.2%
	47 Composite Bulky Items	0.0%	0.0%	0.0%	10.6%	2.5%	2.5%
	48 Other Special Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF ALBANY**

**Table 4
Summary of Overall Material Tonnages for City of Albany**

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
Paper		404	237	400	194	140	1,375
	1 Uncoated Corrugated Cardboard	2	3	16	10	4	35
	2 High Grade Paper	2	4	22	13	5	45
	3 Newspaper	11	5	21	12	6	55
	4 Mixed Recyclable Paper	38	35	83	89	28	272
	5 Compostable Paper	330	183	249	70	94	926
	6 Other Paper	20	7	9	1	4	42
Plastics		268	134	174	39	70	684
	7 HDPE Bottles (#2)	6	5	9	1	2	24
	8 PETE Bottles (#1)	6	8	7	0	2	24
	9 Other Plastic Containers	15	8	10	0	4	37
	10 Plastic Bags	25	12	13	0	6	56
	11 Other Film	120	58	71	22	31	301
	12 Expanded Polystyrene Blocks	3	2	3	0	1	9
	13 Mixed Rigid Plastics	68	31	45	14	18	176
	14 Other Plastics	25	11	15	1	6	58
Glass		35	25	48	67	20	194
	15 Recyclable Glass Bottles/Containers	30	23	17	19	10	100
	16 Other Glass	4	2	30	48	10	95
Metals		45	14	68	120	28	275
	17 Aluminum Cans	3	2	3	1	1	9
	18 Other Non-Ferrous	8	4	4	5	2	22
	19 Steel Food and Beverage Cans	15	6	11	1	4	36
	20 Other Ferrous	19	2	50	115	21	207
	21 White Goods	0	0	0	0	0	0
Yard Waste		6	24	40	63	15	148
	22 Leaves/Grass/Chips	5	15	29	51	11	112
	23 Branches/Stumps/Prunings/Trimnings	1	9	10	12	4	37
Organics		988	410	571	602	291	2,861
	24 Food Waste	633	273	432	191	173	1,702
	25 Tires	0	0	0	0	0	0
	26 Untreated Lumber	4	3	19	17	5	47
	27 Pallets	0	0	0	99	11	110
	28 Treated Wood Waste	23	12	27	22	10	94
	29 Textiles and Leather	75	32	51	25	21	204
	30 Carpet	0	0	5	44	5	54
	31 Diapers	104	50	8	2	18	182
	32 Manure	95	12	8	191	35	341
	33 Other Organics	54	27	22	11	13	127
Inerts		116	19	35	37	24	232
	34 Crushable Inerts	24	3	11	30	8	76
	35 Other Inerts	79	16	24	7	14	140
	36 Gypsum Board	11	0	1	0	1	14
	37 Asphalt Roofing	1	0	0	0	0	2
HHW		9	5	19	0	4	37
	38 Paint/Adhesives	3	0	1	0	0	4
	39 Vehicle & Equipment Fluids	0	3	1	0	0	5
	40 Universal Hazardous Waste	3	1	0	0	0	4
	41 Medical Waste	2	1	0	0	0	3
	42 Medicine	1	0	0	0	0	1
	43 Covered E-Waste	0	0	6	0	1	7
	44 Other E-Waste	0	0	10	0	1	12
	45 Other Hazardous Waste	0	0	0	0	0	1
Special		3	5	4	134	16	162
	46 Brown Goods	3	5	4	0	1	13
	47 Composite Bulky Items	0	0	0	134	15	149
	48 Other Special Waste	0	0	0	0	0	0
TOTAL		1,873	874	1,358	1,257	607	5,968

**Table 5
City of Albany Aggregate Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		1,375	23.04%	20.58%	25.79%
	1 Uncoated Corrugated Cardboard	35	0.58%	0.37%	0.86%
	2 High Grade Paper	45	0.76%	0.46%	1.17%
	3 Newspaper	55	0.92%	0.55%	1.43%
	4 Mixed Recyclable Paper	272	4.56%	3.37%	6.26%
	5 Compostable Paper	926	15.51%	14.04%	17.25%
	6 Other Paper	42	0.71%	0.56%	0.89%
Plastics		684	11.46%	10.63%	12.37%
	7 HDPE Bottles (#2)	24	0.39%	0.30%	0.50%
	8 PETE Bottles (#1)	24	0.40%	0.33%	0.48%
	9 Other Plastic Containers	37	0.62%	0.49%	0.77%
	10 Plastic Bags	56	0.94%	0.72%	1.20%
	11 Other Film	301	5.04%	4.34%	5.87%
	12 Expanded Polystyrene Blocks	9	0.15%	0.09%	0.24%
	13 Mixed Rigid Plastics	176	2.95%	2.59%	3.36%
	14 Other Plastics	58	0.97%	0.76%	1.23%
Glass		194	3.26%	2.43%	4.47%
	15 Recyclable Glass Bottles/Containers	100	1.67%	1.36%	2.15%
	16 Other Glass	95	1.58%	0.92%	2.70%
Metals		275	4.60%	3.70%	6.10%
	17 Aluminum Cans	9	0.15%	0.12%	0.19%
	18 Other Non-Ferrous	22	0.38%	0.31%	0.47%
	19 Steel Food and Beverage Cans	36	0.61%	0.46%	0.79%
	20 Other Ferrous	207	3.47%	2.55%	5.08%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		148	2.48%	1.71%	3.74%
	22 Leaves/Grass/Chips	112	1.87%	1.26%	2.99%
	23 Branches/Stumps/Prunings/Trimmings	37	0.61%	0.37%	1.02%
Organics		2,861	47.94%	43.91%	52.08%
	24 Food Waste	1,702	28.52%	25.05%	32.67%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	47	0.79%	0.45%	1.32%
	27 Pallets	110	1.85%	1.28%	3.42%
	28 Treated Wood Waste	94	1.57%	1.08%	2.26%
	29 Textiles and Leather	204	3.42%	2.64%	4.40%
	30 Carpet	54	0.90%	0.64%	1.63%
	31 Diapers	182	3.05%	2.55%	3.63%
	32 Manure	341	5.71%	4.45%	8.88%
	33 Other Organics	127	2.13%	1.48%	3.04%
Inerts		232	3.88%	2.96%	5.11%
	34 Crushable Inerts	76	1.27%	0.93%	1.86%
	35 Other Inerts	140	2.35%	1.67%	3.24%
	36 Gypsum Board	14	0.23%	0.10%	0.45%
	37 Asphalt Roofing	2	0.03%	0.01%	0.05%
HHW		37	0.62%	0.31%	1.03%
	38 Paint/Adhesives	4	0.07%	0.04%	0.12%
	39 Vehicle & Equipment Fluids	5	0.08%	0.02%	0.19%
	40 Universal Hazardous Waste	4	0.07%	0.05%	0.10%
	41 Medical Waste	3	0.05%	0.03%	0.08%
	42 Medicine	1	0.02%	0.01%	0.04%
	43 Covered E-Waste	7	0.11%	0.00%	0.29%
	44 Other E-Waste	12	0.21%	0.01%	0.49%
	45 Other Hazardous Waste	1	0.01%	0.01%	0.02%
Special		162	2.72%	1.94%	4.82%
	46 Brown Goods	13	0.22%	0.11%	0.40%
	47 Composite Bulky Items	149	2.50%	1.73%	4.60%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		5,968	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF ALBANY**

**Table 6
City of Albany Single-Family Residential Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		404	21.56%	19.60%	23.58%
	1 Uncoated Corrugated Cardboard	2	0.11%	0.04%	0.22%
	2 High Grade Paper	2	0.11%	0.05%	0.20%
	3 Newspaper	11	0.61%	0.30%	1.02%
	4 Mixed Recyclable Paper	38	2.04%	1.46%	2.70%
	5 Compostable Paper	330	17.61%	15.65%	19.65%
	6 Other Paper	20	1.09%	0.75%	1.48%
Plastics		268	14.29%	12.77%	15.89%
	7 HDPE Bottles (#2)	6	0.32%	0.22%	0.43%
	8 PETE Bottles (#1)	6	0.34%	0.24%	0.44%
	9 Other Plastic Containers	15	0.82%	0.54%	1.16%
	10 Plastic Bags	25	1.32%	0.78%	1.99%
	11 Other Film	120	6.39%	5.10%	7.81%
	12 Expanded Polystyrene Blocks	3	0.15%	0.05%	0.30%
	13 Mixed Rigid Plastics	68	3.64%	2.96%	4.38%
	14 Other Plastics	25	1.33%	1.02%	1.68%
Glass		35	1.86%	1.31%	2.50%
	15 Recyclable Glass Bottles/Containers	30	1.63%	1.06%	2.32%
	16 Other Glass	4	0.23%	0.10%	0.42%
Metals		45	2.38%	1.97%	2.82%
	17 Aluminum Cans	3	0.15%	0.10%	0.22%
	18 Other Non-Ferrous	8	0.41%	0.30%	0.54%
	19 Steel Food and Beverage Cans	15	0.78%	0.55%	1.04%
	20 Other Ferrous	19	1.04%	0.66%	1.50%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		6	0.33%	0.14%	0.60%
	22 Leaves/Grass/Chips	5	0.26%	0.09%	0.51%
	23 Branches/Stumps/Prunings/Trimings	1	0.08%	0.03%	0.15%
Organics		988	52.77%	48.79%	56.74%
	24 Food Waste	633	33.81%	30.88%	36.80%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	4	0.22%	0.08%	0.43%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	23	1.25%	0.65%	2.04%
	29 Textiles and Leather	75	4.01%	2.92%	5.27%
	30 Carpet	0	0.00%	0.00%	0.00%
	31 Diapers	104	5.54%	4.08%	7.21%
	32 Manure	95	5.06%	2.82%	7.91%
	33 Other Organics	54	2.88%	1.35%	4.95%
Inerts		116	6.20%	3.77%	9.18%
	34 Crushable Inerts	24	1.30%	0.45%	2.59%
	35 Other Inerts	79	4.22%	2.45%	6.43%
	36 Gypsum Board	11	0.61%	0.15%	1.37%
	37 Asphalt Roofing	1	0.07%	0.02%	0.15%
HHW		9	0.46%	0.28%	0.69%
	38 Paint/Adhesives	3	0.16%	0.05%	0.33%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	3	0.14%	0.07%	0.24%
	41 Medical Waste	2	0.08%	0.02%	0.17%
	42 Medicine	1	0.04%	0.02%	0.08%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	0	0.02%	0.01%	0.04%
	45 Other Hazardous Waste	0	0.02%	0.01%	0.05%
Special		3	0.14%	0.04%	0.30%
	46 Brown Goods	3	0.14%	0.04%	0.30%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		1,873	100.00%		

Table 7
City of Albany Multi-Family Residential Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		237	27.17%	23.26%	31.26%
	1 Uncoated Corrugated Cardboard	3	0.34%	0.13%	0.65%
	2 High Grade Paper	4	0.46%	0.22%	0.77%
	3 Newspaper	5	0.62%	0.31%	1.03%
	4 Mixed Recyclable Paper	35	3.97%	2.54%	5.70%
	5 Compostable Paper	183	20.97%	17.48%	24.69%
	6 Other Paper	7	0.81%	0.60%	1.04%
Plastics		134	15.38%	14.01%	16.81%
	7 HDPE Bottles (#2)	5	0.60%	0.37%	0.89%
	8 PETE Bottles (#1)	8	0.88%	0.60%	1.22%
	9 Other Plastic Containers	8	0.87%	0.54%	1.27%
	10 Plastic Bags	12	1.35%	0.75%	2.10%
	11 Other Film	58	6.65%	5.07%	8.42%
	12 Expanded Polystyrene Blocks	2	0.27%	0.07%	0.60%
	13 Mixed Rigid Plastics	31	3.50%	2.78%	4.31%
	14 Other Plastics	11	1.26%	0.75%	1.91%
Glass		25	2.85%	1.64%	4.38%
	15 Recyclable Glass Bottles/Containers	23	2.61%	1.44%	4.11%
	16 Other Glass	2	0.24%	0.06%	0.54%
Metals		14	1.57%	1.31%	1.85%
	17 Aluminum Cans	2	0.24%	0.17%	0.33%
	18 Other Non-Ferrous	4	0.43%	0.36%	0.51%
	19 Steel Food and Beverage Cans	6	0.72%	0.57%	0.89%
	20 Other Ferrous	2	0.18%	0.05%	0.40%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		24	2.71%	0.80%	5.70%
	22 Leaves/Grass/Chips	15	1.69%	0.34%	4.05%
	23 Branches/Stumps/Prunings/Trimmings	9	1.02%	0.21%	2.42%
Organics		410	46.94%	42.67%	51.22%
	24 Food Waste	273	31.28%	26.40%	36.38%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	3	0.33%	0.05%	0.85%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	12	1.40%	0.36%	3.11%
	29 Textiles and Leather	32	3.69%	2.03%	5.82%
	30 Carpet	0	0.00%	0.00%	0.00%
	31 Diapers	50	5.76%	3.92%	7.91%
	32 Manure	12	1.38%	0.41%	2.91%
	33 Other Organics	27	3.11%	0.88%	6.63%
Inerts		19	2.20%	0.97%	3.92%
	34 Crushable Inerts	3	0.38%	0.13%	0.76%
	35 Other Inerts	16	1.82%	0.63%	3.60%
	36 Gypsum Board	0	0.00%	0.00%	0.00%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		5	0.63%	0.19%	1.31%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	3	0.39%	0.04%	1.10%
	40 Universal Hazardous Waste	1	0.08%	0.02%	0.19%
	41 Medical Waste	1	0.08%	0.01%	0.21%
	42 Medicine	0	0.01%	0.00%	0.03%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	0	0.04%	0.01%	0.10%
	45 Other Hazardous Waste	0	0.03%	0.00%	0.08%
Special		5	0.56%	0.09%	1.44%
	46 Brown Goods	5	0.56%	0.09%	1.44%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		874	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF ALBANY**

**Table 8
City of Albany Commercial Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		400	29.44%	24.69%	34.42%
	1 Uncoated Corrugated Cardboard	16	1.18%	0.73%	1.74%
	2 High Grade Paper	22	1.59%	0.96%	2.36%
	3 Newspaper	21	1.55%	0.79%	2.55%
	4 Mixed Recyclable Paper	83	6.08%	3.79%	8.87%
	5 Compostable Paper	249	18.35%	15.72%	21.14%
	6 Other Paper	9	0.69%	0.45%	0.97%
Plastics		174	12.78%	11.35%	14.28%
	7 HDPE Bottles (#2)	9	0.69%	0.52%	0.89%
	8 PETE Bottles (#1)	7	0.51%	0.40%	0.64%
	9 Other Plastic Containers	10	0.72%	0.53%	0.95%
	10 Plastic Bags	13	0.99%	0.72%	1.31%
	11 Other Film	71	5.23%	4.02%	6.58%
	12 Expanded Polystyrene Blocks	3	0.20%	0.10%	0.34%
	13 Mixed Rigid Plastics	45	3.33%	2.73%	3.99%
	14 Other Plastics	15	1.10%	0.71%	1.57%
Glass		48	3.50%	1.97%	5.45%
	15 Recyclable Glass Bottles/Containers	17	1.26%	0.89%	1.71%
	16 Other Glass	30	2.24%	0.91%	4.14%
Metals		68	5.02%	3.67%	6.57%
	17 Aluminum Cans	3	0.18%	0.12%	0.26%
	18 Other Non-Ferrous	4	0.31%	0.21%	0.43%
	19 Steel Food and Beverage Cans	11	0.82%	0.52%	1.18%
	20 Other Ferrous	50	3.71%	2.30%	5.43%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		40	2.93%	1.58%	4.67%
	22 Leaves/Grass/Chips	29	2.17%	1.09%	3.60%
	23 Branches/Stumps/Prunings/Trimings	10	0.76%	0.32%	1.38%
Organics		571	42.01%	35.68%	48.47%
	24 Food Waste	432	31.80%	24.98%	39.04%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	19	1.38%	0.66%	2.35%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	27	1.97%	1.05%	3.15%
	29 Textiles and Leather	51	3.75%	2.30%	5.53%
	30 Carpet	5	0.36%	0.14%	0.67%
	31 Diapers	8	0.56%	0.33%	0.84%
	32 Manure	8	0.60%	0.27%	1.06%
	33 Other Organics	22	1.61%	0.86%	2.59%
Inerts		35	2.61%	1.39%	4.19%
	34 Crushable Inerts	11	0.77%	0.40%	1.27%
	35 Other Inerts	24	1.75%	0.83%	3.00%
	36 Gypsum Board	1	0.08%	0.03%	0.14%
	37 Asphalt Roofing	0	0.01%	0.00%	0.02%
HHW		19	1.40%	0.75%	2.26%
	38 Paint/Adhesives	1	0.06%	0.03%	0.11%
	39 Vehicle & Equipment Fluids	1	0.06%	0.02%	0.11%
	40 Universal Hazardous Waste	0	0.03%	0.01%	0.05%
	41 Medical Waste	0	0.02%	0.01%	0.05%
	42 Medicine	0	0.02%	0.01%	0.04%
	43 Covered E-Waste	6	0.44%	0.17%	0.84%
	44 Other E-Waste	10	0.77%	0.34%	1.38%
	45 Other Hazardous Waste	0	0.00%	0.00%	0.00%
Special		4	0.31%	0.13%	0.58%
	46 Brown Goods	4	0.31%	0.13%	0.58%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		1,358	100.00%		

Table 9
City of Albany Roll-Off Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		194	15.47%	3.64%	33.43%
	1 Uncoated Corrugated Cardboard	10	0.80%	0.10%	2.17%
	2 High Grade Paper	13	1.03%	0.00%	4.02%
	3 Newspaper	12	0.92%	0.00%	3.58%
	4 Mixed Recyclable Paper	89	7.07%	0.24%	22.06%
	5 Compostable Paper	70	5.54%	0.16%	17.80%
	6 Other Paper	1	0.11%	0.00%	0.44%
Plastics		39	3.09%	0.47%	7.90%
	7 HDPE Bottles (#2)	1	0.04%	0.01%	0.11%
	8 PETE Bottles (#1)	0	0.04%	0.00%	0.13%
	9 Other Plastic Containers	0	0.01%	0.00%	0.05%
	10 Plastic Bags	0	0.02%	0.00%	0.08%
	11 Other Film	22	1.73%	0.07%	5.57%
	12 Expanded Polystyrene Blocks	0	0.00%	0.00%	0.02%
	13 Mixed Rigid Plastics	14	1.13%	0.16%	2.95%
	14 Other Plastics	1	0.11%	0.01%	0.34%
Glass		67	5.35%	0.30%	16.06%
	15 Recyclable Glass Bottles/Containers	19	1.53%	0.00%	5.95%
	16 Other Glass	48	3.82%	0.03%	13.44%
Metals		120	9.57%	0.55%	27.78%
	17 Aluminum Cans	1	0.05%	0.00%	0.19%
	18 Other Non-Ferrous	5	0.36%	0.01%	1.22%
	19 Steel Food and Beverage Cans	1	0.05%	0.00%	0.18%
	20 Other Ferrous	115	9.12%	0.25%	28.53%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		63	5.04%	0.08%	16.97%
	22 Leaves/Grass/Chips	51	4.08%	0.00%	15.63%
	23 Branches/Stumps/Prunings/Trimings	12	0.97%	0.00%	3.77%
Organics		602	47.86%	13.14%	83.84%
	24 Food Waste	191	15.20%	0.28%	46.28%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	17	1.33%	0.00%	5.18%
	27 Pallets	99	7.87%	0.01%	29.67%
	28 Treated Wood Waste	22	1.73%	0.07%	5.57%
	29 Textiles and Leather	25	2.00%	0.23%	5.47%
	30 Carpet	44	3.47%	0.00%	13.36%
	31 Diapers	2	0.15%	0.00%	0.58%
	32 Manure	191	15.23%	0.35%	57.51%
	33 Other Organics	11	0.89%	0.00%	3.46%
Inerts		37	2.96%	0.08%	9.72%
	34 Crushable Inerts	30	2.39%	0.06%	7.93%
	35 Other Inerts	7	0.57%	0.00%	2.22%
	36 Gypsum Board	0	0.00%	0.00%	0.00%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		0	0.00%	0.00%	0.00%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	0	0.00%	0.00%	0.00%
	41 Medical Waste	0	0.00%	0.00%	0.00%
	42 Medicine	0	0.00%	0.00%	0.00%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	0	0.00%	0.00%	0.00%
	45 Other Hazardous Waste	0	0.00%	0.00%	0.00%
Special		134	10.65%	0.03%	39.77%
	46 Brown Goods	0	0.00%	0.00%	0.00%
	47 Composite Bulky Items	134	10.65%	0.03%	39.77%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		1,257	100.00%		

Table 10
City of Albany Self-Haul Waste Composition and Disposal

Not applicable: no samples were collected from self-haul waste from the City of Albany.

Table 11
City of Albany Detailed Historic Comparison of Overall Jurisdiction-wide Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		33.5%	32.5%	23.0%	3,830	3,218	1,375
	1 Uncoated Corrugated Cardboard	4.3%	5.3%	0.6%	494	528	35
	2 High Grade Paper	2.5%	2.8%	0.8%	291	272	45
	3 Newspaper	5.0%	6.6%	0.9%	574	652	55
	4 Mixed Recyclable Paper	7.0%	6.0%	4.6%	806	597	272
	5 Compostable Paper	NA	NA	15.5%	NA	NA	926
	6 Other Paper	14.6%	11.8%	0.7%	1,665	1,169	42
Plastics		7.8%	11.8%	11.5%	894	1,165	684
	7 HDPE Bottles (#2)	0.8%	0.6%	0.4%	90	58	24
	8 PETE Bottles (#1)	0.3%	0.7%	0.4%	29	74	24
	9 Other Plastic Containers	NA	0.6%	0.6%	NA	61	37
	10 Plastic Bags	NA	NA	0.9%	NA	NA	56
	11 Other Film	3.6%	5.8%	5.0%	414	576	301
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	9
	13 Mixed Rigid Plastics	NA	NA	2.9%	NA	NA	176
	14 Other Plastics	3.2%	4.0%	1.0%	360	396	58
Glass		3.1%	2.8%	3.3%	359	274	194
	15 Recyclable Glass Bottles/Containers	2.2%	2.0%	1.7%	254	200	100
	16 Other Glass	0.9%	0.8%	1.6%	105	74	95
Metals		4.6%	2.8%	4.6%	529	280	275
	17 Aluminum Cans	0.2%	0.2%	0.1%	19	24	9
	18 Other Non-Ferrous	0.4%	0.8%	0.4%	48	79	22
	19 Steel Food and Beverage Cans	0.6%	0.6%	0.6%	63	55	36
	20 Other Ferrous	3.5%	1.1%	3.5%	398	113	207
	21 White Goods	0.0%	0.1%	0.0%	0	9	0
Yard Waste		13.2%	7.7%	2.5%	1,511	762	148
	22 Leaves/Grass/Chips	7.4%	4.8%	1.9%	842	476	112
	23 Branches/Stumps/Prunings/Trimings	5.8%	2.9%	0.6%	668	286	37
Organics		30.8%	30.4%	47.9%	3,528	3,006	2,861
	24 Food Waste	18.0%	19.3%	28.5%	2,055	1,909	1,702
	25 Tires	0.1%	0.1%	0.0%	14	10	0
	26 Untreated Lumber	4.6%	1.7%	0.8%	531	164	47
	27 Pallets	NA	NA	1.8%	NA	NA	110
	28 Treated Wood Waste	3.4%	2.7%	1.6%	385	265	94
	29 Textiles and Leather	2.6%	1.6%	3.4%	294	162	204
	30 Carpet	NA	0.1%	0.9%	NA	8	54
	31 Diapers	1.4%	2.1%	3.0%	158	211	182
	32 Manure	NA	NA	5.7%	NA	NA	341
	33 Other Organics	0.8%	2.8%	2.1%	92	275	127
Inerts		3.2%	5.5%	3.9%	362	543	232
	34 Crushable Inerts	1.7%	0.4%	1.3%	199	40	76
	35 Other Inerts	0.4%	4.5%	2.3%	45	443	140
	36 Gypsum Board	0.0%	0.6%	0.2%	0	58	14
	37 Asphalt Roofing	1.0%	0.0%	0.0%	118	2	2
HHW		0.6%	0.5%	0.6%	68	51	37
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	4
	39 Vehicle & Equipment Fluids	NA	NA	0.1%	NA	NA	5
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	4
	41 Medical Waste	NA	NA	0.0%	NA	NA	3
	42 Medicine	NA	NA	0.0%	NA	NA	1
	43 Covered E-Waste	NA	NA	0.1%	NA	NA	7
	44 Other E-Waste	NA	NA	0.2%	NA	NA	12
	45 Other Hazardous Waste	0.6%	0.5%	0.0%	68	51	1
Special		2.2%	6.1%	2.7%	248	605	162
	46 Brown Goods	1.0%	0.8%	0.2%	112	81	13
	47 Composite Bulky Items	1.2%	5.3%	2.5%	136	523	149
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		99.0%	100.0%	100.0%	11,444	9,903	5,968

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF ALBANY**

**Table 12
City of Albany Detailed Historic Comparison of Single-Family Residential**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		31.8%	34.3%	21.6%	1,306	1,148	404
	1 Uncoated Corrugated Cardboard	4.6%	3.6%	0.1%	190	119	2
	2 High Grade Paper	2.5%	1.9%	0.1%	101	63	2
	3 Newspaper	6.9%	4.0%	0.6%	285	134	11
	4 Mixed Recyclable Paper	6.5%	8.2%	2.0%	267	276	38
	5 Compostable Paper	NA	NA	17.6%	NA	NA	330
	6 Other Paper	11.3%	16.6%	1.1%	463	555	20
Plastics		8.3%	13.9%	14.3%	341	467	268
	7 HDPE Bottles (#2)	0.5%	0.7%	0.3%	22	23	6
	8 PETE Bottles (#1)	0.3%	1.6%	0.3%	12	54	6
	9 Other Plastic Containers	NA	1.1%	0.8%	NA	36	15
	10 Plastic Bags	NA	NA	1.3%	NA	NA	25
	11 Other Film	3.8%	6.8%	6.4%	155	229	120
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	3
	13 Mixed Rigid Plastics	NA	NA	3.6%	NA	NA	68
	14 Other Plastics	3.7%	3.8%	1.3%	152	126	25
Glass		2.7%	3.2%	1.9%	109	108	35
	15 Recyclable Glass Bottles/Containers	2.4%	2.9%	1.6%	96	99	30
	16 Other Glass	0.3%	0.3%	0.2%	12	9	4
Metals		2.1%	2.2%	2.4%	86	75	45
	17 Aluminum Cans	0.2%	0.3%	0.2%	8	9	3
	18 Other Non-Ferrous	0.6%	0.6%	0.4%	23	21	8
	19 Steel Food and Beverage Cans	0.8%	0.7%	0.8%	33	25	15
	20 Other Ferrous	0.5%	0.6%	1.0%	21	20	19
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		24.3%	2.9%	0.3%	998	98	6
	22 Leaves/Grass/Chips	16.0%	2.7%	0.3%	658	91	5
	23 Branches/Stumps/Prunings/Trimmings	8.3%	0.2%	0.1%	340	6	1
Organics		28.8%	41.2%	52.8%	1,181	1,381	988
	24 Food Waste	21.2%	28.9%	33.8%	868	968	633
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	0.3%	1.3%	0.2%	11	45	4
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	0.2%	1.0%	1.3%	6	34	23
	29 Textiles and Leather	3.4%	2.2%	4.0%	140	72	75
	30 Carpet	NA	0.1%	0.0%	NA	4	0
	31 Diapers	2.8%	3.1%	5.5%	114	105	104
	32 Manure	NA	NA	5.1%	NA	NA	95
	33 Other Organics	1.0%	4.6%	2.9%	41	153	54
Inerts		0.8%	1.2%	6.2%	32	41	116
	34 Crushable Inerts	0.1%	0.4%	1.3%	4	15	24
	35 Other Inerts	0.7%	0.6%	4.2%	28	19	79
	36 Gypsum Board	0.0%	0.2%	0.6%	0	7	11
	37 Asphalt Roofing	0.0%	0.0%	0.1%	0	0	1
HHW		0.6%	0.5%	0.5%	26	17	9
	38 Paint/Adhesives	NA	NA	0.2%	NA	NA	3
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	3
	41 Medical Waste	NA	NA	0.1%	NA	NA	2
	42 Medicine	NA	NA	0.0%	NA	NA	1
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.6%	0.5%	0.0%	26	17	0
Special		0.7%	0.5%	0.1%	27	16	3
	46 Brown Goods	0.1%	0.5%	0.1%	5	16	3
	47 Composite Bulky Items	0.5%	0.0%	0.0%	22	0	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	4,105	3,350	1,873

Table 13
City Albany Detailed Historic Comparison of Multi-Family Residential

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		36.4%	26.6%	27.2%	672	371	237
	1 Uncoated Corrugated Cardboard	5.4%	2.5%	0.3%	99	35	3
	2 High Grade Paper	1.5%	2.0%	0.5%	27	28	4
	3 Newspaper	7.8%	3.2%	0.6%	145	44	5
	4 Mixed Recyclable Paper	8.9%	7.5%	4.0%	164	105	35
	5 Compostable Paper	NA	NA	21.0%	NA	NA	183
	6 Other Paper	12.8%	11.4%	0.8%	237	159	7
Plastics		8.7%	11.0%	15.4%	160	154	134
	7 HDPE Bottles (#2)	0.9%	0.7%	0.6%	17	10	5
	8 PETE Bottles (#1)	0.4%	0.6%	0.9%	7	8	8
	9 Other Plastic Containers	NA	0.4%	0.9%	NA	6	8
	10 Plastic Bags	NA	NA	1.3%	NA	NA	12
	11 Other Film	4.0%	6.1%	6.6%	74	85	58
	12 Expanded Polystyrene Blocks	NA	NA	0.3%	NA	NA	2
	13 Mixed Rigid Plastics	NA	NA	3.5%	NA	NA	31
	14 Other Plastics	3.3%	3.2%	1.3%	62	45	11
Glass		4.4%	2.2%	2.8%	81	30	25
	15 Recyclable Glass Bottles/Containers	3.7%	1.9%	2.6%	68	27	23
	16 Other Glass	0.7%	0.3%	0.2%	14	4	2
Metals		3.3%	2.4%	1.6%	61	34	14
	17 Aluminum Cans	0.2%	0.2%	0.2%	4	3	2
	18 Other Non-Ferrous	0.3%	0.8%	0.4%	6	12	4
	19 Steel Food and Beverage Cans	0.9%	0.4%	0.7%	16	6	6
	20 Other Ferrous	1.9%	1.0%	0.2%	35	14	2
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		5.4%	7.2%	2.7%	100	101	24
	22 Leaves/Grass/Chips	2.6%	3.3%	1.7%	49	46	15
	23 Branches/Stumps/Prunings/Trimmings	2.8%	4.0%	1.0%	51	55	9
Organics		30.8%	46.3%	46.9%	569	648	410
	24 Food Waste	18.4%	27.5%	31.3%	340	385	273
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	4.7%	2.3%	0.3%	87	32	3
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	1.3%	2.7%	1.4%	25	38	12
	29 Textiles and Leather	3.9%	2.2%	3.7%	73	31	32
	30 Carpet	NA	0.3%	0.0%	NA	4	0
	31 Diapers	0.9%	5.9%	5.8%	16	83	50
	32 Manure	NA	NA	1.4%	NA	NA	12
	33 Other Organics	1.6%	5.4%	3.1%	30	75	27
Inerts		3.7%	3.3%	2.2%	67	47	19
	34 Crushable Inerts	1.6%	0.8%	0.4%	29	11	3
	35 Other Inerts	2.1%	2.5%	1.8%	38	35	16
	36 Gypsum Board	0.0%	0.0%	0.0%	0	0	0
	37 Asphalt Roofing	0.0%	0.1%	0.0%	0	1	0
HHW		0.9%	0.1%	0.6%	16	2	5
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.4%	NA	NA	3
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	1
	41 Medical Waste	NA	NA	0.1%	NA	NA	1
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.9%	0.1%	0.0%	16	2	0
Special		6.5%	0.8%	0.6%	120	12	5
	46 Brown Goods	3.4%	0.8%	0.6%	62	12	5
	47 Composite Bulky Items	3.1%	0.0%	0.0%	58	0	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	1,848	1,399	874

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF ALBANY**

**Table 14
City of Albany Detailed Historic Comparison of Commercial Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		42.7%	30.6%	29.4%	887	677	400
	1 Uncoated Corrugated Cardboard	6.2%	8.8%	1.2%	129	195	16
	2 High Grade Paper	6.8%	3.1%	1.6%	142	69	22
	3 Newspaper	4.8%	3.2%	1.5%	100	70	21
	4 Mixed Recyclable Paper	10.2%	5.9%	6.1%	212	131	83
	5 Compostable Paper	NA	NA	18.4%	NA	NA	249
	6 Other Paper	14.6%	9.6%	0.7%	304	211	9
Plastics		10.8%	11.4%	12.8%	224	252	174
	7 HDPE Bottles (#2)	0.8%	1.0%	0.7%	17	22	9
	8 PETE Bottles (#1)	0.3%	0.5%	0.5%	6	10	7
	9 Other Plastic Containers	NA	0.8%	0.7%	NA	17	10
	10 Plastic Bags	NA	NA	1.0%	NA	NA	13
	11 Other Film	5.8%	5.7%	5.2%	121	125	71
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	3
	13 Mixed Rigid Plastics	NA	NA	3.3%	NA	NA	45
	14 Other Plastics	3.8%	3.5%	1.1%	79	77	15
Glass		3.1%	3.6%	3.5%	64	80	48
	15 Recyclable Glass Bottles/Containers	2.6%	2.5%	1.3%	54	55	17
	16 Other Glass	0.5%	1.1%	2.2%	10	25	30
Metals		3.2%	5.7%	5.0%	66	125	68
	17 Aluminum Cans	0.3%	0.3%	0.2%	5	6	3
	18 Other Non-Ferrous	0.5%	1.5%	0.3%	10	32	4
	19 Steel Food and Beverage Cans	0.5%	1.0%	0.8%	11	22	11
	20 Other Ferrous	1.9%	2.6%	3.7%	40	57	50
	21 White Goods	0.0%	0.4%	0.0%	0	9	0
Yard Waste		8.5%	10.3%	2.9%	177	228	40
	22 Leaves/Grass/Chips	3.1%	2.7%	2.2%	65	59	29
	23 Branches/Stumps/Prunings/Trimmings	5.4%	7.7%	0.8%	112	169	10
Organics		30.3%	33.3%	42.0%	630	735	571
	24 Food Waste	23.5%	22.9%	31.8%	489	506	432
	25 Tires	0.7%	0.5%	0.0%	14	10	0
	26 Untreated Lumber	2.3%	2.5%	1.4%	47	56	19
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	0.7%	3.1%	2.0%	15	69	27
	29 Textiles and Leather	1.8%	2.0%	3.7%	37	45	51
	30 Carpet	NA	0.0%	0.4%	NA	1	5
	31 Diapers	0.8%	1.1%	0.6%	16	24	8
	32 Manure	NA	NA	0.6%	NA	NA	8
	33 Other Organics	0.6%	1.1%	1.6%	12	24	22
Inerts		0.5%	1.1%	2.6%	9	24	35
	34 Crushable Inerts	0.1%	0.1%	0.8%	1	3	11
	35 Other Inerts	0.4%	0.6%	1.7%	8	13	24
	36 Gypsum Board	0.0%	0.3%	0.1%	0	7	1
	37 Asphalt Roofing	0.0%	0.1%	0.0%	0	1	0
HHW		1.0%	0.3%	1.4%	20	7	19
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	1
	39 Vehicle & Equipment Fluids	NA	NA	0.1%	NA	NA	1
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	0
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.4%	NA	NA	6
	44 Other E-Waste	NA	NA	0.8%	NA	NA	10
	45 Other Hazardous Waste	1.0%	0.3%	0.0%	20	7	0
Special		0.1%	3.7%	0.3%	3	81	4
	46 Brown Goods	0.0%	1.6%	0.3%	0	34	4
	47 Composite Bulky Items	0.1%	2.1%	0.0%	3	46	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	2,080	2,209	1,358

Table 15
City of Albany Detailed Historic Comparison of Roll-Off Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		40.2%	41.3%	15.5%	861	989	194
	1 Uncoated Corrugated Cardboard	2.7%	7.1%	0.8%	57	169	10
	2 High Grade Paper	0.3%	4.6%	1.0%	6	111	13
	3 Newspaper	1.7%	16.7%	0.9%	36	401	12
	4 Mixed Recyclable Paper	5.7%	3.4%	7.1%	121	81	89
	5 Compostable Paper	NA	NA	5.5%	NA	NA	70
	6 Other Paper	29.9%	9.5%	0.1%	640	227	1
Plastics		5.6%	10.5%	3.1%	120	251	39
	7 HDPE Bottles (#2)	1.5%	0.1%	0.0%	31	1	1
	8 PETE Bottles (#1)	0.1%	0.1%	0.0%	3	2	0
	9 Other Plastic Containers	NA	0.0%	0.0%	NA	0	0
	10 Plastic Bags	NA	NA	0.0%	NA	NA	0
	11 Other Film	2.4%	5.6%	1.7%	51	133	22
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	0
	13 Mixed Rigid Plastics	NA	NA	1.1%	NA	NA	14
	14 Other Plastics	1.6%	4.8%	0.1%	35	115	1
Glass		2.9%	0.5%	5.4%	62	13	67
	15 Recyclable Glass Bottles/Containers	1.3%	0.5%	1.5%	28	13	19
	16 Other Glass	1.6%	0.0%	3.8%	34	0	48
Metals		10.1%	0.7%	9.6%	217	16	120
	17 Aluminum Cans	0.1%	0.3%	0.0%	2	6	1
	18 Other Non-Ferrous	0.1%	0.1%	0.4%	1	4	5
	19 Steel Food and Beverage Cans	0.1%	0.1%	0.0%	3	1	1
	20 Other Ferrous	9.9%	0.2%	9.1%	212	5	115
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		2.2%	12.9%	5.0%	47	309	63
	22 Leaves/Grass/Chips	2.0%	11.3%	4.1%	43	270	51
	23 Branches/Stumps/Prunings/Trimnings	0.2%	1.6%	1.0%	4	39	12
Organics		26.4%	5.6%	47.9%	566	135	602
	24 Food Waste	14.3%	1.2%	15.2%	307	28	191
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	2.0%	0.4%	1.3%	44	10	17
	27 Pallets	NA	NA	7.9%	NA	NA	99
	28 Treated Wood Waste	7.8%	3.0%	1.7%	167	72	22
	29 Textiles and Leather	1.4%	0.2%	2.0%	31	5	25
	30 Carpet	NA	0.0%	3.5%	NA	0	44
	31 Diapers	0.6%	0.0%	0.1%	12	0	2
	32 Manure	NA	NA	15.2%	NA	NA	191
	33 Other Organics	0.2%	0.8%	0.9%	5	20	11
Inerts		10.1%	14.0%	3.0%	217	335	37
	34 Crushable Inerts	6.6%	0.0%	2.4%	141	0	30
	35 Other Inerts	3.5%	14.0%	0.6%	75	335	7
	36 Gypsum Board	0.0%	0.0%	0.0%	0	0	0
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	0	0
HHW		0.1%	0.5%	0.0%	1	13	0
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	0
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.1%	0.5%	0.0%	1	13	0
Special		2.5%	14.0%	10.6%	54	335	134
	46 Brown Goods	0.0%	0.4%	0.0%	0	9	0
	47 Composite Bulky Items	2.5%	13.6%	10.6%	54	326	134
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	2,144	2,396	1,257

Table 16
City of Albany Detailed Historic Comparison of Self-Haul Waste

Not applicable: no samples were collected from self-haul waste from the City of Albany.

Appendix A3

2008 WASTE CHARACTERIZATION RESULTS

CITY OF BERKELEY

This section presents a summary of the composition and quantity of disposed waste from the City of Berkeley. The 2008 Study results presented herein are based on compositions developed using data obtained from field sample collection and sorting activities performed over four seasons during calendar year 2008. A complete description of the Study and presentation of Countywide aggregate results are included in Section 3 of the report.

Table 1 summarizes selected demographic and waste disposal characteristics for the City of Berkeley. The total amount of waste disposed in 2008 represents 7.7 percent of the Countywide waste stream, and decreased approximately 2 percent from 2000.

Table 1
City of Berkeley Waste Disposal Data

	2000	2008
Population ¹	109,463	106,697
Housing Units	46,285	48,036
Number of Business Establishments ²	4,270	4,531
Waste Disposal (tons) ³	92,802	91,008
Single Family	19,637	14,953
Multi-Family	16,267	5,210
Commercial	15,891	17,594
Roll-off	9,552	14,805
Self-Haul	31,455	38,445
Residential Disposal Rate (lbs/capita/year) ⁴	840	1,022
Non-residential Disposal Rate (tons/establishment/year)	11	8

¹ Source: State of California, Department of Finance, City/County Population and Housing Estimates for 2000 and Jan 2008.

² Source: California Board of Equalization. "Taxable Sales in California (Sales & Use Tax)", 1999 and 2007.

³ Data provided by StopWaste.Org staff.

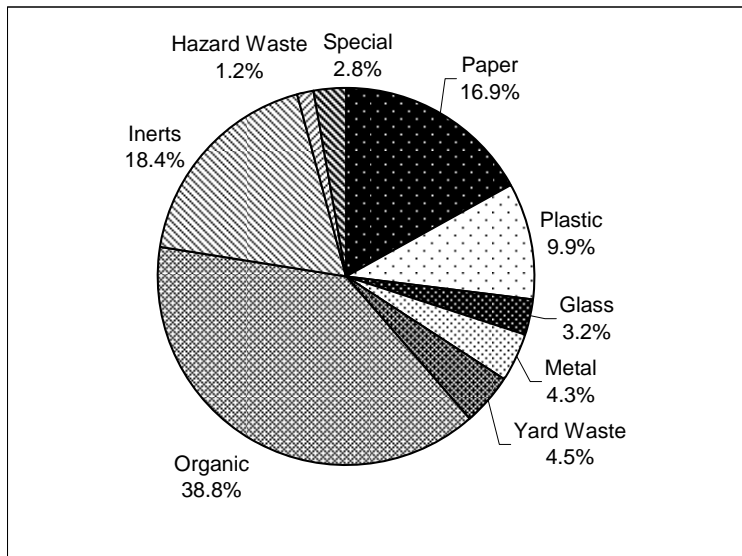
Table 2 presents the number of samples collected from each type of waste stream. Approximately 7 percent of the total number of samples collected were from this jurisdiction.

Table 2
Summary of Samples Obtained from City of Berkeley

Waste Stream	Total Samples
Single-family	22
Multi-family	14
Commercial	38
Roll-off	19
Self-haul	73
Total	166

The following tables and figures are presented for waste originating from the City of Berkeley. The introduction to Appendix B presents a summary of the information provided within each table or figure.

Figure 1 City of Berkeley 2008 Aggregate Waste Composition by Major Material Group



Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	15,420	16.9%	15.2%	19.0%
Plastic	8,976	9.9%	8.8%	11.2%
Glass	2,891	3.2%	2.4%	4.5%
Metal	3,897	4.3%	3.5%	5.3%
Yard Waste	4,082	4.5%	3.1%	6.2%
Organic	35,281	38.8%	34.5%	43.3%
Inerts	16,776	18.4%	13.7%	23.8%
Hazard Waste	1,130	1.2%	0.9%	1.7%
Special	2,556	2.8%	1.6%	4.3%
TOTAL	91,008	100.0%		

2008 WASTE CHARACTERIZATION RESULTS CITY OF BERKELEY

Figure 2 City of Berkeley Single-Family Residential Composition by Major Material Group

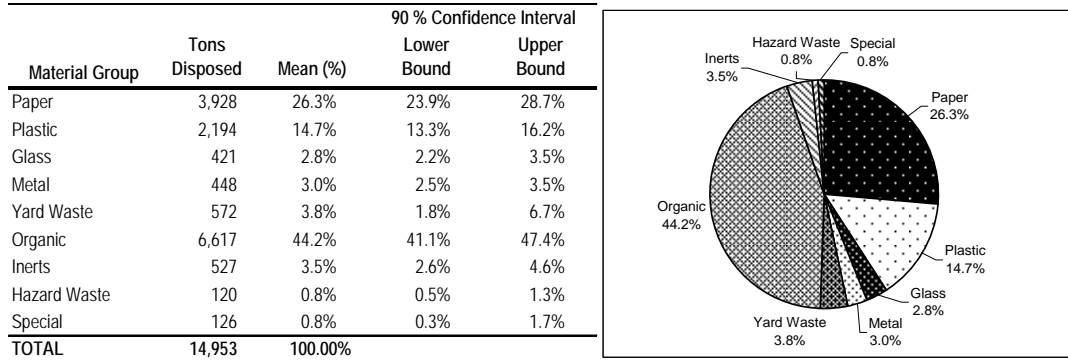


Figure 3 City of Berkeley Multi-Family Residential Composition by Major Material Group

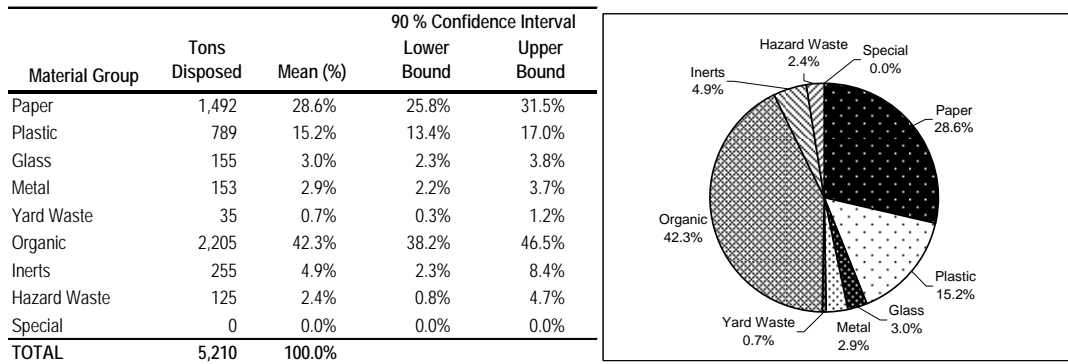


Figure 4 City of Berkeley Commercial Composition by Major Material Group

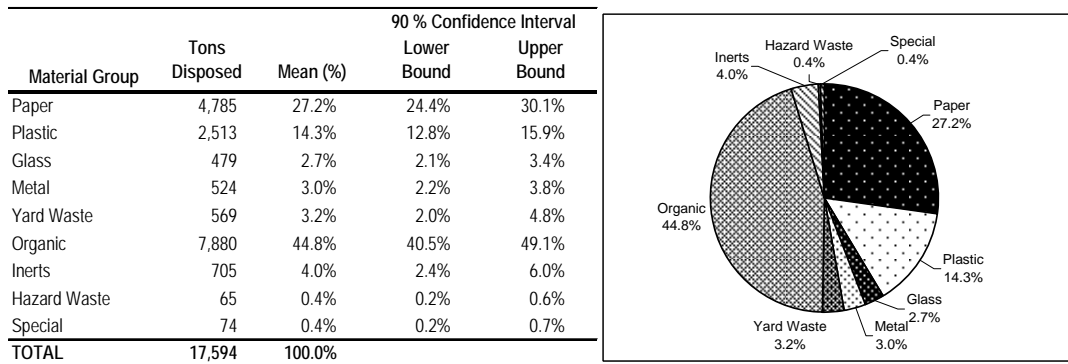


Figure 5 City of Berkeley Roll-off Composition by Major Material Group

Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	1,999	13.5%	5.0%	25.2%
Plastic	2,139	14.5%	6.8%	24.4%
Glass	1,358	9.2%	2.1%	20.6%
Metal	782	5.3%	2.0%	10.1%
Yard Waste	139	0.9%	0.2%	2.1%
Organic	4,770	32.2%	16.0%	51.0%
Inerts	3,358	22.7%	7.4%	43.3%
Hazard Waste	260	1.8%	0.4%	4.0%
Special	0	0.0%	0.0%	0.0%
TOTAL	14,805	100.0%		

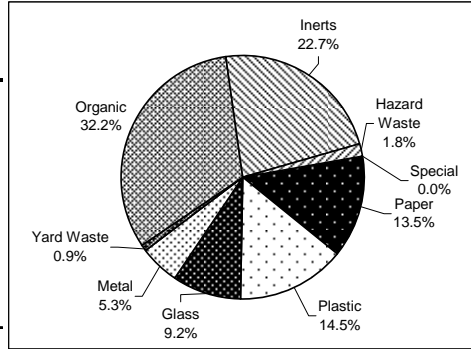
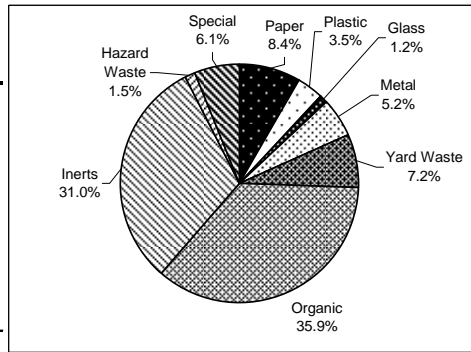


Figure 6 City of Berkeley Self Hauler Composition by Major Material Group

Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	3,215	8.4%	5.6%	11.6%
Plastic	1,340	3.5%	2.4%	4.7%
Glass	478	1.2%	0.8%	1.9%
Metal	1,990	5.2%	3.6%	7.0%
Yard Waste	2,766	7.2%	4.2%	11.0%
Organic	13,808	35.9%	27.5%	44.8%
Inerts	11,931	31.0%	21.1%	42.0%
Hazard Waste	560	1.5%	0.9%	2.2%
Special	2,356	6.1%	3.4%	9.6%
TOTAL	38,445	100.0%		



2008 WASTE CHARACTERIZATION RESULTS
CITY OF BERKELEY

Figure 7 Historic Comparison of City of Berkeley Aggregate Disposal

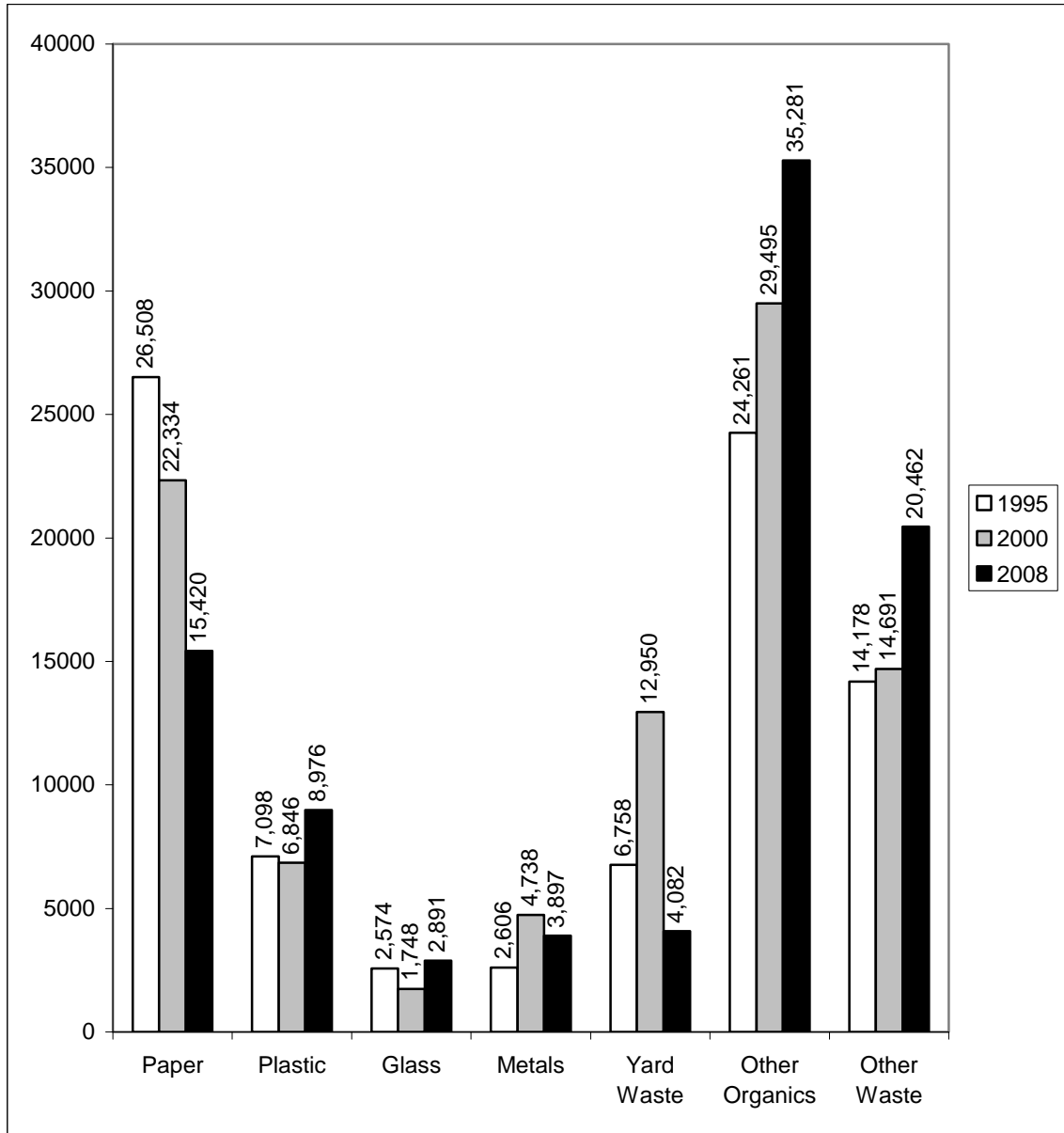
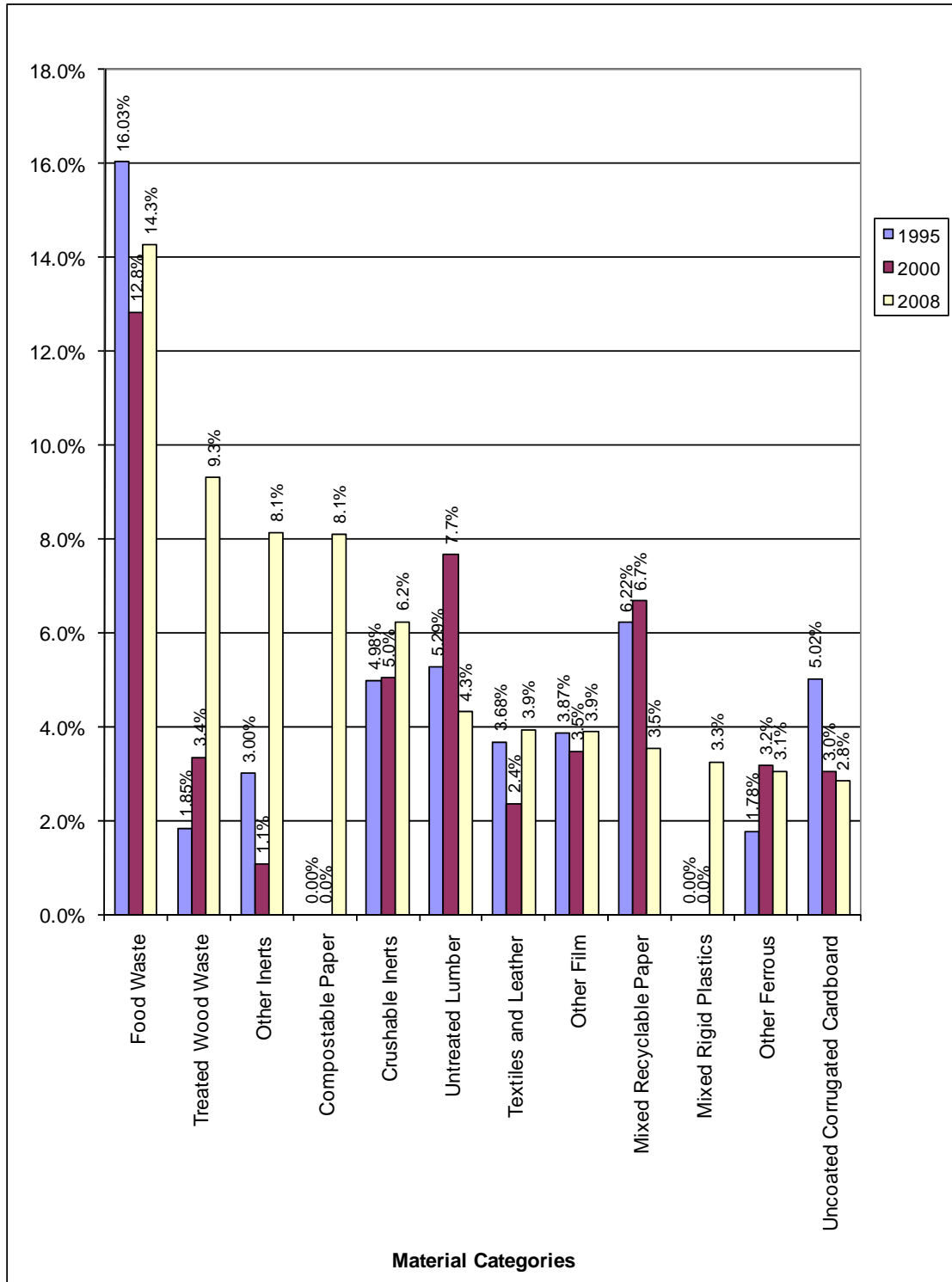


Figure 8 City of Berkeley Top 12 Most Common Materials – Aggregate



2008 WASTE CHARACTERIZATION RESULTS
CITY OF BERKELEY

Figure 9 City of Berkeley Top 12 Most Common Materials from 2000

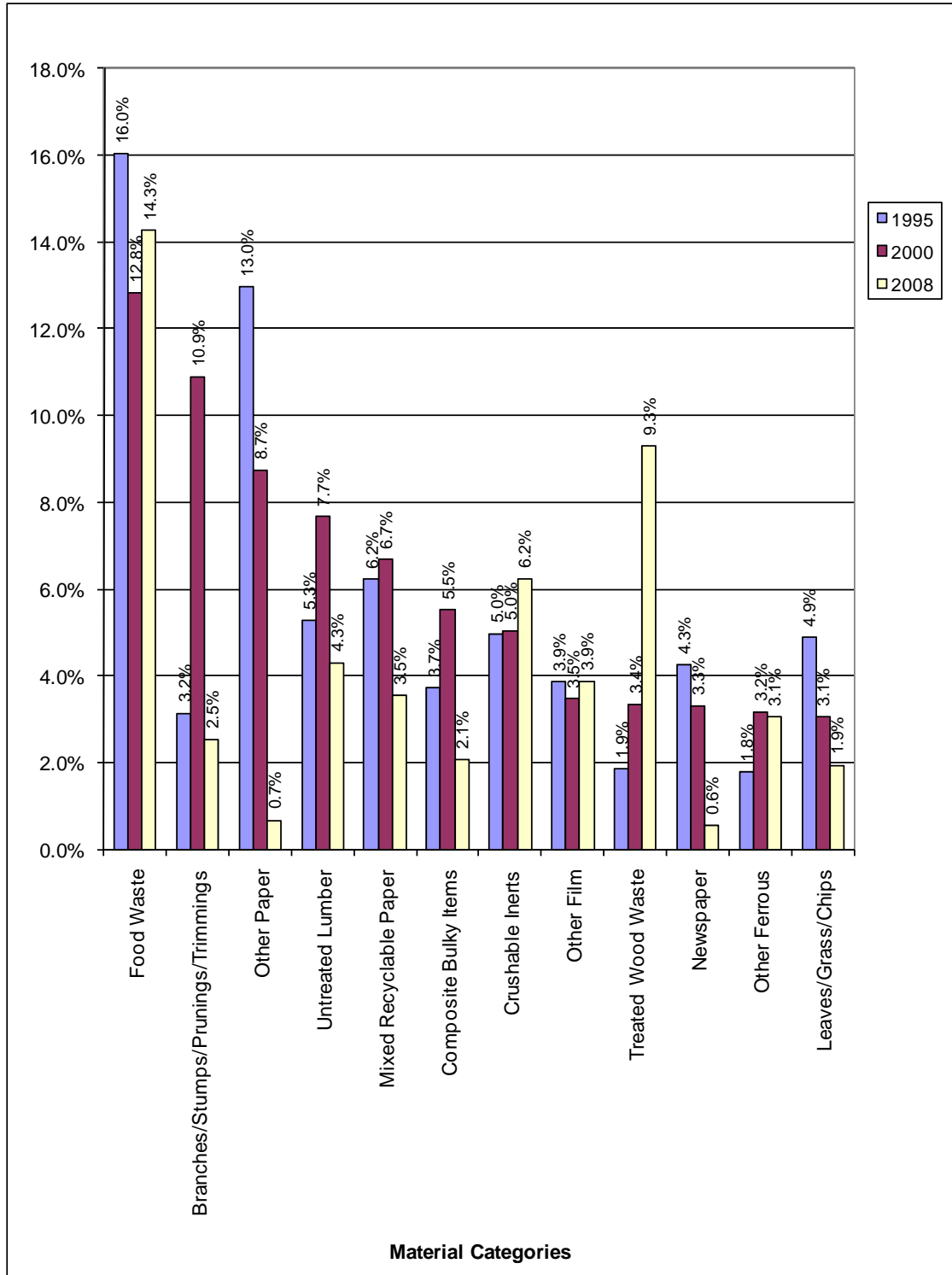


Table 3
Summary of Overall Material Proportions for City of Berkeley

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Aggregated
Paper		26.3%	28.6%	27.2%	13.5%	8.4%	16.9%
	1 Uncoated Corrugated Cardboard	0.6%	0.6%	1.3%	7.9%	2.8%	2.8%
	2 High Grade Paper	0.7%	0.7%	0.8%	1.8%	1.4%	1.2%
	3 Newspaper	1.6%	0.9%	0.8%	0.1%	0.2%	0.6%
	4 Mixed Recyclable Paper	5.8%	3.2%	3.7%	2.1%	3.2%	3.5%
	5 Compostable Paper	16.7%	22.3%	19.5%	0.9%	0.4%	8.1%
	6 Other Paper	0.9%	0.9%	1.1%	0.7%	0.4%	0.7%
Plastics		14.7%	15.2%	14.3%	14.5%	3.5%	9.9%
	7 HDPE Bottles (#2)	0.6%	0.6%	0.5%	0.3%	0.0%	0.3%
	8 PETE Bottles (#1)	0.4%	0.7%	0.5%	0.1%	0.1%	0.2%
	9 Other Plastic Containers	1.1%	1.0%	1.0%	0.0%	0.2%	0.5%
	10 Plastic Bags	2.0%	1.7%	1.5%	0.0%	0.0%	0.7%
	11 Other Film	5.3%	6.3%	6.5%	4.3%	1.7%	3.9%
	12 Expanded Polystyrene Blocks	0.1%	0.1%	0.4%	0.1%	0.0%	0.1%
	13 Mixed Rigid Plastics	4.1%	3.8%	3.4%	7.8%	1.0%	3.3%
	14 Other Plastics	1.2%	0.8%	0.5%	1.7%	0.5%	0.8%
Glass		2.8%	3.0%	2.7%	9.2%	1.2%	3.2%
	15 Recyclable Glass Bottles/Containers	2.3%	2.5%	2.3%	0.4%	0.2%	1.1%
	16 Other Glass	0.5%	0.4%	0.5%	8.7%	1.0%	2.0%
Metals		3.0%	2.9%	3.0%	5.3%	5.2%	4.3%
	17 Aluminum Cans	0.1%	0.3%	0.2%	0.0%	0.1%	0.1%
	18 Other Non-Ferrous	0.6%	0.6%	0.4%	0.3%	0.8%	0.6%
	19 Steel Food and Beverage Cans	0.8%	0.7%	0.8%	0.0%	0.0%	0.3%
	20 Other Ferrous	1.5%	1.2%	1.6%	4.8%	3.9%	3.1%
	21 White Goods	0.0%	0.0%	0.0%	0.2%	0.4%	0.2%
Yard Waste		3.8%	0.7%	3.2%	0.9%	7.2%	4.5%
	22 Leaves/Grass/Chips	2.4%	0.5%	2.2%	0.0%	2.6%	1.9%
	23 Branches/Stumps/Prunings/Trimmings	1.4%	0.2%	1.0%	0.9%	4.6%	2.5%
Organics		44.2%	42.3%	44.8%	32.2%	35.9%	38.8%
	24 Food Waste	28.3%	31.6%	30.6%	10.4%	0.4%	14.3%
	25 Tires	0.1%	0.0%	0.1%	0.0%	0.1%	0.1%
	26 Untreated Lumber	0.7%	0.4%	2.1%	2.9%	7.8%	4.3%
	27 Pallets	0.0%	0.0%	1.8%	9.1%	0.1%	1.9%
	28 Treated Wood Waste	2.0%	1.9%	2.5%	7.9%	16.8%	9.3%
	29 Textiles and Leather	4.9%	4.5%	4.2%	0.2%	4.8%	3.9%
	30 Carpet	0.0%	0.1%	0.3%	0.0%	3.2%	1.4%
	31 Diapers	5.9%	1.5%	2.1%	0.1%	0.0%	1.5%
	32 Manure	1.2%	1.7%	0.3%	0.0%	0.0%	0.4%
	33 Other Organics	1.2%	0.6%	0.8%	1.7%	2.6%	1.8%
Inerts		3.5%	4.9%	4.0%	22.7%	31.0%	18.4%
	34 Crushable Inerts	0.9%	0.6%	2.1%	9.0%	10.0%	6.2%
	35 Other Inerts	2.6%	4.1%	1.6%	11.1%	12.7%	8.1%
	36 Gypsum Board	0.0%	0.1%	0.4%	2.6%	4.7%	2.5%
	37 Asphalt Roofing	0.1%	0.0%	0.0%	0.0%	3.7%	1.6%
HHW		0.8%	2.4%	0.4%	1.8%	1.5%	1.2%
	38 Paint/Adhesives	0.0%	0.1%	0.1%	1.7%	0.2%	0.4%
	39 Vehicle & Equipment Fluids	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	0.1%	0.3%	0.0%	0.0%	0.4%	0.2%
	41 Medical Waste	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
	42 Medicine	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
	43 Covered E-Waste	0.0%	0.9%	0.0%	0.1%	0.3%	0.2%
	44 Other E-Waste	0.5%	0.9%	0.0%	0.0%	0.3%	0.2%
	45 Other Hazardous Waste	0.1%	0.1%	0.1%	0.0%	0.3%	0.1%
Special		0.8%	0.0%	0.4%	0.0%	6.1%	2.8%
	46 Brown Goods	0.8%	0.0%	0.4%	0.0%	1.2%	0.7%
	47 Composite Bulky Items	0.0%	0.0%	0.0%	0.0%	4.9%	2.1%
	48 Other Special Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF BERKELEY**

**Table 4
Summary of Overall Material Tonnages for City of Berkeley**

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
Paper		3,928	1,492	4,785	1,999	3,215	15,420
	1 Uncoated Corrugated Cardboard	91	33	235	1,165	1,064	2,587
	2 High Grade Paper	108	38	136	273	540	1,095
	3 Newspaper	235	45	137	22	67	506
	4 Mixed Recyclable Paper	870	166	656	305	1,228	3,225
	5 Compostable Paper	2,494	1,162	3,430	135	161	7,382
	6 Other Paper	130	48	191	99	156	625
Plastics		2,194	789	2,513	2,139	1,340	8,976
	7 HDPE Bottles (#2)	86	34	91	51	3	265
	8 PETE Bottles (#1)	57	37	92	12	23	221
	9 Other Plastic Containers	165	53	174	6	63	461
	10 Plastic Bags	293	90	259	4	17	663
	11 Other Film	788	328	1,140	637	645	3,538
	12 Expanded Polystyrene Blocks	10	5	70	19	10	115
	13 Mixed Rigid Plastics	616	200	599	1,152	399	2,966
	14 Other Plastics	179	43	89	258	180	748
Glass		421	155	479	1,358	478	2,891
	15 Recyclable Glass Bottles/Containers	350	132	397	67	95	1,041
	16 Other Glass	71	23	81	1,291	383	1,850
Metals		448	153	524	782	1,990	3,897
	17 Aluminum Cans	18	16	37	4	25	100
	18 Other Non-Ferrous	86	34	68	40	306	532
	19 Steel Food and Beverage Cans	119	38	142	3	0	302
	20 Other Ferrous	225	65	277	713	1,509	2,788
	21 White Goods	0	0	0	23	151	174
Yard Waste		572	35	569	139	2,766	4,082
	22 Leaves/Grass/Chips	362	27	393	0	989	1,772
	23 Branches/Stumps/Prunings/Trimmings	210	8	177	139	1,777	2,310
Organics		6,617	2,205	7,880	4,770	13,808	35,281
	24 Food Waste	4,239	1,647	5,387	1,541	169	12,983
	25 Tires	10	0	25	0	26	62
	26 Untreated Lumber	99	20	366	424	3,018	3,926
	27 Pallets	0	0	313	1,349	44	1,706
	28 Treated Wood Waste	295	98	440	1,171	6,466	8,469
	29 Textiles and Leather	735	235	737	22	1,860	3,589
	30 Carpet	0	4	55	0	1,232	1,290
	31 Diapers	875	79	367	13	0	1,334
	32 Manure	185	91	51	0	0	326
	33 Other Organics	178	32	141	250	995	1,595
Inerts		527	255	705	3,358	11,931	16,776
	34 Crushable Inerts	136	32	362	1,326	3,827	5,683
	35 Other Inerts	383	215	275	1,642	4,895	7,409
	36 Gypsum Board	0	8	68	390	1,806	2,272
	37 Asphalt Roofing	8	0	0	0	1,404	1,411
HHW		120	125	65	260	560	1,130
	38 Paint/Adhesives	7	6	19	248	80	359
	39 Vehicle & Equipment Fluids	0	2	16	0	0	17
	40 Universal Hazardous Waste	16	14	7	0	146	184
	41 Medical Waste	10	7	1	0	0	17
	42 Medicine	6	3	2	0	0	11
	43 Covered E-Waste	0	45	0	12	128	186
	44 Other E-Waste	73	45	8	0	99	224
	45 Other Hazardous Waste	9	3	13	0	106	132
Special		126	0	74	0	2,356	2,556
	46 Brown Goods	126	0	74	0	469	668
	47 Composite Bulky Items	0	0	0	0	1,888	1,888
	48 Other Special Waste	0	0	0	0	0	0
TOTAL		14,953	5,210	17,594	14,805	38,445	91,008

Table 5
City of Berkeley Aggregate Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		15,420	16.94%	15.25%	19.01%
	1 Uncoated Corrugated Cardboard	2,587	2.84%	2.08%	3.97%
	2 High Grade Paper	1,095	1.20%	0.88%	1.65%
	3 Newspaper	506	0.56%	0.44%	0.70%
	4 Mixed Recyclable Paper	3,225	3.54%	2.88%	4.37%
	5 Compostable Paper	7,382	8.11%	7.46%	8.80%
	6 Other Paper	625	0.69%	0.56%	0.85%
Plastics		8,976	9.86%	8.82%	11.16%
	7 HDPE Bottles (#2)	265	0.29%	0.25%	0.35%
	8 PETE Bottles (#1)	221	0.24%	0.21%	0.28%
	9 Other Plastic Containers	461	0.51%	0.44%	0.59%
	10 Plastic Bags	663	0.73%	0.59%	0.89%
	11 Other Film	3,538	3.89%	3.39%	4.49%
	12 Expanded Polystyrene Blocks	115	0.13%	0.08%	0.18%
	13 Mixed Rigid Plastics	2,966	3.26%	2.64%	4.14%
	14 Other Plastics	748	0.82%	0.67%	1.04%
Glass		2,891	3.18%	2.35%	4.47%
	15 Recyclable Glass Bottles/Containers	1,041	1.14%	0.98%	1.34%
	16 Other Glass	1,850	2.03%	1.25%	3.31%
Metals		3,897	4.28%	3.48%	5.27%
	17 Aluminum Cans	100	0.11%	0.09%	0.13%
	18 Other Non-Ferrous	532	0.58%	0.44%	0.76%
	19 Steel Food and Beverage Cans	302	0.33%	0.27%	0.40%
	20 Other Ferrous	2,788	3.06%	2.37%	3.94%
	21 White Goods	174	0.19%	0.11%	0.29%
Yard Waste		4,082	4.49%	3.10%	6.22%
	22 Leaves/Grass/Chips	1,772	1.95%	1.38%	2.68%
	23 Branches/Stumps/Prunings/Trimmings	2,310	2.54%	1.63%	3.70%
Organics		35,281	38.77%	34.53%	43.31%
	24 Food Waste	12,983	14.27%	12.70%	16.24%
	25 Tires	62	0.07%	0.04%	0.10%
	26 Untreated Lumber	3,926	4.31%	3.04%	5.87%
	27 Pallets	1,706	1.87%	1.17%	2.89%
	28 Treated Wood Waste	8,469	9.31%	6.75%	12.33%
	29 Textiles and Leather	3,589	3.94%	3.07%	5.01%
	30 Carpet	1,290	1.42%	0.72%	2.35%
	31 Diapers	1,334	1.47%	1.16%	1.84%
	32 Manure	326	0.36%	0.23%	0.54%
	33 Other Organics	1,595	1.75%	1.23%	2.43%
Inerts		16,776	18.43%	13.75%	23.75%
	34 Crushable Inerts	5,683	6.24%	4.37%	8.58%
	35 Other Inerts	7,409	8.14%	5.59%	11.35%
	36 Gypsum Board	2,272	2.50%	1.60%	3.65%
	37 Asphalt Roofing	1,411	1.55%	0.80%	2.53%
HHW		1,130	1.24%	0.92%	1.69%
	38 Paint/Adhesives	359	0.39%	0.25%	0.64%
	39 Vehicle & Equipment Fluids	17	0.02%	0.01%	0.03%
	40 Universal Hazardous Waste	184	0.20%	0.13%	0.30%
	41 Medical Waste	17	0.02%	0.01%	0.03%
	42 Medicine	11	0.01%	0.01%	0.02%
	43 Covered E-Waste	186	0.20%	0.12%	0.34%
	44 Other E-Waste	224	0.25%	0.16%	0.38%
	45 Other Hazardous Waste	132	0.14%	0.09%	0.22%
Special		2,556	2.81%	1.62%	4.32%
	46 Brown Goods	668	0.73%	0.47%	1.08%
	47 Composite Bulky Items	1,888	2.07%	1.08%	3.36%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		91,008	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF BERKELEY**

**Table 6
City of Berkeley Single-Family Residential Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		3,928	26.27%	23.89%	28.73%
	1 Uncoated Corrugated Cardboard	91	0.61%	0.38%	0.89%
	2 High Grade Paper	108	0.72%	0.44%	1.08%
	3 Newspaper	235	1.57%	0.92%	2.40%
	4 Mixed Recyclable Paper	870	5.82%	4.58%	7.19%
	5 Compostable Paper	2,494	16.68%	14.87%	18.58%
	6 Other Paper	130	0.87%	0.72%	1.02%
Plastics		2,194	14.67%	13.25%	16.15%
	7 HDPE Bottles (#2)	86	0.58%	0.38%	0.81%
	8 PETE Bottles (#1)	57	0.38%	0.27%	0.51%
	9 Other Plastic Containers	165	1.11%	0.87%	1.37%
	10 Plastic Bags	293	1.96%	1.36%	2.67%
	11 Other Film	788	5.27%	4.21%	6.44%
	12 Expanded Polystyrene Blocks	10	0.07%	0.04%	0.11%
	13 Mixed Rigid Plastics	616	4.12%	3.44%	4.85%
	14 Other Plastics	179	1.20%	0.83%	1.63%
Glass		421	2.81%	2.17%	3.54%
	15 Recyclable Glass Bottles/Containers	350	2.34%	1.67%	3.12%
	16 Other Glass	71	0.47%	0.28%	0.72%
Metals		448	2.99%	2.49%	3.54%
	17 Aluminum Cans	18	0.12%	0.08%	0.17%
	18 Other Non-Ferrous	86	0.57%	0.40%	0.78%
	19 Steel Food and Beverage Cans	119	0.80%	0.59%	1.03%
	20 Other Ferrous	225	1.50%	1.03%	2.07%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		572	3.83%	1.75%	6.66%
	22 Leaves/Grass/Chips	362	2.42%	0.92%	4.61%
	23 Branches/Stumps/Prunings/Trimnings	210	1.41%	0.53%	2.69%
Organics		6,617	44.25%	41.09%	47.44%
	24 Food Waste	4,239	28.35%	24.87%	31.97%
	25 Tires	10	0.07%	0.02%	0.14%
	26 Untreated Lumber	99	0.66%	0.28%	1.21%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	295	1.97%	1.07%	3.14%
	29 Textiles and Leather	735	4.92%	3.82%	6.14%
	30 Carpet	0	0.00%	0.00%	0.00%
	31 Diapers	875	5.85%	3.97%	8.07%
	32 Manure	185	1.24%	0.59%	2.12%
	33 Other Organics	178	1.19%	0.69%	1.81%
Inerts		527	3.53%	2.61%	4.58%
	34 Crushable Inerts	136	0.91%	0.56%	1.35%
	35 Other Inerts	383	2.56%	1.70%	3.59%
	36 Gypsum Board	0	0.00%	0.00%	0.00%
	37 Asphalt Roofing	8	0.05%	0.01%	0.12%
HHW		120	0.80%	0.45%	1.25%
	38 Paint/Adhesives	7	0.04%	0.01%	0.10%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	16	0.11%	0.05%	0.18%
	41 Medical Waste	10	0.06%	0.03%	0.12%
	42 Medicine	6	0.04%	0.01%	0.08%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	73	0.49%	0.17%	0.97%
	45 Other Hazardous Waste	9	0.06%	0.02%	0.12%
Special		126	0.84%	0.28%	1.71%
	46 Brown Goods	126	0.84%	0.28%	1.71%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		14,953	100.00%		

Table 7
City of Berkeley Multi-Family Residential Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		1,492	28.64%	25.84%	31.53%
	1 Uncoated Corrugated Cardboard	33	0.63%	0.38%	0.94%
	2 High Grade Paper	38	0.73%	0.35%	1.24%
	3 Newspaper	45	0.87%	0.36%	1.59%
	4 Mixed Recyclable Paper	166	3.18%	1.96%	4.70%
	5 Compostable Paper	1,162	22.31%	18.78%	26.04%
	6 Other Paper	48	0.93%	0.64%	1.28%
Plastics		789	15.15%	13.41%	16.99%
	7 HDPE Bottles (#2)	34	0.65%	0.50%	0.82%
	8 PETE Bottles (#1)	37	0.70%	0.55%	0.87%
	9 Other Plastic Containers	53	1.02%	0.70%	1.40%
	10 Plastic Bags	90	1.73%	1.11%	2.49%
	11 Other Film	328	6.29%	4.72%	8.08%
	12 Expanded Polystyrene Blocks	5	0.10%	0.04%	0.19%
	13 Mixed Rigid Plastics	200	3.84%	2.98%	4.80%
	14 Other Plastics	43	0.82%	0.60%	1.07%
Glass		155	2.98%	2.27%	3.78%
	15 Recyclable Glass Bottles/Containers	132	2.53%	1.92%	3.22%
	16 Other Glass	23	0.45%	0.17%	0.87%
Metals		153	2.93%	2.24%	3.72%
	17 Aluminum Cans	16	0.31%	0.21%	0.44%
	18 Other Non-Ferrous	34	0.64%	0.37%	0.99%
	19 Steel Food and Beverage Cans	38	0.73%	0.46%	1.08%
	20 Other Ferrous	65	1.24%	0.69%	1.95%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		35	0.68%	0.32%	1.18%
	22 Leaves/Grass/Chips	27	0.53%	0.21%	0.99%
	23 Branches/Stumps/Prunings/Trimmings	8	0.15%	0.06%	0.30%
Organics		2,205	42.33%	38.25%	46.47%
	24 Food Waste	1,647	31.62%	27.23%	36.17%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	20	0.38%	0.07%	0.91%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	98	1.87%	0.74%	3.52%
	29 Textiles and Leather	235	4.51%	3.29%	5.92%
	30 Carpet	4	0.07%	0.01%	0.19%
	31 Diapers	79	1.53%	0.67%	2.73%
	32 Manure	91	1.75%	0.59%	3.49%
	33 Other Organics	32	0.61%	0.35%	0.94%
Inerts		255	4.89%	2.31%	8.36%
	34 Crushable Inerts	32	0.61%	0.27%	1.09%
	35 Other Inerts	215	4.13%	1.75%	7.45%
	36 Gypsum Board	8	0.15%	0.02%	0.38%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		125	2.39%	0.84%	4.72%
	38 Paint/Adhesives	6	0.11%	0.02%	0.26%
	39 Vehicle & Equipment Fluids	2	0.03%	0.01%	0.09%
	40 Universal Hazardous Waste	14	0.28%	0.09%	0.56%
	41 Medical Waste	7	0.13%	0.02%	0.32%
	42 Medicine	3	0.05%	0.02%	0.11%
	43 Covered E-Waste	45	0.87%	0.14%	2.22%
	44 Other E-Waste	45	0.86%	0.15%	2.15%
	45 Other Hazardous Waste	3	0.07%	0.01%	0.16%
Special		0	0.00%	0.00%	0.00%
	46 Brown Goods	0	0.00%	0.00%	0.00%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		5,210	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF BERKELEY**

**Table 8
City of Berkeley Commercial Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		4,785	27.20%	24.37%	30.11%
	1 Uncoated Corrugated Cardboard	235	1.34%	0.86%	1.92%
	2 High Grade Paper	136	0.77%	0.48%	1.14%
	3 Newspaper	137	0.78%	0.52%	1.09%
	4 Mixed Recyclable Paper	656	3.73%	2.67%	4.95%
	5 Compostable Paper	3,430	19.49%	17.14%	21.96%
	6 Other Paper	191	1.09%	0.71%	1.53%
Plastics		2,513	14.28%	12.78%	15.86%
	7 HDPE Bottles (#2)	91	0.52%	0.40%	0.64%
	8 PETE Bottles (#1)	92	0.53%	0.43%	0.63%
	9 Other Plastic Containers	174	0.99%	0.78%	1.22%
	10 Plastic Bags	259	1.47%	1.01%	2.02%
	11 Other Film	1,140	6.48%	5.26%	7.81%
	12 Expanded Polystyrene Blocks	70	0.40%	0.22%	0.63%
	13 Mixed Rigid Plastics	599	3.40%	2.73%	4.14%
	14 Other Plastics	89	0.51%	0.38%	0.65%
Glass		479	2.72%	2.12%	3.40%
	15 Recyclable Glass Bottles/Containers	397	2.26%	1.73%	2.86%
	16 Other Glass	81	0.46%	0.23%	0.77%
Metals		524	2.98%	2.22%	3.85%
	17 Aluminum Cans	37	0.21%	0.15%	0.27%
	18 Other Non-Ferrous	68	0.38%	0.28%	0.51%
	19 Steel Food and Beverage Cans	142	0.81%	0.58%	1.08%
	20 Other Ferrous	277	1.58%	0.95%	2.36%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		569	3.24%	1.95%	4.83%
	22 Leaves/Grass/Chips	393	2.23%	1.27%	3.45%
	23 Branches/Stumps/Prunings/Trimnings	177	1.00%	0.47%	1.73%
Organics		7,880	44.79%	40.48%	49.13%
	24 Food Waste	5,387	30.62%	25.52%	35.97%
	25 Tires	25	0.14%	0.06%	0.26%
	26 Untreated Lumber	366	2.08%	1.00%	3.54%
	27 Pallets	313	1.78%	0.75%	3.24%
	28 Treated Wood Waste	440	2.50%	1.42%	3.87%
	29 Textiles and Leather	737	4.19%	2.90%	5.69%
	30 Carpet	55	0.31%	0.13%	0.56%
	31 Diapers	367	2.09%	1.27%	3.10%
	32 Manure	51	0.29%	0.15%	0.47%
	33 Other Organics	141	0.80%	0.45%	1.26%
Inerts		705	4.01%	2.39%	6.01%
	34 Crushable Inerts	362	2.06%	0.98%	3.52%
	35 Other Inerts	275	1.56%	0.94%	2.34%
	36 Gypsum Board	68	0.39%	0.17%	0.69%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		65	0.37%	0.20%	0.60%
	38 Paint/Adhesives	19	0.11%	0.05%	0.20%
	39 Vehicle & Equipment Fluids	16	0.09%	0.04%	0.16%
	40 Universal Hazardous Waste	7	0.04%	0.02%	0.07%
	41 Medical Waste	1	0.00%	0.00%	0.01%
	42 Medicine	2	0.01%	0.01%	0.02%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	8	0.04%	0.02%	0.08%
	45 Other Hazardous Waste	13	0.07%	0.03%	0.13%
Special		74	0.42%	0.20%	0.72%
	46 Brown Goods	74	0.42%	0.20%	0.72%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		17,594	100.00%		

Table 9
City of Berkeley Roll-Off Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		1,999	13.50%	5.03%	25.23%
	1 Uncoated Corrugated Cardboard	1,165	7.87%	2.00%	17.13%
	2 High Grade Paper	273	1.84%	0.42%	4.25%
	3 Newspaper	22	0.15%	0.04%	0.34%
	4 Mixed Recyclable Paper	305	2.06%	0.68%	4.16%
	5 Compostable Paper	135	0.91%	0.31%	1.83%
	6 Other Paper	99	0.67%	0.19%	1.44%
Plastics		2,139	14.45%	6.77%	24.41%
	7 HDPE Bottles (#2)	51	0.35%	0.12%	0.70%
	8 PETE Bottles (#1)	12	0.08%	0.03%	0.15%
	9 Other Plastic Containers	6	0.04%	0.01%	0.09%
	10 Plastic Bags	4	0.03%	0.01%	0.06%
	11 Other Film	637	4.30%	1.96%	7.50%
	12 Expanded Polystyrene Blocks	19	0.13%	0.04%	0.26%
	13 Mixed Rigid Plastics	1,152	7.78%	2.58%	15.46%
	14 Other Plastics	258	1.74%	0.64%	3.37%
Glass		1,358	9.17%	2.06%	20.60%
	15 Recyclable Glass Bottles/Containers	67	0.45%	0.12%	0.98%
	16 Other Glass	1,291	8.72%	1.76%	20.22%
Metals		782	5.28%	1.98%	10.05%
	17 Aluminum Cans	4	0.03%	0.01%	0.06%
	18 Other Non-Ferrous	40	0.27%	0.07%	0.58%
	19 Steel Food and Beverage Cans	3	0.02%	0.00%	0.04%
	20 Other Ferrous	713	4.82%	1.64%	9.53%
	21 White Goods	23	0.15%	0.04%	0.35%
Yard Waste		139	0.94%	0.22%	2.14%
	22 Leaves/Grass/Chips	0	0.00%	0.00%	0.00%
	23 Branches/Slumps/Prunings/Trimmings	139	0.94%	0.22%	2.14%
Organics		4,770	32.22%	16.04%	50.98%
	24 Food Waste	1,541	10.41%	2.18%	23.73%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	424	2.86%	0.84%	6.04%
	27 Pallets	1,349	9.11%	3.06%	17.95%
	28 Treated Wood Waste	1,171	7.91%	2.30%	16.47%
	29 Textiles and Leather	22	0.15%	0.05%	0.31%
	30 Carpet	0	0.00%	0.00%	0.00%
	31 Diapers	13	0.09%	0.02%	0.20%
	32 Manure	0	0.00%	0.00%	0.00%
	33 Other Organics	250	1.69%	0.55%	3.45%
Inerts		3,358	22.68%	7.36%	43.27%
	34 Crushable Inerts	1,326	8.95%	3.30%	17.02%
	35 Other Inerts	1,642	11.09%	3.56%	22.07%
	36 Gypsum Board	390	2.64%	0.57%	6.14%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		260	1.75%	0.43%	3.96%
	38 Paint/Adhesives	248	1.67%	0.38%	3.85%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	0	0.00%	0.00%	0.00%
	41 Medical Waste	0	0.00%	0.00%	0.00%
	42 Medicine	0	0.00%	0.00%	0.00%
	43 Covered E-Waste	12	0.08%	0.02%	0.18%
	44 Other E-Waste	0	0.00%	0.00%	0.00%
	45 Other Hazardous Waste	0	0.00%	0.00%	0.00%
Special		0	0.00%	0.00%	0.00%
	46 Brown Goods	0	0.00%	0.00%	0.00%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		14,805	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF BERKELEY**

**Table 10
City of Berkeley Self Haul Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		3,215	8.36%	5.58%	11.65%
	1 Uncoated Corrugated Cardboard	1,064	2.77%	1.86%	3.85%
	2 High Grade Paper	540	1.41%	0.79%	2.19%
	3 Newspaper	67	0.17%	0.10%	0.27%
	4 Mixed Recyclable Paper	1,228	3.19%	1.88%	4.84%
	5 Compostable Paper	161	0.42%	0.25%	0.63%
	6 Other Paper	156	0.41%	0.23%	0.63%
Plastics		1,340	3.49%	2.42%	4.74%
	7 HDPE Bottles (#2)	3	0.01%	0.00%	0.01%
	8 PETE Bottles (#1)	23	0.06%	0.04%	0.09%
	9 Other Plastic Containers	63	0.16%	0.09%	0.25%
	10 Plastic Bags	17	0.04%	0.03%	0.06%
	11 Other Film	645	1.68%	1.07%	2.42%
	12 Expanded Polystyrene Blocks	10	0.03%	0.02%	0.04%
	13 Mixed Rigid Plastics	399	1.04%	0.67%	1.48%
	14 Other Plastics	180	0.47%	0.28%	0.70%
Glass		478	1.24%	0.75%	1.86%
	15 Recyclable Glass Bottles/Containers	95	0.25%	0.14%	0.38%
	16 Other Glass	383	1.00%	0.58%	1.52%
Metals		1,990	5.18%	3.58%	7.04%
	17 Aluminum Cans	25	0.06%	0.04%	0.10%
	18 Other Non-Ferrous	306	0.80%	0.48%	1.18%
	19 Steel Food and Beverage Cans	0	0.00%	0.00%	0.00%
	20 Other Ferrous	1,509	3.92%	2.61%	5.50%
	21 White Goods	151	0.39%	0.22%	0.62%
Yard Waste		2,766	7.19%	4.16%	10.98%
	22 Leaves/Grass/Chips	989	2.57%	1.46%	3.98%
	23 Branches/Stumps/Prunings/Trimnings	1,777	4.62%	2.59%	7.20%
Organics		13,808	35.92%	27.46%	44.84%
	24 Food Waste	169	0.44%	0.24%	0.69%
	25 Tires	26	0.07%	0.04%	0.11%
	26 Untreated Lumber	3,018	7.85%	5.03%	11.23%
	27 Pallets	44	0.11%	0.06%	0.18%
	28 Treated Wood Waste	6,466	16.82%	11.17%	23.35%
	29 Textiles and Leather	1,860	4.84%	2.98%	7.11%
	30 Carpet	1,232	3.20%	1.61%	5.33%
	31 Diapers	0	0.00%	0.00%	0.00%
	32 Manure	0	0.00%	0.00%	0.00%
	33 Other Organics	995	2.59%	1.46%	4.03%
Inerts		11,931	31.03%	21.05%	42.00%
	34 Crushable Inerts	3,827	9.95%	5.95%	14.85%
	35 Other Inerts	4,895	12.73%	7.24%	19.49%
	36 Gypsum Board	1,806	4.70%	2.72%	7.19%
	37 Asphalt Roofing	1,404	3.65%	1.93%	5.89%
HHW		560	1.46%	0.87%	2.19%
	38 Paint/Adhesives	80	0.21%	0.11%	0.33%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	146	0.38%	0.21%	0.60%
	41 Medical Waste	0	0.00%	0.00%	0.00%
	42 Medicine	0	0.00%	0.00%	0.00%
	43 Covered E-Waste	128	0.33%	0.19%	0.53%
	44 Other E-Waste	99	0.26%	0.14%	0.40%
	45 Other Hazardous Waste	106	0.28%	0.15%	0.44%
Special		2,356	6.13%	3.41%	9.57%
	46 Brown Goods	469	1.22%	0.66%	1.95%
	47 Composite Bulky Items	1,888	4.91%	2.62%	7.86%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		38,445	100.00%		

Table 11
City of Berkeley Detailed Historic Comparison of Overall Jurisdiction-wide Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		31.6%	24.1%	16.9%	26,514	22,334	15,420
	1 Uncoated Corrugated Cardboard	5.0%	3.0%	2.8%	4,216	2,821	2,587
	2 High Grade Paper	3.1%	2.3%	1.2%	2,612	2,125	1,095
	3 Newspaper	4.3%	3.3%	0.6%	3,569	3,080	506
	4 Mixed Recyclable Paper	6.2%	6.7%	3.5%	5,224	6,198	3,225
	5 Compostable Paper	NA	NA	8.1%	NA	NA	7,382
	6 Other Paper	13.0%	8.7%	0.7%	10,893	8,110	625
Plastics		8.5%	7.4%	9.9%	7,097	6,846	8,976
	7 HDPE Bottles (#2)	0.8%	0.6%	0.3%	663	557	265
	8 PETE Bottles (#1)	0.4%	0.4%	0.2%	353	365	221
	9 Other Plastic Containers	NA	0.5%	0.5%	NA	430	461
	10 Plastic Bags	NA	NA	0.7%	NA	NA	663
	11 Other Film	3.9%	3.5%	3.9%	3,250	3,227	3,538
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	115
	13 Mixed Rigid Plastics	NA	NA	3.3%	NA	NA	2,966
	14 Other Plastics	3.4%	2.4%	0.8%	2,830	2,266	748
Glass		3.1%	1.9%	3.2%	2,572	1,748	2,891
	15 Recyclable Glass Bottles/Containers	2.7%	1.6%	1.1%	2,287	1,461	1,041
	16 Other Glass	0.3%	0.3%	2.0%	286	287	1,850
Metals		3.1%	5.1%	4.3%	2,612	4,738	3,897
	17 Aluminum Cans	0.2%	0.2%	0.1%	193	196	100
	18 Other Non-Ferrous	0.3%	1.0%	0.6%	244	906	532
	19 Steel Food and Beverage Cans	0.7%	0.5%	0.3%	563	485	302
	20 Other Ferrous	1.8%	3.2%	3.1%	1,495	2,948	2,788
	21 White Goods	0.1%	0.2%	0.2%	118	203	174
Yard Waste		8.1%	14.0%	4.5%	6,761	12,950	4,082
	22 Leaves/Grass/Chips	4.9%	3.1%	1.9%	4,115	2,843	1,772
	23 Branches/Stumps/Prunings/Trimmings	3.2%	10.9%	2.5%	2,646	10,107	2,310
Organics		30.0%	31.8%	38.8%	25,204	29,495	35,281
	24 Food Waste	16.0%	12.8%	14.3%	13,463	11,911	12,983
	25 Tires	0.8%	0.1%	0.1%	697	106	62
	26 Untreated Lumber	5.3%	7.7%	4.3%	4,443	7,120	3,926
	27 Pallets	NA	NA	1.9%	NA	NA	1,706
	28 Treated Wood Waste	1.9%	3.4%	9.3%	1,554	3,112	8,469
	29 Textiles and Leather	3.7%	2.4%	3.9%	3,091	2,205	3,589
	30 Carpet	NA	2.2%	1.4%	NA	2,003	1,290
	31 Diapers	1.1%	0.9%	1.5%	957	820	1,334
	32 Manure	NA	NA	0.4%	NA	NA	326
	33 Other Organics	1.2%	2.4%	1.8%	999	2,218	1,595
Inerts		10.1%	8.9%	18.4%	8,516	8,223	16,776
	34 Crushable Inerts	5.0%	5.0%	6.2%	4,182	4,683	5,683
	35 Other Inerts	3.0%	1.1%	8.1%	2,520	989	7,409
	36 Gypsum Board	1.1%	2.5%	2.5%	941	2,301	2,272
	37 Asphalt Roofing	1.0%	0.3%	1.6%	873	250	1,411
HHW		0.9%	0.4%	1.2%	764	363	1,130
	38 Paint/Adhesives	NA	NA	0.4%	NA	NA	359
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	17
	40 Universal Hazardous Waste	NA	NA	0.2%	NA	NA	184
	41 Medical Waste	NA	NA	0.0%	NA	NA	17
	42 Medicine	NA	NA	0.0%	NA	NA	11
	43 Covered E-Waste	NA	NA	0.2%	NA	NA	186
	44 Other E-Waste	NA	NA	0.2%	NA	NA	224
	45 Other Hazardous Waste	0.9%	0.4%	0.1%	764	363	132
Special		4.7%	6.6%	2.8%	3,939	6,105	2,556
	46 Brown Goods	1.0%	1.1%	0.7%	806	983	668
	47 Composite Bulky Items	3.7%	5.5%	2.1%	3,133	5,122	1,888
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	83,985	92,802	91,008

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF BERKELEY**

**Table 12
City of Berkeley Detailed Historic Comparison of Single-Family Residential Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		40.0%	35.0%	26.3%	8,845	6,878	3,928
	1 Uncoated Corrugated Cardboard	5.6%	3.7%	0.6%	1,244	727	91
	2 High Grade Paper	2.6%	2.8%	0.7%	572	547	108
	3 Newspaper	6.3%	5.1%	1.6%	1,383	1,010	235
	4 Mixed Recyclable Paper	6.6%	10.1%	5.8%	1,460	1,981	870
	5 Compostable Paper	NA	NA	16.7%	NA	NA	2,494
	6 Other Paper	19.0%	13.3%	0.9%	4,186	2,613	130
Plastics		10.6%	10.1%	14.7%	2,344	1,974	2,194
	7 HDPE Bottles (#2)	0.8%	0.7%	0.6%	168	140	86
	8 PETE Bottles (#1)	0.5%	0.6%	0.4%	108	114	57
	9 Other Plastic Containers	NA	0.6%	1.1%	NA	116	165
	10 Plastic Bags	NA	NA	2.0%	NA	NA	293
	11 Other Film	5.5%	5.3%	5.3%	1,208	1,040	788
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	10
	13 Mixed Rigid Plastics	NA	NA	4.1%	NA	NA	616
	14 Other Plastics	3.9%	2.9%	1.2%	859	564	179
Glass		3.9%	2.4%	2.8%	851	476	421
	15 Recyclable Glass Bottles/Containers	3.6%	2.2%	2.3%	793	427	350
	16 Other Glass	0.3%	0.2%	0.5%	57	49	71
Metals		3.2%	3.7%	3.0%	727	731	448
	17 Aluminum Cans	0.3%	0.2%	0.1%	75	39	18
	18 Other Non-Ferrous	0.4%	0.7%	0.6%	93	142	86
	19 Steel Food and Beverage Cans	1.1%	0.8%	0.8%	241	161	119
	20 Other Ferrous	1.4%	2.0%	1.5%	318	389	225
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		14.3%	5.6%	3.8%	3,168	1,095	572
	22 Leaves/Grass/Chips	9.5%	1.5%	2.4%	2,099	285	362
	23 Branches/Stumps/Prunings/Trimmings	4.8%	4.1%	1.4%	1,069	809	210
Organics		25.9%	35.5%	44.2%	5,728	6,967	6,617
	24 Food Waste	18.9%	19.6%	28.3%	4,182	3,852	4,239
	25 Tires	0.0%	0.0%	0.1%	0	0	10
	26 Untreated Lumber	0.6%	1.1%	0.7%	135	212	99
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	0.1%	1.6%	2.0%	27	314	295
	29 Textiles and Leather	3.1%	5.7%	4.9%	676	1,116	735
	30 Carpet	NA	2.6%	0.0%	NA	516	0
	31 Diapers	2.0%	2.3%	5.9%	431	442	875
	32 Manure	NA	NA	1.2%	NA	NA	185
	33 Other Organics	1.3%	2.6%	1.2%	278	513	178
Inerts		1.5%	4.8%	3.5%	323	952	527
	34 Crushable Inerts	0.6%	2.8%	0.9%	128	551	136
	35 Other Inerts	0.9%	2.0%	2.6%	192	389	383
	36 Gypsum Board	0.0%	0.1%	0.0%	0	12	0
	37 Asphalt Roofing	0.0%	0.0%	0.1%	2	0	8
HHW		0.4%	1.1%	0.8%	88	214	120
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	7
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	16
	41 Medical Waste	NA	NA	0.1%	NA	NA	10
	42 Medicine	NA	NA	0.0%	NA	NA	6
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.5%	NA	NA	73
	45 Other Hazardous Waste	0.4%	1.1%	0.1%	88	214	9
Special		0.1%	1.8%	0.8%	13	351	126
	46 Brown Goods	0.1%	1.2%	0.8%	13	240	126
	47 Composite Bulky Items	0.0%	0.6%	0.0%	0	111	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	22,091	19,637	14,953

Table 13
City of Berkeley Detailed Historic Comparison of Multi-Family Residential Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		33.6%	44.5%	28.6%	6,764	7,234	1,492
	1 Uncoated Corrugated Cardboard	5.1%	3.9%	0.6%	1,028	639	33
	2 High Grade Paper	3.9%	6.1%	0.7%	792	990	38
	3 Newspaper	5.5%	6.5%	0.9%	1,111	1,064	45
	4 Mixed Recyclable Paper	6.3%	12.4%	3.2%	1,266	2,016	166
	5 Compostable Paper	NA	NA	22.3%	NA	NA	1,162
	6 Other Paper	12.7%	15.5%	0.9%	2,566	2,525	48
Plastics		10.0%	10.9%	15.2%	2,024	1,772	789
	7 HDPE Bottles (#2)	1.6%	1.0%	0.6%	319	170	34
	8 PETE Bottles (#1)	0.8%	0.7%	0.7%	167	119	37
	9 Other Plastic Containers	NA	0.8%	1.0%	NA	136	53
	10 Plastic Bags	NA	NA	1.7%	NA	NA	90
	11 Other Film	4.8%	5.7%	6.3%	970	922	328
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	5
	13 Mixed Rigid Plastics	NA	NA	3.8%	NA	NA	200
	14 Other Plastics	2.8%	2.6%	0.8%	569	426	43
Glass		4.1%	3.5%	3.0%	827	563	155
	15 Recyclable Glass Bottles/Containers	3.8%	3.3%	2.5%	764	533	132
	16 Other Glass	0.3%	0.2%	0.4%	62	30	23
Metals		4.9%	5.0%	2.9%	986	819	153
	17 Aluminum Cans	0.4%	0.4%	0.3%	77	68	16
	18 Other Non-Ferrous	0.3%	0.3%	0.6%	69	54	34
	19 Steel Food and Beverage Cans	1.0%	1.0%	0.7%	206	156	38
	20 Other Ferrous	3.2%	3.3%	1.2%	635	540	65
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		4.1%	7.3%	0.7%	827	1,190	35
	22 Leaves/Grass/Chips	3.7%	3.9%	0.5%	742	633	27
	23 Branches/Stumps/Prunings/Trimmings	0.4%	3.4%	0.2%	85	558	8
Organics		32.7%	26.0%	42.3%	6,597	4,234	2,205
	24 Food Waste	21.1%	17.1%	31.6%	4,254	2,789	1,647
	25 Tires	3.2%	0.0%	0.0%	653	0	0
	26 Untreated Lumber	0.2%	0.3%	0.4%	32	52	20
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	0.1%	0.7%	1.9%	10	112	98
	29 Textiles and Leather	5.6%	3.1%	4.5%	1,133	503	235
	30 Carpet	NA	0.0%	0.1%	NA	0	4
	31 Diapers	1.8%	1.7%	1.5%	355	274	79
	32 Manure	NA	NA	1.7%	NA	NA	91
	33 Other Organics	0.8%	3.1%	0.6%	159	504	32
Inerts		3.2%	1.8%	4.9%	653	289	255
	34 Crushable Inerts	0.6%	1.4%	0.6%	119	236	32
	35 Other Inerts	2.7%	0.3%	4.1%	534	53	215
	36 Gypsum Board	0.0%	0.0%	0.1%	0	1	8
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	0	0
HHW		3.0%	0.1%	2.4%	607	17	125
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	6
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	2
	40 Universal Hazardous Waste	NA	NA	0.3%	NA	NA	14
	41 Medical Waste	NA	NA	0.1%	NA	NA	7
	42 Medicine	NA	NA	0.1%	NA	NA	3
	43 Covered E-Waste	NA	NA	0.9%	NA	NA	45
	44 Other E-Waste	NA	NA	0.9%	NA	NA	45
	45 Other Hazardous Waste	3.0%	0.1%	0.1%	607	17	3
Special		4.4%	0.9%	0.0%	883	148	0
	46 Brown Goods	2.1%	0.4%	0.0%	427	59	0
	47 Composite Bulky Items	2.3%	0.6%	0.0%	456	90	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	20,161	16,267	5,210

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF BERKELEY**

**Table 14
City of Berkeley Detailed Historic Comparison of Commercial Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		44.9%	36.3%	27.2%	8,293	5,762	4,785
	1 Uncoated Corrugated Cardboard	8.0%	3.5%	1.3%	1,476	560	235
	2 High Grade Paper	5.2%	3.4%	0.8%	953	541	136
	3 Newspaper	5.4%	6.0%	0.8%	998	959	137
	4 Mixed Recyclable Paper	7.6%	6.6%	3.7%	1,408	1,042	656
	5 Compostable Paper	NA	NA	19.5%	NA	NA	3,430
	6 Other Paper	18.7%	16.7%	1.1%	3,458	2,660	191
Plastics		9.7%	12.0%	14.3%	1,790	1,906	2,513
	7 HDPE Bottles (#2)	0.8%	1.3%	0.5%	140	212	91
	8 PETE Bottles (#1)	0.4%	0.5%	0.5%	68	86	92
	9 Other Plastic Containers	NA	0.7%	1.0%	NA	112	174
	10 Plastic Bags	NA	NA	1.5%	NA	NA	259
	11 Other Film	4.6%	6.4%	6.5%	855	1,025	1,140
	12 Expanded Polystyrene Blocks	NA	NA	0.4%	NA	NA	70
	13 Mixed Rigid Plastics	NA	NA	3.4%	NA	NA	599
	14 Other Plastics	3.9%	3.0%	0.5%	726	471	89
Glass		3.0%	3.4%	2.7%	545	541	479
	15 Recyclable Glass Bottles/Containers	2.7%	3.0%	2.3%	493	482	397
	16 Other Glass	0.3%	0.4%	0.5%	52	58	81
Metals		2.4%	4.7%	3.0%	451	751	524
	17 Aluminum Cans	0.2%	0.4%	0.2%	37	60	37
	18 Other Non-Ferrous	0.4%	1.3%	0.4%	67	200	68
	19 Steel Food and Beverage Cans	0.5%	0.9%	0.8%	98	146	142
	20 Other Ferrous	1.4%	2.1%	1.6%	249	331	277
	21 White Goods	0.0%	0.1%	0.0%	0	14	0
Yard Waste		2.4%	2.0%	3.2%	434	312	569
	22 Leaves/Grass/Chips	1.6%	0.3%	2.2%	296	52	393
	23 Branches/Stumps/Prunings/Trimmings	0.8%	1.6%	1.0%	139	261	177
Organics		33.5%	36.5%	44.8%	6,183	5,798	7,880
	24 Food Waste	25.0%	28.0%	30.6%	4,613	4,448	5,387
	25 Tires	0.2%	0.0%	0.1%	37	0	25
	26 Untreated Lumber	3.3%	3.0%	2.1%	610	483	366
	27 Pallets	NA	NA	1.8%	NA	NA	313
	28 Treated Wood Waste	1.0%	1.7%	2.5%	176	268	440
	29 Textiles and Leather	2.8%	1.1%	4.2%	515	175	737
	30 Carpet	NA	0.0%	0.3%	NA	0	55
	31 Diapers	0.6%	0.5%	2.1%	115	79	367
	32 Manure	NA	NA	0.3%	NA	NA	51
	33 Other Organics	0.6%	2.2%	0.8%	118	344	141
Inerts		2.1%	2.7%	4.0%	379	422	705
	34 Crushable Inerts	0.6%	2.1%	2.1%	113	330	362
	35 Other Inerts	0.9%	0.5%	1.6%	163	81	275
	36 Gypsum Board	0.6%	0.1%	0.4%	103	10	68
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	0	0
HHW		0.2%	0.6%	0.4%	44	96	65
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	19
	39 Vehicle & Equipment Fluids	NA	NA	0.1%	NA	NA	16
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	7
	41 Medical Waste	NA	NA	0.0%	NA	NA	1
	42 Medicine	NA	NA	0.0%	NA	NA	2
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	8
	45 Other Hazardous Waste	0.2%	0.6%	0.1%	44	96	13
Special		12.2%	1.9%	0.4%	2,259	303	74
	46 Brown Goods	0.7%	1.9%	0.4%	131	303	74
	47 Composite Bulky Items	11.5%	0.0%	0.0%	2,128	0	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		110.3%	100.0%	100.0%	18,474	15,891	17,594

Table 15
City of Berkeley Detailed Historic Comparison of Roll-Off Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		15.0%	7.7%	13.5%	1,407	734	1,999
	1 Uncoated Corrugated Cardboard	2.1%	2.7%	7.9%	197	256	1,165
	2 High Grade Paper	2.2%	0.1%	1.8%	205	11	273
	3 Newspaper	0.3%	0.2%	0.1%	28	19	22
	4 Mixed Recyclable Paper	5.1%	2.9%	2.1%	477	277	305
	5 Compostable Paper	NA	NA	0.9%	NA	NA	135
	6 Other Paper	5.3%	1.8%	0.7%	500	171	99
Plastics		3.7%	3.2%	14.5%	349	309	2,139
	7 HDPE Bottles (#2)	0.1%	0.3%	0.3%	10	24	51
	8 PETE Bottles (#1)	0.1%	0.1%	0.1%	8	13	12
	9 Other Plastic Containers	NA	0.3%	0.0%	NA	30	6
	10 Plastic Bags	NA	NA	0.0%	NA	NA	4
	11 Other Film	1.6%	1.3%	4.3%	151	126	637
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	19
	13 Mixed Rigid Plastics	NA	NA	7.8%	NA	NA	1,152
	14 Other Plastics	1.9%	1.2%	1.7%	180	115	258
Glass		2.1%	0.6%	9.2%	198	58	1,358
	15 Recyclable Glass Bottles/Containers	2.1%	0.0%	0.4%	196	5	67
	16 Other Glass	0.0%	0.6%	8.7%	3	53	1,291
Metals		0.9%	5.3%	5.3%	80	510	782
	17 Aluminum Cans	0.0%	0.2%	0.0%	4	22	4
	18 Other Non-Ferrous	0.1%	1.4%	0.3%	6	130	40
	19 Steel Food and Beverage Cans	0.1%	0.2%	0.0%	7	21	3
	20 Other Ferrous	0.7%	3.5%	4.8%	63	337	713
	21 White Goods	0.0%	0.0%	0.2%	0	0	23
Yard Waste		9.5%	15.6%	0.9%	888	1,491	139
	22 Leaves/Grass/Chips	1.5%	4.9%	0.0%	138	467	0
	23 Branches/Stumps/Prunings/Trimings	8.0%	10.7%	0.9%	751	1,024	139
Organics		19.7%	36.7%	32.2%	1,845	3,503	4,770
	24 Food Waste	1.3%	7.5%	10.4%	123	720	1,541
	25 Tires	0.0%	0.2%	0.0%	0	14	0
	26 Untreated Lumber	10.9%	18.5%	2.9%	1,023	1,766	424
	27 Pallets	NA	NA	9.1%	NA	NA	1,349
	28 Treated Wood Waste	5.7%	4.6%	7.9%	532	441	1,171
	29 Textiles and Leather	1.7%	1.7%	0.2%	157	159	22
	30 Carpet	NA	0.1%	0.0%	NA	14	0
	31 Diapers	0.1%	0.3%	0.1%	7	24	13
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	0.0%	3.8%	1.7%	3	365	250
Inerts		36.6%	14.6%	22.7%	3,423	1,392	3,358
	34 Crushable Inerts	29.0%	11.4%	9.0%	2,717	1,088	1,326
	35 Other Inerts	3.8%	1.6%	11.1%	355	152	1,642
	36 Gypsum Board	3.8%	1.6%	2.6%	352	152	390
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	0	0
HHW		0.2%	0.4%	1.8%	22	36	260
	38 Paint/Adhesives	NA	NA	1.7%	NA	NA	248
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	0
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.1%	NA	NA	12
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.2%	0.4%	0.0%	22	36	0
Special		12.2%	15.9%	0.0%	1,145	1,520	0
	46 Brown Goods	0.7%	2.4%	0.0%	66	231	0
	47 Composite Bulky Items	11.5%	13.5%	0.0%	1,078	1,289	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	9,361	9,552	14,805

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF BERKELEY**

**Table 16
City of Berkeley Detailed Historic Comparison of Self-Haul Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		8.7%	5.5%	8.4%	1,204	1,726	3,215
	1 Uncoated Corrugated Cardboard	1.9%	2.0%	2.8%	267	639	1,064
	2 High Grade Paper	0.6%	0.1%	1.4%	89	36	540
	3 Newspaper	0.4%	0.1%	0.2%	53	28	67
	4 Mixed Recyclable Paper	4.4%	2.8%	3.2%	613	882	1,228
	5 Compostable Paper	NA	NA	0.4%	NA	NA	161
	6 Other Paper	1.3%	0.4%	0.4%	182	141	156
Plastics		4.2%	2.8%	3.5%	589	885	1,340
	7 HDPE Bottles (#2)	0.2%	0.0%	0.0%	21	11	3
	8 PETE Bottles (#1)	0.0%	0.1%	0.1%	3	33	23
	9 Other Plastic Containers	NA	0.1%	0.2%	NA	36	63
	10 Plastic Bags	NA	NA	0.0%	NA	NA	17
	11 Other Film	0.5%	0.4%	1.7%	64	115	645
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	10
	13 Mixed Rigid Plastics	NA	NA	1.0%	NA	NA	399
	14 Other Plastics	3.6%	2.2%	0.5%	502	690	180
Glass		1.1%	0.4%	1.2%	151	110	478
	15 Recyclable Glass Bottles/Containers	0.3%	0.0%	0.2%	43	14	95
	16 Other Glass	0.8%	0.3%	1.0%	108	97	383
Metals		2.6%	6.1%	5.2%	361	1,927	1,990
	17 Aluminum Cans	0.0%	0.0%	0.1%	1	5	25
	18 Other Non-Ferrous	0.0%	1.2%	0.8%	6	379	306
	19 Steel Food and Beverage Cans	0.1%	0.0%	0.0%	10	2	0
	20 Other Ferrous	1.6%	4.3%	3.9%	227	1,352	1,509
	21 White Goods	0.9%	0.6%	0.4%	118	189	151
Yard Waste		10.4%	28.2%	7.2%	1,440	8,862	2,766
	22 Leaves/Grass/Chips	6.0%	4.5%	2.6%	839	1,406	989
	23 Branches/Stumps/Prunings/Trimmings	4.3%	23.7%	4.6%	600	7,456	1,777
Organics		35.0%	28.6%	35.9%	4,870	8,994	13,808
	24 Food Waste	2.1%	0.3%	0.4%	296	101	169
	25 Tires	0.1%	0.3%	0.1%	11	92	26
	26 Untreated Lumber	19.0%	14.6%	7.8%	2,645	4,607	3,018
	27 Pallets	NA	NA	0.1%	NA	NA	44
	28 Treated Wood Waste	5.8%	6.3%	16.8%	809	1,977	6,466
	29 Textiles and Leather	4.4%	0.8%	4.8%	612	251	1,860
	30 Carpet	NA	4.7%	3.2%	NA	1,473	1,232
	31 Diapers	0.4%	0.0%	0.0%	51	1	0
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	3.2%	1.6%	2.6%	446	492	995
Inerts		26.9%	16.4%	31.0%	3,744	5,168	11,931
	34 Crushable Inerts	8.0%	7.9%	10.0%	1,108	2,478	3,827
	35 Other Inerts	9.2%	1.0%	12.7%	1,274	314	4,895
	36 Gypsum Board	3.5%	6.8%	4.7%	489	2,126	1,806
	37 Asphalt Roofing	6.3%	0.8%	3.7%	873	250	1,404
HHW		0.0%	0.0%	1.5%	6	0	560
	38 Paint/Adhesives	NA	NA	0.2%	NA	NA	80
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.4%	NA	NA	146
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.3%	NA	NA	128
	44 Other E-Waste	NA	NA	0.3%	NA	NA	99
	45 Other Hazardous Waste	0.0%	0.0%	0.3%	6	0	106
Special		11.0%	12.0%	6.1%	1,533	3,782	2,356
	46 Brown Goods	1.3%	0.5%	1.2%	174	150	469
	47 Composite Bulky Items	9.8%	11.5%	4.9%	1,359	3,632	1,888
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	13,898	31,455	38,445

Appendix A4

2008 WASTE CHARACTERIZATION RESULTS CASTRO VALLEY SANITARY DISTRICT

This section presents a summary of the composition and quantity of disposed waste from the Castro Valley Sanitary District. The 2008 Study results presented herein are based on compositions developed using data obtained from field sample collection and sorting activities performed over four seasons during calendar year 2008. A complete description of the Study and presentation of Countywide aggregate results are included in Section 3 of the report.

Table 1 summarizes selected demographic and waste disposal characteristics for the Castro Valley Sanitary District. The total amount of waste disposed in 2008 represents 2.3 percent of the Countywide waste stream, and decreased approximately 11 percent from 2000.

**Table 1
Castro Valley Sanitary District Waste Disposal Data**

	2000	2008
Population ¹	47195	40,839
Housing Units	15357	14,747
Number of Business Establishments ²	657	699
Waste Disposal (tons) ³	30936	27,565
Single Family	10671	12,624
Multi-Family	1947	3,018
Commercial	6397	4,708
Roll-off	5142	3,253
Self-Haul	6780	3,963
Residential Disposal Rate (lbs/capita/year) ⁴	657	949
Non-residential Disposal Rate (tons/establishment/year)	24	12

¹ Source: State of California, Department of Finance, City/County Population and Housing Estimates for 2000 and Jan 2008.

² Source: California Board of Equalization. "Taxable Sales in California (Sales & Use Tax)", 1999 and 2007.

³ Data provided by StopWaste.Org staff.

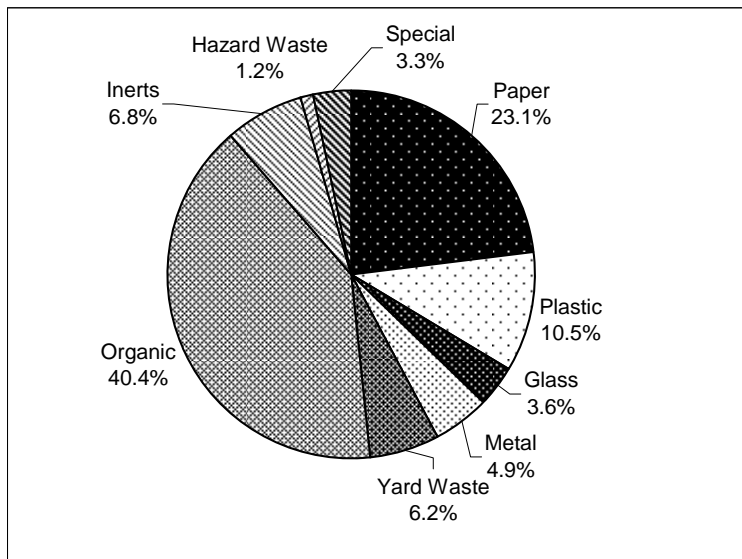
Table 2 presents the number of samples collected from each type of waste stream. Approximately 4 percent of the total number of samples collected were from this jurisdiction.

Table 2
Summary of Samples Obtained from Castro Valley Sanitary District

Waste Stream	Total Samples
Single-family	20
Multi-family	14
Commercial	35
Roll-off	8
Self-haul	14
Total	91

The following tables and figures are presented for waste originating from the Castro Valley Sanitary District. The introduction to Appendix B presents a summary of the information provided within each table or figure.

Figure 1 Castro Valley Sanitary District 2008 Aggregate Waste Composition by Major Material Group



Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	6,381	23.1%	20.8%	25.7%
Plastic	2,886	10.5%	9.6%	11.4%
Glass	998	3.6%	3.2%	4.2%
Metal	1,358	4.9%	4.0%	6.2%
Yard Waste	1,707	6.2%	4.5%	8.5%
Organic	11,127	40.4%	36.8%	44.2%
Inerts	1,880	6.8%	4.4%	10.1%
Hazard Waste	331	1.2%	0.7%	2.0%
Special	897	3.3%	1.5%	6.1%
TOTAL	27,565	100.0%		

2008 WASTE CHARACTERIZATION RESULTS CASTRO VALLEY SANITARY DISTRICT

Figure 2 Castro Valley Sanitary District Single-Family Residential Composition by Major Material Group

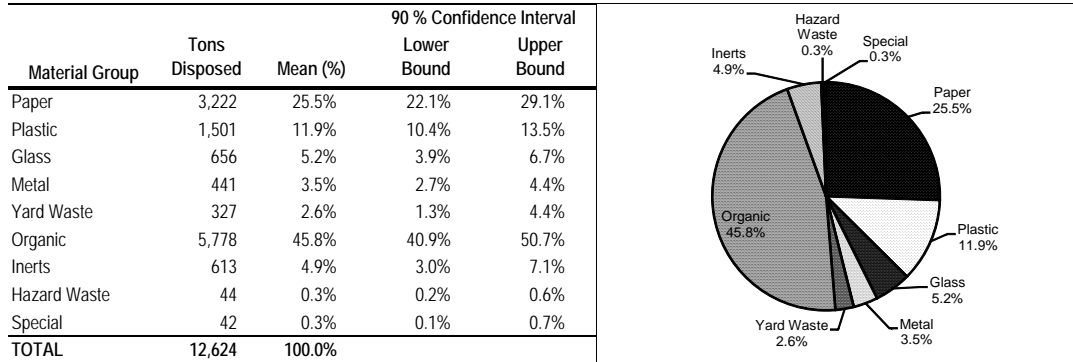


Figure 3 Castro Valley Sanitary District Multi-Family Residential Composition by Major Material Group

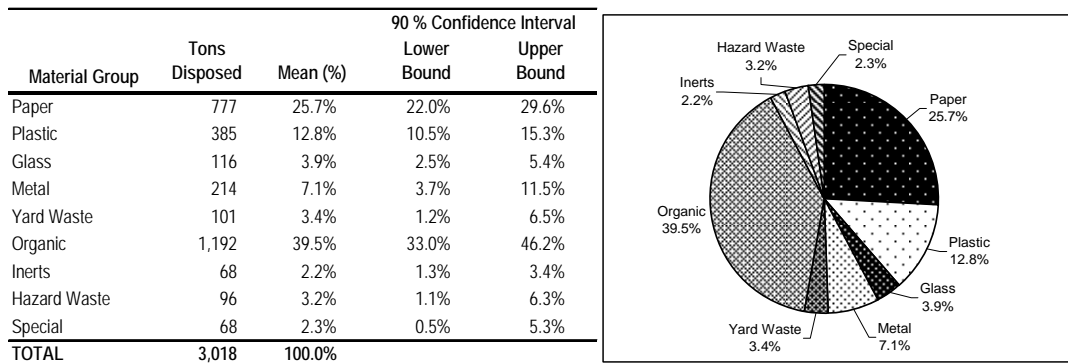


Figure 4 Castro Valley Sanitary District Commercial Composition by Major Material Group

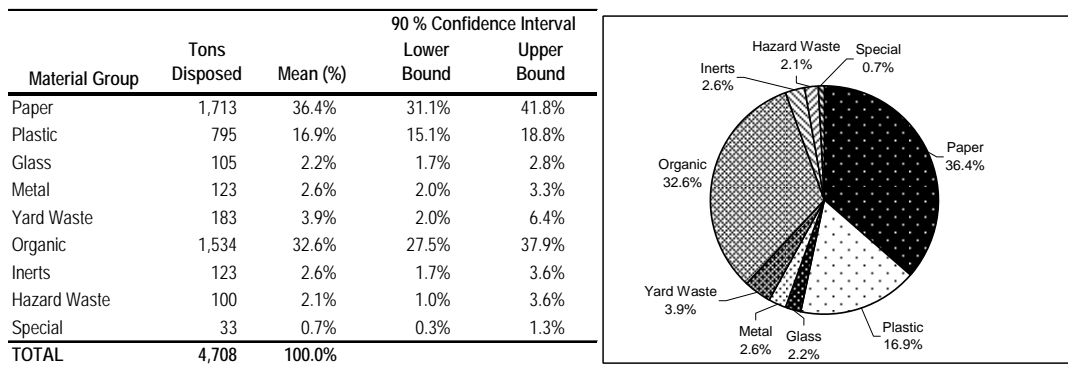


Figure 5 Castro Valley Sanitary District Roll-off Composition by Major Material Group

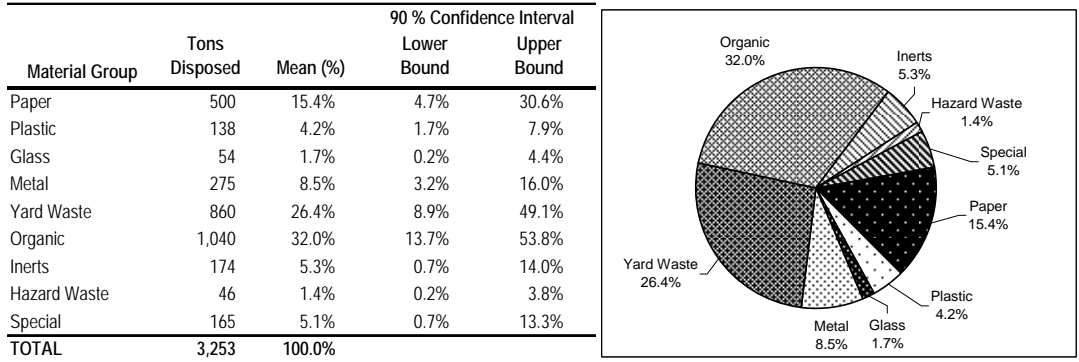
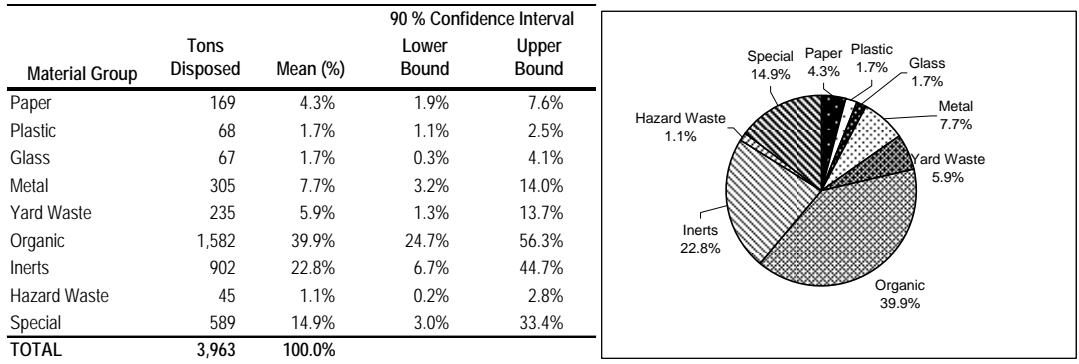


Figure 6 Castro Valley Sanitary District Self Hauler Composition by Major Material Group



2008 WASTE CHARACTERIZATION RESULTS
CASTRO VALLEY SANITARY DISTRICT

Figure 7 Historic Comparison of Castro Valley Sanitary District Aggregate Disposal

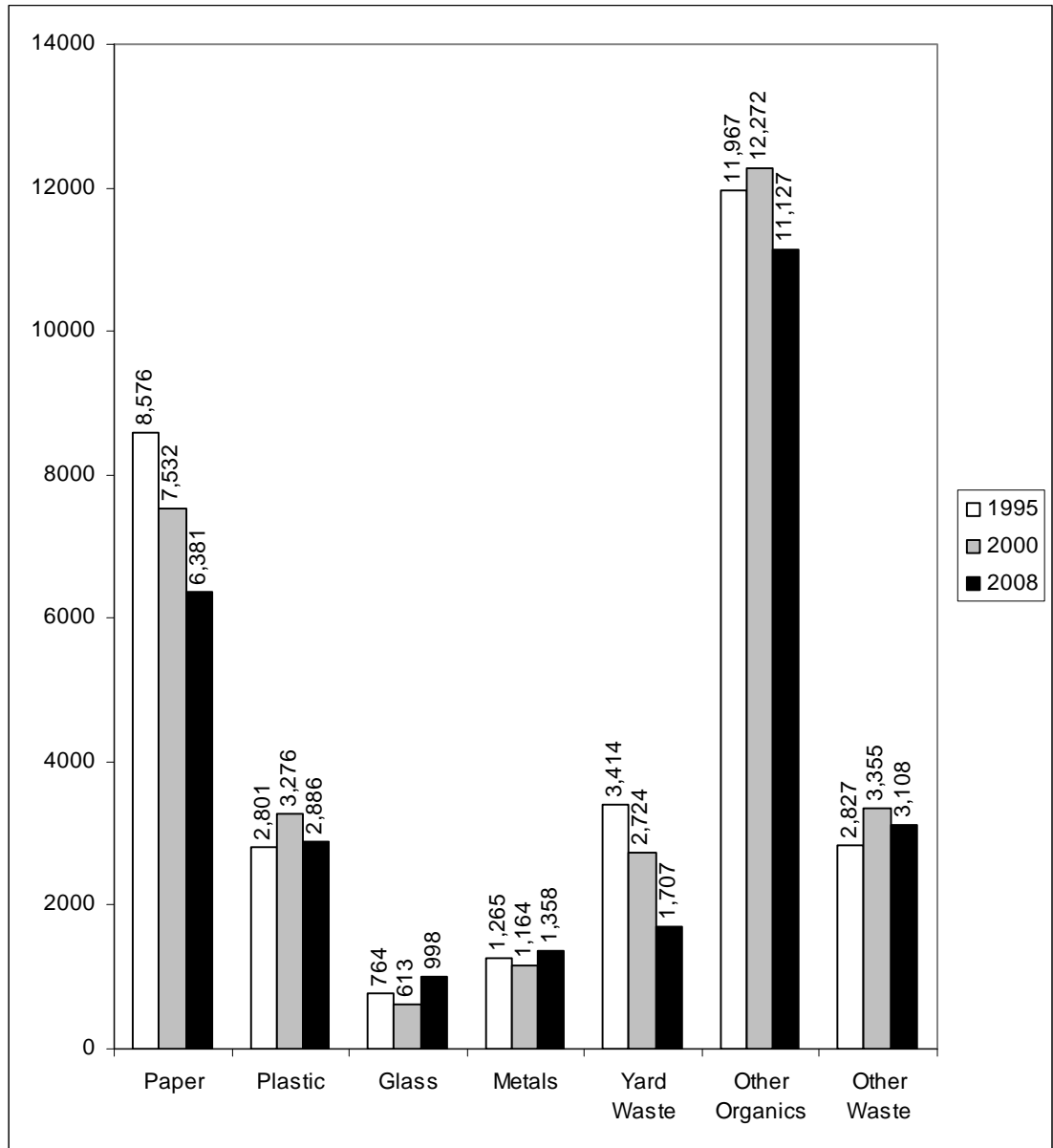
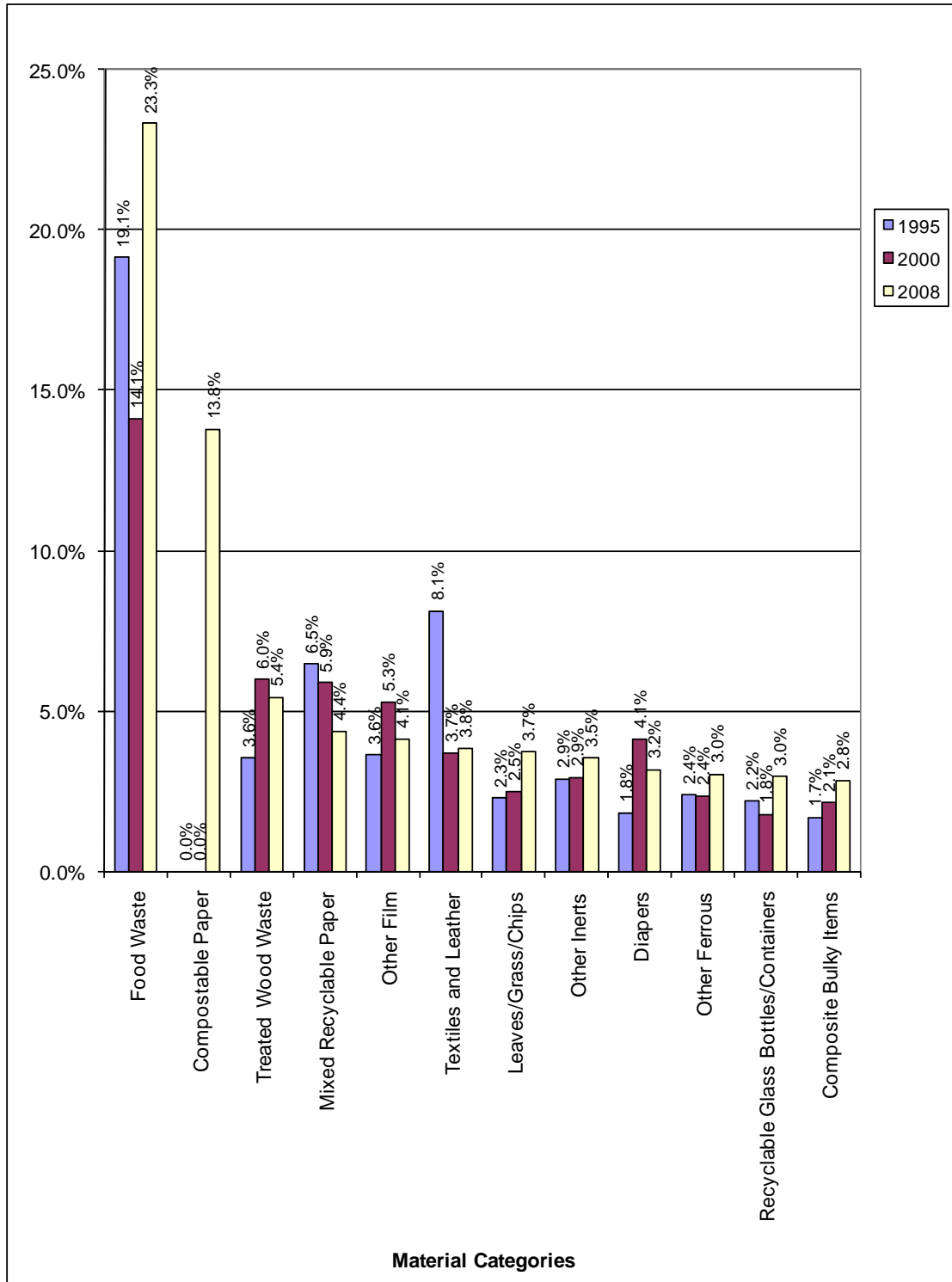


Figure 8 Castro Valley Sanitary District Top 12 Most Common Materials – Aggregate



2008 WASTE CHARACTERIZATION RESULTS
CASTRO VALLEY SANITARY DISTRICT

Figure 9 Castro Valley Sanitary District Top 12 Most Common Materials from 2000

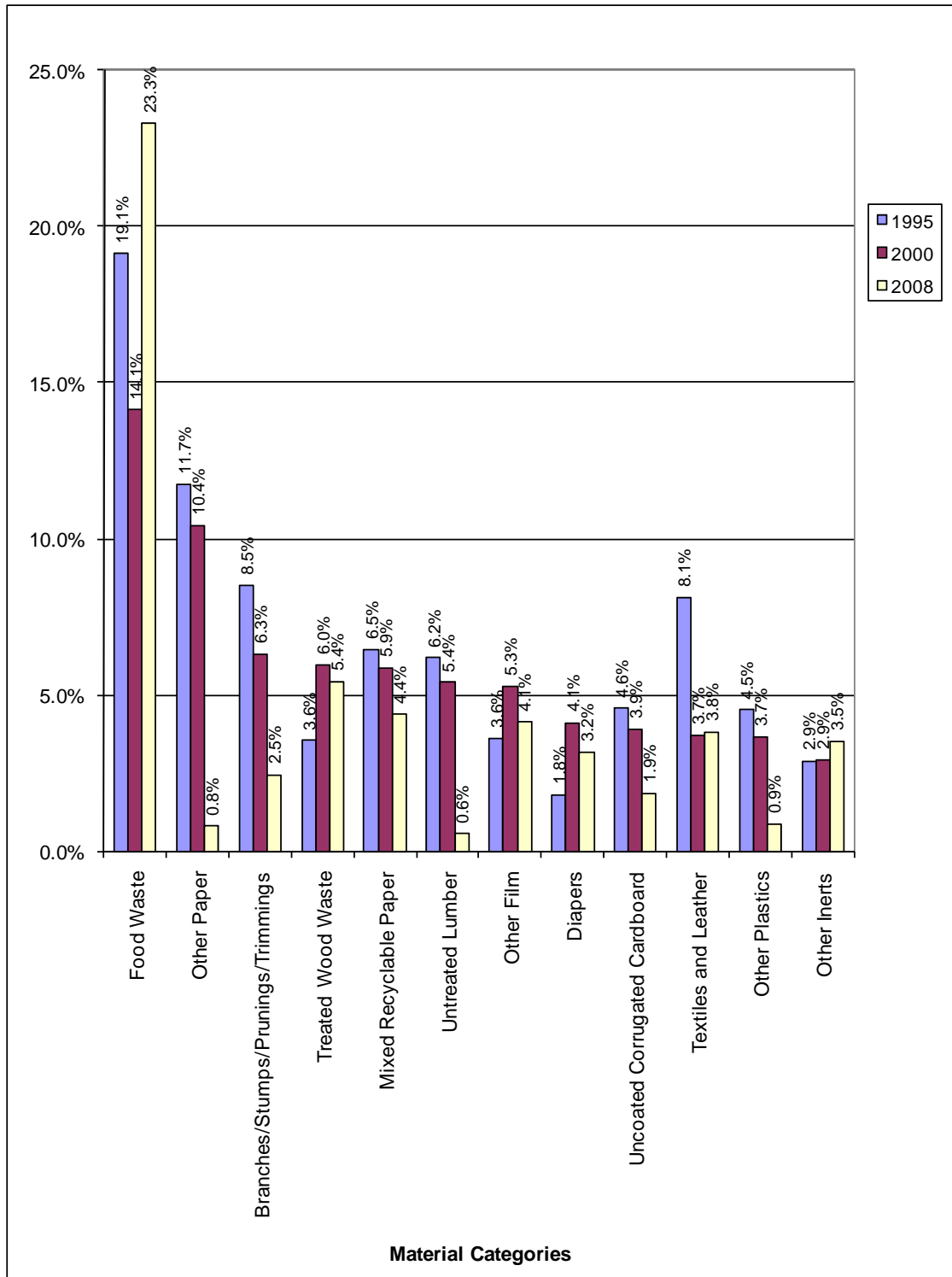


Table 3
Summary of Overall Material Proportions for Castro Valley Sanitary District

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Aggregated
Paper		25.5%	25.7%	36.4%	15.4%	4.3%	23.1%
	1 Uncoated Corrugated Cardboard	1.0%	0.8%	3.0%	4.8%	1.7%	1.9%
	2 High Grade Paper	0.3%	0.8%	2.6%	2.3%	0.0%	0.9%
	3 Newspaper	2.0%	1.5%	1.7%	0.0%	0.1%	1.4%
	4 Mixed Recyclable Paper	4.1%	3.9%	5.9%	7.1%	1.7%	4.4%
	5 Compostable Paper	17.2%	17.9%	22.0%	1.0%	0.4%	13.8%
	6 Other Paper	0.9%	0.8%	1.2%	0.3%	0.4%	0.8%
Plastics		11.9%	12.8%	16.9%	4.2%	1.7%	10.5%
	7 HDPE Bottles (#2)	0.5%	0.9%	1.0%	0.2%	0.0%	0.5%
	8 PETE Bottles (#1)	1.0%	1.1%	1.0%	0.2%	0.0%	0.7%
	9 Other Plastic Containers	0.7%	0.9%	1.3%	0.0%	0.0%	0.7%
	10 Plastic Bags	1.3%	1.1%	1.0%	0.0%	0.1%	0.9%
	11 Other Film	4.4%	4.2%	7.3%	2.6%	0.6%	4.1%
	12 Expanded Polystyrene Blocks	0.1%	0.0%	0.1%	0.0%	0.0%	0.1%
	13 Mixed Rigid Plastics	2.7%	3.5%	3.9%	1.1%	0.9%	2.6%
	14 Other Plastics	1.2%	1.0%	1.1%	0.1%	0.0%	0.9%
Glass		5.2%	3.9%	2.2%	1.7%	1.7%	3.6%
	15 Recyclable Glass Bottles/Containers	4.7%	3.7%	1.9%	0.0%	0.5%	3.0%
	16 Other Glass	0.5%	0.2%	0.3%	1.7%	1.2%	0.7%
Metals		3.5%	7.1%	2.6%	8.5%	7.7%	4.9%
	17 Aluminum Cans	0.3%	0.3%	0.3%	0.2%	0.0%	0.2%
	18 Other Non-Ferrous	0.4%	0.9%	0.4%	0.1%	0.8%	0.5%
	19 Steel Food and Beverage Cans	1.1%	0.8%	0.6%	0.3%	0.1%	0.8%
	20 Other Ferrous	1.6%	2.2%	1.4%	7.9%	6.2%	3.0%
	21 White Goods	0.0%	2.9%	0.0%	0.0%	0.6%	0.4%
Yard Waste		2.6%	3.4%	3.9%	26.4%	5.9%	6.2%
	22 Leaves/Grass/Chips	1.0%	2.3%	2.3%	20.4%	1.4%	3.7%
	23 Branches/Stumps/Prunings/Trimmings	1.6%	1.0%	1.6%	6.1%	4.5%	2.5%
Organics		45.8%	39.5%	32.6%	32.0%	39.9%	40.4%
	24 Food Waste	30.2%	23.9%	21.9%	18.2%	6.6%	23.3%
	25 Tires	0.0%	1.9%	0.0%	1.1%	0.1%	0.4%
	26 Untreated Lumber	0.2%	0.3%	0.3%	2.3%	0.8%	0.6%
	27 Pallets	0.0%	0.0%	0.5%	0.9%	0.0%	0.2%
	28 Treated Wood Waste	1.1%	1.0%	1.1%	5.4%	27.7%	5.4%
	29 Textiles and Leather	3.4%	6.4%	4.1%	2.4%	4.1%	3.8%
	30 Carpet	0.0%	0.0%	0.0%	1.3%	0.3%	0.2%
	31 Diapers	4.7%	3.1%	4.0%	0.0%	0.0%	3.2%
	32 Manure	5.1%	1.9%	0.2%	0.0%	0.0%	2.6%
	33 Other Organics	0.9%	1.0%	0.4%	0.2%	0.3%	0.7%
Inerts		4.9%	2.2%	2.6%	5.3%	22.8%	6.8%
	34 Crushable Inerts	0.7%	0.8%	0.5%	1.1%	9.5%	2.0%
	35 Other Inerts	4.0%	1.2%	1.8%	3.2%	6.1%	3.5%
	36 Gypsum Board	0.1%	0.0%	0.4%	1.0%	0.8%	0.3%
	37 Asphalt Roofing	0.0%	0.3%	0.0%	0.0%	6.3%	1.0%
HHW		0.3%	3.2%	2.1%	1.4%	1.1%	1.2%
	38 Paint/Adhesives	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
	39 Vehicle & Equipment Fluids	0.1%	0.0%	0.1%	0.0%	0.0%	0.1%
	40 Universal Hazardous Waste	0.1%	0.1%	0.2%	0.0%	0.9%	0.2%
	41 Medical Waste	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%
	42 Medicine	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	43 Covered E-Waste	0.0%	1.9%	0.4%	1.2%	0.1%	0.4%
	44 Other E-Waste	0.0%	0.0%	0.0%	0.2%	0.2%	0.1%
	45 Other Hazardous Waste	0.1%	0.7%	1.3%	0.0%	0.0%	0.3%
Special		0.3%	2.3%	0.7%	5.1%	14.9%	3.3%
	46 Brown Goods	0.3%	0.1%	0.2%	0.7%	1.0%	0.4%
	47 Composite Bulky Items	0.0%	2.2%	0.5%	4.4%	13.9%	2.8%
	48 Other Special Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**2008 WASTE CHARACTERIZATION RESULTS
CASTRO VALLEY SANITARY DISTRICT**

**Table 4
Summary of Overall Material Tonnages for Castro Valley Sanitary District**

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
Paper		3,222	777	1,713	500	169	6,381
	1 Uncoated Corrugated Cardboard	131	25	141	155	66	518
	2 High Grade Paper	33	23	124	74	0	255
	3 Newspaper	247	47	79	0	5	378
	4 Mixed Recyclable Paper	517	118	277	231	66	1,208
	5 Compostable Paper	2,174	541	1,038	31	14	3,798
	6 Other Paper	120	23	54	9	18	224
Plastics		1,501	385	795	138	68	2,886
	7 HDPE Bottles (#2)	69	27	47	5	1	149
	8 PETE Bottles (#1)	120	33	46	6	1	206
	9 Other Plastic Containers	90	28	62	1	1	181
	10 Plastic Bags	160	33	49	1	2	245
	11 Other Film	557	128	346	86	25	1,140
	12 Expanded Polystyrene Blocks	9	0	6	0	0	16
	13 Mixed Rigid Plastics	340	107	186	37	38	708
	14 Other Plastics	155	29	53	3	1	241
Glass		656	116	105	54	67	998
	15 Recyclable Glass Bottles/Containers	595	111	88	0	20	814
	16 Other Glass	61	6	16	54	47	184
Metals		441	214	123	275	305	1,358
	17 Aluminum Cans	38	8	13	7	1	67
	18 Other Non-Ferrous	53	26	17	4	31	132
	19 Steel Food and Beverage Cans	144	25	28	9	3	208
	20 Other Ferrous	206	68	65	256	245	840
	21 White Goods	0	87	0	0	25	112
Yard Waste		327	101	183	860	235	1,707
	22 Leaves/Grass/Chips	129	70	108	663	57	1,028
	23 Branches/Stumps/Prunings/Trimmings	198	31	75	197	178	679
Organics		5,778	1,192	1,534	1,040	1,582	11,127
	24 Food Waste	3,814	722	1,033	593	263	6,425
	25 Tires	0	59	0	36	3	97
	26 Untreated Lumber	26	9	14	76	32	156
	27 Pallets	0	0	22	31	0	53
	28 Treated Wood Waste	142	30	52	177	1,099	1,500
	29 Textiles and Leather	434	192	194	77	162	1,059
	30 Carpet	0	0	1	44	13	57
	31 Diapers	599	93	187	0	0	879
	32 Manure	645	59	11	0	0	715
	33 Other Organics	118	29	20	7	12	186
Inerts		613	68	123	174	902	1,880
	34 Crushable Inerts	88	23	21	37	377	546
	35 Other Inerts	507	36	84	105	243	975
	36 Gypsum Board	14	0	18	32	31	95
	37 Asphalt Roofing	5	9	0	0	251	264
HHW		44	96	100	46	45	331
	38 Paint/Adhesives	1	4	2	0	0	7
	39 Vehicle & Equipment Fluids	16	0	4	0	0	20
	40 Universal Hazardous Waste	14	2	8	0	34	59
	41 Medical Waste	0	7	3	0	0	11
	42 Medicine	1	1	1	0	0	3
	43 Covered E-Waste	0	59	19	40	4	122
	44 Other E-Waste	0	1	1	6	7	15
	45 Other Hazardous Waste	11	22	62	0	0	96
Special		42	68	33	165	589	897
	46 Brown Goods	38	2	9	23	39	113
	47 Composite Bulky Items	0	66	23	142	550	781
	48 Other Special Waste	3	0	0	0	0	3
TOTAL		12,624	3,018	4,708	3,253	3,963	27,565

Table 5
Castro Valley Sanitary District Aggregate Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		6,381	23.15%	20.79%	25.74%
	1 Uncoated Corrugated Cardboard	518	1.88%	1.33%	2.61%
	2 High Grade Paper	255	0.92%	0.47%	1.55%
	3 Newspaper	378	1.37%	1.05%	1.78%
	4 Mixed Recyclable Paper	1,208	4.38%	3.45%	5.70%
	5 Compostable Paper	3,798	13.78%	12.33%	15.32%
	6 Other Paper	224	0.81%	0.65%	1.02%
Plastics		2,886	10.47%	9.62%	11.39%
	7 HDPE Bottles (#2)	149	0.54%	0.42%	0.68%
	8 PETE Bottles (#1)	206	0.75%	0.63%	0.88%
	9 Other Plastic Containers	181	0.66%	0.54%	0.79%
	10 Plastic Bags	245	0.89%	0.74%	1.07%
	11 Other Film	1,140	4.14%	3.57%	4.78%
	12 Expanded Polystyrene Blocks	16	0.06%	0.03%	0.09%
	13 Mixed Rigid Plastics	708	2.57%	2.18%	3.02%
	14 Other Plastics	241	0.87%	0.74%	1.03%
Glass		998	3.62%	3.17%	4.22%
	15 Recyclable Glass Bottles/Containers	814	2.95%	2.59%	3.38%
	16 Other Glass	184	0.67%	0.47%	1.03%
Metals		1,358	4.93%	3.97%	6.22%
	17 Aluminum Cans	67	0.24%	0.20%	0.30%
	18 Other Non-Ferrous	132	0.48%	0.36%	0.64%
	19 Steel Food and Beverage Cans	208	0.75%	0.66%	0.87%
	20 Other Ferrous	840	3.05%	2.24%	4.24%
	21 White Goods	112	0.41%	0.05%	1.04%
Yard Waste		1,707	6.19%	4.47%	8.55%
	22 Leaves/Grass/Chips	1,028	3.73%	2.41%	5.63%
	23 Branches/Stumps/Prunings/Trimmings	679	2.46%	1.67%	3.84%
Organics		11,127	40.37%	36.82%	44.18%
	24 Food Waste	6,425	23.31%	20.79%	26.66%
	25 Tires	97	0.35%	0.10%	0.81%
	26 Untreated Lumber	156	0.57%	0.37%	0.94%
	27 Pallets	53	0.19%	0.06%	0.41%
	28 Treated Wood Waste	1,500	5.44%	3.15%	8.28%
	29 Textiles and Leather	1,059	3.84%	3.02%	4.90%
	30 Carpet	57	0.21%	0.10%	0.43%
	31 Diapers	879	3.19%	2.48%	4.05%
	32 Manure	715	2.59%	2.09%	3.24%
	33 Other Organics	186	0.68%	0.54%	0.86%
Inerts		1,880	6.82%	4.41%	10.13%
	34 Crushable Inerts	546	1.98%	0.95%	3.57%
	35 Other Inerts	975	3.54%	2.62%	5.16%
	36 Gypsum Board	95	0.34%	0.20%	0.61%
	37 Asphalt Roofing	264	0.96%	0.15%	2.48%
HHW		331	1.20%	0.66%	1.98%
	38 Paint/Adhesives	7	0.02%	0.01%	0.05%
	39 Vehicle & Equipment Fluids	20	0.07%	0.05%	0.11%
	40 Universal Hazardous Waste	59	0.21%	0.10%	0.41%
	41 Medical Waste	11	0.04%	0.01%	0.10%
	42 Medicine	3	0.01%	0.00%	0.02%
	43 Covered E-Waste	122	0.44%	0.18%	0.90%
	44 Other E-Waste	15	0.05%	0.03%	0.10%
	45 Other Hazardous Waste	96	0.35%	0.02%	0.84%
Special		897	3.25%	1.48%	6.06%
	46 Brown Goods	113	0.41%	0.27%	0.66%
	47 Composite Bulky Items	781	2.83%	1.14%	5.60%
	48 Other Special Waste	3	0.01%	0.01%	0.02%
TOTAL		27,565	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CASTRO VALLEY SANITARY DISTRICT**

**Table 6
Castro Valley Sanitary District Single-Family Residential Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		3,222	25.52%	22.10%	29.10%
	1 Uncoated Corrugated Cardboard	131	1.04%	0.54%	1.69%
	2 High Grade Paper	33	0.26%	0.11%	0.49%
	3 Newspaper	247	1.96%	1.05%	3.14%
	4 Mixed Recyclable Paper	517	4.09%	2.76%	5.68%
	5 Compostable Paper	2,174	17.22%	14.08%	20.61%
	6 Other Paper	120	0.95%	0.73%	1.20%
Plastics		1,501	11.89%	10.40%	13.46%
	7 HDPE Bottles (#2)	69	0.54%	0.40%	0.71%
	8 PETE Bottles (#1)	120	0.95%	0.76%	1.17%
	9 Other Plastic Containers	90	0.71%	0.55%	0.90%
	10 Plastic Bags	160	1.27%	0.94%	1.65%
	11 Other Film	557	4.41%	3.44%	5.50%
	12 Expanded Polystyrene Blocks	9	0.07%	0.03%	0.13%
	13 Mixed Rigid Plastics	340	2.70%	2.09%	3.38%
	14 Other Plastics	155	1.22%	0.86%	1.65%
Glass		656	5.20%	3.89%	6.68%
	15 Recyclable Glass Bottles/Containers	595	4.71%	3.56%	6.01%
	16 Other Glass	61	0.48%	0.20%	0.90%
Metals		441	3.50%	2.72%	4.36%
	17 Aluminum Cans	38	0.30%	0.20%	0.42%
	18 Other Non-Ferrous	53	0.42%	0.27%	0.61%
	19 Steel Food and Beverage Cans	144	1.14%	0.85%	1.46%
	20 Other Ferrous	206	1.63%	0.95%	2.49%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		327	2.59%	1.26%	4.38%
	22 Leaves/Grass/Chips	129	1.02%	0.46%	1.80%
	23 Branches/Stumps/Prunings/Trimmings	198	1.57%	0.59%	3.01%
Organics		5,778	45.77%	40.90%	50.68%
	24 Food Waste	3,814	30.22%	26.11%	34.49%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	26	0.20%	0.06%	0.42%
	27 Pallets	0	0.00%	0.00%	0.01%
	28 Treated Wood Waste	142	1.13%	0.54%	1.93%
	29 Textiles and Leather	434	3.44%	2.33%	4.75%
	30 Carpet	0	0.00%	0.00%	0.00%
	31 Diapers	599	4.75%	3.08%	6.76%
	32 Manure	645	5.11%	2.95%	7.82%
	33 Other Organics	118	0.93%	0.51%	1.49%
Inerts		613	4.86%	3.01%	7.13%
	34 Crushable Inerts	88	0.69%	0.27%	1.31%
	35 Other Inerts	507	4.02%	2.47%	5.91%
	36 Gypsum Board	14	0.11%	0.03%	0.23%
	37 Asphalt Roofing	5	0.04%	0.01%	0.08%
HHW		44	0.35%	0.17%	0.58%
	38 Paint/Adhesives	1	0.01%	0.00%	0.02%
	39 Vehicle & Equipment Fluids	16	0.13%	0.04%	0.27%
	40 Universal Hazardous Waste	14	0.11%	0.06%	0.17%
	41 Medical Waste	0	0.00%	0.00%	0.00%
	42 Medicine	1	0.01%	0.00%	0.02%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	0	0.00%	0.00%	0.00%
	45 Other Hazardous Waste	11	0.09%	0.02%	0.20%
Special		42	0.33%	0.11%	0.68%
	46 Brown Goods	38	0.30%	0.09%	0.64%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	3	0.03%	0.01%	0.06%
TOTAL		12,624	100.00%		

Table 7
Castro Valley Sanitary District Multi-Family Residential Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		777	25.74%	22.03%	29.63%
	1 Uncoated Corrugated Cardboard	25	0.82%	0.41%	1.38%
	2 High Grade Paper	23	0.77%	0.36%	1.34%
	3 Newspaper	47	1.55%	0.86%	2.43%
	4 Mixed Recyclable Paper	118	3.90%	2.55%	5.53%
	5 Compostable Paper	541	17.93%	15.03%	21.03%
	6 Other Paper	23	0.76%	0.48%	1.12%
Plastics		385	12.76%	10.46%	15.26%
	7 HDPE Bottles (#2)	27	0.90%	0.61%	1.24%
	8 PETE Bottles (#1)	33	1.09%	0.79%	1.43%
	9 Other Plastic Containers	28	0.92%	0.61%	1.28%
	10 Plastic Bags	33	1.11%	0.72%	1.58%
	11 Other Film	128	4.24%	3.24%	5.36%
	12 Expanded Polystyrene Blocks	0	0.00%	0.00%	0.01%
	13 Mixed Rigid Plastics	107	3.54%	2.45%	4.82%
	14 Other Plastics	29	0.98%	0.75%	1.22%
Glass		116	3.85%	2.54%	5.43%
	15 Recyclable Glass Bottles/Containers	111	3.67%	2.39%	5.21%
	16 Other Glass	6	0.19%	0.06%	0.39%
Metals		214	7.09%	3.66%	11.53%
	17 Aluminum Cans	8	0.27%	0.17%	0.39%
	18 Other Non-Ferrous	26	0.87%	0.46%	1.39%
	19 Steel Food and Beverage Cans	25	0.83%	0.69%	0.97%
	20 Other Ferrous	68	2.24%	0.72%	4.58%
	21 White Goods	87	2.88%	0.50%	7.13%
Yard Waste		101	3.36%	1.22%	6.51%
	22 Leaves/Grass/Chips	70	2.32%	0.59%	5.16%
	23 Branches/Stumps/Prunings/Trimmings	31	1.03%	0.30%	2.20%
Organics		1,192	39.52%	33.00%	46.23%
	24 Food Waste	722	23.92%	16.89%	31.74%
	25 Tires	59	1.94%	0.32%	4.89%
	26 Untreated Lumber	9	0.29%	0.07%	0.68%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	30	1.01%	0.32%	2.09%
	29 Textiles and Leather	192	6.36%	3.59%	9.85%
	30 Carpet	0	0.00%	0.00%	0.00%
	31 Diapers	93	3.07%	1.60%	5.00%
	32 Manure	59	1.95%	0.63%	3.98%
	33 Other Organics	29	0.97%	0.54%	1.52%
Inerts		68	2.24%	1.31%	3.41%
	34 Crushable Inerts	23	0.77%	0.18%	1.77%
	35 Other Inerts	36	1.18%	0.79%	1.65%
	36 Gypsum Board	0	0.00%	0.00%	0.00%
	37 Asphalt Roofing	9	0.28%	0.05%	0.72%
HHW		96	3.19%	1.12%	6.26%
	38 Paint/Adhesives	4	0.12%	0.02%	0.31%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	2	0.06%	0.02%	0.13%
	41 Medical Waste	7	0.25%	0.04%	0.63%
	42 Medicine	1	0.05%	0.01%	0.11%
	43 Covered E-Waste	59	1.95%	0.39%	4.66%
	44 Other E-Waste	1	0.03%	0.01%	0.08%
	45 Other Hazardous Waste	22	0.73%	0.12%	1.86%
Special		68	2.26%	0.47%	5.34%
	46 Brown Goods	2	0.07%	0.01%	0.19%
	47 Composite Bulky Items	66	2.18%	0.42%	5.29%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		3,018	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CASTRO VALLEY SANITARY DISTRICT**

**Table 8
Castro Valley Sanitary District Commercial Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		1,713	36.38%	31.12%	41.81%
	1 Uncoated Corrugated Cardboard	141	3.00%	1.80%	4.50%
	2 High Grade Paper	124	2.63%	1.54%	4.01%
	3 Newspaper	79	1.68%	1.04%	2.47%
	4 Mixed Recyclable Paper	277	5.88%	4.01%	8.07%
	5 Compostable Paper	1,038	22.04%	18.82%	25.44%
	6 Other Paper	54	1.15%	0.79%	1.58%
Plastics		795	16.88%	15.06%	18.78%
	7 HDPE Bottles (#2)	47	1.01%	0.72%	1.34%
	8 PETE Bottles (#1)	46	0.97%	0.71%	1.28%
	9 Other Plastic Containers	62	1.31%	1.04%	1.61%
	10 Plastic Bags	49	1.04%	0.72%	1.42%
	11 Other Film	346	7.34%	6.06%	8.74%
	12 Expanded Polystyrene Blocks	6	0.13%	0.07%	0.21%
	13 Mixed Rigid Plastics	186	3.95%	3.12%	4.87%
	14 Other Plastics	53	1.13%	0.84%	1.46%
Glass		105	2.23%	1.73%	2.78%
	15 Recyclable Glass Bottles/Containers	88	1.88%	1.41%	2.41%
	16 Other Glass	16	0.35%	0.19%	0.55%
Metals		123	2.61%	2.02%	3.28%
	17 Aluminum Cans	13	0.28%	0.20%	0.37%
	18 Other Non-Ferrous	17	0.37%	0.26%	0.50%
	19 Steel Food and Beverage Cans	28	0.59%	0.42%	0.78%
	20 Other Ferrous	65	1.38%	0.87%	2.00%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		183	3.90%	2.01%	6.37%
	22 Leaves/Grass/Chips	108	2.30%	1.13%	3.88%
	23 Branches/Stumps/Prunings/Trimmings	75	1.59%	0.70%	2.84%
Organics		1,534	32.58%	27.46%	37.91%
	24 Food Waste	1,033	21.94%	17.89%	26.28%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	14	0.29%	0.14%	0.50%
	27 Pallets	22	0.47%	0.18%	0.90%
	28 Treated Wood Waste	52	1.10%	0.54%	1.84%
	29 Textiles and Leather	194	4.13%	2.67%	5.88%
	30 Carpet	1	0.02%	0.01%	0.04%
	31 Diapers	187	3.97%	2.46%	5.83%
	32 Manure	11	0.24%	0.10%	0.44%
	33 Other Organics	20	0.42%	0.25%	0.64%
Inerts		123	2.61%	1.75%	3.64%
	34 Crushable Inerts	21	0.45%	0.23%	0.74%
	35 Other Inerts	84	1.79%	1.13%	2.59%
	36 Gypsum Board	18	0.37%	0.15%	0.69%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		100	2.12%	1.02%	3.61%
	38 Paint/Adhesives	2	0.04%	0.02%	0.07%
	39 Vehicle & Equipment Fluids	4	0.08%	0.03%	0.15%
	40 Universal Hazardous Waste	8	0.18%	0.09%	0.28%
	41 Medical Waste	3	0.07%	0.03%	0.12%
	42 Medicine	1	0.01%	0.00%	0.02%
	43 Covered E-Waste	19	0.41%	0.16%	0.78%
	44 Other E-Waste	1	0.02%	0.01%	0.04%
	45 Other Hazardous Waste	62	1.33%	0.49%	2.56%
Special		33	0.70%	0.29%	1.27%
	46 Brown Goods	9	0.20%	0.08%	0.37%
	47 Composite Bulky Items	23	0.50%	0.19%	0.94%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		4,708	100.00%		

Table 9
Castro Valley Sanitary District Roll-Off Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		500	15.38%	4.74%	30.62%
	1 Uncoated Corrugated Cardboard	155	4.77%	1.54%	9.65%
	2 High Grade Paper	74	2.27%	0.17%	6.71%
	3 Newspaper	0	0.00%	0.00%	0.00%
	4 Mixed Recyclable Paper	231	7.11%	0.93%	18.39%
	5 Compostable Paper	31	0.95%	0.15%	2.45%
	6 Other Paper	9	0.27%	0.02%	0.81%
Plastics		138	4.24%	1.66%	7.93%
	7 HDPE Bottles (#2)	5	0.15%	0.02%	0.40%
	8 PETE Bottles (#1)	6	0.18%	0.04%	0.41%
	9 Other Plastic Containers	1	0.02%	0.00%	0.06%
	10 Plastic Bags	1	0.02%	0.00%	0.06%
	11 Other Film	86	2.63%	0.84%	5.37%
	12 Expanded Polystyrene Blocks	0	0.01%	0.00%	0.03%
	13 Mixed Rigid Plastics	37	1.14%	0.27%	2.61%
	14 Other Plastics	3	0.09%	0.01%	0.24%
Glass		54	1.65%	0.21%	4.41%
	15 Recyclable Glass Bottles/Containers	0	0.00%	0.00%	0.00%
	16 Other Glass	54	1.65%	0.21%	4.41%
Metals		275	8.47%	3.17%	16.00%
	17 Aluminum Cans	7	0.22%	0.04%	0.56%
	18 Other Non-Ferrous	4	0.11%	0.00%	0.37%
	19 Steel Food and Beverage Cans	9	0.26%	0.02%	0.78%
	20 Other Ferrous	256	7.87%	2.00%	17.13%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		860	26.45%	8.95%	49.11%
	22 Leaves/Grass/Chips	663	20.39%	4.92%	42.82%
	23 Branches/Stumps/Prunings/Trimmings	197	6.06%	0.67%	16.27%
Organics		1,040	31.98%	13.66%	53.81%
	24 Food Waste	593	18.23%	1.49%	47.44%
	25 Tires	36	1.11%	0.08%	3.32%
	26 Untreated Lumber	76	2.34%	0.22%	6.60%
	27 Pallets	31	0.95%	0.06%	2.90%
	28 Treated Wood Waste	177	5.44%	1.11%	12.77%
	29 Textiles and Leather	77	2.35%	0.39%	5.92%
	30 Carpet	44	1.34%	0.08%	4.10%
	31 Diapers	0	0.00%	0.00%	0.00%
	32 Manure	0	0.00%	0.00%	0.00%
	33 Other Organics	7	0.22%	0.01%	0.73%
Inerts		174	5.34%	0.69%	13.97%
	34 Crushable Inerts	37	1.13%	0.04%	3.72%
	35 Other Inerts	105	3.22%	0.22%	9.52%
	36 Gypsum Board	32	0.99%	0.03%	3.24%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		46	1.42%	0.18%	3.81%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	0	0.00%	0.00%	0.00%
	41 Medical Waste	0	0.00%	0.00%	0.00%
	42 Medicine	0	0.00%	0.00%	0.00%
	43 Covered E-Waste	40	1.23%	0.10%	3.60%
	44 Other E-Waste	6	0.19%	0.01%	0.62%
	45 Other Hazardous Waste	0	0.00%	0.00%	0.00%
Special		165	5.09%	0.67%	13.30%
	46 Brown Goods	23	0.71%	0.06%	2.10%
	47 Composite Bulky Items	142	4.37%	0.58%	11.45%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		3,253	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CASTRO VALLEY SANITARY DISTRICT**

**Table 10
Castro Valley Sanitary District Self Haul Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		169	4.27%	1.88%	7.58%
	1 Uncoated Corrugated Cardboard	66	1.67%	0.68%	3.09%
	2 High Grade Paper	0	0.00%	0.00%	0.00%
	3 Newspaper	5	0.12%	0.02%	0.32%
	4 Mixed Recyclable Paper	66	1.67%	0.38%	3.86%
	5 Compostable Paper	14	0.36%	0.10%	0.76%
	6 Other Paper	18	0.45%	0.07%	1.14%
Plastics		68	1.72%	1.05%	2.55%
	7 HDPE Bottles (#2)	1	0.03%	0.01%	0.07%
	8 PETE Bottles (#1)	1	0.02%	0.00%	0.04%
	9 Other Plastic Containers	1	0.01%	0.00%	0.03%
	10 Plastic Bags	2	0.05%	0.01%	0.12%
	11 Other Film	25	0.62%	0.20%	1.27%
	12 Expanded Polystyrene Blocks	0	0.01%	0.00%	0.02%
	13 Mixed Rigid Plastics	38	0.95%	0.45%	1.63%
	14 Other Plastics	1	0.03%	0.01%	0.06%
Glass		67	1.69%	0.33%	4.08%
	15 Recyclable Glass Bottles/Containers	20	0.51%	0.08%	1.29%
	16 Other Glass	47	1.19%	0.19%	3.04%
Metals		305	7.69%	3.17%	13.97%
	17 Aluminum Cans	1	0.02%	0.00%	0.04%
	18 Other Non-Ferrous	31	0.78%	0.23%	1.66%
	19 Steel Food and Beverage Cans	3	0.07%	0.01%	0.19%
	20 Other Ferrous	245	6.18%	2.21%	11.98%
	21 White Goods	25	0.63%	0.10%	1.62%
Yard Waste		235	5.94%	1.28%	13.67%
	22 Leaves/Grass/Chips	57	1.44%	0.38%	3.18%
	23 Branches/Stumps/Prunings/Trimnings	178	4.49%	0.76%	11.10%
Organics		1,582	39.93%	24.66%	56.28%
	24 Food Waste	263	6.63%	1.63%	14.63%
	25 Tires	3	0.07%	0.01%	0.17%
	26 Untreated Lumber	32	0.80%	0.19%	1.85%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	1,099	27.73%	12.15%	46.77%
	29 Textiles and Leather	162	4.09%	1.58%	7.70%
	30 Carpet	13	0.32%	0.05%	0.80%
	31 Diapers	0	0.00%	0.00%	0.00%
	32 Manure	0	0.00%	0.00%	0.00%
	33 Other Organics	12	0.30%	0.05%	0.77%
Inerts		902	22.77%	6.74%	44.70%
	34 Crushable Inerts	377	9.51%	2.52%	20.32%
	35 Other Inerts	243	6.14%	0.74%	16.23%
	36 Gypsum Board	31	0.79%	0.15%	1.93%
	37 Asphalt Roofing	251	6.33%	0.74%	16.82%
HHW		45	1.13%	0.21%	2.78%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	34	0.87%	0.14%	2.21%
	41 Medical Waste	0	0.00%	0.00%	0.00%
	42 Medicine	0	0.00%	0.00%	0.00%
	43 Covered E-Waste	4	0.09%	0.02%	0.24%
	44 Other E-Waste	7	0.17%	0.03%	0.42%
	45 Other Hazardous Waste	0	0.00%	0.00%	0.00%
Special		589	14.86%	3.05%	33.38%
	46 Brown Goods	39	0.99%	0.19%	2.41%
	47 Composite Bulky Items	550	13.87%	2.50%	32.31%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		3,963	100.00%		

Table 11
Castro Valley Sanitary District Detailed Historic Comparison of Overall Jurisdiction-wide Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		27.1%	24.3%	23.1%	8,576	7,532	6,381
	1 Uncoated Corrugated Cardboard	4.6%	3.9%	1.9%	1,448	1,215	518
	2 High Grade Paper	1.9%	1.9%	0.9%	585	584	255
	3 Newspaper	2.5%	2.2%	1.4%	787	688	378
	4 Mixed Recyclable Paper	6.5%	5.9%	4.4%	2,045	1,821	1,208
	5 Compostable Paper	NA	NA	13.8%	NA	NA	3,798
	6 Other Paper	11.7%	10.4%	0.8%	3,711	3,224	224
Plastics		8.9%	10.6%	10.5%	2,798	3,276	2,886
	7 HDPE Bottles (#2)	0.5%	0.8%	0.5%	149	252	149
	8 PETE Bottles (#1)	0.2%	0.4%	0.7%	70	135	206
	9 Other Plastic Containers	NA	0.4%	0.7%	NA	121	181
	10 Plastic Bags	NA	NA	0.9%	NA	NA	245
	11 Other Film	3.6%	5.3%	4.1%	1,148	1,633	1,140
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	16
	13 Mixed Rigid Plastics	NA	NA	2.6%	NA	NA	708
	14 Other Plastics	4.5%	3.7%	0.9%	1,432	1,134	241
Glass		2.4%	2.0%	3.6%	762	613	998
	15 Recyclable Glass Bottles/Containers	2.2%	1.8%	3.0%	699	552	814
	16 Other Glass	0.2%	0.2%	0.7%	63	61	184
Metals		4.0%	3.8%	4.9%	1,264	1,164	1,358
	17 Aluminum Cans	0.3%	0.2%	0.2%	79	64	67
	18 Other Non-Ferrous	0.4%	0.4%	0.5%	117	134	132
	19 Steel Food and Beverage Cans	1.0%	0.8%	0.8%	316	232	208
	20 Other Ferrous	2.4%	2.4%	3.0%	752	734	840
	21 White Goods	0.0%	0.0%	0.4%	0	0	112
Yard Waste		10.8%	8.8%	6.2%	3,414	2,724	1,707
	22 Leaves/Grass/Chips	2.3%	2.5%	3.7%	721	769	1,028
	23 Branches/Stumps/Prunings/Trimnings	8.5%	6.3%	2.5%	2,693	1,956	679
Organics		39.7%	39.7%	40.4%	12,544	12,272	11,127
	24 Food Waste	19.1%	14.1%	23.3%	6,051	4,367	6,425
	25 Tires	0.0%	1.4%	0.4%	9	445	97
	26 Untreated Lumber	6.2%	5.4%	0.6%	1,957	1,674	156
	27 Pallets	NA	NA	0.2%	NA	NA	53
	28 Treated Wood Waste	3.6%	6.0%	5.4%	1,122	1,848	1,500
	29 Textiles and Leather	8.1%	3.7%	3.8%	2,567	1,149	1,059
	30 Carpet	NA	2.7%	0.2%	NA	833	57
	31 Diapers	1.8%	4.1%	3.2%	575	1,277	879
	32 Manure	NA	NA	2.6%	NA	NA	715
	33 Other Organics	0.8%	2.2%	0.7%	262	679	186
Inerts		4.2%	6.6%	6.8%	1,334	2,055	1,880
	34 Crushable Inerts	0.4%	2.7%	2.0%	130	821	546
	35 Other Inerts	2.9%	2.9%	3.5%	917	911	975
	36 Gypsum Board	0.9%	0.7%	0.3%	275	230	95
	37 Asphalt Roofing	0.0%	0.3%	1.0%	13	93	264
HHW		0.4%	0.6%	1.2%	120	172	331
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	7
	39 Vehicle & Equipment Fluids	NA	NA	0.1%	NA	NA	20
	40 Universal Hazardous Waste	NA	NA	0.2%	NA	NA	59
	41 Medical Waste	NA	NA	0.0%	NA	NA	11
	42 Medicine	NA	NA	0.0%	NA	NA	3
	43 Covered E-Waste	NA	NA	0.4%	NA	NA	122
	44 Other E-Waste	NA	NA	0.1%	NA	NA	15
	45 Other Hazardous Waste	0.4%	0.6%	0.3%	120	172	96
Special		2.5%	3.6%	3.3%	790	1,128	897
	46 Brown Goods	0.8%	1.5%	0.4%	256	465	113
	47 Composite Bulky Items	1.7%	2.1%	2.8%	534	664	781
	48 Other Special Waste	NA	NA	0.0%	NA	NA	3
TOTAL		100.0%	100.0%	100.0%	31,612	30,936	27,565

**2008 WASTE CHARACTERIZATION RESULTS
CASTRO VALLEY SANITARY DISTRICT**

**Table 12
Castro Valley Sanitary District Detailed Historic Comparison of Single-Family Residential
Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		32.7%	31.0%	25.5%	3,306	3,309	3,222
	1 Uncoated Corrugated Cardboard	2.8%	2.1%	1.0%	287	220	131
	2 High Grade Paper	1.6%	2.3%	0.3%	157	241	33
	3 Newspaper	3.5%	3.0%	2.0%	352	322	247
	4 Mixed Recyclable Paper	8.9%	8.2%	4.1%	901	879	517
	5 Compostable Paper	NA	NA	17.2%	NA	NA	2,174
	6 Other Paper	15.9%	15.4%	0.9%	1,609	1,646	120
Plastics		11.7%	14.2%	11.9%	1,179	1,514	1,501
	7 HDPE Bottles (#2)	0.8%	0.8%	0.5%	77	80	69
	8 PETE Bottles (#1)	0.3%	0.7%	1.0%	28	72	120
	9 Other Plastic Containers	NA	0.5%	0.7%	NA	56	90
	10 Plastic Bags	NA	NA	1.3%	NA	NA	160
	11 Other Film	5.4%	9.0%	4.4%	544	962	557
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	9
	13 Mixed Rigid Plastics	NA	NA	2.7%	NA	NA	340
	14 Other Plastics	5.2%	3.2%	1.2%	529	344	155
Glass		3.5%	2.2%	5.2%	353	232	656
	15 Recyclable Glass Bottles/Containers	3.2%	1.9%	4.7%	326	206	595
	16 Other Glass	0.3%	0.2%	0.5%	27	26	61
Metals		3.8%	3.6%	3.5%	381	386	441
	17 Aluminum Cans	0.3%	0.3%	0.3%	28	37	38
	18 Other Non-Ferrous	0.7%	0.6%	0.4%	71	61	53
	19 Steel Food and Beverage Cans	1.7%	1.1%	1.1%	170	115	144
	20 Other Ferrous	1.1%	1.6%	1.6%	112	174	206
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		6.2%	2.2%	2.6%	623	240	327
	22 Leaves/Grass/Chips	3.7%	0.8%	1.0%	378	84	129
	23 Branches/Stumps/Prunings/Trimmings	2.4%	1.5%	1.6%	245	156	198
Organics		39.1%	41.0%	45.8%	3,956	4,376	5,778
	24 Food Waste	29.3%	20.8%	30.2%	2,964	2,220	3,814
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	0.7%	0.4%	0.2%	75	42	26
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	0.6%	2.2%	1.1%	59	238	142
	29 Textiles and Leather	3.7%	7.1%	3.4%	376	756	434
	30 Carpet	NA	0.0%	0.0%	NA	4	0
	31 Diapers	4.1%	6.2%	4.7%	412	665	599
	32 Manure	NA	NA	5.1%	NA	NA	645
	33 Other Organics	0.7%	4.2%	0.9%	70	450	118
Inerts		2.5%	3.0%	4.9%	254	320	613
	34 Crushable Inerts	0.6%	0.5%	0.7%	60	58	88
	35 Other Inerts	1.8%	2.4%	4.0%	180	256	507
	36 Gypsum Board	0.0%	0.0%	0.1%	2	3	14
	37 Asphalt Roofing	0.1%	0.0%	0.0%	12	2	5
HHW		0.5%	0.7%	0.3%	54	78	44
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	1
	39 Vehicle & Equipment Fluids	NA	NA	0.1%	NA	NA	16
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	14
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	1
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
		45 Other Hazardous Waste	0.5%	0.7%	0.1%	54	78
Special		0.1%	2.0%	0.3%	11	216	42
	46 Brown Goods	0.1%	2.0%	0.3%	11	216	38
	47 Composite Bulky Items	0.0%	0.0%	0.0%	0	0	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	3
TOTAL		100.0%	100.0%	100.0%	10,119	10,671	12,624

Table 13
Castro Valley Sanitary District Detailed Historic Comparison of Multi-Family Residential Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		31.4%	37.6%	25.7%	478	731	777
	1 Uncoated Corrugated Cardboard	4.6%	3.3%	0.8%	70	64	25
	2 High Grade Paper	1.2%	2.3%	0.8%	18	45	23
	3 Newspaper	5.7%	4.9%	1.5%	87	95	47
	4 Mixed Recyclable Paper	5.6%	8.8%	3.9%	86	172	118
	5 Compostable Paper	NA	NA	17.9%	NA	NA	541
	6 Other Paper	14.2%	18.3%	0.8%	217	355	23
Plastics		9.9%	11.3%	12.8%	151	221	385
	7 HDPE Bottles (#2)	0.3%	0.7%	0.9%	4	14	27
	8 PETE Bottles (#1)	0.8%	0.7%	1.1%	12	14	33
	9 Other Plastic Containers	NA	0.4%	0.9%	NA	7	28
	10 Plastic Bags	NA	NA	1.1%	NA	NA	33
	11 Other Film	4.9%	7.0%	4.2%	75	136	128
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	0
	13 Mixed Rigid Plastics	NA	NA	3.5%	NA	NA	107
	14 Other Plastics	4.0%	2.5%	1.0%	60	49	29
Glass		4.2%	3.5%	3.9%	64	67	116
	15 Recyclable Glass Bottles/Containers	4.2%	3.1%	3.7%	64	60	111
	16 Other Glass	0.0%	0.4%	0.2%	0	8	6
Metals		2.7%	3.3%	7.1%	41	64	214
	17 Aluminum Cans	0.7%	0.3%	0.3%	10	5	8
	18 Other Non-Ferrous	0.5%	0.6%	0.9%	8	11	26
	19 Steel Food and Beverage Cans	1.1%	1.7%	0.8%	17	34	25
	20 Other Ferrous	0.4%	0.7%	2.2%	6	13	68
	21 White Goods	0.0%	0.0%	2.9%	0	0	87
Yard Waste		5.0%	4.0%	3.4%	76	79	101
	22 Leaves/Grass/Chips	1.1%	2.9%	2.3%	16	57	70
	23 Branches/Stumps/Prunings/Trimnings	3.9%	1.1%	1.0%	60	22	31
Organics		45.2%	37.9%	39.5%	689	738	1,192
	24 Food Waste	33.5%	23.6%	23.9%	511	459	722
	25 Tires	0.0%	0.0%	1.9%	0	0	59
	26 Untreated Lumber	2.7%	0.1%	0.3%	41	1	9
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	0.9%	0.4%	1.0%	14	9	30
	29 Textiles and Leather	3.6%	3.9%	6.4%	55	76	192
	30 Carpet	NA	0.2%	0.0%	NA	4	0
	31 Diapers	3.3%	7.9%	3.1%	50	154	93
	32 Manure	NA	NA	1.9%	NA	NA	59
	33 Other Organics	1.2%	1.8%	1.0%	18	35	29
Inerts		0.6%	1.9%	2.2%	10	36	68
	34 Crushable Inerts	0.1%	0.3%	0.8%	1	6	23
	35 Other Inerts	0.6%	1.5%	1.2%	9	29	36
	36 Gypsum Board	0.0%	0.1%	0.0%	0	2	0
	37 Asphalt Roofing	0.0%	0.0%	0.3%	0	0	9
HHW		0.8%	0.4%	3.2%	12	8	96
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	4
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	2
	41 Medical Waste	NA	NA	0.2%	NA	NA	7
	42 Medicine	NA	NA	0.0%	NA	NA	1
	43 Covered E-Waste	NA	NA	1.9%	NA	NA	59
	44 Other E-Waste	NA	NA	0.0%	NA	NA	1
	45 Other Hazardous Waste	0.8%	0.4%	0.7%	12	8	22
Special		0.1%	0.2%	2.3%	1	3	68
	46 Brown Goods	0.1%	0.2%	0.1%	1	3	2
	47 Composite Bulky Items	0.0%	0.0%	2.2%	0	0	66
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	1,524	1,947	3,018

**2008 WASTE CHARACTERIZATION RESULTS
CASTRO VALLEY SANITARY DISTRICT**

**Table 14
Castro Valley Sanitary District Detailed Historic Comparison of Commercial Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		39.0%	30.7%	36.4%	1,881	1,964	1,713
	1 Uncoated Corrugated Cardboard	9.3%	7.9%	3.0%	449	506	141
	2 High Grade Paper	5.1%	2.8%	2.6%	244	182	124
	3 Newspaper	4.3%	2.5%	1.7%	208	159	79
	4 Mixed Recyclable Paper	7.4%	6.1%	5.9%	355	388	277
	5 Compostable Paper	NA	NA	22.0%	NA	NA	1,038
	6 Other Paper	13.0%	11.4%	1.2%	626	729	54
Plastics		9.9%	10.0%	16.9%	477	639	795
	7 HDPE Bottles (#2)	1.0%	0.6%	1.0%	49	37	47
	8 PETE Bottles (#1)	0.2%	0.5%	1.0%	9	33	46
	9 Other Plastic Containers	NA	0.2%	1.3%	NA	15	62
	10 Plastic Bags	NA	NA	1.0%	NA	NA	49
	11 Other Film	3.8%	5.0%	7.3%	185	318	346
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	6
	13 Mixed Rigid Plastics	NA	NA	3.9%	NA	NA	186
	14 Other Plastics	4.9%	3.7%	1.1%	234	236	53
Glass		2.8%	3.0%	2.2%	135	192	105
	15 Recyclable Glass Bottles/Containers	2.6%	2.8%	1.9%	125	179	88
	16 Other Glass	0.2%	0.2%	0.3%	10	13	16
Metals		3.4%	3.2%	2.6%	165	205	123
	17 Aluminum Cans	0.3%	0.2%	0.3%	12	15	13
	18 Other Non-Ferrous	0.3%	0.6%	0.4%	15	36	17
	19 Steel Food and Beverage Cans	1.0%	0.7%	0.6%	49	47	28
	20 Other Ferrous	1.9%	1.7%	1.4%	89	107	65
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		7.0%	7.0%	3.9%	336	448	183
	22 Leaves/Grass/Chips	4.2%	4.1%	2.3%	202	265	108
	23 Branches/Stumps/Prunings/Trimmings	2.8%	2.9%	1.6%	134	184	75
Organics		31.6%	36.0%	32.6%	1,526	2,304	1,534
	24 Food Waste	23.0%	15.5%	21.9%	1,110	994	1,033
	25 Tires	0.2%	0.0%	0.0%	9	0	0
	26 Untreated Lumber	1.5%	0.8%	0.3%	73	52	14
	27 Pallets	NA	NA	0.5%	NA	NA	22
	28 Treated Wood Waste	2.5%	5.1%	1.1%	122	325	52
	29 Textiles and Leather	1.5%	2.8%	4.1%	73	178	194
	30 Carpet	NA	3.4%	0.0%	NA	215	1
	31 Diapers	1.7%	6.9%	4.0%	83	444	187
	32 Manure	NA	NA	0.2%	NA	NA	11
	33 Other Organics	1.2%	1.5%	0.4%	56	96	20
Inerts		1.0%	3.5%	2.6%	49	222	123
	34 Crushable Inerts	0.2%	1.9%	0.5%	12	121	21
	35 Other Inerts	0.7%	0.2%	1.8%	35	16	84
	36 Gypsum Board	0.0%	1.3%	0.4%	0	83	18
	37 Asphalt Roofing	0.1%	0.0%	0.0%	2	2	0
HHW		0.9%	0.5%	2.1%	42	31	100
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	2
	39 Vehicle & Equipment Fluids	NA	NA	0.1%	NA	NA	4
	40 Universal Hazardous Waste	NA	NA	0.2%	NA	NA	8
	41 Medical Waste	NA	NA	0.1%	NA	NA	3
	42 Medicine	NA	NA	0.0%	NA	NA	1
	43 Covered E-Waste	NA	NA	0.4%	NA	NA	19
	44 Other E-Waste	NA	NA	0.0%	NA	NA	1
	45 Other Hazardous Waste	0.9%	0.5%	1.3%	42	31	62
Special		4.5%	6.1%	0.7%	216	391	33
	46 Brown Goods	1.7%	2.1%	0.2%	80	134	9
	47 Composite Bulky Items	2.8%	4.0%	0.5%	136	258	23
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	4,828	6,397	4,708

Table 15
Castro Valley Sanitary District Detailed Historic Comparison of Roll-Off Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		23.8%	18.4%	15.4%	1,328	947	500
	1 Uncoated Corrugated Cardboard	3.6%	5.5%	4.8%	200	281	155
	2 High Grade Paper	0.7%	1.5%	2.3%	41	77	74
	3 Newspaper	1.4%	2.1%	0.0%	76	109	0
	4 Mixed Recyclable Paper	4.3%	3.1%	7.1%	242	158	231
	5 Compostable Paper	NA	NA	1.0%	NA	NA	31
	6 Other Paper	13.8%	6.3%	0.3%	769	322	9
Plastics		7.4%	6.8%	4.2%	411	348	138
	7 HDPE Bottles (#2)	0.2%	0.6%	0.2%	12	32	5
	8 PETE Bottles (#1)	0.2%	0.3%	0.2%	12	15	6
	9 Other Plastic Containers	NA	0.7%	0.0%	NA	34	1
	10 Plastic Bags	NA	NA	0.0%	NA	NA	1
	11 Other Film	3.7%	2.7%	2.6%	205	139	86
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	0
	13 Mixed Rigid Plastics	NA	NA	1.1%	NA	NA	37
	14 Other Plastics	3.3%	2.5%	0.1%	182	129	3
Glass		1.5%	1.2%	1.7%	84	61	54
	15 Recyclable Glass Bottles/Containers	1.5%	1.1%	0.0%	84	58	0
	16 Other Glass	0.0%	0.1%	1.7%	1	3	54
Metals		4.4%	5.0%	8.5%	243	259	275
	17 Aluminum Cans	0.4%	0.1%	0.2%	23	7	7
	18 Other Non-Ferrous	0.3%	0.1%	0.1%	17	5	4
	19 Steel Food and Beverage Cans	1.2%	0.5%	0.3%	68	26	9
	20 Other Ferrous	2.4%	4.3%	7.9%	135	221	256
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		25.3%	13.9%	26.4%	1,408	716	860
	22 Leaves/Grass/Chips	0.8%	2.1%	20.4%	44	110	663
	23 Branches/Stumps/Prunings/Trimmings	24.5%	11.8%	6.1%	1,364	606	197
Organics		34.4%	40.2%	32.0%	1,918	2,065	1,040
	24 Food Waste	23.4%	12.9%	18.2%	1,305	664	593
	25 Tires	0.0%	1.5%	1.1%	0	78	36
	26 Untreated Lumber	8.2%	7.6%	2.3%	454	392	76
	27 Pallets	NA	NA	0.9%	NA	NA	31
	28 Treated Wood Waste	2.1%	16.2%	5.4%	115	835	177
	29 Textiles and Leather	0.4%	0.8%	2.4%	22	41	77
	30 Carpet	NA	0.0%	1.3%	NA	0	44
	31 Diapers	0.3%	0.3%	0.0%	18	14	0
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	0.1%	0.8%	0.2%	3	42	7
Inerts		0.0%	11.0%	5.3%	2	563	174
	34 Crushable Inerts	0.0%	0.3%	1.1%	1	16	37
	35 Other Inerts	0.0%	10.6%	3.2%	2	547	105
	36 Gypsum Board	0.0%	0.0%	1.0%	0	0	32
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	0	0
HHW		0.1%	0.1%	1.4%	3	4	46
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	0
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	1.2%	NA	NA	40
	44 Other E-Waste	NA	NA	0.2%	NA	NA	6
	45 Other Hazardous Waste	0.1%	0.1%	0.0%	3	4	0
Special		3.1%	3.5%	5.1%	172	179	165
	46 Brown Goods	0.0%	0.1%	0.7%	0	7	23
	47 Composite Bulky Items	3.1%	3.3%	4.4%	172	172	142
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	5,569	5,142	3,253

**2008 WASTE CHARACTERIZATION RESULTS
CASTRO VALLEY SANITARY DISTRICT**

**Table 16
Castro Valley Sanitary District Detailed Historic Comparison of Self-Haul Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		16.5%	8.6%	4.3%	1,582	581	169
	1 Uncoated Corrugated Cardboard	4.6%	2.1%	1.7%	440	143	66
	2 High Grade Paper	1.3%	0.6%	0.0%	124	40	0
	3 Newspaper	0.7%	0.1%	0.1%	65	4	5
	4 Mixed Recyclable Paper	4.8%	3.3%	1.7%	462	223	66
	5 Compostable Paper	NA	NA	0.4%	NA	NA	14
	6 Other Paper	5.1%	2.5%	0.4%	490	172	18
Plastics		6.1%	8.2%	1.7%	579	554	68
	7 HDPE Bottles (#2)	0.1%	1.3%	0.0%	6	89	1
	8 PETE Bottles (#1)	0.1%	0.0%	0.0%	9	1	1
	9 Other Plastic Containers	NA	0.1%	0.0%	NA	9	1
	10 Plastic Bags	NA	NA	0.1%	NA	NA	2
	11 Other Film	1.4%	1.2%	0.6%	138	78	25
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	0
	13 Mixed Rigid Plastics	NA	NA	0.9%	NA	NA	38
	14 Other Plastics	4.5%	5.6%	0.0%	427	376	1
Glass		1.4%	0.9%	1.7%	129	61	67
	15 Recyclable Glass Bottles/Containers	1.1%	0.7%	0.5%	102	50	20
	16 Other Glass	0.3%	0.2%	1.2%	27	11	47
Metals		4.6%	3.7%	7.7%	436	251	305
	17 Aluminum Cans	0.1%	0.0%	0.0%	5	1	1
	18 Other Non-Ferrous	0.1%	0.3%	0.8%	8	22	31
	19 Steel Food and Beverage Cans	0.1%	0.2%	0.1%	11	11	3
	20 Other Ferrous	4.3%	3.2%	6.2%	412	218	245
	21 White Goods	0.0%	0.0%	0.6%	0	0	25
Yard Waste		10.1%	18.3%	5.9%	970	1,241	235
	22 Leaves/Grass/Chips	0.8%	3.7%	1.4%	78	252	57
	23 Branches/Stumps/Prunings/Trimmings	9.3%	14.6%	4.5%	892	989	178
Organics		46.5%	41.1%	39.9%	4,453	2,789	1,582
	24 Food Waste	1.7%	0.4%	6.6%	161	30	263
	25 Tires	0.0%	5.4%	0.1%	0	368	3
	26 Untreated Lumber	13.7%	17.5%	0.8%	1,312	1,186	32
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	8.5%	6.5%	27.7%	812	441	1,099
	29 Textiles and Leather	21.3%	1.4%	4.1%	2,040	97	162
	30 Carpet	NA	9.0%	0.3%	NA	610	13
	31 Diapers	0.1%	0.0%	0.0%	12	0	0
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	1.2%	0.8%	0.3%	116	57	12
Inerts		10.7%	13.5%	22.8%	1,024	914	902
	34 Crushable Inerts	0.6%	9.1%	9.5%	57	620	377
	35 Other Inerts	7.2%	0.9%	6.1%	693	63	243
	36 Gypsum Board	2.9%	2.1%	0.8%	274	142	31
	37 Asphalt Roofing	0.0%	1.3%	6.3%	0	89	251
HHW		0.1%	0.7%	1.1%	9	51	45
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.9%	NA	NA	34
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.1%	NA	NA	4
	44 Other E-Waste	NA	NA	0.2%	NA	NA	7
	45 Other Hazardous Waste	0.1%	0.7%	0.0%	9	51	0
Special		4.1%	5.0%	14.9%	390	338	589
	46 Brown Goods	1.7%	1.5%	1.0%	164	104	39
	47 Composite Bulky Items	2.4%	3.5%	13.9%	226	234	550
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	9,572	6,780	3,963

Appendix A5

2008 WASTE CHARACTERIZATION RESULTS

CITY OF DUBLIN

This section presents a summary of the composition and quantity of disposed waste from the City of Dublin. The 2008 Study results presented herein are based on compositions developed using data obtained from field sample collection and sorting activities performed over four seasons during calendar year 2008. A complete description of the Study and presentation of Countywide aggregate results are included in Section 3 of the report.

Table 1 summarizes selected demographic and waste disposal characteristics for the City of Dublin. The total amount of waste disposed in 2008 represents 2.7 percent of the Countywide waste stream, and decreased approximately 12 percent from 2000.

Table 1
City of Dublin Waste Disposal Data

	2000	2008
Population ¹	32,519	46,934
Housing Units	9,597	16,029
Number of Business Establishments ²	857	1,086
Waste Disposal (tons) ³	35,780	31,623
Single Family	6,611	6,449
Multi-Family	1,909	2,933
Commercial	11,732	10,398
Roll-off	8,615	5,584
Self-Haul	6,913	6,259
Residential Disposal Rate (lbs/capita/year) ⁴	730	657
Non-residential Disposal Rate (tons/establishment/year)	28	15

¹ Source: State of California, Department of Finance, City/County Population and Housing Estimates for 2000 and Jan 2008.

² Source: California Board of Equalization. "Taxable Sales in California (Sales & Use Tax)", 1999 and 2007.

³ Data provided by StopWaste.Org staff.

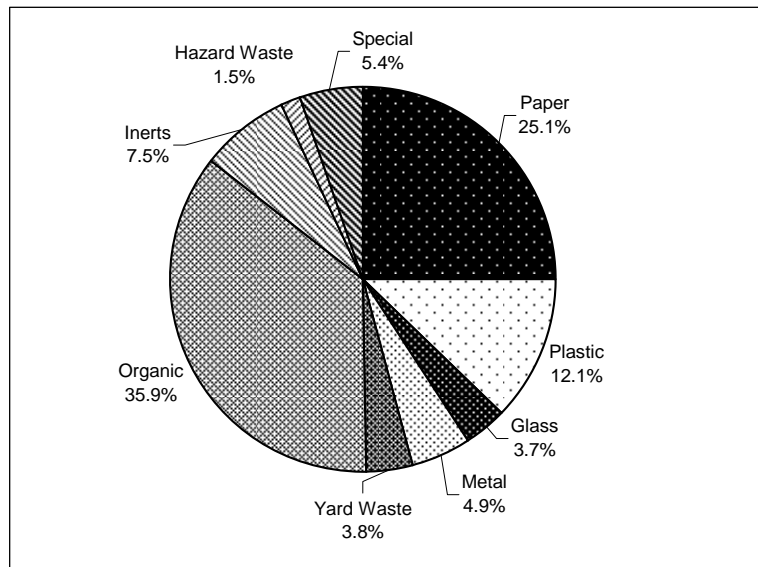
Table 2 presents the number of samples collected from each type of waste stream. Approximately 3 percent of the total number of samples collected were from this jurisdiction.

Table 2
Summary of Samples Obtained from City of Dublin

Waste Stream	Total Samples
Single-family	21
Multi-family	12
Commercial	38
Roll-off	2
Self-haul	4
Total	77

The following tables and figures are presented for waste originating from the City of Dublin. The introduction to Appendix B presents a summary of the information provided within each table or figure.

Figure 1 City of Dublin 2008 Aggregate Waste Composition by Major Material Group



Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	7,936	25.1%	22.8%	27.8%
Plastic	3,840	12.1%	10.9%	13.6%
Glass	1,177	3.7%	3.3%	4.2%
Metal	1,539	4.9%	3.8%	6.3%
Yard Waste	1,212	3.8%	3.2%	5.9%
Organic	11,366	35.9%	33.5%	38.7%
Inerts	2,372	7.5%	6.6%	9.4%
Hazard Waste	482	1.5%	1.1%	2.2%
Special	1,699	5.4%	4.8%	8.1%
TOTAL	31,623	100.0%		

2008 WASTE CHARACTERIZATION RESULTS CITY OF DUBLIN

Figure 2 City of Dublin Single-Family Residential Composition by Major Material Group

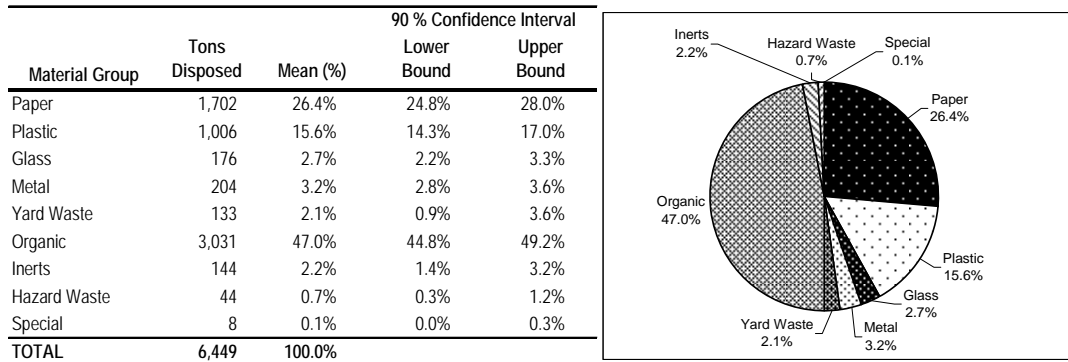


Figure 3 City of Dublin Multi-Family Residential Composition by Major Material Group

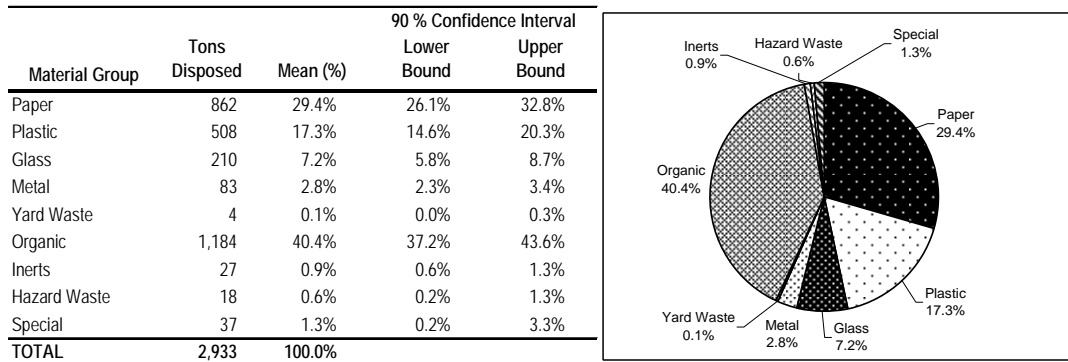


Figure 4 City of Dublin Commercial Composition by Major Material Group

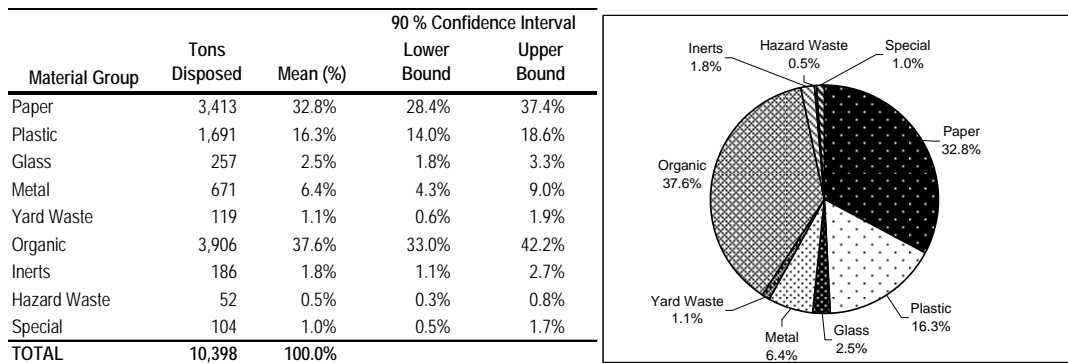


Figure 5 City of Dublin Roll-off Composition by Major Material Group

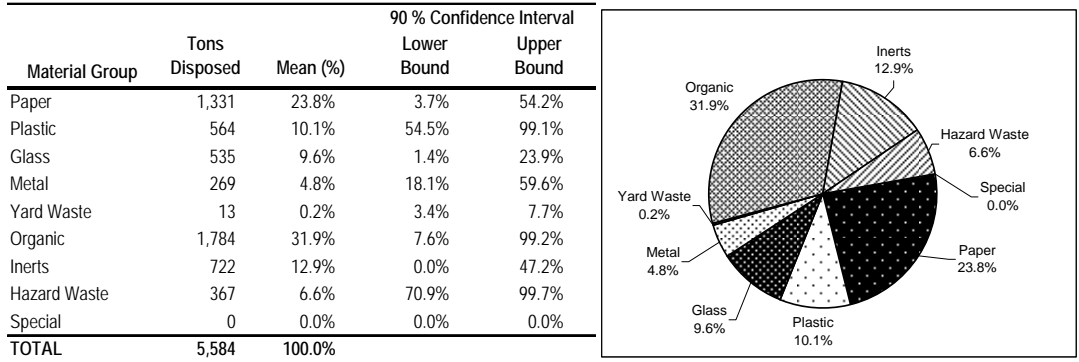
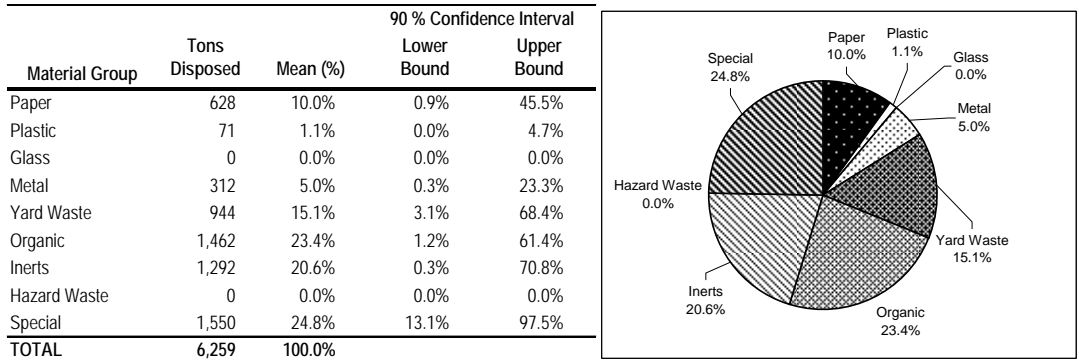


Figure 6 City of Dublin Self Hauler Composition by Major Material Group



2008 WASTE CHARACTERIZATION RESULTS
CITY OF DUBLIN

Figure 7 Historic Comparison of City of Dublin Aggregate Disposal

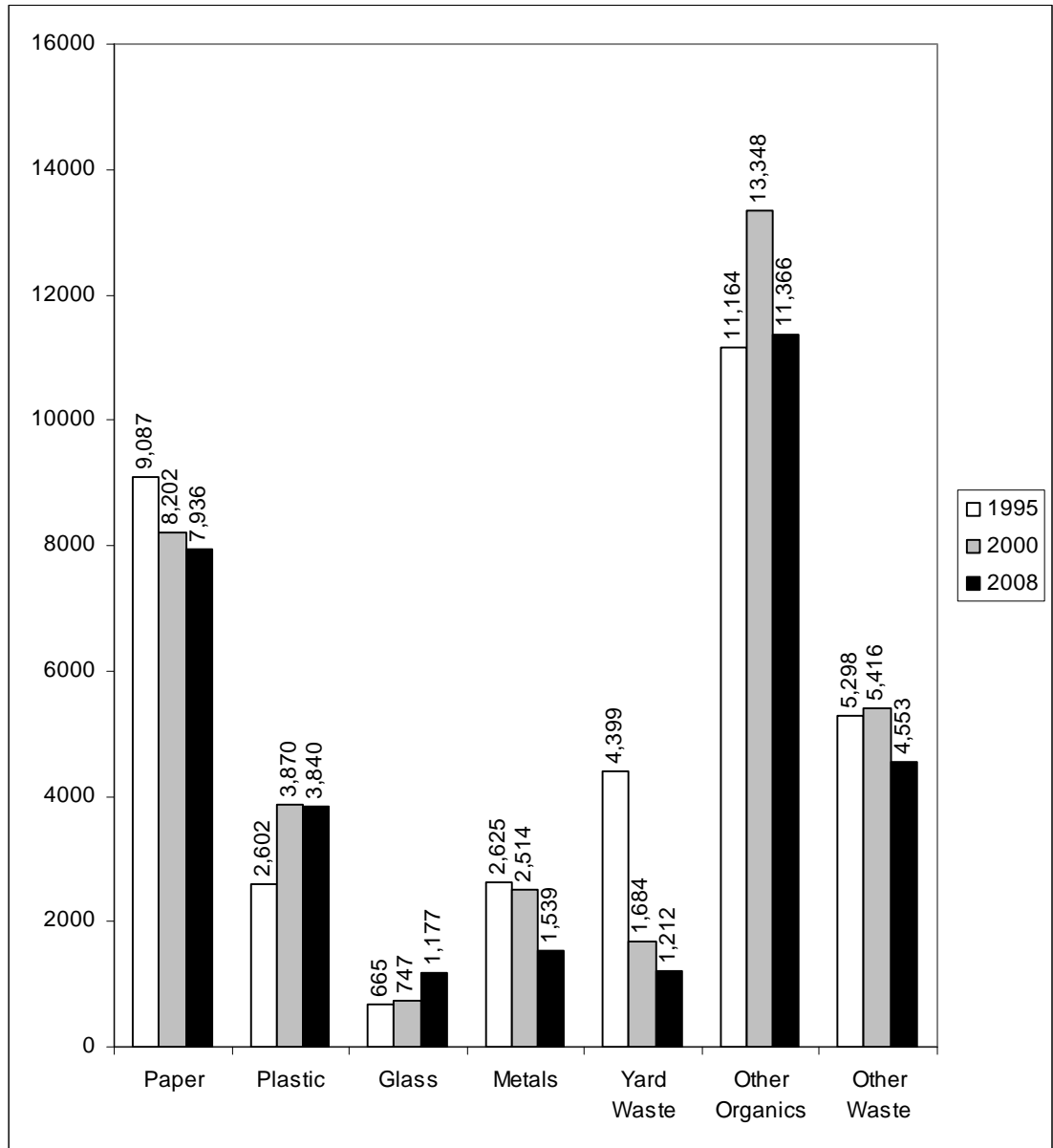
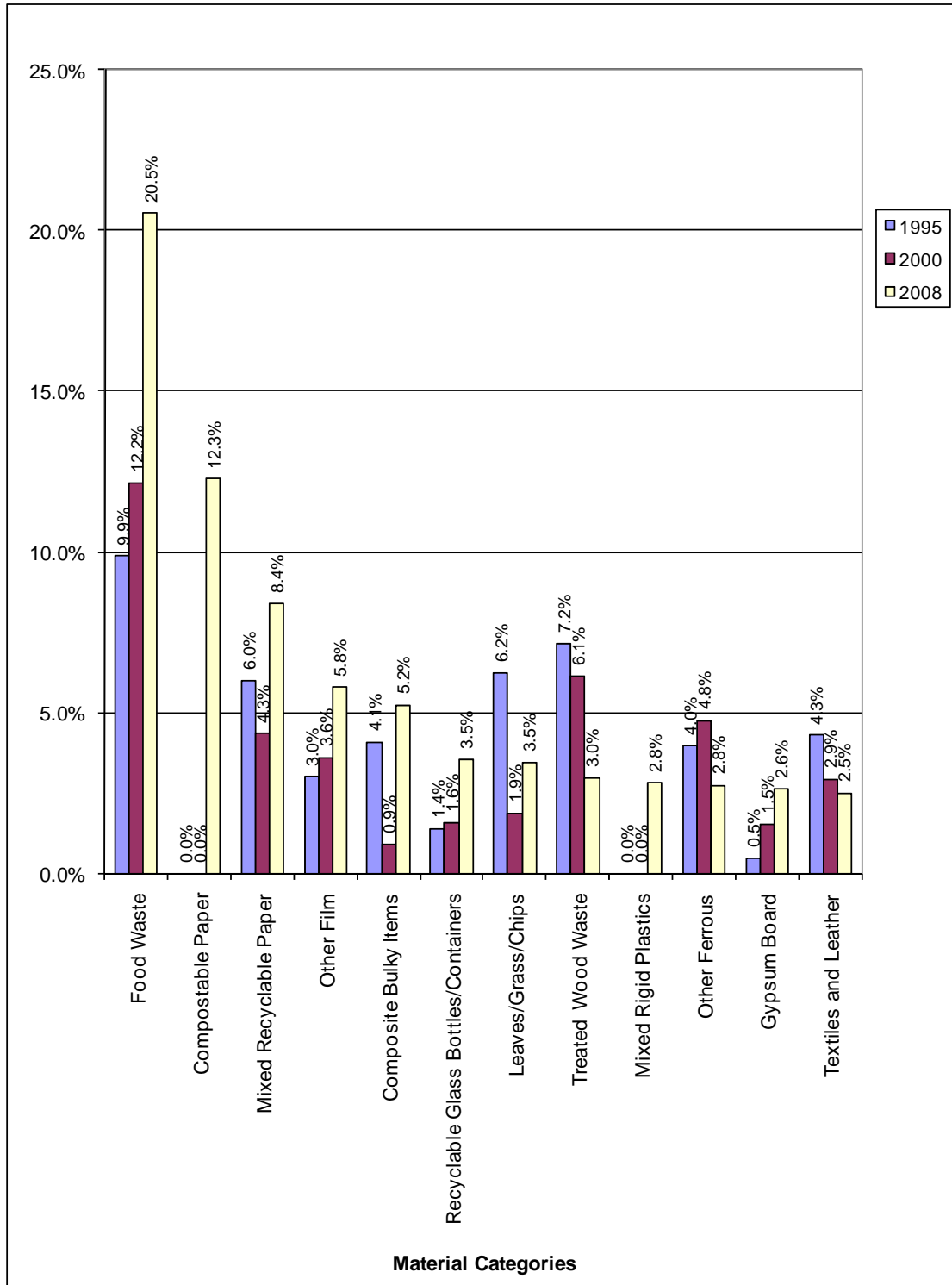


Figure 8 City of Dublin Top 12 Most Common Materials – Aggregate



2008 WASTE CHARACTERIZATION RESULTS
CITY OF DUBLIN

Figure 9 City of Dublin Top 12 Most Common Materials from 2000

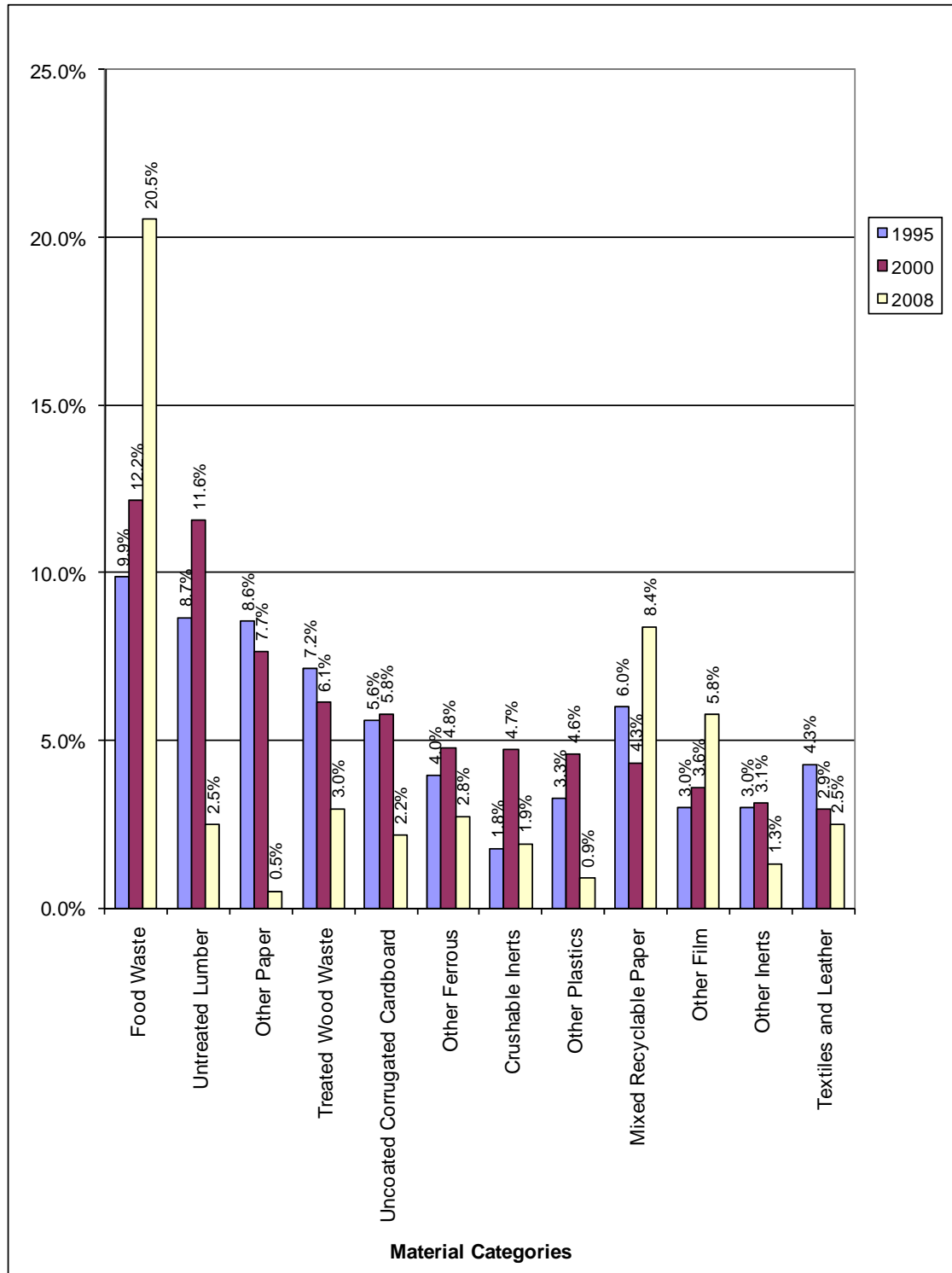


Table 3
Summary of Overall Material Proportions for City of Dublin

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Aggregated
Paper		26.4%	29.4%	32.8%	23.8%	10.0%	25.1%
	1 Uncoated Corrugated Cardboard	0.5%	1.1%	3.1%	4.0%	1.2%	2.2%
	2 High Grade Paper	0.3%	0.8%	1.5%	0.2%	0.8%	0.8%
	3 Newspaper	0.3%	3.4%	0.8%	1.7%	0.0%	0.9%
	4 Mixed Recyclable Paper	4.3%	5.4%	7.5%	16.8%	8.1%	8.4%
	5 Compostable Paper	20.4%	18.0%	19.2%	0.8%	0.0%	12.3%
	6 Other Paper	0.6%	0.7%	0.8%	0.3%	0.0%	0.5%
Plastics		15.6%	17.3%	16.3%	10.1%	1.1%	12.1%
	7 HDPE Bottles (#2)	0.6%	0.9%	0.7%	0.1%	0.0%	0.4%
	8 PETE Bottles (#1)	0.8%	1.6%	0.7%	0.0%	0.0%	0.6%
	9 Other Plastic Containers	1.1%	1.7%	1.2%	0.0%	0.0%	0.8%
	10 Plastic Bags	1.7%	1.7%	0.6%	0.1%	0.0%	0.7%
	11 Other Film	6.4%	5.2%	7.2%	8.9%	0.2%	5.8%
	12 Expanded Polystyrene Blocks	0.1%	0.0%	0.3%	0.0%	0.0%	0.1%
	13 Mixed Rigid Plastics	3.2%	4.9%	4.3%	0.7%	0.9%	2.8%
	14 Other Plastics	1.7%	1.3%	1.2%	0.2%	0.0%	0.9%
Glass		2.7%	7.2%	2.5%	9.6%	0.0%	3.7%
	15 Recyclable Glass Bottles/Containers	2.3%	6.9%	2.3%	9.6%	0.0%	3.5%
	16 Other Glass	0.5%	0.3%	0.2%	0.0%	0.0%	0.2%
Metals		3.2%	2.8%	6.4%	4.8%	5.0%	4.9%
	17 Aluminum Cans	0.3%	0.5%	0.2%	0.0%	0.1%	0.2%
	18 Other Non-Ferrous	0.5%	0.6%	0.5%	0.1%	2.1%	0.7%
	19 Steel Food and Beverage Cans	1.1%	1.0%	0.8%	0.1%	0.0%	0.6%
	20 Other Ferrous	1.2%	0.7%	3.3%	4.6%	2.8%	2.8%
	21 White Goods	0.0%	0.0%	1.7%	0.0%	0.0%	0.6%
Yard Waste		2.1%	0.1%	1.1%	0.2%	15.1%	3.8%
	22 Leaves/Grass/Chips	1.0%	0.0%	0.7%	0.1%	15.1%	3.5%
	23 Branches/Stumps/Prunings/Trimmings	1.0%	0.1%	0.4%	0.1%	0.0%	0.4%
Organics		47.0%	40.4%	37.6%	31.9%	23.4%	35.9%
	24 Food Waste	31.6%	25.4%	24.3%	21.3%	0.0%	20.5%
	25 Tires	0.0%	0.0%	0.5%	0.0%	0.0%	0.2%
	26 Untreated Lumber	0.1%	0.0%	1.0%	0.0%	10.8%	2.5%
	27 Pallets	0.0%	0.0%	2.6%	7.8%	0.0%	2.2%
	28 Treated Wood Waste	0.7%	1.3%	1.4%	0.0%	11.3%	3.0%
	29 Textiles and Leather	3.7%	3.8%	2.6%	2.1%	1.0%	2.5%
	30 Carpet	0.4%	0.5%	3.1%	0.0%	0.0%	1.2%
	31 Diapers	7.5%	5.2%	0.6%	0.7%	0.0%	2.3%
	32 Manure	1.8%	3.5%	0.6%	0.0%	0.0%	0.9%
	33 Other Organics	1.1%	0.7%	0.8%	0.1%	0.3%	0.6%
Inerts		2.2%	0.9%	1.8%	12.9%	20.6%	7.5%
	34 Crushable Inerts	0.9%	0.4%	0.2%	2.7%	6.0%	1.9%
	35 Other Inerts	1.3%	0.6%	1.0%	1.8%	1.7%	1.3%
	36 Gypsum Board	0.0%	0.0%	0.2%	0.0%	12.9%	2.6%
	37 Asphalt Roofing	0.0%	0.0%	0.4%	8.5%	0.0%	1.6%
HHW		0.7%	0.6%	0.5%	6.6%	0.0%	1.5%
	38 Paint/Adhesives	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	39 Vehicle & Equipment Fluids	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	0.1%	0.0%	0.0%	0.7%	0.0%	0.2%
	41 Medical Waste	0.5%	0.0%	0.1%	0.0%	0.0%	0.1%
	42 Medicine	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
	43 Covered E-Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	44 Other E-Waste	0.1%	0.1%	0.3%	5.9%	0.0%	1.1%
	45 Other Hazardous Waste	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%
Special		0.1%	1.3%	1.0%	0.0%	24.8%	5.4%
	46 Brown Goods	0.0%	0.1%	0.3%	0.0%	0.0%	0.1%
	47 Composite Bulky Items	0.0%	1.2%	0.7%	0.0%	24.8%	5.2%
	48 Other Special Waste	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF DUBLIN**

**Table 4
Summary of Overall Material Tonnages for City of Dublin**

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
Paper		1,702	862	3,413	1,331	628	7,936
	1 Uncoated Corrugated Cardboard	34	33	323	222	75	688
	2 High Grade Paper	19	24	153	13	47	256
	3 Newspaper	16	99	81	95	0	292
	4 Mixed Recyclable Paper	276	158	775	939	506	2,654
	5 Compostable Paper	1,315	528	1,995	42	0	3,881
	6 Other Paper	41	20	85	19	0	164
Plastics		1,006	508	1,691	564	71	3,840
	7 HDPE Bottles (#2)	38	26	68	4	0	136
	8 PETE Bottles (#1)	54	48	72	2	3	178
	9 Other Plastic Containers	68	50	125	2	0	245
	10 Plastic Bags	112	50	67	6	0	235
	11 Other Film	414	153	751	496	14	1,829
	12 Expanded Polystyrene Blocks	8	1	36	0	0	45
	13 Mixed Rigid Plastics	205	142	446	40	54	888
	14 Other Plastics	107	39	126	13	0	285
Glass		176	210	257	535	0	1,177
	15 Recyclable Glass Bottles/Containers	147	202	239	535	0	1,122
	16 Other Glass	29	8	17	0	0	55
Metals		204	83	671	269	312	1,539
	17 Aluminum Cans	21	16	22	1	4	64
	18 Other Non-Ferrous	33	16	52	4	130	236
	19 Steel Food and Beverage Cans	74	29	83	8	0	194
	20 Other Ferrous	77	21	340	255	177	871
	21 White Goods	0	0	174	0	0	174
Yard Waste		133	4	119	13	944	1,212
	22 Leaves/Grass/Chips	65	0	75	7	944	1,092
	23 Branches/Stumps/Prunings/Trimnings	67	3	44	6	0	120
Organics		3,031	1,184	3,906	1,784	1,462	11,366
	24 Food Waste	2,035	746	2,524	1,192	0	6,496
	25 Tires	1	0	53	0	0	54
	26 Untreated Lumber	8	1	103	0	676	788
	27 Pallets	0	0	275	433	0	708
	28 Treated Wood Waste	47	37	149	0	705	939
	29 Textiles and Leather	239	110	266	117	65	797
	30 Carpet	29	13	326	0	0	368
	31 Diapers	484	153	65	38	0	741
	32 Manure	116	103	63	0	0	282
	33 Other Organics	72	20	82	4	16	194
Inerts		144	27	186	722	1,292	2,372
	34 Crushable Inerts	57	11	17	148	378	611
	35 Other Inerts	87	16	105	99	107	414
	36 Gypsum Board	1	0	25	0	807	833
	37 Asphalt Roofing	0	0	39	475	0	514
HHW		44	18	52	367	0	482
	38 Paint/Adhesives	0	1	4	0	0	5
	39 Vehicle & Equipment Fluids	0	11	2	0	0	14
	40 Universal Hazardous Waste	6	1	4	40	0	51
	41 Medical Waste	30	0	7	0	0	37
	42 Medicine	3	1	1	0	0	5
	43 Covered E-Waste	0	0	0	0	0	0
	44 Other E-Waste	4	2	28	327	0	360
	45 Other Hazardous Waste	1	2	6	0	0	10
Special		8	37	104	0	1,550	1,699
	46 Brown Goods	0	2	31	0	0	33
	47 Composite Bulky Items	0	35	73	0	1,550	1,659
	48 Other Special Waste	8	0	0	0	0	8
TOTAL		6,449	2,933	10,398	5,584	6,259	31,623

Table 5
City of Dublin Aggregate Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		7,936	25.10%	22.84%	27.75%
	1 Uncoated Corrugated Cardboard	688	2.17%	1.65%	2.92%
	2 High Grade Paper	256	0.81%	0.55%	1.15%
	3 Newspaper	292	0.92%	0.60%	1.41%
	4 Mixed Recyclable Paper	2,654	8.39%	7.26%	10.14%
	5 Compostable Paper	3,881	12.27%	10.68%	13.96%
	6 Other Paper	164	0.52%	0.41%	0.66%
Plastics		3,840	12.14%	10.91%	13.56%
	7 HDPE Bottles (#2)	136	0.43%	0.34%	0.53%
	8 PETE Bottles (#1)	178	0.56%	0.47%	0.67%
	9 Other Plastic Containers	245	0.77%	0.61%	0.98%
	10 Plastic Bags	235	0.74%	0.57%	0.94%
	11 Other Film	1,829	5.78%	4.95%	6.77%
	12 Expanded Polystyrene Blocks	45	0.14%	0.06%	0.25%
	13 Mixed Rigid Plastics	888	2.81%	2.21%	3.50%
	14 Other Plastics	285	0.90%	0.69%	1.14%
Glass		1,177	3.72%	3.31%	4.20%
	15 Recyclable Glass Bottles/Containers	1,122	3.55%	3.13%	4.03%
	16 Other Glass	55	0.17%	0.09%	0.29%
Metals		1,539	4.87%	3.79%	6.34%
	17 Aluminum Cans	64	0.20%	0.16%	0.25%
	18 Other Non-Ferrous	236	0.75%	0.63%	1.10%
	19 Steel Food and Beverage Cans	194	0.61%	0.48%	0.78%
	20 Other Ferrous	871	2.75%	2.11%	3.71%
	21 White Goods	174	0.55%	0.04%	1.30%
Yard Waste		1,212	3.83%	3.23%	5.87%
	22 Leaves/Grass/Chips	1,092	3.45%	2.95%	5.45%
	23 Branches/Stumps/Prunings/Trimmings	120	0.38%	0.17%	0.70%
Organics		11,366	35.94%	33.49%	38.73%
	24 Food Waste	6,496	20.54%	18.31%	22.85%
	25 Tires	54	0.17%	0.03%	0.36%
	26 Untreated Lumber	788	2.49%	2.04%	3.77%
	27 Pallets	708	2.24%	1.39%	3.37%
	28 Treated Wood Waste	939	2.97%	2.43%	4.18%
	29 Textiles and Leather	797	2.52%	1.99%	3.19%
	30 Carpet	368	1.16%	0.31%	2.36%
	31 Diapers	741	2.34%	1.85%	2.92%
	32 Manure	282	0.89%	0.52%	1.40%
	33 Other Organics	194	0.61%	0.41%	0.88%
Inerts		2,372	7.50%	6.64%	9.43%
	34 Crushable Inerts	611	1.93%	1.61%	2.97%
	35 Other Inerts	414	1.31%	1.02%	1.83%
	36 Gypsum Board	833	2.63%	2.24%	4.39%
	37 Asphalt Roofing	514	1.62%	1.10%	2.25%
HHW		482	1.52%	1.06%	2.20%
	38 Paint/Adhesives	5	0.02%	0.00%	0.03%
	39 Vehicle & Equipment Fluids	14	0.04%	0.00%	0.14%
	40 Universal Hazardous Waste	51	0.16%	0.09%	0.31%
	41 Medical Waste	37	0.12%	0.03%	0.25%
	42 Medicine	5	0.02%	0.01%	0.03%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	360	1.14%	0.72%	1.78%
	45 Other Hazardous Waste	10	0.03%	0.01%	0.06%
Special		1,699	5.37%	4.85%	8.09%
	46 Brown Goods	33	0.10%	0.02%	0.21%
	47 Composite Bulky Items	1,659	5.25%	4.75%	7.95%
	48 Other Special Waste	8	0.03%	0.00%	0.07%
TOTAL		31,623	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF DUBLIN**

**Table 6
City of Dublin Single-Family Residential Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		1,702	26.39%	24.77%	28.05%
	1 Uncoated Corrugated Cardboard	34	0.53%	0.26%	0.89%
	2 High Grade Paper	19	0.30%	0.14%	0.53%
	3 Newspaper	16	0.25%	0.13%	0.43%
	4 Mixed Recyclable Paper	276	4.27%	3.20%	5.50%
	5 Compostable Paper	1,315	20.40%	18.56%	22.30%
	6 Other Paper	41	0.63%	0.52%	0.75%
Plastics		1,006	15.60%	14.29%	16.95%
	7 HDPE Bottles (#2)	38	0.58%	0.43%	0.76%
	8 PETE Bottles (#1)	54	0.83%	0.69%	0.99%
	9 Other Plastic Containers	68	1.06%	0.92%	1.20%
	10 Plastic Bags	112	1.73%	1.29%	2.23%
	11 Other Film	414	6.43%	5.17%	7.81%
	12 Expanded Polystyrene Blocks	8	0.13%	0.04%	0.26%
	13 Mixed Rigid Plastics	205	3.18%	2.52%	3.92%
	14 Other Plastics	107	1.66%	1.28%	2.08%
Glass		176	2.73%	2.24%	3.26%
	15 Recyclable Glass Bottles/Containers	147	2.27%	1.55%	3.14%
	16 Other Glass	29	0.46%	0.21%	0.80%
Metals		204	3.17%	2.76%	3.61%
	17 Aluminum Cans	21	0.32%	0.26%	0.38%
	18 Other Non-Ferrous	33	0.52%	0.37%	0.69%
	19 Steel Food and Beverage Cans	74	1.14%	0.95%	1.36%
	20 Other Ferrous	77	1.19%	0.77%	1.71%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		133	2.06%	0.93%	3.61%
	22 Leaves/Grass/Chips	65	1.01%	0.38%	1.93%
	23 Branches/Stumps/Prunings/Trimnings	67	1.04%	0.37%	2.07%
Organics		3,031	47.00%	44.84%	49.18%
	24 Food Waste	2,035	31.55%	28.88%	34.29%
	25 Tires	1	0.01%	0.00%	0.02%
	26 Untreated Lumber	8	0.12%	0.05%	0.23%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	47	0.74%	0.34%	1.27%
	29 Textiles and Leather	239	3.70%	2.91%	4.58%
	30 Carpet	29	0.45%	0.14%	0.94%
	31 Diapers	484	7.51%	6.09%	9.07%
	32 Manure	116	1.80%	0.86%	3.07%
	33 Other Organics	72	1.12%	0.69%	1.64%
Inerts		144	2.24%	1.42%	3.24%
	34 Crushable Inerts	57	0.88%	0.36%	1.62%
	35 Other Inerts	87	1.35%	0.86%	1.93%
	36 Gypsum Board	1	0.01%	0.00%	0.03%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		44	0.68%	0.31%	1.19%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	6	0.09%	0.04%	0.16%
	41 Medical Waste	30	0.46%	0.14%	0.96%
	42 Medicine	3	0.05%	0.02%	0.11%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	4	0.06%	0.02%	0.12%
	45 Other Hazardous Waste	1	0.02%	0.01%	0.04%
Special		8	0.13%	0.03%	0.28%
	46 Brown Goods	0	0.00%	0.00%	0.00%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	8	0.13%	0.03%	0.28%
TOTAL		6,449	100.00%		

Table 7
City of Dublin Multi-Family Residential Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		862	29.38%	26.07%	32.81%
	1 Uncoated Corrugated Cardboard	33	1.14%	0.62%	1.81%
	2 High Grade Paper	24	0.80%	0.31%	1.52%
	3 Newspaper	99	3.39%	1.65%	5.71%
	4 Mixed Recyclable Paper	158	5.39%	3.69%	7.38%
	5 Compostable Paper	528	17.99%	15.57%	20.55%
	6 Other Paper	20	0.68%	0.46%	0.94%
Plastics		508	17.33%	14.58%	20.27%
	7 HDPE Bottles (#2)	26	0.89%	0.67%	1.14%
	8 PETE Bottles (#1)	48	1.63%	1.25%	2.07%
	9 Other Plastic Containers	50	1.71%	0.93%	2.73%
	10 Plastic Bags	50	1.70%	1.18%	2.31%
	11 Other Film	153	5.20%	3.74%	6.89%
	12 Expanded Polystyrene Blocks	1	0.02%	0.00%	0.05%
	13 Mixed Rigid Plastics	142	4.86%	3.39%	6.57%
	14 Other Plastics	39	1.32%	0.84%	1.90%
Glass		210	7.15%	5.76%	8.68%
	15 Recyclable Glass Bottles/Containers	202	6.87%	5.58%	8.29%
	16 Other Glass	8	0.28%	0.07%	0.64%
Metals		83	2.81%	2.27%	3.41%
	17 Aluminum Cans	16	0.55%	0.33%	0.82%
	18 Other Non-Ferrous	16	0.56%	0.35%	0.83%
	19 Steel Food and Beverage Cans	29	0.99%	0.73%	1.29%
	20 Other Ferrous	21	0.72%	0.45%	1.06%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		4	0.12%	0.03%	0.29%
	22 Leaves/Grass/Chips	0	0.02%	0.00%	0.04%
	23 Branches/Stumps/Prunings/Trimnings	3	0.10%	0.02%	0.26%
Organics		1,184	40.36%	37.18%	43.59%
	24 Food Waste	746	25.42%	22.95%	27.98%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	1	0.04%	0.00%	0.11%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	37	1.27%	0.36%	2.74%
	29 Textiles and Leather	110	3.76%	2.17%	5.75%
	30 Carpet	13	0.46%	0.07%	1.16%
	31 Diapers	153	5.22%	3.23%	7.66%
	32 Manure	103	3.50%	1.83%	5.69%
	33 Other Organics	20	0.69%	0.38%	1.08%
Inerts		27	0.93%	0.62%	1.31%
	34 Crushable Inerts	11	0.37%	0.14%	0.72%
	35 Other Inerts	16	0.56%	0.30%	0.90%
	36 Gypsum Board	0	0.00%	0.00%	0.00%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		18	0.63%	0.20%	1.29%
	38 Paint/Adhesives	1	0.03%	0.00%	0.07%
	39 Vehicle & Equipment Fluids	11	0.39%	0.05%	1.06%
	40 Universal Hazardous Waste	1	0.04%	0.01%	0.08%
	41 Medical Waste	0	0.00%	0.00%	0.01%
	42 Medicine	1	0.04%	0.01%	0.10%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	2	0.07%	0.01%	0.18%
	45 Other Hazardous Waste	2	0.06%	0.01%	0.16%
Special		37	1.27%	0.18%	3.34%
	46 Brown Goods	2	0.06%	0.01%	0.18%
	47 Composite Bulky Items	35	1.20%	0.15%	3.27%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		2,933	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF DUBLIN**

**Table 8
City of Dublin Commercial Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		3,413	32.82%	28.43%	37.37%
	1 Uncoated Corrugated Cardboard	323	3.11%	2.13%	4.27%
	2 High Grade Paper	153	1.47%	0.98%	2.07%
	3 Newspaper	81	0.78%	0.51%	1.10%
	4 Mixed Recyclable Paper	775	7.46%	5.33%	9.91%
	5 Compostable Paper	1,995	19.19%	16.16%	22.41%
	6 Other Paper	85	0.81%	0.62%	1.04%
Plastics		1,691	16.26%	14.04%	18.61%
	7 HDPE Bottles (#2)	68	0.66%	0.50%	0.83%
	8 PETE Bottles (#1)	72	0.69%	0.55%	0.85%
	9 Other Plastic Containers	125	1.20%	0.95%	1.47%
	10 Plastic Bags	67	0.65%	0.44%	0.90%
	11 Other Film	751	7.22%	6.02%	8.53%
	12 Expanded Polystyrene Blocks	36	0.34%	0.18%	0.55%
	13 Mixed Rigid Plastics	446	4.29%	3.19%	5.54%
	14 Other Plastics	126	1.21%	0.86%	1.62%
Glass		257	2.47%	1.78%	3.27%
	15 Recyclable Glass Bottles/Containers	239	2.30%	1.66%	3.05%
	16 Other Glass	17	0.17%	0.08%	0.28%
Metals		671	6.45%	4.29%	9.01%
	17 Aluminum Cans	22	0.21%	0.16%	0.26%
	18 Other Non-Ferrous	52	0.50%	0.33%	0.69%
	19 Steel Food and Beverage Cans	83	0.80%	0.55%	1.10%
	20 Other Ferrous	340	3.27%	2.03%	4.80%
	21 White Goods	174	1.68%	0.63%	3.21%
Yard Waste		119	1.14%	0.58%	1.89%
	22 Leaves/Grass/Chips	75	0.72%	0.36%	1.20%
	23 Branches/Stumps/Prunings/Trimnings	44	0.42%	0.18%	0.76%
Organics		3,906	37.56%	33.05%	42.19%
	24 Food Waste	2,524	24.27%	20.08%	28.73%
	25 Tires	53	0.51%	0.22%	0.91%
	26 Untreated Lumber	103	0.99%	0.49%	1.66%
	27 Pallets	275	2.64%	1.22%	4.58%
	28 Treated Wood Waste	149	1.43%	0.83%	2.20%
	29 Textiles and Leather	266	2.56%	1.69%	3.61%
	30 Carpet	326	3.14%	1.38%	5.58%
	31 Diapers	65	0.63%	0.40%	0.90%
	32 Manure	63	0.61%	0.30%	1.02%
	33 Other Organics	82	0.78%	0.44%	1.23%
Inerts		186	1.79%	1.06%	2.70%
	34 Crushable Inerts	17	0.16%	0.08%	0.27%
	35 Other Inerts	105	1.01%	0.61%	1.53%
	36 Gypsum Board	25	0.24%	0.10%	0.42%
	37 Asphalt Roofing	39	0.38%	0.15%	0.70%
HHW		52	0.50%	0.29%	0.77%
	38 Paint/Adhesives	4	0.04%	0.02%	0.08%
	39 Vehicle & Equipment Fluids	2	0.02%	0.01%	0.04%
	40 Universal Hazardous Waste	4	0.03%	0.02%	0.05%
	41 Medical Waste	7	0.07%	0.03%	0.13%
	42 Medicine	1	0.01%	0.00%	0.01%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	28	0.27%	0.12%	0.47%
	45 Other Hazardous Waste	6	0.06%	0.03%	0.11%
Special		104	1.00%	0.47%	1.73%
	46 Brown Goods	31	0.29%	0.13%	0.52%
	47 Composite Bulky Items	73	0.71%	0.30%	1.28%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		10,398	100.00%		

Table 9
City of Dublin Roll-Off Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		1,331	23.84%	3.67%	54.20%
	1 Uncoated Corrugated Cardboard	222	3.97%	30.89%	69.95%
	2 High Grade Paper	13	0.23%	3.39%	7.74%
	3 Newspaper	95	1.71%	23.28%	48.03%
	4 Mixed Recyclable Paper	939	16.82%	1.51%	43.69%
	5 Compostable Paper	42	0.76%	10.73%	23.64%
	6 Other Paper	19	0.35%	5.00%	11.32%
Plastics		564	10.09%	54.49%	99.12%
	7 HDPE Bottles (#2)	4	0.07%	1.00%	2.31%
	8 PETE Bottles (#1)	2	0.03%	0.49%	1.13%
	9 Other Plastic Containers	2	0.04%	0.56%	1.29%
	10 Plastic Bags	6	0.10%	1.46%	3.36%
	11 Other Film	496	8.89%	72.74%	99.69%
	12 Expanded Polystyrene Blocks	0	0.00%	0.05%	0.11%
	13 Mixed Rigid Plastics	40	0.72%	0.80%	6.61%
	14 Other Plastics	13	0.24%	0.27%	2.23%
Glass		535	9.57%	1.39%	23.92%
	15 Recyclable Glass Bottles/Containers	535	9.57%	1.39%	23.92%
	16 Other Glass	0	0.00%	0.00%	0.00%
Metals		269	4.82%	18.09%	59.60%
	17 Aluminum Cans	1	0.02%	0.32%	0.75%
	18 Other Non-Ferrous	4	0.08%	1.17%	2.70%
	19 Steel Food and Beverage Cans	8	0.14%	2.08%	4.77%
	20 Other Ferrous	255	4.57%	27.59%	69.36%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		13	0.23%	3.37%	7.68%
	22 Leaves/Grass/Chips	7	0.12%	1.82%	4.18%
	23 Branches/Stumps/Prunings/Trimmings	6	0.11%	1.56%	3.59%
Organics		1,784	31.95%	7.55%	99.17%
	24 Food Waste	1,192	21.34%	89.53%	7.68%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	0	0.00%	0.00%	0.00%
	27 Pallets	433	7.75%	78.72%	99.28%
	28 Treated Wood Waste	0	0.00%	0.00%	0.00%
	29 Textiles and Leather	117	2.09%	6.83%	27.72%
	30 Carpet	0	0.00%	0.00%	0.00%
	31 Diapers	38	0.68%	9.75%	21.58%
	32 Manure	0	0.00%	0.00%	0.00%
	33 Other Organics	4	0.08%	1.17%	2.70%
Inerts		722	12.93%	0.05%	47.16%
	34 Crushable Inerts	148	2.66%	34.67%	66.85%
	35 Other Inerts	99	1.76%	23.97%	49.27%
	36 Gypsum Board	0	0.00%	0.00%	0.00%
	37 Asphalt Roofing	475	8.50%	82.97%	97.26%
HHW		367	6.57%	70.90%	99.74%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	40	0.72%	10.24%	22.61%
	41 Medical Waste	0	0.00%	0.00%	0.00%
	42 Medicine	0	0.00%	0.00%	0.00%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	327	5.85%	65.46%	98.06%
	45 Other Hazardous Waste	0	0.00%	0.00%	0.00%
Special		0	0.00%	0.00%	0.00%
	46 Brown Goods	0	0.00%	0.00%	0.00%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		5,584	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF DUBLIN**

**Table 10
City of Dublin Self Haul Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		628	10.04%	0.92%	45.55%
	1 Uncoated Corrugated Cardboard	75	1.20%	0.01%	5.18%
	2 High Grade Paper	47	0.76%	0.10%	4.17%
	3 Newspaper	0	0.00%	0.00%	0.00%
	4 Mixed Recyclable Paper	506	8.08%	1.28%	40.51%
	5 Compostable Paper	0	0.00%	0.00%	0.00%
	6 Other Paper	0	0.00%	0.00%	0.00%
Plastics		71	1.14%	0.00%	4.70%
	7 HDPE Bottles (#2)	0	0.00%	0.00%	0.00%
	8 PETE Bottles (#1)	3	0.04%	0.01%	0.22%
	9 Other Plastic Containers	0	0.00%	0.00%	0.00%
	10 Plastic Bags	0	0.00%	0.00%	0.00%
	11 Other Film	14	0.23%	0.00%	0.98%
	12 Expanded Polystyrene Blocks	0	0.00%	0.00%	0.00%
	13 Mixed Rigid Plastics	54	0.86%	0.00%	3.58%
	14 Other Plastics	0	0.00%	0.00%	0.00%
Glass		0	0.00%	0.00%	0.00%
	15 Recyclable Glass Bottles/Containers	0	0.00%	0.00%	0.00%
	16 Other Glass	0	0.00%	0.00%	0.00%
Metals		312	4.99%	0.29%	23.34%
	17 Aluminum Cans	4	0.07%	0.01%	0.40%
	18 Other Non-Ferrous	130	2.08%	0.28%	11.27%
	19 Steel Food and Beverage Cans	0	0.00%	0.00%	0.00%
	20 Other Ferrous	177	2.84%	0.10%	13.10%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		944	15.08%	3.09%	68.45%
	22 Leaves/Grass/Chips	944	15.08%	3.09%	68.45%
	23 Branches/Stumps/Prunings/Trimming	0	0.00%	0.00%	0.00%
Organics		1,462	23.35%	1.16%	61.42%
	24 Food Waste	0	0.00%	0.00%	0.00%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	676	10.79%	0.35%	44.35%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	705	11.27%	0.04%	41.93%
	29 Textiles and Leather	65	1.03%	0.14%	5.68%
	30 Carpet	0	0.00%	0.00%	0.00%
	31 Diapers	0	0.00%	0.00%	0.00%
	32 Manure	0	0.00%	0.00%	0.00%
	33 Other Organics	16	0.26%	0.03%	1.44%
Inerts		1,292	20.64%	0.32%	70.82%
	34 Crushable Inerts	378	6.03%	0.90%	31.07%
	35 Other Inerts	107	1.71%	0.23%	9.32%
	36 Gypsum Board	807	12.90%	2.41%	60.44%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		0	0.00%	0.00%	0.00%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	0	0.00%	0.00%	0.00%
	41 Medical Waste	0	0.00%	0.00%	0.00%
	42 Medicine	0	0.00%	0.00%	0.00%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	0	0.00%	0.00%	0.00%
	45 Other Hazardous Waste	0	0.00%	0.00%	0.00%
Special		1,550	24.76%	13.09%	97.50%
	46 Brown Goods	0	0.00%	0.00%	0.00%
	47 Composite Bulky Items	1,550	24.76%	13.09%	97.50%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		6,259	100.00%		

Table 11
City of Dublin Detailed Historic Comparison of Overall Jurisdiction-wide Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		25.4%	22.9%	25.1%	9,086	8,202	7,936
	1 Uncoated Corrugated Cardboard	5.6%	5.8%	2.2%	2,004	2,074	688
	2 High Grade Paper	2.7%	2.5%	0.8%	975	902	256
	3 Newspaper	2.5%	2.6%	0.9%	889	926	292
	4 Mixed Recyclable Paper	6.0%	4.3%	8.4%	2,154	1,556	2,654
	5 Compostable Paper	NA	NA	12.3%	NA	NA	3,881
	6 Other Paper	8.6%	7.7%	0.5%	3,065	2,744	164
Plastics		7.3%	10.8%	12.1%	2,602	3,870	3,840
	7 HDPE Bottles (#2)	0.8%	1.7%	0.4%	280	622	136
	8 PETE Bottles (#1)	0.2%	0.5%	0.6%	68	181	178
	9 Other Plastic Containers	NA	0.4%	0.8%	NA	127	245
	10 Plastic Bags	NA	NA	0.7%	NA	NA	235
	11 Other Film	3.0%	3.6%	5.8%	1,075	1,291	1,829
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	45
	13 Mixed Rigid Plastics	NA	NA	2.8%	NA	NA	888
	14 Other Plastics	3.3%	4.6%	0.9%	1,179	1,648	285
Glass		1.9%	2.1%	3.7%	663	747	1,177
	15 Recyclable Glass Bottles/Containers	1.4%	1.6%	3.5%	502	562	1,122
	16 Other Glass	0.5%	0.5%	0.2%	161	185	55
Metals		7.3%	7.0%	4.9%	2,624	2,514	1,539
	17 Aluminum Cans	0.2%	0.2%	0.2%	86	87	64
	18 Other Non-Ferrous	1.7%	1.2%	0.7%	602	446	236
	19 Steel Food and Beverage Cans	0.9%	0.6%	0.6%	333	201	194
	20 Other Ferrous	4.0%	4.8%	2.8%	1,427	1,706	871
	21 White Goods	0.5%	0.2%	0.6%	176	74	174
Yard Waste		12.3%	4.7%	3.8%	4,398	1,684	1,212
	22 Leaves/Grass/Chips	6.2%	1.9%	3.5%	2,237	675	1,092
	23 Branches/Stumps/Prunings/Trimmings	6.0%	2.8%	0.4%	2,161	1,009	120
Organics		32.3%	37.3%	35.9%	11,563	13,348	11,366
	24 Food Waste	9.9%	12.2%	20.5%	3,541	4,348	6,496
	25 Tires	0.2%	0.3%	0.2%	79	94	54
	26 Untreated Lumber	8.7%	11.6%	2.5%	3,108	4,133	788
	27 Pallets	NA	NA	2.2%	NA	NA	708
	28 Treated Wood Waste	7.2%	6.1%	3.0%	2,563	2,196	939
	29 Textiles and Leather	4.3%	2.9%	2.5%	1,541	1,053	797
	30 Carpet	NA	1.0%	1.2%	NA	341	368
	31 Diapers	1.1%	1.8%	2.3%	401	656	741
	32 Manure	NA	NA	0.9%	NA	NA	282
	33 Other Organics	0.9%	1.5%	0.6%	330	526	194
Inerts		7.7%	12.2%	7.5%	2,760	4,369	2,372
	34 Crushable Inerts	1.8%	4.7%	1.9%	634	1,696	611
	35 Other Inerts	3.0%	3.1%	1.3%	1,079	1,123	414
	36 Gypsum Board	0.5%	1.5%	2.6%	172	551	833
	37 Asphalt Roofing	2.4%	2.8%	1.6%	875	1,000	514
HHW		0.2%	0.3%	1.5%	75	114	482
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	5
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	14
	40 Universal Hazardous Waste	NA	NA	0.2%	NA	NA	51
	41 Medical Waste	NA	NA	0.1%	NA	NA	37
	42 Medicine	NA	NA	0.0%	NA	NA	5
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	1.1%	NA	NA	360
	45 Other Hazardous Waste	0.2%	0.3%	0.0%	75	114	10
Special		5.8%	2.6%	5.4%	2,061	933	1,699
	46 Brown Goods	1.7%	1.7%	0.1%	595	604	33
	47 Composite Bulky Items	4.1%	0.9%	5.2%	1,466	329	1,659
	48 Other Special Waste	NA	NA	0.0%	NA	NA	8
TOTAL		100.0%	100.0%	100.0%	35,843	35,780	31,623

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF DUBLIN**

**Table 12
City of Dublin Detailed Historic Comparison of Single-Family Residential Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		34.6%	32.1%	26.4%	1,951	2,125	1,702
	1 Uncoated Corrugated Cardboard	2.4%	2.6%	0.5%	133	170	34
	2 High Grade Paper	2.2%	2.6%	0.3%	123	170	19
	3 Newspaper	5.4%	3.2%	0.3%	305	213	16
	4 Mixed Recyclable Paper	12.0%	9.0%	4.3%	677	596	276
	5 Compostable Paper	NA	NA	20.4%	NA	NA	1,315
	6 Other Paper	12.6%	14.8%	0.6%	713	975	41
Plastics		8.7%	15.8%	15.6%	489	1,041	1,006
	7 HDPE Bottles (#2)	1.0%	1.7%	0.6%	55	115	38
	8 PETE Bottles (#1)	0.4%	0.7%	0.8%	20	46	54
	9 Other Plastic Containers	NA	0.9%	1.1%	NA	61	68
	10 Plastic Bags	NA	NA	1.7%	NA	NA	112
	11 Other Film	4.1%	6.2%	6.4%	231	408	414
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	8
	13 Mixed Rigid Plastics	NA	NA	3.2%	NA	NA	205
	14 Other Plastics	3.2%	6.2%	1.7%	182	410	107
Glass		3.7%	2.8%	2.7%	211	186	176
	15 Recyclable Glass Bottles/Containers	3.4%	2.4%	2.3%	192	157	147
	16 Other Glass	0.3%	0.4%	0.5%	19	29	29
Metals		3.0%	2.5%	3.2%	169	166	204
	17 Aluminum Cans	0.4%	0.4%	0.3%	22	24	21
	18 Other Non-Ferrous	0.4%	0.6%	0.5%	20	37	33
	19 Steel Food and Beverage Cans	1.2%	1.0%	1.1%	70	65	74
	20 Other Ferrous	1.0%	0.6%	1.2%	57	40	77
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		18.6%	3.3%	2.1%	1,049	221	133
	22 Leaves/Grass/Chips	15.8%	0.8%	1.0%	893	51	65
	23 Branches/Stumps/Prunings/Trimmings	2.8%	2.6%	1.0%	156	170	67
Organics		28.9%	40.1%	47.0%	1,631	2,649	3,031
	24 Food Waste	18.7%	21.8%	31.6%	1,054	1,443	2,035
	25 Tires	0.0%	0.0%	0.0%	0	0	1
	26 Untreated Lumber	0.4%	2.3%	0.1%	25	152	8
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	0.3%	1.5%	0.7%	18	96	47
	29 Textiles and Leather	4.2%	3.6%	3.7%	239	236	239
	30 Carpet	NA	0.1%	0.4%	NA	5	29
	31 Diapers	4.6%	7.8%	7.5%	257	519	484
	32 Manure	NA	NA	1.8%	NA	NA	116
	33 Other Organics	0.7%	3.0%	1.1%	38	198	72
Inerts		1.6%	2.2%	2.2%	92	143	144
	34 Crushable Inerts	0.4%	0.5%	0.9%	23	36	57
	35 Other Inerts	1.2%	1.3%	1.3%	69	86	87
	36 Gypsum Board	0.0%	0.2%	0.0%	0	14	1
	37 Asphalt Roofing	0.0%	0.1%	0.0%	0	8	0
HHW		0.4%	0.2%	0.7%	24	13	44
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	6
	41 Medical Waste	NA	NA	0.5%	NA	NA	30
	42 Medicine	NA	NA	0.1%	NA	NA	3
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.1%	NA	NA	4
	45 Other Hazardous Waste	0.4%	0.2%	0.0%	24	13	1
Special		0.5%	1.0%	0.1%	28	66	8
	46 Brown Goods	0.1%	1.0%	0.0%	6	66	0
	47 Composite Bulky Items	0.4%	0.0%	0.0%	22	0	0
	48 Other Special Waste	NA	NA	0.1%	NA	NA	8
TOTAL		100.0%	100.0%	100.0%	5,644	6,611	6,449

Table 13
City of Dublin Detailed Historic Comparison of Multi-Family Residential Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		38.0%	31.2%	29.4%	501	595	862
	1 Uncoated Corrugated Cardboard	3.8%	2.5%	1.1%	50	47	33
	2 High Grade Paper	2.4%	4.5%	0.8%	32	87	24
	3 Newspaper	11.7%	6.0%	3.4%	154	115	99
	4 Mixed Recyclable Paper	7.5%	10.9%	5.4%	99	207	158
	5 Compostable Paper	NA	NA	18.0%	NA	NA	528
	6 Other Paper	12.6%	7.3%	0.7%	166	139	20
Plastics		11.9%	10.2%	17.3%	157	195	508
	7 HDPE Bottles (#2)	2.4%	1.3%	0.9%	31	25	26
	8 PETE Bottles (#1)	0.6%	1.4%	1.6%	8	27	48
	9 Other Plastic Containers	NA	0.5%	1.7%	NA	9	50
	10 Plastic Bags	NA	NA	1.7%	NA	NA	50
	11 Other Film	4.5%	3.9%	5.2%	59	75	153
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	1
	13 Mixed Rigid Plastics	NA	NA	4.9%	NA	NA	142
	14 Other Plastics	4.5%	3.0%	1.3%	59	58	39
Glass		4.8%	4.8%	7.2%	63	92	210
	15 Recyclable Glass Bottles/Containers	4.7%	4.7%	6.9%	61	90	202
	16 Other Glass	0.1%	0.1%	0.3%	2	2	8
Metals		3.4%	6.0%	2.8%	45	115	83
	17 Aluminum Cans	0.8%	0.6%	0.5%	11	11	16
	18 Other Non-Ferrous	0.5%	0.5%	0.6%	6	10	16
	19 Steel Food and Beverage Cans	1.6%	1.2%	1.0%	21	23	29
	20 Other Ferrous	0.5%	3.7%	0.7%	7	71	21
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		0.1%	6.8%	0.1%	1	129	4
	22 Leaves/Grass/Chips	0.1%	2.8%	0.0%	1	54	0
	23 Branches/Stumps/Prunings/Trimmings	0.0%	3.9%	0.1%	0	75	3
Organics		35.6%	36.1%	40.4%	469	688	1,184
	24 Food Waste	22.3%	19.1%	25.4%	295	364	746
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	1.7%	0.1%	0.0%	22	2	1
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	1.1%	7.8%	1.3%	15	149	37
	29 Textiles and Leather	6.2%	4.2%	3.8%	81	80	110
	30 Carpet	NA	0.0%	0.5%	NA	0	13
	31 Diapers	3.5%	3.3%	5.2%	46	63	153
	32 Manure	NA	NA	3.5%	NA	NA	103
	33 Other Organics	0.8%	1.6%	0.7%	10	31	20
Inerts		1.8%	2.5%	0.9%	24	49	27
	34 Crushable Inerts	0.3%	0.3%	0.4%	4	5	11
	35 Other Inerts	1.6%	1.9%	0.6%	21	37	16
	36 Gypsum Board	0.0%	0.3%	0.0%	0	6	0
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	0	0
HHW		0.1%	0.2%	0.6%	2	5	18
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	1
	39 Vehicle & Equipment Fluids	NA	NA	0.4%	NA	NA	11
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	1
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	1
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.1%	NA	NA	2
	45 Other Hazardous Waste	0.1%	0.2%	0.1%	2	5	2
Special		4.3%	2.2%	1.3%	56	42	37
	46 Brown Goods	4.3%	1.0%	0.1%	56	19	2
	47 Composite Bulky Items	0.0%	1.2%	1.2%	0	23	35
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	1,319	1,909	2,933

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF DUBLIN**

**Table 14
City of Dublin Detailed Historic Comparison of Commercial Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		42.1%	31.3%	32.8%	3,412	3,678	3,413
	1 Uncoated Corrugated Cardboard	13.4%	7.4%	3.1%	1,089	872	323
	2 High Grade Paper	6.8%	4.6%	1.5%	553	537	153
	3 Newspaper	3.2%	3.9%	0.8%	257	458	81
	4 Mixed Recyclable Paper	6.2%	4.6%	7.5%	505	542	775
	5 Compostable Paper	NA	NA	19.2%	NA	NA	1,995
	6 Other Paper	12.4%	10.8%	0.8%	1,007	1,268	85
Plastics		11.8%	13.7%	16.3%	959	1,606	1,691
	7 HDPE Bottles (#2)	1.3%	1.9%	0.7%	104	227	68
	8 PETE Bottles (#1)	0.4%	0.7%	0.7%	28	84	72
	9 Other Plastic Containers	NA	0.3%	1.2%	NA	32	125
	10 Plastic Bags	NA	NA	0.6%	NA	NA	67
	11 Other Film	4.9%	4.7%	7.2%	398	556	751
	12 Expanded Polystyrene Blocks	NA	NA	0.3%	NA	NA	36
	13 Mixed Rigid Plastics	NA	NA	4.3%	NA	NA	446
	14 Other Plastics	5.3%	6.0%	1.2%	429	706	126
Glass		2.4%	3.2%	2.5%	195	371	257
	15 Recyclable Glass Bottles/Containers	2.0%	2.2%	2.3%	165	255	239
	16 Other Glass	0.4%	1.0%	0.2%	30	117	17
Metals		9.3%	8.9%	6.4%	753	1,048	671
	17 Aluminum Cans	0.5%	0.3%	0.2%	41	30	22
	18 Other Non-Ferrous	0.2%	1.9%	0.5%	15	220	52
	19 Steel Food and Beverage Cans	0.9%	0.8%	0.8%	71	92	83
	20 Other Ferrous	5.5%	6.0%	3.3%	448	706	340
	21 White Goods	2.2%	0.0%	1.7%	176	0	174
Yard Waste		4.3%	4.0%	1.1%	349	464	119
	22 Leaves/Grass/Chips	1.1%	1.0%	0.7%	87	122	75
	23 Branches/Stumps/Prunings/Trimnings	3.2%	2.9%	0.4%	262	342	44
Organics		22.8%	31.1%	37.6%	1,852	3,651	3,906
	24 Food Waste	12.1%	17.1%	24.3%	980	2,010	2,524
	25 Tires	0.2%	0.8%	0.5%	15	94	53
	26 Untreated Lumber	2.9%	5.0%	1.0%	238	582	103
	27 Pallets	NA	NA	2.6%	NA	NA	275
	28 Treated Wood Waste	1.4%	2.3%	1.4%	113	271	149
	29 Textiles and Leather	4.3%	2.6%	2.6%	347	304	266
	30 Carpet	NA	1.2%	3.1%	NA	138	326
	31 Diapers	0.3%	0.3%	0.6%	25	40	65
	32 Manure	NA	NA	0.6%	NA	NA	63
	33 Other Organics	1.7%	1.8%	0.8%	135	212	82
Inerts		2.3%	4.1%	1.8%	190	476	186
	34 Crushable Inerts	1.5%	1.1%	0.2%	119	126	17
	35 Other Inerts	0.3%	1.2%	1.0%	21	136	105
	36 Gypsum Board	0.6%	1.8%	0.2%	49	213	25
	37 Asphalt Roofing	0.0%	0.0%	0.4%	1	0	39
HHW		0.2%	0.3%	0.5%	15	30	52
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	4
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	2
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	4
	41 Medical Waste	NA	NA	0.1%	NA	NA	7
	42 Medicine	NA	NA	0.0%	NA	NA	1
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.3%	NA	NA	28
	45 Other Hazardous Waste	0.2%	0.3%	0.1%	15	30	6
Special		4.8%	3.5%	1.0%	387	408	104
	46 Brown Goods	1.7%	2.5%	0.3%	141	298	31
	47 Composite Bulky Items	3.0%	0.9%	0.7%	246	110	73
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	8,110	11,732	10,398

Table 15
City of Dublin Detailed Historic Comparison of Roll-Off Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		34.0%	16.3%	23.8%	2,518	1,402	1,331
	1 Uncoated Corrugated Cardboard	9.1%	8.3%	4.0%	674	711	222
	2 High Grade Paper	3.2%	1.0%	0.2%	236	90	13
	3 Newspaper	1.4%	1.4%	1.7%	102	119	95
	4 Mixed Recyclable Paper	8.6%	2.2%	16.8%	637	187	939
	5 Compostable Paper	NA	NA	0.8%	NA	NA	42
	6 Other Paper	11.7%	3.4%	0.3%	869	296	19
Plastics		9.1%	8.5%	10.1%	674	730	564
	7 HDPE Bottles (#2)	1.0%	1.4%	0.1%	73	120	4
	8 PETE Bottles (#1)	0.1%	0.2%	0.0%	7	20	2
	9 Other Plastic Containers	NA	0.1%	0.0%	NA	12	2
	10 Plastic Bags	NA	NA	0.1%	NA	NA	6
	11 Other Film	4.4%	2.4%	8.9%	325	204	496
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	0
	13 Mixed Rigid Plastics	NA	NA	0.7%	NA	NA	40
	14 Other Plastics	3.6%	4.3%	0.2%	269	373	13
Glass		0.5%	1.0%	9.6%	40	84	535
	15 Recyclable Glass Bottles/Containers	0.4%	0.6%	9.6%	32	53	535
	16 Other Glass	0.1%	0.4%	0.0%	8	30	0
Metals		10.7%	7.2%	4.8%	792	619	269
	17 Aluminum Cans	0.1%	0.2%	0.0%	9	17	1
	18 Other Non-Ferrous	3.4%	1.1%	0.1%	253	93	4
	19 Steel Food and Beverage Cans	2.1%	0.2%	0.1%	156	20	8
	20 Other Ferrous	5.1%	5.7%	4.6%	374	488	255
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		4.3%	0.6%	0.2%	318	55	13
	22 Leaves/Grass/Chips	2.2%	0.3%	0.1%	165	28	7
	23 Branches/Stumps/Prunings/Trimmings	2.1%	0.3%	0.1%	153	27	6
Organics		36.6%	39.2%	31.9%	2,709	3,373	1,784
	24 Food Waste	12.6%	6.1%	21.3%	935	527	1,192
	25 Tires	0.9%	0.0%	0.0%	64	0	0
	26 Untreated Lumber	6.7%	19.3%	0.0%	495	1,666	0
	27 Pallets	NA	NA	7.8%	NA	NA	433
	28 Treated Wood Waste	5.9%	8.9%	0.0%	436	767	0
	29 Textiles and Leather	9.8%	1.4%	2.1%	728	121	117
	30 Carpet	NA	2.3%	0.0%	NA	195	0
	31 Diapers	0.2%	0.4%	0.7%	11	35	38
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	0.6%	0.7%	0.1%	41	62	4
Inerts		2.4%	21.8%	12.9%	176	1,880	722
	34 Crushable Inerts	1.8%	8.0%	2.7%	131	688	148
	35 Other Inerts	0.3%	8.2%	1.8%	23	706	99
	36 Gypsum Board	0.3%	1.1%	0.0%	21	92	0
	37 Asphalt Roofing	0.0%	4.6%	8.5%	0	395	475
HHW		0.1%	0.7%	6.6%	8	56	367
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.7%	NA	NA	40
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	5.9%	NA	NA	327
	45 Other Hazardous Waste	0.1%	0.7%	0.0%	8	56	0
Special		2.3%	4.8%	0.0%	173	416	0
	46 Brown Goods	1.1%	2.6%	0.0%	82	221	0
	47 Composite Bulky Items	1.2%	2.3%	0.0%	92	196	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	7,411	8,615	5,584

2008 WASTE CHARACTERIZATION RESULTS
CITY OF DUBLIN

Table 16
City of Dublin Detailed Historic Comparison of Self-Haul Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		5.3%	5.8%	10.0%	705	402	628
	1 Uncoated Corrugated Cardboard	0.4%	4.0%	1.2%	55	274	75
	2 High Grade Paper	0.3%	0.3%	0.8%	33	18	47
	3 Newspaper	0.5%	0.3%	0.0%	72	21	0
	4 Mixed Recyclable Paper	1.8%	0.3%	8.1%	235	24	506
	5 Compostable Paper	NA	NA	0.0%	NA	NA	0
	6 Other Paper	2.3%	0.9%	0.0%	310	65	0
Plastics		2.4%	4.3%	1.1%	323	298	71
	7 HDPE Bottles (#2)	0.1%	1.9%	0.0%	17	134	0
	8 PETE Bottles (#1)	0.0%	0.1%	0.0%	5	4	3
	9 Other Plastic Containers	NA	0.2%	0.0%	NA	12	0
	10 Plastic Bags	NA	NA	0.0%	NA	NA	0
	11 Other Film	0.5%	0.7%	0.2%	61	47	14
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	0
	13 Mixed Rigid Plastics	NA	NA	0.9%	NA	NA	54
	14 Other Plastics	1.8%	1.5%	0.0%	239	101	0
Glass		1.2%	0.2%	0.0%	155	14	0
	15 Recyclable Glass Bottles/Containers	0.4%	0.1%	0.0%	55	7	0
	16 Other Glass	0.8%	0.1%	0.0%	100	7	0
Metals		6.5%	8.2%	5.0%	864	566	312
	17 Aluminum Cans	0.0%	0.1%	0.1%	4	5	4
	18 Other Non-Ferrous	2.3%	1.2%	2.1%	309	86	130
	19 Steel Food and Beverage Cans	0.1%	0.0%	0.0%	13	1	0
	20 Other Ferrous	4.0%	5.8%	2.8%	538	400	177
	21 White Goods	0.0%	1.1%	0.0%	0	74	0
Yard Waste		20.1%	11.8%	15.1%	2,681	815	944
	22 Leaves/Grass/Chips	8.2%	6.1%	15.1%	1,090	420	944
	23 Branches/Stumps/Prunings/Trimmings	11.9%	5.7%	0.0%	1,591	395	0
Organics		36.7%	43.2%	23.4%	4,907	2,986	1,462
	24 Food Waste	2.1%	0.1%	0.0%	281	4	0
	25 Tires	0.0%	0.0%	0.0%	1	0	0
	26 Untreated Lumber	17.4%	25.0%	10.8%	2,330	1,731	676
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	14.8%	13.2%	11.3%	1,980	913	705
	29 Textiles and Leather	1.1%	4.5%	1.0%	147	312	65
	30 Carpet	NA	0.0%	0.0%	NA	3	0
	31 Diapers	0.5%	0.0%	0.0%	61	0	0
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	0.8%	0.3%	0.3%	107	23	16
Inerts		17.1%	26.4%	20.6%	2,280	1,822	1,292
	34 Crushable Inerts	2.7%	12.2%	6.0%	358	841	378
	35 Other Inerts	7.1%	2.3%	1.7%	946	158	107
	36 Gypsum Board	0.8%	3.3%	12.9%	103	226	807
	37 Asphalt Roofing	6.5%	8.6%	0.0%	874	598	0
HHW		0.2%	0.1%	0.0%	25	10	0
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	0
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.2%	0.1%	0.0%	25	10	0
Special		10.6%	0.0%	24.8%	1,416	0	1,550
	46 Brown Goods	2.3%	0.0%	0.0%	310	0	0
	47 Composite Bulky Items	8.3%	0.0%	24.8%	1,106	0	1,550
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	13,359	6,913	6,259

Appendix A6

2008 WASTE CHARACTERIZATION RESULTS

CITY OF EMERYVILLE

This section presents a summary of the composition and quantity of disposed waste from the City of Emeryville. The 2008 Study results presented herein are based on compositions developed using data obtained from field sample collection and sorting activities performed over four seasons during calendar year 2008. A complete description of the Study and presentation of Countywide aggregate results are included in Section 3 of the report.

Table 1 summarizes selected demographic and waste disposal characteristics for the City of Emeryville. The total amount of waste disposed in 2008 represents 1.2 percent of the Countywide waste stream, and decreased approximately 41 percent from 2000.

Table 1
City of Emeryville Waste Disposal Data

	2000	2008
Population ¹	7,311	9,727
Housing Units	4,438	5,988
Number of Business Establishments ²	684	780
Waste Disposal (tons) ³	24,151	14,253
Single Family	444	639
Multi-Family	1,542	2,318
Commercial	9,953	4,747
Roll-off	10,778	5,706
Self-Haul	1,433	843
Residential Disposal Rate (lbs/capita/year) ⁴	986	876
Non-residential Disposal Rate (tons/establishment/year)	30	13

¹ Source: State of California, Department of Finance, City/County Population and Housing Estimates for 2000 and Jan 2008.

² Source: California Board of Equalization. "Taxable Sales in California (Sales & Use Tax)", 1999 and 2007.

³ Data provided by StopWaste.Org staff.

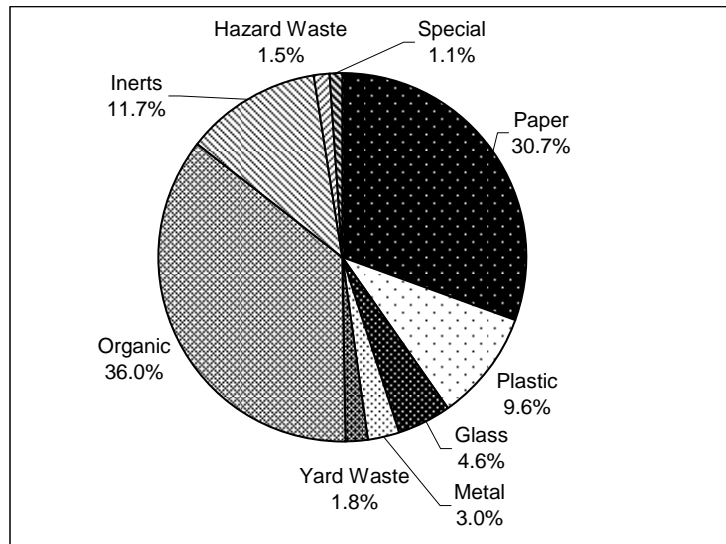
Table 2 presents the number of samples collected from each type of waste stream. Approximately 4 percent of the total number of samples collected were from this jurisdiction.

Table 2
Summary of Samples Obtained from City of Emeryville

Waste Stream	Total Samples
Single-family	14
Multi-family	13
Commercial	37
Roll-off	16
Self-haul	3
Total	83

The following tables and figures are presented for waste originating from the City of Emeryville. The introduction to Appendix B presents a summary of the information provided within each table or figure.

Figure 1 City of Emeryville 2008 Aggregate Waste Composition by Major Material Group



Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	4,373	30.7%	27.5%	34.4%
Plastic	1,366	9.6%	8.7%	10.6%
Glass	659	4.6%	3.5%	6.0%
Metal	424	3.0%	2.5%	3.9%
Yard Waste	257	1.8%	1.3%	2.6%
Organic	5,127	36.0%	32.8%	39.6%
Inerts	1,675	11.7%	9.0%	15.8%
Hazard Waste	210	1.5%	1.3%	3.0%
Special	161	1.1%	0.8%	1.7%
TOTAL	14,253	100.0%		

2008 WASTE CHARACTERIZATION RESULTS CITY OF EMERYVILLE

Figure 2 City of Emeryville Single-Family Residential Composition by Major Material Group

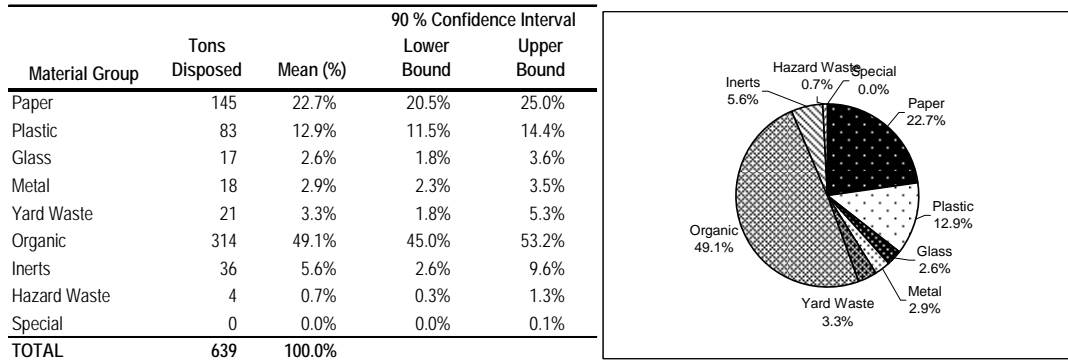


Figure 3 City of Emeryville Multi-Family Residential Composition by Major Material Group

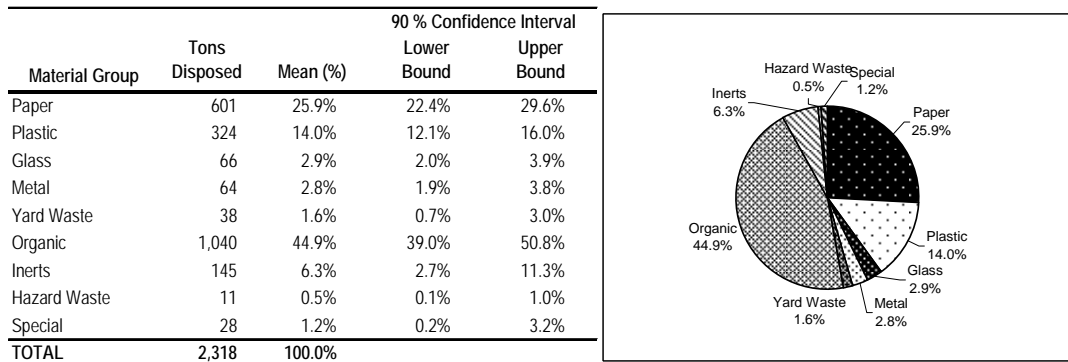


Figure 4 City of Emeryville Commercial Composition by Major Material Group

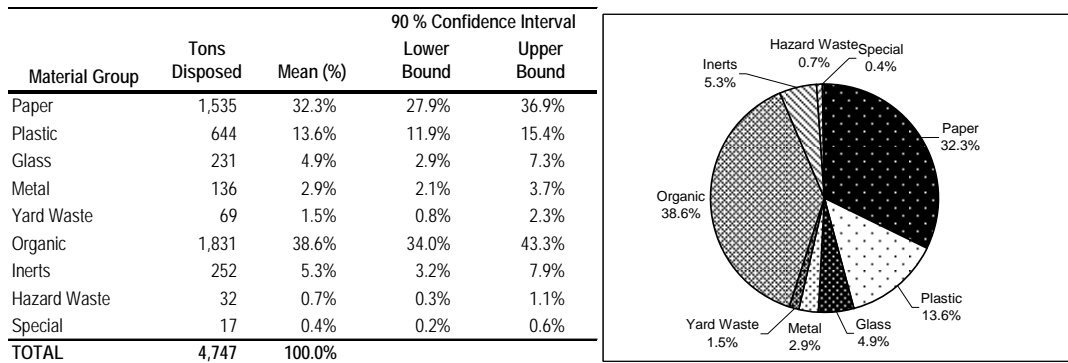


Figure 5 City of Emeryville Roll-off Composition by Major Material Group

Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	1,790	31.4%	18.3%	46.1%
Plastic	292	5.1%	2.9%	7.9%
Glass	345	6.0%	2.5%	11.0%
Metal	127	2.2%	1.0%	3.9%
Yard Waste	129	2.3%	0.5%	5.3%
Organic	1,766	31.0%	19.3%	44.0%
Inerts	1,128	19.8%	6.2%	38.6%
Hazard Waste	13	0.2%	0.0%	0.5%
Special	117	2.0%	0.5%	4.7%
TOTAL	5,706	100.0%		

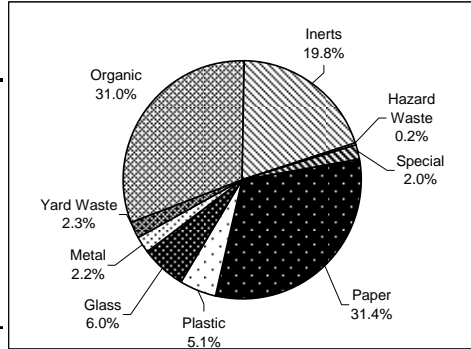
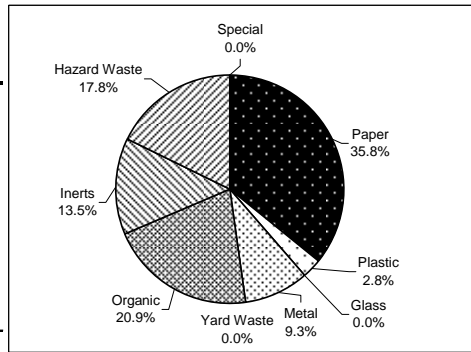


Figure 6 City of Emeryville Self Hauler Composition by Major Material Group

Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	302	35.8%	13.3%	99.3%
Plastic	23	2.8%	0.3%	7.4%
Glass	0	0.0%	0.0%	0.0%
Metal	78	9.3%	1.4%	45.2%
Yard Waste	0	0.0%	0.0%	0.0%
Organic	176	20.9%	10.7%	92.0%
Inerts	114	13.5%	12.4%	80.4%
Hazard Waste	150	17.8%	17.3%	92.8%
Special	0	0.0%	0.0%	0.0%
TOTAL	843	100.0%		



2008 WASTE CHARACTERIZATION RESULTS
CITY OF EMERYVILLE

Figure 7 Historic Comparison of City of Emeryville Aggregate Disposal

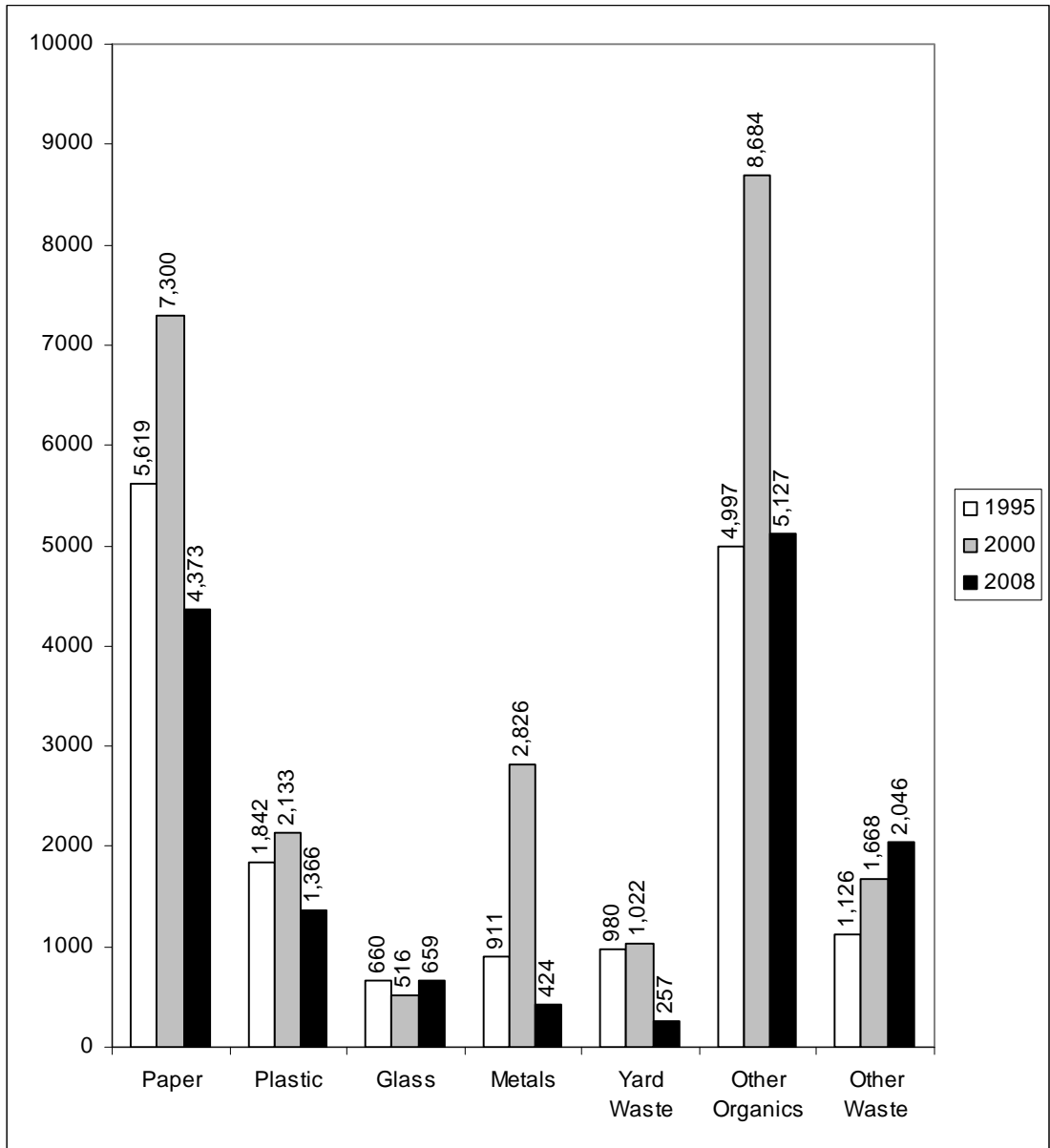
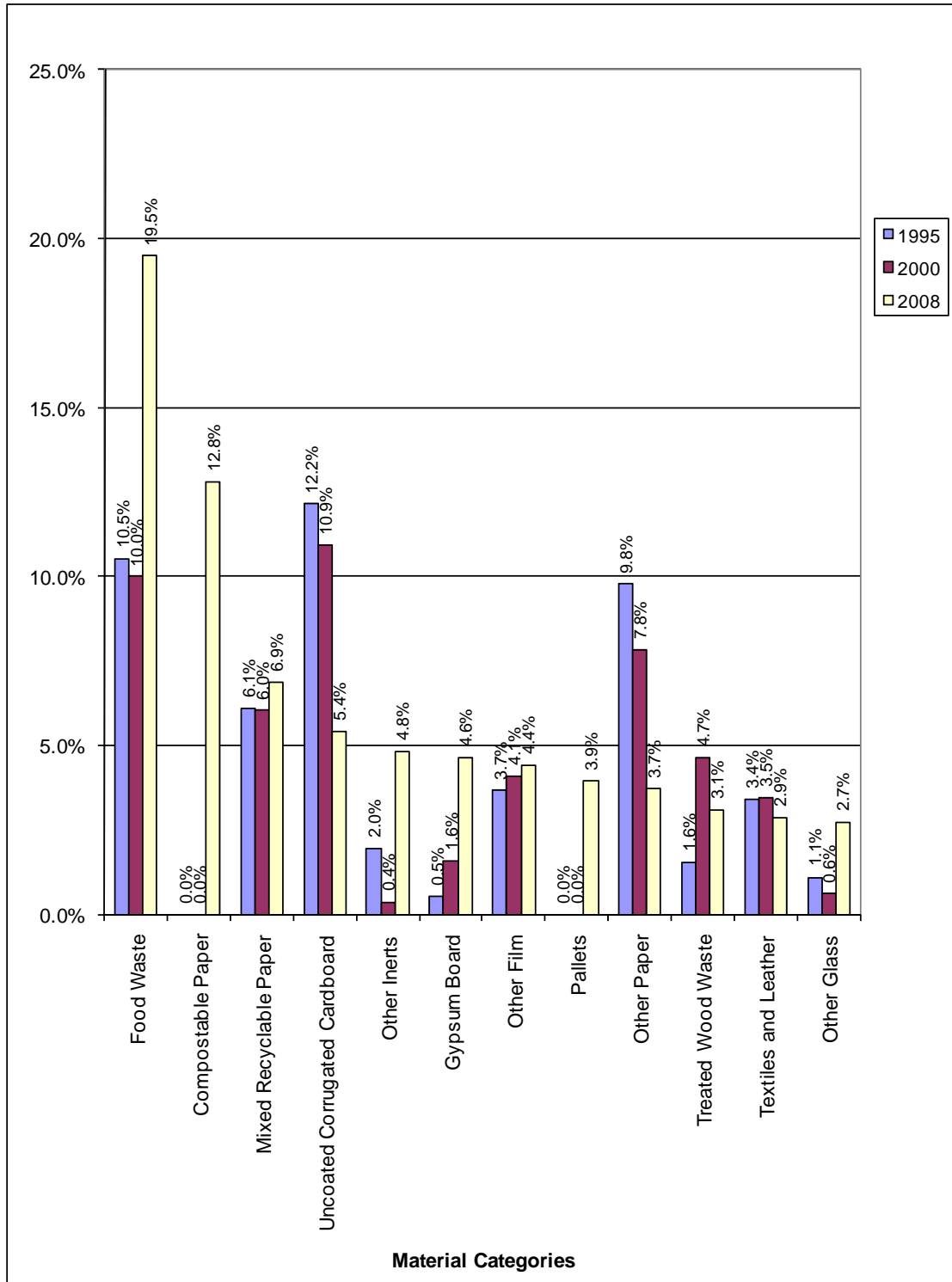


Figure 8 City of Emeryville Top 12 Most Common Materials – Aggregate



2008 WASTE CHARACTERIZATION RESULTS
CITY OF EMERYVILLE

Figure 9 City of Emeryville Top 12 Most Common Materials from 2000

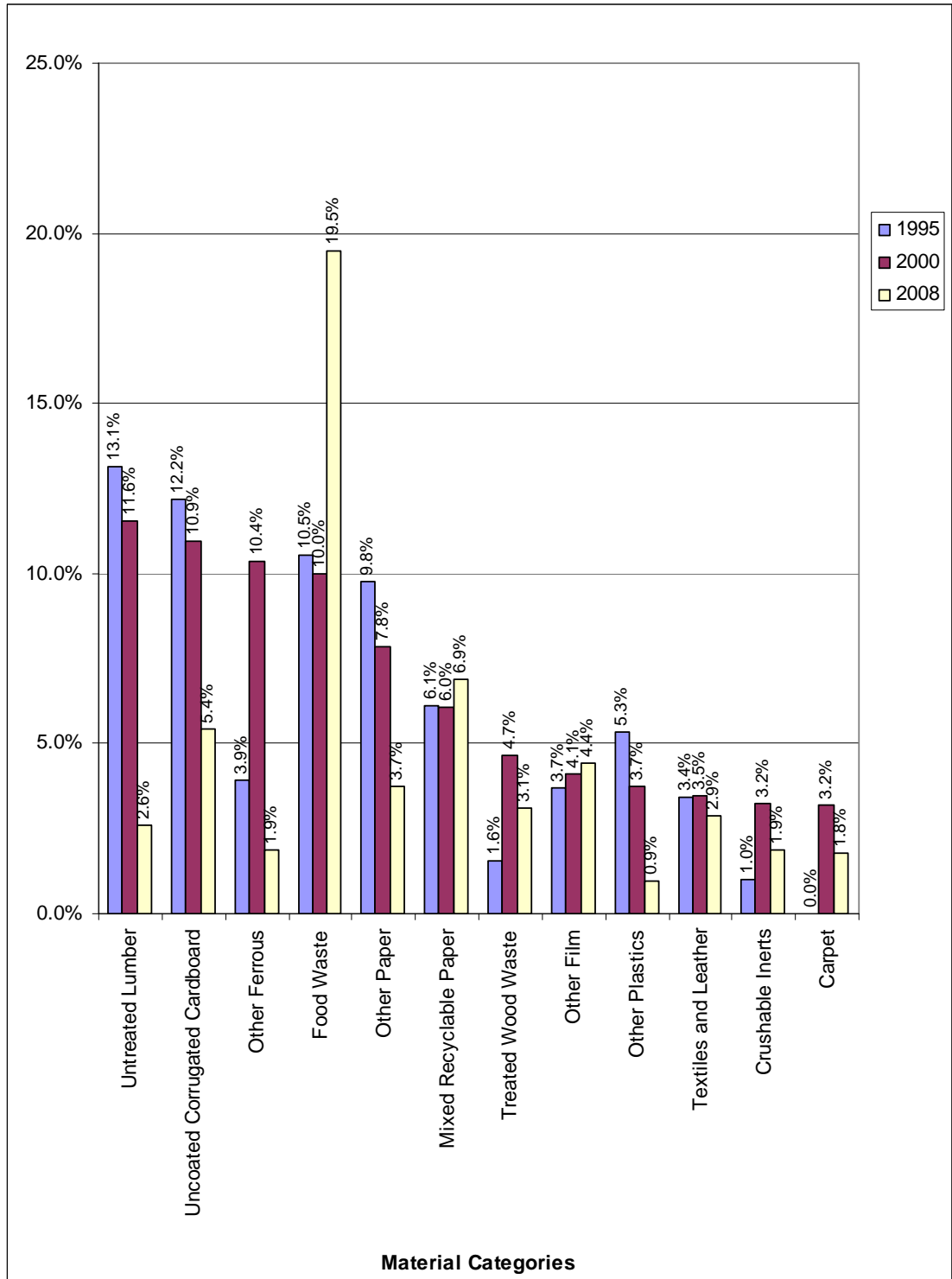


Table 3
Summary of Overall Material Proportions for City of Emeryville

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Aggregated
Paper		22.7%	25.9%	32.3%	31.4%	35.8%	30.7%
	1 Uncoated Corrugated Cardboard	0.2%	1.2%	1.0%	11.2%	7.3%	5.4%
	2 High Grade Paper	0.5%	0.7%	0.8%	0.6%	2.0%	0.8%
	3 Newspaper	0.7%	1.0%	0.6%	1.7%	0.0%	1.1%
	4 Mixed Recyclable Paper	1.1%	4.8%	4.4%	7.7%	25.2%	6.9%
	5 Compostable Paper	19.3%	17.4%	24.9%	1.9%	1.2%	12.8%
	6 Other Paper	0.9%	0.8%	0.6%	8.4%	0.0%	3.7%
Plastics		12.9%	14.0%	13.6%	5.1%	2.8%	9.6%
	7 HDPE Bottles (#2)	0.4%	0.4%	0.6%	0.0%	0.0%	0.3%
	8 PETE Bottles (#1)	0.5%	0.6%	0.6%	0.1%	0.1%	0.3%
	9 Other Plastic Containers	0.6%	0.9%	0.9%	0.0%	0.0%	0.5%
	10 Plastic Bags	1.5%	2.3%	0.8%	0.0%	0.2%	0.7%
	11 Other Film	5.6%	4.3%	5.7%	3.7%	1.6%	4.4%
	12 Expanded Polystyrene Blocks	0.1%	0.4%	0.3%	0.1%	0.0%	0.2%
	13 Mixed Rigid Plastics	3.0%	4.5%	3.2%	0.4%	0.5%	2.1%
	14 Other Plastics	1.2%	0.7%	1.5%	0.7%	0.4%	0.9%
Glass		2.6%	2.9%	4.9%	6.0%	0.0%	4.6%
	15 Recyclable Glass Bottles/Containers	1.7%	2.6%	2.3%	1.5%	0.0%	1.9%
	16 Other Glass	1.0%	0.3%	2.6%	4.5%	0.0%	2.7%
Metals		2.9%	2.8%	2.9%	2.2%	9.3%	3.0%
	17 Aluminum Cans	0.2%	0.2%	0.2%	0.1%	0.1%	0.2%
	18 Other Non-Ferrous	0.6%	0.7%	0.3%	0.7%	2.4%	0.6%
	19 Steel Food and Beverage Cans	1.1%	0.6%	0.4%	0.0%	0.2%	0.3%
	20 Other Ferrous	1.0%	1.2%	2.0%	1.5%	6.5%	1.9%
	21 White Goods	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Yard Waste		3.3%	1.6%	1.5%	2.3%	0.0%	1.8%
	22 Leaves/Grass/Chips	2.3%	1.0%	1.3%	1.9%	0.0%	1.5%
	23 Branches/Stumps/Prunings/Trimmings	1.1%	0.6%	0.1%	0.4%	0.0%	0.3%
Organics		49.1%	44.9%	38.6%	31.0%	20.9%	36.0%
	24 Food Waste	36.4%	30.6%	27.0%	9.7%	0.0%	19.5%
	25 Tires	0.0%	0.5%	0.2%	0.0%	0.0%	0.1%
	26 Untreated Lumber	0.6%	1.1%	1.9%	1.3%	20.9%	2.6%
	27 Pallets	0.3%	0.0%	0.6%	9.3%	0.0%	3.9%
	28 Treated Wood Waste	1.2%	1.3%	3.6%	4.1%	0.0%	3.1%
	29 Textiles and Leather	3.7%	3.1%	3.6%	2.5%	0.0%	2.9%
	30 Carpet	0.0%	1.1%	0.2%	3.8%	0.0%	1.8%
	31 Diapers	4.0%	2.6%	0.9%	0.0%	0.0%	0.9%
	32 Manure	2.6%	2.7%	0.2%	0.0%	0.0%	0.6%
	33 Other Organics	0.4%	1.9%	0.4%	0.2%	0.0%	0.5%
Inerts		5.6%	6.3%	5.3%	19.8%	13.5%	11.7%
	34 Crushable Inerts	0.5%	3.3%	2.4%	1.3%	0.0%	1.9%
	35 Other Inerts	3.6%	1.6%	2.1%	8.2%	6.7%	4.8%
	36 Gypsum Board	1.5%	1.4%	0.7%	9.3%	6.8%	4.6%
	37 Asphalt Roofing	0.1%	0.0%	0.0%	0.9%	0.0%	0.4%
HHW		0.7%	0.5%	0.7%	0.2%	17.8%	1.5%
	38 Paint/Adhesives	0.1%	0.4%	0.2%	0.0%	0.0%	0.1%
	39 Vehicle & Equipment Fluids	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	0.2%	0.0%	0.0%	0.2%	0.0%	0.1%
	41 Medical Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	42 Medicine	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
	43 Covered E-Waste	0.0%	0.0%	0.3%	0.0%	0.0%	0.1%
	44 Other E-Waste	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%
	45 Other Hazardous Waste	0.0%	0.0%	0.0%	0.0%	17.8%	1.1%
Special		0.0%	1.2%	0.4%	2.0%	0.0%	1.1%
	46 Brown Goods	0.0%	1.2%	0.4%	0.0%	0.0%	0.3%
	47 Composite Bulky Items	0.0%	0.0%	0.0%	2.0%	0.0%	0.8%
	48 Other Special Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF EMERYVILLE**

**Table 4
Summary of Overall Material Tonnages for City of Emeryville**

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
Paper		145	601	1,535	1,790	302	4,373
	1 Uncoated Corrugated Cardboard	1	28	46	637	62	775
	2 High Grade Paper	3	16	40	32	17	109
	3 Newspaper	5	24	30	96	0	154
	4 Mixed Recyclable Paper	7	111	209	440	212	979
	5 Compostable Paper	123	403	1,181	108	10	1,826
	6 Other Paper	6	19	29	477	0	531
Plastics		83	324	644	292	23	1,366
	7 HDPE Bottles (#2)	2	9	30	3	0	44
	8 PETE Bottles (#1)	3	14	28	5	0	50
	9 Other Plastic Containers	4	21	44	0	0	70
	10 Plastic Bags	10	52	38	3	2	105
	11 Other Film	36	99	269	213	14	631
	12 Expanded Polystyrene Blocks	1	8	14	8	0	31
	13 Mixed Rigid Plastics	19	105	152	23	4	302
	14 Other Plastics	8	16	69	38	3	134
Glass		17	66	231	345	0	659
	15 Recyclable Glass Bottles/Containers	11	60	108	88	0	267
	16 Other Glass	6	6	123	257	0	392
Metals		18	64	136	127	78	424
	17 Aluminum Cans	2	5	9	7	1	23
	18 Other Non-Ferrous	4	17	13	38	20	91
	19 Steel Food and Beverage Cans	7	14	20	0	2	43
	20 Other Ferrous	6	28	94	83	55	267
	21 White Goods	0	0	0	0	0	0
Yard Waste		21	38	69	129	0	257
	22 Leaves/Grass/Chips	14	24	63	109	0	210
	23 Branches/Stumps/Prunings/Trimmings	7	14	7	20	0	48
Organics		314	1,040	1,831	1,766	176	5,127
	24 Food Waste	232	709	1,284	552	0	2,777
	25 Tires	0	11	8	0	0	19
	26 Untreated Lumber	4	25	91	76	176	371
	27 Pallets	2	0	27	533	0	562
	28 Treated Wood Waste	8	31	170	234	0	443
	29 Textiles and Leather	23	72	173	143	0	411
	30 Carpet	0	25	8	218	0	251
	31 Diapers	25	60	44	0	0	129
	32 Manure	17	63	10	0	0	89
	33 Other Organics	2	45	17	11	0	75
Inerts		36	145	252	1,128	114	1,675
	34 Crushable Inerts	3	76	115	74	0	268
	35 Other Inerts	23	38	102	470	57	690
	36 Gypsum Board	10	32	35	530	57	663
	37 Asphalt Roofing	1	0	0	54	0	55
HHW		4	11	32	13	150	210
	38 Paint/Adhesives	0	10	9	0	0	19
	39 Vehicle & Equipment Fluids	1	0	1	0	0	2
	40 Universal Hazardous Waste	1	1	1	13	0	16
	41 Medical Waste	0	0	1	0	0	1
	42 Medicine	1	0	0	0	0	1
	43 Covered E-Waste	0	0	14	0	0	14
	44 Other E-Waste	1	0	3	0	0	4
	45 Other Hazardous Waste	0	0	1	0	150	151
Special		0	28	17	117	0	161
	46 Brown Goods	0	28	17	0	0	45
	47 Composite Bulky Items	0	0	0	117	0	117
	48 Other Special Waste	0	0	0	0	0	0
TOTAL		639	2,318	4,747	5,706	843	14,253

Table 5
City of Emeryville Aggregate Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		4,373	30.68%	27.51%	34.35%
	1 Uncoated Corrugated Cardboard	775	5.44%	4.20%	7.21%
	2 High Grade Paper	109	0.76%	0.57%	1.17%
	3 Newspaper	154	1.08%	0.80%	1.50%
	4 Mixed Recyclable Paper	979	6.87%	5.61%	9.07%
	5 Compostable Paper	1,826	12.81%	10.66%	15.11%
	6 Other Paper	531	3.72%	2.60%	5.46%
Plastics		1,366	9.58%	8.67%	10.60%
	7 HDPE Bottles (#2)	44	0.31%	0.23%	0.41%
	8 PETE Bottles (#1)	50	0.35%	0.29%	0.41%
	9 Other Plastic Containers	70	0.49%	0.38%	0.61%
	10 Plastic Bags	105	0.73%	0.53%	0.99%
	11 Other Film	631	4.42%	3.71%	5.27%
	12 Expanded Polystyrene Blocks	31	0.22%	0.15%	0.32%
	13 Mixed Rigid Plastics	302	2.12%	1.74%	2.56%
	14 Other Plastics	134	0.94%	0.69%	1.24%
Glass		659	4.62%	3.53%	6.04%
	15 Recyclable Glass Bottles/Containers	267	1.87%	1.49%	2.36%
	16 Other Glass	392	2.75%	1.86%	4.05%
Metals		424	2.97%	2.51%	3.88%
	17 Aluminum Cans	23	0.16%	0.13%	0.20%
	18 Other Non-Ferrous	91	0.64%	0.54%	1.02%
	19 Steel Food and Beverage Cans	43	0.30%	0.22%	0.40%
	20 Other Ferrous	267	1.87%	1.45%	2.63%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		257	1.81%	1.29%	2.57%
	22 Leaves/Grass/Chips	210	1.47%	1.02%	2.16%
	23 Branches/Stumps/Prunings/Trimmings	48	0.33%	0.18%	0.57%
Organics		5,127	35.97%	32.83%	39.63%
	24 Food Waste	2,777	19.48%	16.83%	22.55%
	25 Tires	19	0.13%	0.06%	0.26%
	26 Untreated Lumber	371	2.60%	2.08%	4.21%
	27 Pallets	562	3.94%	2.85%	5.50%
	28 Treated Wood Waste	443	3.11%	2.28%	4.22%
	29 Textiles and Leather	411	2.89%	2.12%	3.86%
	30 Carpet	251	1.76%	1.17%	2.82%
	31 Diapers	129	0.90%	0.53%	1.39%
	32 Manure	89	0.63%	0.28%	1.13%
	33 Other Organics	75	0.53%	0.30%	0.90%
Inerts		1,675	11.75%	9.00%	15.76%
	34 Crushable Inerts	268	1.88%	1.20%	2.86%
	35 Other Inerts	690	4.84%	3.66%	6.79%
	36 Gypsum Board	663	4.65%	3.32%	6.93%
	37 Asphalt Roofing	55	0.38%	0.24%	0.63%
HHW		210	1.47%	1.30%	3.04%
	38 Paint/Adhesives	19	0.14%	0.07%	0.25%
	39 Vehicle & Equipment Fluids	2	0.02%	0.00%	0.06%
	40 Universal Hazardous Waste	16	0.11%	0.07%	0.18%
	41 Medical Waste	1	0.01%	0.00%	0.02%
	42 Medicine	1	0.01%	0.00%	0.03%
	43 Covered E-Waste	14	0.10%	0.02%	0.22%
	44 Other E-Waste	4	0.03%	0.01%	0.07%
	45 Other Hazardous Waste	151	1.06%	1.05%	2.61%
Special		161	1.13%	0.80%	1.71%
	46 Brown Goods	45	0.32%	0.14%	0.63%
	47 Composite Bulky Items	117	0.82%	0.53%	1.30%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		14,253	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF EMERYVILLE**

**Table 6
City of Emeryville Single-Family Residential Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		145	22.74%	20.52%	25.05%
	1 Uncoated Corrugated Cardboard	1	0.21%	0.08%	0.40%
	2 High Grade Paper	3	0.45%	0.11%	1.03%
	3 Newspaper	5	0.75%	0.37%	1.25%
	4 Mixed Recyclable Paper	7	1.14%	0.67%	1.73%
	5 Compostable Paper	123	19.29%	17.18%	21.49%
	6 Other Paper	6	0.90%	0.59%	1.28%
Plastics		83	12.92%	11.47%	14.45%
	7 HDPE Bottles (#2)	2	0.38%	0.28%	0.51%
	8 PETE Bottles (#1)	3	0.48%	0.32%	0.66%
	9 Other Plastic Containers	4	0.64%	0.40%	0.93%
	10 Plastic Bags	10	1.51%	1.02%	2.09%
	11 Other Film	36	5.63%	4.53%	6.85%
	12 Expanded Polystyrene Blocks	1	0.10%	0.03%	0.22%
	13 Mixed Rigid Plastics	19	2.97%	2.46%	3.54%
	14 Other Plastics	8	1.20%	0.81%	1.66%
Glass		17	2.64%	1.84%	3.57%
	15 Recyclable Glass Bottles/Containers	11	1.69%	1.08%	2.42%
	16 Other Glass	6	0.95%	0.31%	1.93%
Metals		18	2.88%	2.32%	3.50%
	17 Aluminum Cans	2	0.23%	0.14%	0.35%
	18 Other Non-Ferrous	4	0.61%	0.42%	0.84%
	19 Steel Food and Beverage Cans	7	1.06%	0.74%	1.43%
	20 Other Ferrous	6	0.98%	0.49%	1.62%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		21	3.35%	1.82%	5.32%
	22 Leaves/Grass/Chips	14	2.26%	0.88%	4.26%
	23 Branches/Stumps/Prunings/Trimnings	7	1.09%	0.35%	2.24%
Organics		314	49.13%	45.04%	53.22%
	24 Food Waste	232	36.38%	31.05%	41.89%
	25 Tires	0	0.02%	0.00%	0.06%
	26 Untreated Lumber	4	0.55%	0.13%	1.27%
	27 Pallets	2	0.26%	0.04%	0.67%
	28 Treated Wood Waste	8	1.24%	0.50%	2.31%
	29 Textiles and Leather	23	3.67%	2.12%	5.63%
	30 Carpet	0	0.00%	0.00%	0.00%
	31 Diapers	25	3.97%	2.24%	6.16%
	32 Manure	17	2.64%	1.07%	4.86%
	33 Other Organics	2	0.38%	0.19%	0.65%
Inerts		36	5.62%	2.65%	9.61%
	34 Crushable Inerts	3	0.47%	0.17%	0.94%
	35 Other Inerts	23	3.57%	1.82%	5.88%
	36 Gypsum Board	10	1.49%	0.23%	3.81%
	37 Asphalt Roofing	1	0.08%	0.02%	0.20%
HHW		4	0.69%	0.26%	1.31%
	38 Paint/Adhesives	0	0.05%	0.01%	0.14%
	39 Vehicle & Equipment Fluids	1	0.20%	0.04%	0.47%
	40 Universal Hazardous Waste	1	0.18%	0.04%	0.43%
	41 Medical Waste	0	0.02%	0.00%	0.04%
	42 Medicine	1	0.10%	0.02%	0.23%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	1	0.14%	0.03%	0.33%
	45 Other Hazardous Waste	0	0.00%	0.00%	0.00%
Special		0	0.04%	0.01%	0.10%
	46 Brown Goods	0	0.04%	0.01%	0.10%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		639	100.00%		

Table 7
City of Emeryville Multi-Family Residential Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		601	25.94%	22.44%	29.60%
	1 Uncoated Corrugated Cardboard	28	1.21%	0.59%	2.03%
	2 High Grade Paper	16	0.69%	0.24%	1.38%
	3 Newspaper	24	1.02%	0.41%	1.88%
	4 Mixed Recyclable Paper	111	4.79%	3.47%	6.30%
	5 Compostable Paper	403	17.40%	14.00%	21.07%
	6 Other Paper	19	0.84%	0.52%	1.24%
Plastics		324	13.99%	12.09%	16.00%
	7 HDPE Bottles (#2)	9	0.38%	0.26%	0.52%
	8 PETE Bottles (#1)	14	0.59%	0.47%	0.71%
	9 Other Plastic Containers	21	0.92%	0.67%	1.20%
	10 Plastic Bags	52	2.26%	1.21%	3.63%
	11 Other Film	99	4.29%	2.94%	5.88%
	12 Expanded Polystyrene Blocks	8	0.36%	0.13%	0.71%
	13 Mixed Rigid Plastics	105	4.52%	2.91%	6.45%
	14 Other Plastics	16	0.68%	0.45%	0.95%
Glass		66	2.86%	2.00%	3.87%
	15 Recyclable Glass Bottles/Containers	60	2.59%	1.76%	3.58%
	16 Other Glass	6	0.27%	0.09%	0.54%
Metals		64	2.76%	1.90%	3.76%
	17 Aluminum Cans	5	0.22%	0.16%	0.28%
	18 Other Non-Ferrous	17	0.73%	0.36%	1.24%
	19 Steel Food and Beverage Cans	14	0.59%	0.34%	0.90%
	20 Other Ferrous	28	1.22%	0.61%	2.05%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		38	1.63%	0.66%	3.03%
	22 Leaves/Grass/Chips	24	1.04%	0.32%	2.18%
	23 Branches/Stumps/Prunings/Trimmings	14	0.59%	0.15%	1.34%
Organics		1,040	44.86%	39.01%	50.78%
	24 Food Waste	709	30.59%	25.40%	36.04%
	25 Tires	11	0.48%	0.07%	1.26%
	26 Untreated Lumber	25	1.06%	0.30%	2.27%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	31	1.33%	0.40%	2.79%
	29 Textiles and Leather	72	3.11%	1.44%	5.40%
	30 Carpet	25	1.06%	0.20%	2.61%
	31 Diapers	60	2.57%	1.23%	4.39%
	32 Manure	63	2.71%	1.05%	5.13%
	33 Other Organics	45	1.94%	0.47%	4.37%
Inerts		145	6.26%	2.65%	11.26%
	34 Crushable Inerts	76	3.26%	0.80%	7.30%
	35 Other Inerts	38	1.63%	0.83%	2.70%
	36 Gypsum Board	32	1.37%	0.26%	3.33%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		11	0.50%	0.15%	1.05%
	38 Paint/Adhesives	10	0.43%	0.10%	1.01%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	1	0.04%	0.01%	0.10%
	41 Medical Waste	0	0.01%	0.00%	0.02%
	42 Medicine	0	0.00%	0.00%	0.01%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	0	0.01%	0.00%	0.02%
	45 Other Hazardous Waste	0	0.00%	0.00%	0.00%
Special		28	1.20%	0.17%	3.16%
	46 Brown Goods	28	1.20%	0.17%	3.16%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		2,318	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF EMERYVILLE**

**Table 8
City of Emeryville Commercial Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		1,535	32.33%	27.91%	36.92%
	1 Uncoated Corrugated Cardboard	46	0.97%	0.60%	1.43%
	2 High Grade Paper	40	0.85%	0.48%	1.31%
	3 Newspaper	30	0.63%	0.35%	0.98%
	4 Mixed Recyclable Paper	209	4.41%	2.81%	6.34%
	5 Compostable Paper	1,181	24.87%	20.19%	29.87%
	6 Other Paper	29	0.61%	0.45%	0.79%
Plastics		644	13.57%	11.88%	15.35%
	7 HDPE Bottles (#2)	30	0.64%	0.45%	0.86%
	8 PETE Bottles (#1)	28	0.58%	0.47%	0.70%
	9 Other Plastic Containers	44	0.93%	0.72%	1.16%
	10 Plastic Bags	38	0.80%	0.55%	1.11%
	11 Other Film	269	5.66%	4.35%	7.13%
	12 Expanded Polystyrene Blocks	14	0.30%	0.16%	0.48%
	13 Mixed Rigid Plastics	152	3.20%	2.56%	3.92%
	14 Other Plastics	69	1.45%	0.95%	2.07%
Glass		231	4.86%	2.88%	7.32%
	15 Recyclable Glass Bottles/Containers	108	2.28%	1.62%	3.05%
	16 Other Glass	123	2.58%	1.03%	4.81%
Metals		136	2.87%	2.10%	3.75%
	17 Aluminum Cans	9	0.20%	0.15%	0.25%
	18 Other Non-Ferrous	13	0.27%	0.19%	0.36%
	19 Steel Food and Beverage Cans	20	0.42%	0.30%	0.57%
	20 Other Ferrous	94	1.98%	1.19%	2.95%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		69	1.46%	0.81%	2.30%
	22 Leaves/Grass/Chips	63	1.32%	0.70%	2.12%
	23 Branches/Stumps/Prunings/Trimnings	7	0.14%	0.06%	0.26%
Organics		1,831	38.57%	33.97%	43.29%
	24 Food Waste	1,284	27.04%	22.36%	31.99%
	25 Tires	8	0.16%	0.07%	0.31%
	26 Untreated Lumber	91	1.91%	0.95%	3.20%
	27 Pallets	27	0.57%	0.22%	1.06%
	28 Treated Wood Waste	170	3.59%	2.08%	5.49%
	29 Textiles and Leather	173	3.64%	2.22%	5.40%
	30 Carpet	8	0.17%	0.07%	0.32%
	31 Diapers	44	0.92%	0.55%	1.39%
	32 Manure	10	0.20%	0.09%	0.35%
	33 Other Organics	17	0.36%	0.21%	0.57%
Inerts		252	5.30%	3.19%	7.92%
	34 Crushable Inerts	115	2.43%	1.20%	4.06%
	35 Other Inerts	102	2.14%	1.34%	3.14%
	36 Gypsum Board	35	0.73%	0.32%	1.31%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		32	0.67%	0.34%	1.12%
	38 Paint/Adhesives	9	0.19%	0.08%	0.34%
	39 Vehicle & Equipment Fluids	1	0.02%	0.01%	0.05%
	40 Universal Hazardous Waste	1	0.02%	0.01%	0.04%
	41 Medical Waste	1	0.03%	0.01%	0.05%
	42 Medicine	0	0.01%	0.00%	0.01%
	43 Covered E-Waste	14	0.30%	0.12%	0.57%
	44 Other E-Waste	3	0.07%	0.03%	0.13%
	45 Other Hazardous Waste	1	0.03%	0.01%	0.05%
Special		17	0.35%	0.16%	0.63%
	46 Brown Goods	17	0.35%	0.16%	0.63%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		4,747	100.00%		

Table 9
City of Emeryville Roll-Off Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		1,790	31.37%	18.34%	46.10%
	1 Uncoated Corrugated Cardboard	637	11.17%	4.55%	20.24%
	2 High Grade Paper	32	0.57%	0.15%	1.25%
	3 Newspaper	96	1.68%	0.45%	3.66%
	4 Mixed Recyclable Paper	440	7.70%	2.46%	15.52%
	5 Compostable Paper	108	1.89%	0.88%	3.28%
	6 Other Paper	477	8.36%	2.26%	17.80%
Plastics		292	5.11%	2.88%	7.93%
	7 HDPE Bottles (#2)	3	0.04%	0.01%	0.10%
	8 PETE Bottles (#1)	5	0.09%	0.04%	0.16%
	9 Other Plastic Containers	0	0.01%	0.00%	0.01%
	10 Plastic Bags	3	0.05%	0.02%	0.10%
	11 Other Film	213	3.73%	1.93%	6.08%
	12 Expanded Polystyrene Blocks	8	0.14%	0.04%	0.29%
	13 Mixed Rigid Plastics	23	0.40%	0.20%	0.65%
	14 Other Plastics	38	0.67%	0.27%	1.24%
Glass		345	6.04%	2.52%	10.97%
	15 Recyclable Glass Bottles/Containers	88	1.54%	0.49%	3.17%
	16 Other Glass	257	4.50%	1.46%	9.11%
Metals		127	2.23%	1.01%	3.91%
	17 Aluminum Cans	7	0.12%	0.04%	0.23%
	18 Other Non-Ferrous	38	0.66%	0.24%	1.30%
	19 Steel Food and Beverage Cans	0	0.00%	0.00%	0.00%
	20 Other Ferrous	83	1.46%	0.45%	3.02%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		129	2.26%	0.47%	5.31%
	22 Leaves/Grass/Chips	109	1.91%	0.41%	4.47%
	23 Branches/Stumps/Prunings/Trimmings	20	0.35%	0.07%	0.85%
Organics		1,766	30.95%	19.26%	44.05%
	24 Food Waste	552	9.67%	2.96%	19.65%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	76	1.32%	0.35%	2.92%
	27 Pallets	533	9.34%	3.44%	17.73%
	28 Treated Wood Waste	234	4.10%	1.55%	7.81%
	29 Textiles and Leather	143	2.50%	1.03%	4.59%
	30 Carpet	218	3.83%	0.66%	9.45%
	31 Diapers	0	0.00%	0.00%	0.00%
	32 Manure	0	0.00%	0.00%	0.00%
	33 Other Organics	11	0.19%	0.05%	0.41%
Inerts		1,128	19.77%	6.17%	38.61%
	34 Crushable Inerts	74	1.29%	0.28%	3.03%
	35 Other Inerts	470	8.25%	2.35%	17.26%
	36 Gypsum Board	530	9.28%	2.23%	20.45%
	37 Asphalt Roofing	54	0.95%	0.18%	2.30%
HHW		13	0.22%	0.04%	0.53%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	13	0.22%	0.04%	0.53%
	41 Medical Waste	0	0.00%	0.00%	0.00%
	42 Medicine	0	0.00%	0.00%	0.00%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	0	0.00%	0.00%	0.00%
	45 Other Hazardous Waste	0	0.00%	0.00%	0.00%
Special		117	2.04%	0.47%	4.70%
	46 Brown Goods	0	0.00%	0.00%	0.00%
	47 Composite Bulky Items	117	2.04%	0.47%	4.70%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		5,706	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF EMERYVILLE**

**Table 10
City of Emeryville Self Haul Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		302	35.81%	13.33%	99.26%
	1 Uncoated Corrugated Cardboard	62	7.35%	0.61%	34.45%
	2 High Grade Paper	17	2.05%	1.68%	16.42%
	3 Newspaper	0	0.00%	0.00%	0.00%
	4 Mixed Recyclable Paper	212	25.17%	6.79%	93.59%
	5 Compostable Paper	10	1.24%	1.01%	10.15%
	6 Other Paper	0	0.00%	0.00%	0.00%
Plastics		23	2.76%	0.34%	7.37%
	7 HDPE Bottles (#2)	0	0.03%	0.02%	0.21%
	8 PETE Bottles (#1)	0	0.05%	0.04%	0.46%
	9 Other Plastic Containers	0	0.00%	0.00%	0.00%
	10 Plastic Bags	2	0.19%	0.15%	1.56%
	11 Other Film	14	1.62%	0.31%	9.39%
	12 Expanded Polystyrene Blocks	0	0.02%	0.02%	0.16%
	13 Mixed Rigid Plastics	4	0.48%	0.39%	3.98%
	14 Other Plastics	3	0.37%	0.30%	3.10%
Glass		0	0.00%	0.00%	0.00%
	15 Recyclable Glass Bottles/Containers	0	0.00%	0.00%	0.00%
	16 Other Glass	0	0.00%	0.00%	0.00%
Metals		78	9.27%	1.40%	45.19%
	17 Aluminum Cans	1	0.10%	0.08%	0.81%
	18 Other Non-Ferrous	20	2.39%	1.97%	19.02%
	19 Steel Food and Beverage Cans	2	0.23%	0.19%	1.96%
	20 Other Ferrous	55	6.54%	0.77%	32.37%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		0	0.00%	0.00%	0.00%
	22 Leaves/Grass/Chips	0	0.00%	0.00%	0.00%
	23 Branches/Stumps/Prunings/Trimings	0	0.00%	0.00%	0.00%
Organics		176	20.91%	10.71%	91.95%
	24 Food Waste	0	0.00%	0.00%	0.00%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	176	20.91%	10.71%	91.95%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	0	0.00%	0.00%	0.00%
	29 Textiles and Leather	0	0.00%	0.00%	0.00%
	30 Carpet	0	0.00%	0.00%	0.00%
	31 Diapers	0	0.00%	0.00%	0.00%
	32 Manure	0	0.00%	0.00%	0.00%
	33 Other Organics	0	0.00%	0.00%	0.00%
Inerts		114	13.49%	12.40%	80.40%
	34 Crushable Inerts	0	0.00%	0.00%	0.00%
	35 Other Inerts	57	6.73%	5.75%	48.16%
	36 Gypsum Board	57	6.77%	5.78%	48.37%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		150	17.77%	17.31%	92.81%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	0	0.00%	0.00%	0.00%
	41 Medical Waste	0	0.00%	0.00%	0.00%
	42 Medicine	0	0.00%	0.00%	0.00%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	0	0.00%	0.00%	0.00%
	45 Other Hazardous Waste	150	17.77%	17.31%	92.81%
Special		0	0.00%	0.00%	0.00%
	46 Brown Goods	0	0.00%	0.00%	0.00%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		843	100.00%		

Table 11
City of Emeryville Detailed Historic Comparison of Overall Jurisdiction-wide Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		34.8%	30.2%	30.7%	5,618	7,300	4,373
	1 Uncoated Corrugated Cardboard	12.2%	10.9%	5.4%	1,962	2,642	775
	2 High Grade Paper	3.0%	2.7%	0.8%	486	642	109
	3 Newspaper	3.8%	2.8%	1.1%	607	664	154
	4 Mixed Recyclable Paper	6.1%	6.0%	6.9%	987	1,460	979
	5 Compostable Paper	NA	NA	12.8%	NA	NA	1,826
	6 Other Paper	9.8%	7.8%	3.7%	1,576	1,892	531
Plastics		11.4%	8.8%	9.6%	1,842	2,133	1,366
	7 HDPE Bottles (#2)	2.0%	0.4%	0.3%	318	107	44
	8 PETE Bottles (#1)	0.5%	0.4%	0.3%	73	100	50
	9 Other Plastic Containers	NA	0.2%	0.5%	NA	38	70
	10 Plastic Bags	NA	NA	0.7%	NA	NA	105
	11 Other Film	3.7%	4.1%	4.4%	594	989	631
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	31
	13 Mixed Rigid Plastics	NA	NA	2.1%	NA	NA	302
	14 Other Plastics	5.3%	3.7%	0.9%	858	900	134
Glass		4.1%	2.1%	4.6%	658	516	659
	15 Recyclable Glass Bottles/Containers	3.0%	1.5%	1.9%	479	366	267
	16 Other Glass	1.1%	0.6%	2.7%	179	150	392
Metals		5.7%	11.7%	3.0%	912	2,826	424
	17 Aluminum Cans	1.1%	0.2%	0.2%	177	51	23
	18 Other Non-Ferrous	0.3%	0.5%	0.6%	40	111	91
	19 Steel Food and Beverage Cans	0.4%	0.3%	0.3%	61	75	43
	20 Other Ferrous	3.9%	10.4%	1.9%	632	2,504	267
	21 White Goods	0.0%	0.3%	0.0%	0	84	0
Yard Waste		6.1%	4.2%	1.8%	981	1,022	257
	22 Leaves/Grass/Chips	4.0%	1.3%	1.5%	647	317	210
	23 Branches/Stumps/Prunings/Trimmings	2.1%	2.9%	0.3%	334	705	48
Organics		31.5%	36.0%	36.0%	5,079	8,684	5,127
	24 Food Waste	10.5%	10.0%	19.5%	1,700	2,415	2,777
	25 Tires	0.0%	0.0%	0.1%	0	0	19
	26 Untreated Lumber	13.1%	11.6%	2.6%	2,118	2,792	371
	27 Pallets	NA	NA	3.9%	NA	NA	562
	28 Treated Wood Waste	1.6%	4.7%	3.1%	250	1,123	443
	29 Textiles and Leather	3.4%	3.5%	2.9%	550	840	411
	30 Carpet	NA	3.2%	1.8%	NA	769	251
	31 Diapers	0.5%	0.4%	0.9%	81	95	129
	32 Manure	NA	NA	0.6%	NA	NA	89
	33 Other Organics	2.4%	2.7%	0.5%	379	650	75
Inerts		3.5%	5.2%	11.7%	566	1,260	1,675
	34 Crushable Inerts	1.0%	3.2%	1.9%	165	782	268
	35 Other Inerts	2.0%	0.4%	4.8%	316	90	690
	36 Gypsum Board	0.5%	1.6%	4.6%	86	383	663
	37 Asphalt Roofing	0.0%	0.0%	0.4%	0	6	55
HHW		0.4%	0.4%	1.5%	65	94	210
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	19
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	2
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	16
	41 Medical Waste	NA	NA	0.0%	NA	NA	1
	42 Medicine	NA	NA	0.0%	NA	NA	1
	43 Covered E-Waste	NA	NA	0.1%	NA	NA	14
	44 Other E-Waste	NA	NA	0.0%	NA	NA	4
	45 Other Hazardous Waste	0.4%	0.4%	1.1%	65	94	151
Special		2.6%	1.3%	1.1%	413	314	161
	46 Brown Goods	1.0%	0.7%	0.3%	165	163	45
	47 Composite Bulky Items	1.5%	0.6%	0.8%	248	151	117
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	16,133	24,151	14,253

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF EMERYVILLE**

**Table 12
City of Emeryville Detailed Historic Comparison of Single-Family Residential Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		30.9%	30.9%	22.7%	251	137	145
	1 Uncoated Corrugated Cardboard	2.6%	2.4%	0.2%	21	11	1
	2 High Grade Paper	1.3%	2.0%	0.5%	10	9	3
	3 Newspaper	6.0%	4.1%	0.7%	49	18	5
	4 Mixed Recyclable Paper	7.7%	7.0%	1.1%	63	31	7
	5 Compostable Paper	NA	NA	19.3%	NA	NA	123
	6 Other Paper	13.3%	15.3%	0.9%	108	68	6
Plastics		9.9%	12.3%	12.9%	81	55	83
	7 HDPE Bottles (#2)	0.6%	0.6%	0.4%	5	3	2
	8 PETE Bottles (#1)	0.6%	0.8%	0.5%	5	3	3
	9 Other Plastic Containers	NA	0.6%	0.6%	NA	3	4
	10 Plastic Bags	NA	NA	1.5%	NA	NA	10
	11 Other Film	4.0%	6.8%	5.6%	33	30	36
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	1
	13 Mixed Rigid Plastics	NA	NA	3.0%	NA	NA	19
	14 Other Plastics	4.7%	3.6%	1.2%	38	16	8
Glass		6.4%	3.2%	2.6%	52	14	17
	15 Recyclable Glass Bottles/Containers	6.0%	3.1%	1.7%	49	14	11
	16 Other Glass	0.4%	0.2%	1.0%	3	1	6
Metals		4.1%	6.1%	2.9%	33	27	18
	17 Aluminum Cans	0.4%	0.3%	0.2%	3	1	2
	18 Other Non-Ferrous	0.6%	0.5%	0.6%	5	2	4
	19 Steel Food and Beverage Cans	1.3%	0.9%	1.1%	11	4	7
	20 Other Ferrous	1.8%	4.5%	1.0%	15	20	6
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		13.0%	7.8%	3.3%	105	35	21
	22 Leaves/Grass/Chips	8.7%	7.7%	2.3%	71	34	14
	23 Branches/Stumps/Prunings/Trimmings	4.3%	0.1%	1.1%	35	0	7
Organics		32.6%	34.1%	49.1%	265	152	314
	24 Food Waste	22.2%	20.5%	36.4%	181	91	232
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	0.5%	0.1%	0.6%	4	1	4
	27 Pallets	NA	NA	0.3%	NA	NA	2
	28 Treated Wood Waste	0.5%	0.6%	1.2%	4	3	8
	29 Textiles and Leather	4.7%	5.4%	3.7%	38	24	23
	30 Carpet	NA	0.5%	0.0%	NA	2	0
	31 Diapers	3.7%	4.3%	4.0%	30	19	25
	32 Manure	NA	NA	2.6%	NA	NA	17
	33 Other Organics	1.0%	2.7%	0.4%	8	12	2
Inerts		2.1%	3.0%	5.6%	17	13	36
	34 Crushable Inerts	1.2%	0.4%	0.5%	10	2	3
	35 Other Inerts	0.8%	2.3%	3.6%	7	10	23
	36 Gypsum Board	0.0%	0.3%	1.5%	0	1	10
	37 Asphalt Roofing	0.0%	0.0%	0.1%	0	0	1
HHW		0.7%	0.3%	0.7%	6	1	4
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.2%	NA	NA	1
	40 Universal Hazardous Waste	NA	NA	0.2%	NA	NA	1
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.1%	NA	NA	1
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.1%	NA	NA	1
	45 Other Hazardous Waste	0.7%	0.3%	0.0%	6	1	0
Special		0.4%	2.2%	0.0%	3	10	0
	46 Brown Goods	0.4%	1.4%	0.0%	3	6	0
	47 Composite Bulky Items	0.0%	0.9%	0.0%	0	4	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	814	444	639

Table 13
City of Emeryville Detailed Historic Comparison of Multi-Family Residential Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		44.2%	37.9%	25.9%	451	585	601
	1 Uncoated Corrugated Cardboard	3.9%	3.8%	1.2%	40	58	28
	2 High Grade Paper	2.2%	3.8%	0.7%	22	58	16
	3 Newspaper	14.8%	7.4%	1.0%	151	114	24
	4 Mixed Recyclable Paper	10.4%	9.3%	4.8%	106	144	111
	5 Compostable Paper	NA	NA	17.4%	NA	NA	403
	6 Other Paper	12.9%	13.7%	0.8%	131	211	19
Plastics		12.1%	12.8%	14.0%	123	197	324
	7 HDPE Bottles (#2)	0.7%	0.6%	0.4%	7	9	9
	8 PETE Bottles (#1)	0.6%	1.3%	0.6%	6	20	14
	9 Other Plastic Containers	NA	0.6%	0.9%	NA	9	21
	10 Plastic Bags	NA	NA	2.3%	NA	NA	52
	11 Other Film	3.9%	6.4%	4.3%	40	98	99
	12 Expanded Polystyrene Blocks	NA	NA	0.4%	NA	NA	8
	13 Mixed Rigid Plastics	NA	NA	4.5%	NA	NA	105
	14 Other Plastics	6.9%	3.9%	0.7%	70	61	16
Glass		5.7%	3.4%	2.9%	58	52	66
	15 Recyclable Glass Bottles/Containers	5.3%	3.0%	2.6%	54	46	60
	16 Other Glass	0.4%	0.4%	0.3%	4	6	6
Metals		3.1%	5.1%	2.8%	32	79	64
	17 Aluminum Cans	0.3%	0.6%	0.2%	3	9	5
	18 Other Non-Ferrous	0.7%	1.2%	0.7%	7	19	17
	19 Steel Food and Beverage Cans	1.4%	1.1%	0.6%	14	16	14
	20 Other Ferrous	0.8%	0.5%	1.2%	8	7	28
	21 White Goods	0.0%	1.9%	0.0%	0	29	0
Yard Waste		2.9%	7.2%	1.6%	29	111	38
	22 Leaves/Grass/Chips	1.5%	5.6%	1.0%	15	87	24
	23 Branches/Stumps/Prunings/Trimmings	1.4%	1.6%	0.6%	14	25	14
Organics		26.4%	27.8%	44.9%	269	429	1,040
	24 Food Waste	16.7%	17.8%	30.6%	170	274	709
	25 Tires	0.0%	0.0%	0.5%	0	0	11
	26 Untreated Lumber	0.7%	0.7%	1.1%	7	11	25
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	0.5%	0.1%	1.3%	5	2	31
	29 Textiles and Leather	5.3%	3.3%	3.1%	53	51	72
	30 Carpet	NA	0.3%	1.1%	NA	5	25
	31 Diapers	2.4%	2.9%	2.6%	25	45	60
	32 Manure	NA	NA	2.7%	NA	NA	63
	33 Other Organics	0.8%	2.6%	1.9%	8	40	45
Inerts		3.9%	3.7%	6.3%	40	57	145
	34 Crushable Inerts	0.1%	0.5%	3.3%	1	7	76
	35 Other Inerts	2.9%	0.6%	1.6%	30	10	38
	36 Gypsum Board	0.9%	2.6%	1.4%	9	40	32
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	0	0
HHW		0.3%	1.2%	0.5%	3	19	11
	38 Paint/Adhesives	NA	NA	0.4%	NA	NA	10
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	1
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.3%	1.2%	0.0%	3	19	0
Special		1.4%	0.9%	1.2%	14	14	28
	46 Brown Goods	0.5%	0.9%	1.2%	5	14	28
	47 Composite Bulky Items	0.9%	0.0%	0.0%	9	0	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	1,019	1,542	2,318

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF EMERYVILLE**

**Table 14
City of Emeryville Detailed Historic Comparison of Commercial Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		35.5%	35.1%	32.3%	2,656	3,497	1,535
	1 Uncoated Corrugated Cardboard	5.8%	5.2%	1.0%	435	514	46
	2 High Grade Paper	4.8%	4.2%	0.8%	362	414	40
	3 Newspaper	4.3%	5.1%	0.6%	321	511	30
	4 Mixed Recyclable Paper	7.5%	9.9%	4.4%	562	989	209
	5 Compostable Paper	NA	NA	24.9%	NA	NA	1,181
	6 Other Paper	13.1%	10.7%	0.6%	976	1,070	29
Plastics		13.3%	9.5%	13.6%	996	947	644
	7 HDPE Bottles (#2)	1.0%	0.5%	0.6%	76	53	30
	8 PETE Bottles (#1)	0.3%	0.4%	0.6%	20	44	28
	9 Other Plastic Containers	NA	0.1%	0.9%	NA	13	44
	10 Plastic Bags	NA	NA	0.8%	NA	NA	38
	11 Other Film	3.9%	4.9%	5.7%	288	485	269
	12 Expanded Polystyrene Blocks	NA	NA	0.3%	NA	NA	14
	13 Mixed Rigid Plastics	NA	NA	3.2%	NA	NA	152
	14 Other Plastics	8.2%	3.5%	1.5%	611	352	69
Glass		3.1%	2.6%	4.9%	232	257	231
	15 Recyclable Glass Bottles/Containers	2.7%	2.4%	2.3%	202	238	108
	16 Other Glass	0.4%	0.2%	2.6%	30	20	123
Metals		3.7%	2.6%	2.9%	280	261	136
	17 Aluminum Cans	0.3%	0.2%	0.2%	19	22	9
	18 Other Non-Ferrous	0.2%	0.3%	0.3%	18	34	13
	19 Steel Food and Beverage Cans	0.4%	0.4%	0.4%	31	43	20
	20 Other Ferrous	2.8%	1.1%	2.0%	211	105	94
	21 White Goods	0.0%	0.6%	0.0%	0	56	0
Yard Waste		7.8%	5.9%	1.5%	584	584	69
	22 Leaves/Grass/Chips	6.2%	2.0%	1.3%	466	196	63
	23 Branches/Stumps/Prunings/Trimmings	1.6%	3.9%	0.1%	118	388	7
Organics		30.9%	36.0%	38.6%	2,310	3,578	1,831
	24 Food Waste	14.9%	18.8%	27.0%	1,111	1,875	1,284
	25 Tires	0.0%	0.0%	0.2%	0	0	8
	26 Untreated Lumber	6.1%	9.4%	1.9%	453	931	91
	27 Pallets	NA	NA	0.6%	NA	NA	27
	28 Treated Wood Waste	2.8%	1.3%	3.6%	212	131	170
	29 Textiles and Leather	4.3%	2.4%	3.6%	321	243	173
	30 Carpet	NA	1.1%	0.2%	NA	114	8
	31 Diapers	0.3%	0.3%	0.9%	19	29	44
	32 Manure	NA	NA	0.2%	NA	NA	10
	33 Other Organics	2.6%	2.6%	0.4%	194	255	17
Inerts		3.4%	5.8%	5.3%	256	579	252
	34 Crushable Inerts	1.8%	3.9%	2.4%	132	390	115
	35 Other Inerts	0.9%	0.3%	2.1%	67	32	102
	36 Gypsum Board	0.8%	1.6%	0.7%	58	154	35
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	2	0
HHW		0.6%	0.5%	0.7%	41	47	32
	38 Paint/Adhesives	NA	NA	0.2%	NA	NA	9
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	1
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	1
	41 Medical Waste	NA	NA	0.0%	NA	NA	1
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.3%	NA	NA	14
	44 Other E-Waste	NA	NA	0.1%	NA	NA	3
	45 Other Hazardous Waste	0.6%	0.5%	0.0%	41	47	1
Special		1.6%	2.0%	0.4%	122	202	17
	46 Brown Goods	0.6%	0.5%	0.4%	46	55	17
	47 Composite Bulky Items	1.0%	1.5%	0.0%	76	148	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	7,474	9,953	4,747

Table 15
City of Emeryville Detailed Historic Comparison of Roll-Off Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		37.9%	26.7%	31.4%	1,965	2,875	1,790
	1 Uncoated Corrugated Cardboard	26.5%	17.7%	11.2%	1,373	1,910	637
	2 High Grade Paper	1.5%	1.2%	0.6%	75	131	32
	3 Newspaper	1.3%	0.2%	1.7%	69	20	96
	4 Mixed Recyclable Paper	3.4%	2.6%	7.7%	174	278	440
	5 Compostable Paper	NA	NA	1.9%	NA	NA	108
	6 Other Paper	5.3%	5.0%	8.4%	273	535	477
Plastics		11.4%	7.9%	5.1%	591	847	292
	7 HDPE Bottles (#2)	4.4%	0.1%	0.0%	226	6	3
	8 PETE Bottles (#1)	0.8%	0.3%	0.1%	41	33	5
	9 Other Plastic Containers	NA	0.1%	0.0%	NA	12	0
	10 Plastic Bags	NA	NA	0.0%	NA	NA	3
	11 Other Film	4.2%	3.3%	3.7%	218	351	213
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	8
	13 Mixed Rigid Plastics	NA	NA	0.4%	NA	NA	23
	14 Other Plastics	2.0%	4.1%	0.7%	106	444	38
Glass		5.6%	1.7%	6.0%	289	186	345
	15 Recyclable Glass Bottles/Containers	3.1%	0.6%	1.5%	162	62	88
	16 Other Glass	2.5%	1.1%	4.5%	128	124	257
Metals		7.3%	21.4%	2.2%	377	2,306	127
	17 Aluminum Cans	2.9%	0.2%	0.1%	150	19	7
	18 Other Non-Ferrous	0.2%	0.5%	0.7%	8	51	38
	19 Steel Food and Beverage Cans	0.1%	0.1%	0.0%	3	12	0
	20 Other Ferrous	4.2%	20.6%	1.5%	216	2,225	83
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		0.1%	0.4%	2.3%	4	38	129
	22 Leaves/Grass/Chips	0.1%	0.0%	1.9%	3	0	109
	23 Branches/Stumps/Prunings/Trimings	0.0%	0.4%	0.4%	1	38	20
Organics		34.4%	39.0%	31.0%	1,783	4,205	1,766
	24 Food Waste	1.5%	1.6%	9.7%	79	174	552
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	28.0%	15.4%	1.3%	1,453	1,656	76
	27 Pallets	NA	NA	9.3%	NA	NA	533
	28 Treated Wood Waste	0.1%	8.4%	4.1%	7	903	234
	29 Textiles and Leather	1.7%	4.8%	2.5%	89	517	143
	30 Carpet	NA	5.7%	3.8%	NA	616	218
	31 Diapers	0.1%	0.0%	0.0%	3	1	0
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	2.9%	3.1%	0.2%	152	337	11
Inerts		0.1%	2.4%	19.8%	3	262	1,128
	34 Crushable Inerts	0.0%	2.4%	1.3%	1	262	74
	35 Other Inerts	0.0%	0.0%	8.2%	2	0	470
	36 Gypsum Board	0.0%	0.0%	9.3%	0	0	530
	37 Asphalt Roofing	0.0%	0.0%	0.9%	0	0	54
HHW		0.1%	0.2%	0.2%	6	24	13
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.2%	NA	NA	13
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.1%	0.2%	0.0%	6	24	0
Special		3.2%	0.3%	2.0%	164	35	117
	46 Brown Goods	1.4%	0.3%	0.0%	74	35	0
	47 Composite Bulky Items	1.8%	0.0%	2.0%	91	0	117
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	5,183	10,778	5,706

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF EMERYVILLE**

**Table 16
City of Emeryville Detailed Historic Comparison of Self-Haul Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		18.1%	14.4%	35.8%	297	206	302
	1 Uncoated Corrugated Cardboard	5.7%	10.4%	7.3%	93	149	62
	2 High Grade Paper	1.0%	2.1%	2.0%	16	30	17
	3 Newspaper	1.0%	0.1%	0.0%	16	1	0
	4 Mixed Recyclable Paper	5.1%	1.3%	25.2%	83	18	212
	5 Compostable Paper	NA	NA	1.2%	NA	NA	10
	6 Other Paper	5.3%	0.6%	0.0%	87	8	0
Plastics		3.2%	6.1%	2.8%	52	88	23
	7 HDPE Bottles (#2)	0.2%	2.5%	0.0%	3	36	0
	8 PETE Bottles (#1)	0.1%	0.1%	0.1%	1	1	0
	9 Other Plastic Containers	NA	0.0%	0.0%	NA	0	0
	10 Plastic Bags	NA	NA	0.2%	NA	NA	2
	11 Other Film	0.9%	1.6%	1.6%	14	24	14
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	0
	13 Mixed Rigid Plastics	NA	NA	0.5%	NA	NA	4
	14 Other Plastics	2.1%	1.9%	0.4%	34	27	3
Glass		1.8%	0.5%	0.0%	29	7	0
	15 Recyclable Glass Bottles/Containers	0.8%	0.5%	0.0%	14	7	0
	16 Other Glass	0.9%	0.0%	0.0%	15	0	0
Metals		11.5%	10.6%	9.3%	188	152	78
	17 Aluminum Cans	0.1%	0.0%	0.1%	1	0	1
	18 Other Non-Ferrous	0.1%	0.4%	2.4%	2	5	20
	19 Steel Food and Beverage Cans	0.1%	0.0%	0.2%	1	0	2
	20 Other Ferrous	11.2%	10.2%	6.5%	184	146	55
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		15.6%	17.7%	0.0%	257	254	0
	22 Leaves/Grass/Chips	5.5%	0.0%	0.0%	91	0	0
	23 Branches/Stumps/Prunings/Trimmings	10.1%	17.7%	0.0%	166	254	0
Organics		27.4%	22.4%	20.9%	451	321	176
	24 Food Waste	9.6%	0.0%	0.0%	158	0	0
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	12.2%	13.5%	20.9%	201	194	176
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	1.4%	5.9%	0.0%	22	85	0
	29 Textiles and Leather	2.9%	0.3%	0.0%	48	5	0
	30 Carpet	NA	2.2%	0.0%	NA	31	0
	31 Diapers	0.3%	0.0%	0.0%	4	0	0
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	1.0%	0.4%	0.0%	17	6	0
Inerts		15.3%	24.4%	13.5%	252	350	114
	34 Crushable Inerts	1.3%	8.4%	0.0%	21	120	0
	35 Other Inerts	12.8%	2.6%	6.7%	211	38	57
	36 Gypsum Board	1.2%	13.1%	6.8%	20	188	57
	37 Asphalt Roofing	0.0%	0.3%	0.0%	0	4	0
HHW		0.4%	0.1%	17.8%	7	2	150
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	0
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.4%	0.1%	17.8%	7	2	150
Special		6.8%	3.7%	0.0%	111	54	0
	46 Brown Goods	2.3%	3.7%	0.0%	38	54	0
	47 Composite Bulky Items	4.5%	0.0%	0.0%	73	0	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	1,643	1,433	843

Appendix A7

2008 WASTE CHARACTERIZATION RESULTS

CITY OF FREMONT

This section presents a summary of the composition and quantity of disposed waste from the City of Fremont. The 2008 Study results presented herein are based on compositions developed using data obtained from field sample collection and sorting activities performed over four seasons during calendar year 2008. A complete description of the Study and presentation of Countywide aggregate results are included in Section 3 of the report.

Table 1 summarizes selected demographic and waste disposal characteristics for the City of Fremont. The total amount of waste disposed in 2008 represents 14.3 percent of the Countywide waste stream, and decreased approximately 15 percent from 2000.

Table 1
City of Fremont Waste Disposal Data

	2000	2008
Population ¹	208,026	213,512
Housing Units	69,616	72,059
Number of Business Establishments ²	5,479	5,189
Waste Disposal (tons) ³	199,922	169,544
Single Family	37,632	37,545
Multi-Family	14,381	17,384
Commercial	52,639	31,981
Roll-off	49,236	38,094
Self-Haul	46,034	44,540
Residential Disposal Rate (lbs/capita/year) ⁴	694	913
Non-residential Disposal Rate (tons/establishment/year)	23	14

¹ Source: State of California, Department of Finance, City/County Population and Housing Estimates for 2000 and Jan 2008.

² Source: California Board of Equalization. "Taxable Sales in California (Sales & Use Tax)", 1999 and 2007.

³ Data provided by StopWaste.Org staff.

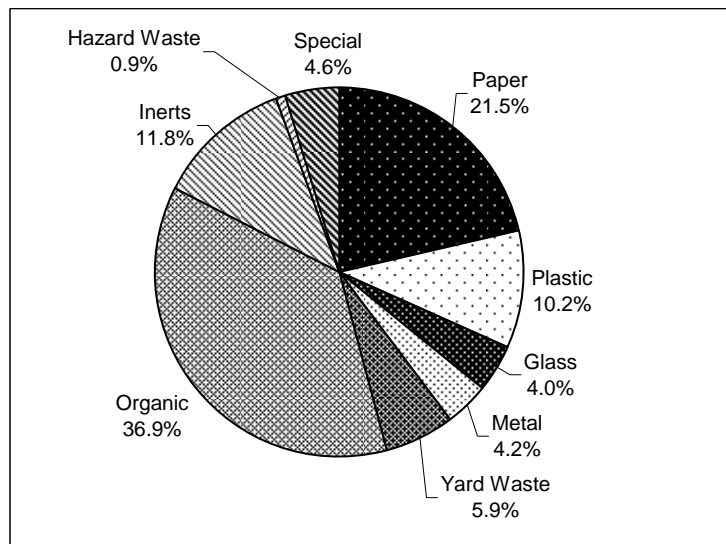
Table 2 presents the number of samples collected from each type of waste stream. Approximately 10 percent of the total number of samples collected were from this jurisdiction.

Table 2
Summary of Samples Obtained from City of Fremont

Waste Stream	Total Samples
Single-family	22
Multi-family	15
Commercial	38
Roll-off	56
Self-haul	103
Total	234

The following tables and figures are presented for waste originating from the City of Fremont. The introduction to Appendix B presents a summary of the information provided within each table or figure.

Figure 1 City of Fremont 2008 Aggregate Waste Composition by Major Material Group



Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	36,419	21.5%	19.5%	23.6%
Plastic	17,317	10.2%	9.4%	11.1%
Glass	6,794	4.0%	3.1%	5.2%
Metal	7,046	4.2%	3.6%	4.8%
Yard Waste	10,018	5.9%	4.3%	7.9%
Organic	62,511	36.9%	33.5%	40.4%
Inerts	20,034	11.8%	8.7%	15.4%
Hazard Waste	1,536	0.9%	0.7%	1.2%
Special	7,870	4.6%	2.7%	7.0%
TOTAL	169,544	100.0%		

2008 WASTE CHARACTERIZATION RESULTS CITY OF FREMONT

Figure 2 City of Fremont Single-Family Residential Composition by Major Material Group

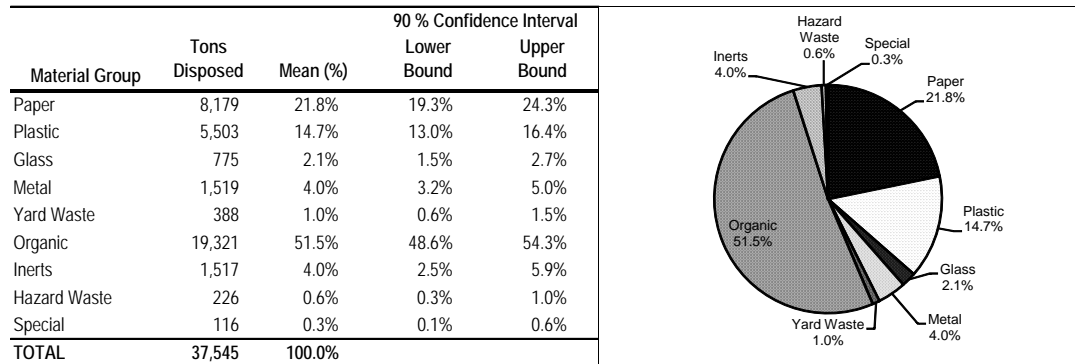


Figure 3 City of Fremont Multi-Family Residential Composition by Major Material Group

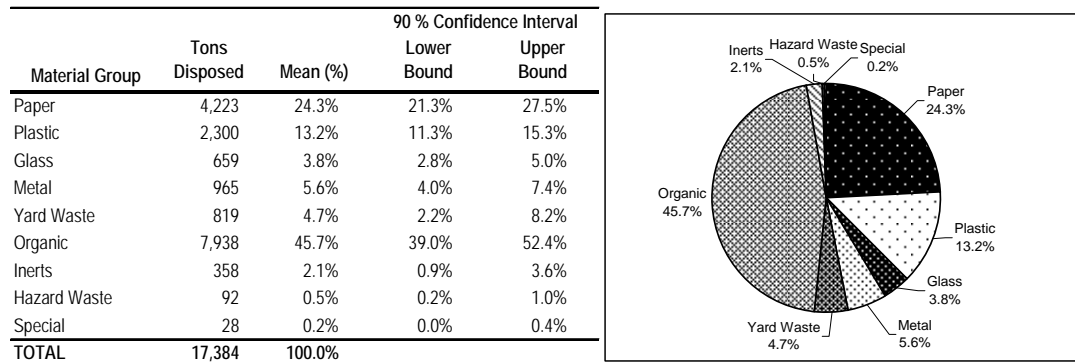


Figure 4 City of Fremont Commercial Composition by Major Material Group

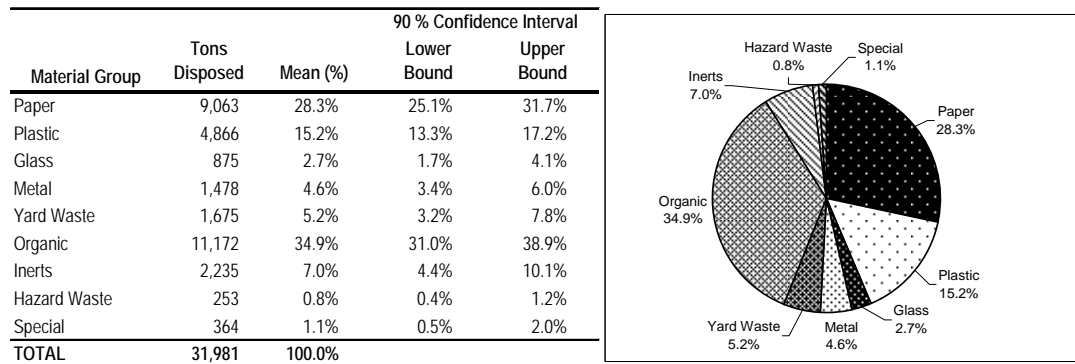


Figure 5 City of Fremont Roll-off Composition by Major Material Group

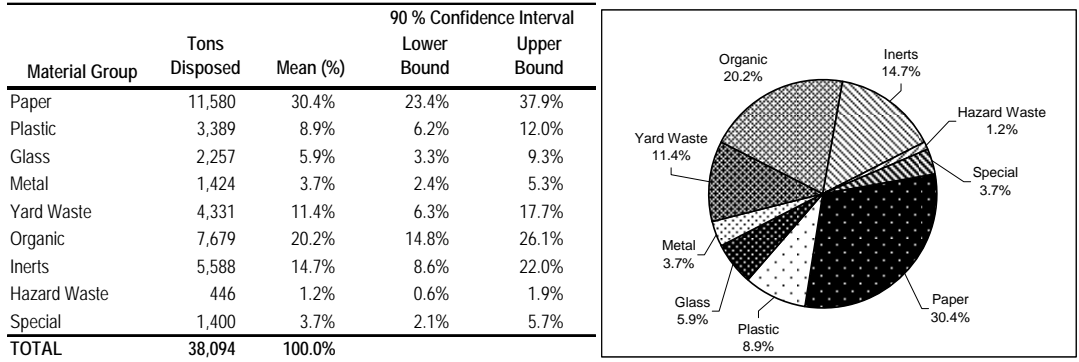
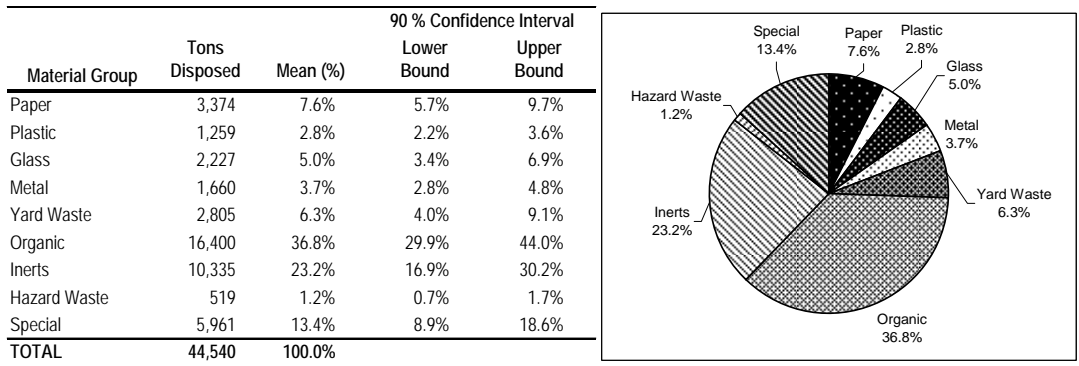


Figure 6 City of Fremont Self Hauler Composition by Major Material Group



2008 WASTE CHARACTERIZATION RESULTS
CITY OF FREMONT

Figure 7 Historic Comparison of City of Fremont Aggregate Disposal

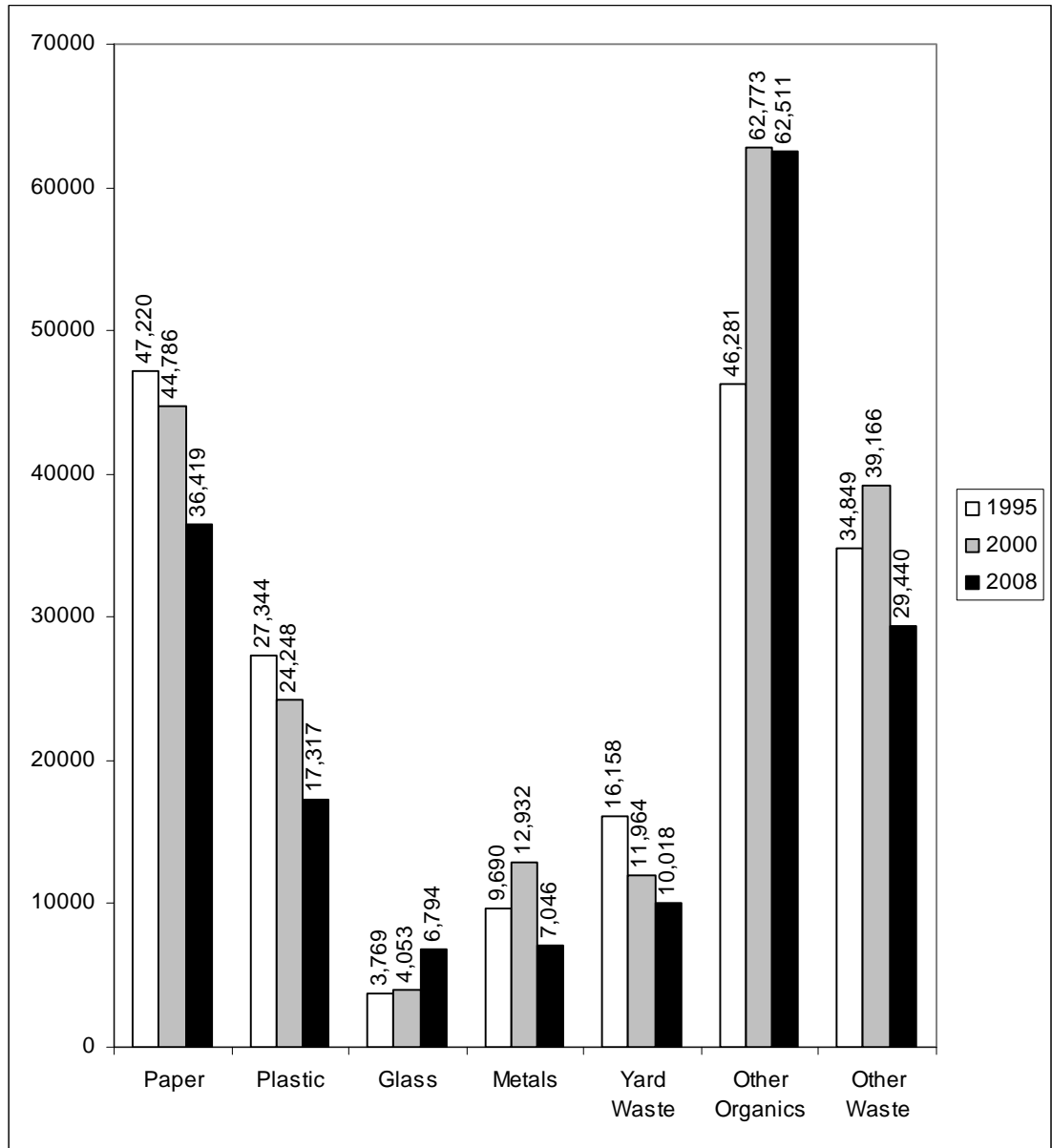
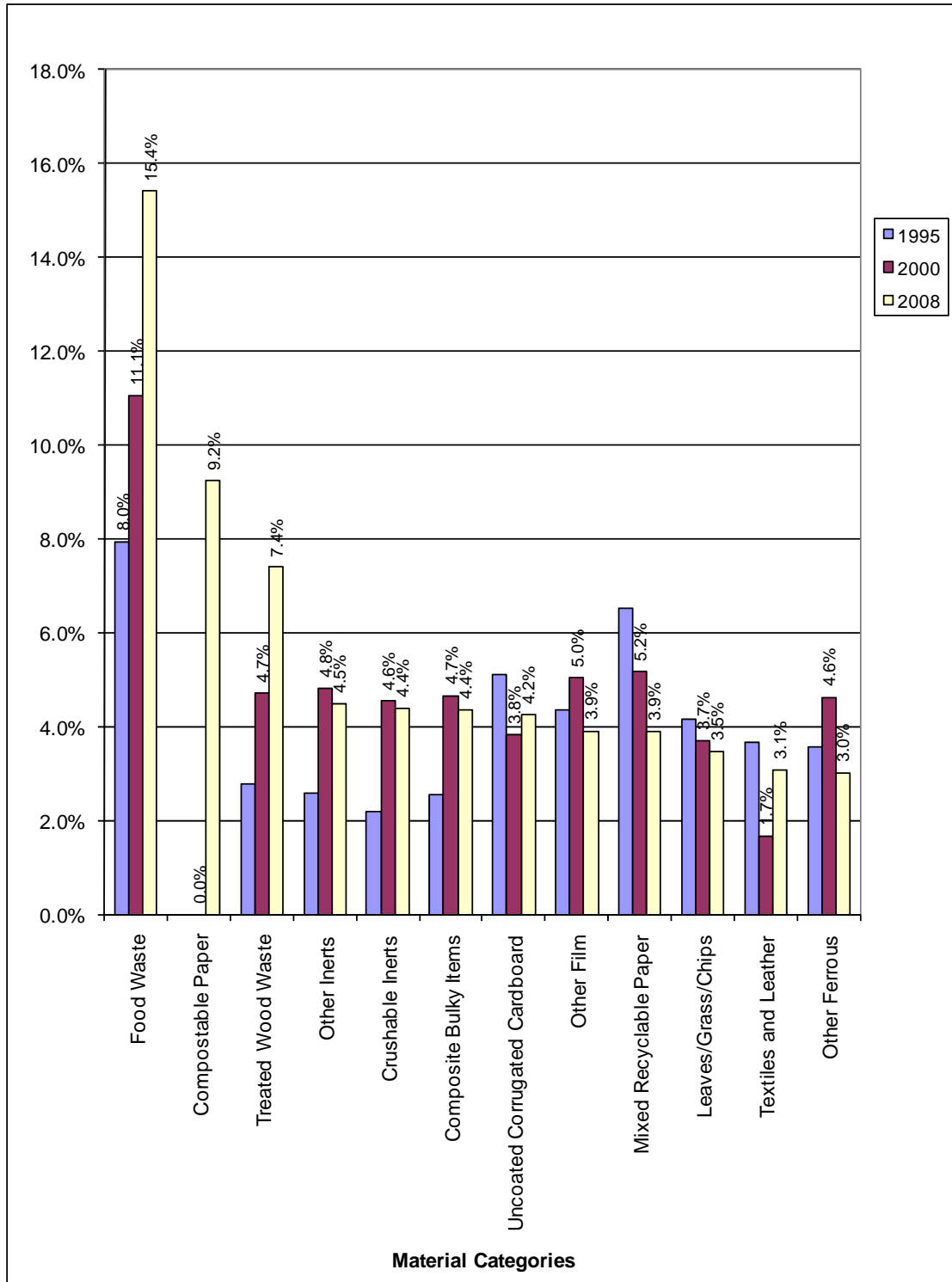


Figure 8 City of Fremont Top 12 Most Common Materials – Aggregate



2008 WASTE CHARACTERIZATION RESULTS
CITY OF FREMONT

Figure 9 City of Fremont Top 12 Most Common Materials from 2000

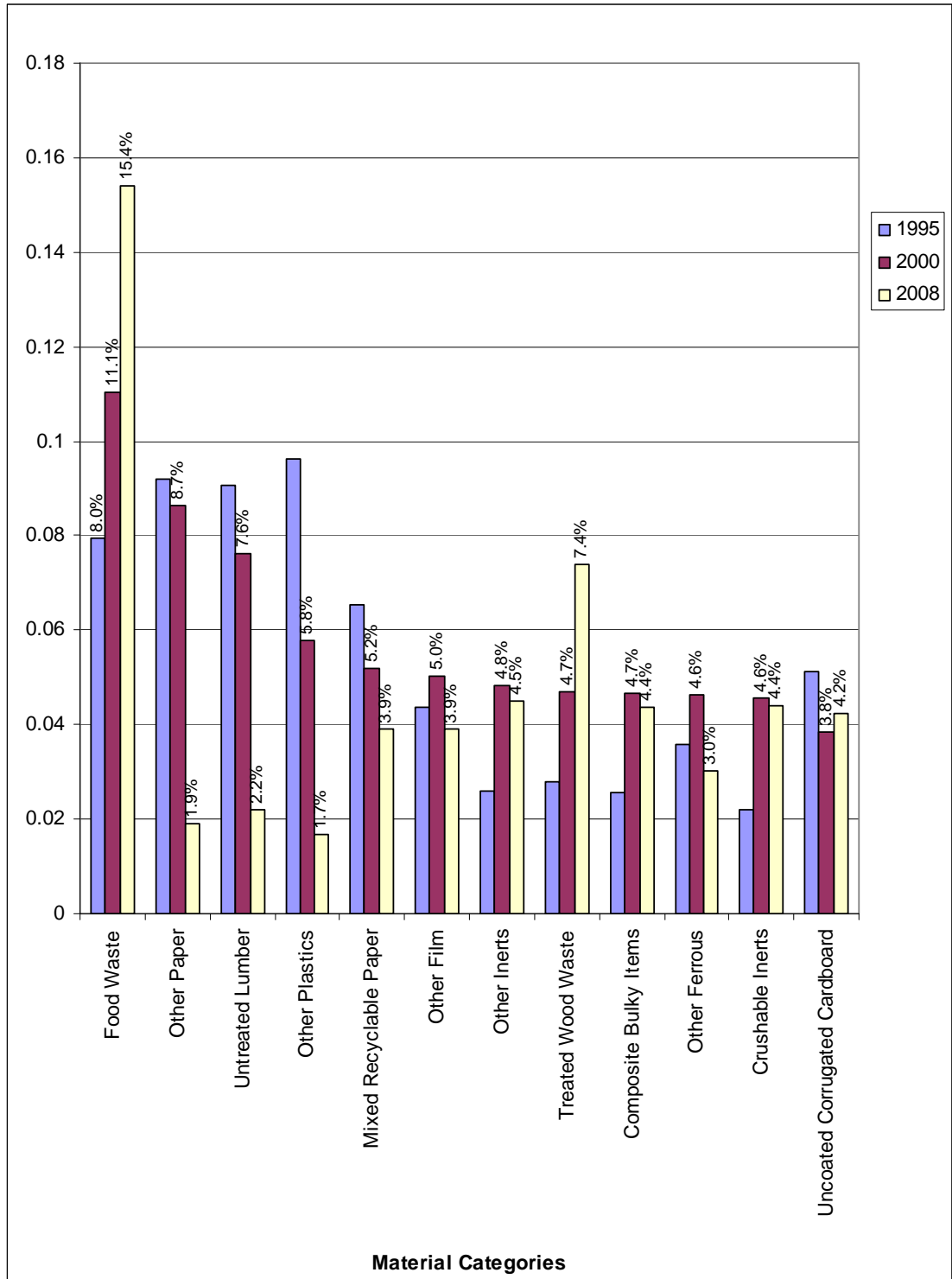


Table 3
Summary of Overall Material Proportions for City of Fremont

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Aggregated
Paper		21.8%	24.3%	28.3%	30.4%	7.6%	21.5%
	1 Uncoated Corrugated Cardboard	0.3%	1.8%	3.4%	11.6%	2.8%	4.2%
	2 High Grade Paper	0.6%	0.4%	1.1%	3.8%	0.5%	1.3%
	3 Newspaper	1.3%	1.3%	0.6%	0.9%	0.3%	0.8%
	4 Mixed Recyclable Paper	2.4%	4.3%	4.2%	5.8%	3.1%	3.9%
	5 Compostable Paper	16.2%	15.7%	18.3%	2.2%	0.4%	9.2%
	6 Other Paper	1.0%	0.8%	0.7%	6.2%	0.4%	1.9%
Plastics		14.7%	13.2%	15.2%	8.9%	2.8%	10.2%
	7 HDPE Bottles (#2)	0.5%	0.7%	0.6%	0.0%	0.0%	0.3%
	8 PETE Bottles (#1)	0.6%	0.8%	0.5%	0.1%	0.0%	0.4%
	9 Other Plastic Containers	0.9%	1.3%	0.7%	0.2%	0.0%	0.5%
	10 Plastic Bags	1.8%	1.4%	1.1%	0.1%	0.1%	0.8%
	11 Other Film	5.2%	4.4%	6.3%	3.6%	1.1%	3.9%
	12 Expanded Polystyrene Blocks	0.1%	0.1%	0.2%	0.1%	0.1%	0.1%
	13 Mixed Rigid Plastics	3.9%	2.7%	4.4%	1.5%	0.8%	2.5%
	14 Other Plastics	1.6%	1.8%	1.3%	3.2%	0.7%	1.7%
Glass		2.1%	3.8%	2.7%	5.9%	5.0%	4.0%
	15 Recyclable Glass Bottles/Containers	1.6%	2.9%	1.1%	0.5%	0.3%	1.0%
	16 Other Glass	0.5%	0.9%	1.6%	5.4%	4.7%	3.0%
Metals		4.0%	5.6%	4.6%	3.7%	3.7%	4.2%
	17 Aluminum Cans	0.2%	0.3%	0.2%	0.1%	0.0%	0.1%
	18 Other Non-Ferrous	0.5%	1.1%	0.9%	0.2%	0.3%	0.5%
	19 Steel Food and Beverage Cans	1.0%	0.9%	0.6%	0.1%	0.0%	0.5%
	20 Other Ferrous	2.3%	3.2%	2.9%	3.3%	3.3%	3.0%
	21 White Goods	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Yard Waste		1.0%	4.7%	5.2%	11.4%	6.3%	5.9%
	22 Leaves/Grass/Chips	0.8%	3.5%	3.4%	4.9%	4.6%	3.5%
	23 Branches/Stumps/Prunings/Trimmings	0.2%	1.2%	1.9%	6.5%	1.7%	2.4%
Organics		51.5%	45.7%	34.9%	20.2%	36.8%	36.9%
	24 Food Waste	35.4%	25.0%	20.7%	4.0%	0.8%	15.4%
	25 Tires	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
	26 Untreated Lumber	0.6%	0.9%	1.9%	1.5%	4.9%	2.2%
	27 Pallets	0.0%	0.0%	1.0%	8.3%	1.3%	2.4%
	28 Treated Wood Waste	0.7%	3.2%	4.0%	4.0%	20.0%	7.4%
	29 Textiles and Leather	4.3%	5.9%	2.4%	1.2%	3.1%	3.1%
	30 Carpet	0.2%	1.4%	0.6%	0.5%	5.7%	1.9%
	31 Diapers	6.4%	6.9%	2.2%	0.0%	0.0%	2.6%
	32 Manure	3.1%	1.0%	0.9%	0.0%	0.1%	1.0%
	33 Other Organics	0.7%	1.3%	1.2%	0.6%	1.0%	0.9%
Inerts		4.0%	2.1%	7.0%	14.7%	23.2%	11.8%
	34 Crushable Inerts	1.3%	0.6%	2.8%	3.2%	10.7%	4.4%
	35 Other Inerts	2.8%	1.4%	2.0%	8.0%	5.9%	4.5%
	36 Gypsum Board	0.0%	0.1%	0.8%	0.5%	4.9%	1.6%
	37 Asphalt Roofing	0.0%	0.0%	1.4%	3.0%	1.6%	1.4%
HHW		0.6%	0.5%	0.8%	1.2%	1.2%	0.9%
	38 Paint/Adhesives	0.0%	0.2%	0.0%	0.1%	0.0%	0.1%
	39 Vehicle & Equipment Fluids	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
	40 Universal Hazardous Waste	0.2%	0.0%	0.0%	0.7%	0.1%	0.2%
	41 Medical Waste	0.1%	0.0%	0.2%	0.2%	0.0%	0.1%
	42 Medicine	0.0%	0.1%	0.1%	0.1%	0.0%	0.0%
	43 Covered E-Waste	0.0%	0.0%	0.0%	0.0%	0.4%	0.1%
	44 Other E-Waste	0.0%	0.0%	0.4%	0.1%	0.4%	0.2%
	45 Other Hazardous Waste	0.3%	0.2%	0.0%	0.0%	0.1%	0.1%
Special		0.3%	0.2%	1.1%	3.7%	13.4%	4.6%
	46 Brown Goods	0.3%	0.2%	0.1%	0.4%	0.2%	0.2%
	47 Composite Bulky Items	0.0%	0.0%	0.9%	3.3%	13.2%	4.4%
	48 Other Special Waste	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%
TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF FREMONT**

**Table 4
Summary of Overall Material Tonnages for City of Fremont**

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
Paper		8,179	4,223	9,063	11,580	3,374	36,419
	1 Uncoated Corrugated Cardboard	123	308	1,097	4,405	1,269	7,201
	2 High Grade Paper	209	61	342	1,445	222	2,279
	3 Newspaper	477	232	207	329	142	1,387
	4 Mixed Recyclable Paper	919	748	1,359	2,211	1,383	6,620
	5 Compostable Paper	6,080	2,737	5,840	836	183	15,676
	6 Other Paper	371	137	219	2,355	175	3,256
Plastics		5,503	2,300	4,866	3,389	1,259	17,317
	7 HDPE Bottles (#2)	206	123	191	18	9	547
	8 PETE Bottles (#1)	215	143	172	49	22	601
	9 Other Plastic Containers	329	231	226	58	8	852
	10 Plastic Bags	676	251	364	25	41	1,357
	11 Other Film	1,965	762	2,019	1,384	510	6,640
	12 Expanded Polystyrene Blocks	30	12	59	47	43	192
	13 Mixed Rigid Plastics	1,479	466	1,413	585	334	4,278
	14 Other Plastics	602	313	421	1,224	291	2,850
Glass		775	659	875	2,257	2,227	6,794
	15 Recyclable Glass Bottles/Containers	599	506	348	197	113	1,764
	16 Other Glass	176	153	527	2,060	2,114	5,030
Metals		1,519	965	1,478	1,424	1,660	7,046
	17 Aluminum Cans	68	56	59	34	15	232
	18 Other Non-Ferrous	198	190	296	66	150	901
	19 Steel Food and Beverage Cans	373	161	188	48	2	772
	20 Other Ferrous	880	558	934	1,275	1,482	5,130
	21 White Goods	0	0	0	0	11	11
Yard Waste		388	819	1,675	4,331	2,805	10,018
	22 Leaves/Grass/Chips	296	603	1,080	1,866	2,064	5,910
	23 Branches/Stumps/Prunings/Trimnings	93	216	594	2,465	740	4,108
Organics		19,321	7,938	11,172	7,679	16,400	62,511
	24 Food Waste	13,300	4,341	6,611	1,521	342	26,115
	25 Tires	10	0	0	24	0	34
	26 Untreated Lumber	212	162	596	562	2,175	3,708
	27 Pallets	0	0	332	3,156	566	4,054
	28 Treated Wood Waste	248	556	1,285	1,540	8,911	12,539
	29 Textiles and Leather	1,613	1,025	774	438	1,389	5,239
	30 Carpet	87	251	201	175	2,525	3,239
	31 Diapers	2,412	1,205	699	16	4	4,336
	32 Manure	1,168	179	302	0	26	1,675
	33 Other Organics	272	219	370	247	463	1,571
Inerts		1,517	358	2,235	5,588	10,335	20,034
	34 Crushable Inerts	484	105	884	1,236	4,767	7,476
	35 Other Inerts	1,033	237	645	3,052	2,650	7,617
	36 Gypsum Board	0	16	259	175	2,188	2,638
	37 Asphalt Roofing	1	0	447	1,125	730	2,303
HHW		226	92	253	446	519	1,536
	38 Paint/Adhesives	10	42	3	54	0	109
	39 Vehicle & Equipment Fluids	0	0	0	0	66	66
	40 Universal Hazardous Waste	63	5	15	275	57	415
	41 Medical Waste	23	2	68	92	0	186
	42 Medicine	5	10	20	0	0	35
	43 Covered E-Waste	0	0	0	0	183	183
	44 Other E-Waste	10	5	142	25	157	340
	45 Other Hazardous Waste	114	28	5	0	55	202
Special		116	28	364	1,400	5,961	7,870
	46 Brown Goods	116	28	29	144	98	415
	47 Composite Bulky Items	0	0	285	1,256	5,863	7,405
	48 Other Special Waste	0	0	50	0	0	50
TOTAL		37,545	17,384	31,981	38,094	44,540	169,544

Table 5
City of Fremont Aggregate Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		36,419	21.48%	19.54%	23.58%
	1 Uncoated Corrugated Cardboard	7,201	4.25%	3.33%	5.31%
	2 High Grade Paper	2,279	1.34%	0.96%	1.83%
	3 Newspaper	1,387	0.82%	0.69%	0.99%
	4 Mixed Recyclable Paper	6,620	3.90%	3.18%	4.78%
	5 Compostable Paper	15,676	9.25%	8.70%	9.84%
	6 Other Paper	3,256	1.92%	1.31%	2.68%
Plastics		17,317	10.21%	9.44%	11.09%
	7 HDPE Bottles (#2)	547	0.32%	0.29%	0.36%
	8 PETE Bottles (#1)	601	0.35%	0.33%	0.38%
	9 Other Plastic Containers	852	0.50%	0.45%	0.56%
	10 Plastic Bags	1,357	0.80%	0.73%	0.88%
	11 Other Film	6,640	3.92%	3.55%	4.34%
	12 Expanded Polystyrene Blocks	192	0.11%	0.09%	0.14%
	13 Mixed Rigid Plastics	4,278	2.52%	2.28%	2.80%
	14 Other Plastics	2,850	1.68%	1.36%	2.08%
Glass		6,794	4.01%	3.06%	5.17%
	15 Recyclable Glass Bottles/Containers	1,764	1.04%	0.93%	1.17%
	16 Other Glass	5,030	2.97%	2.05%	4.09%
Metals		7,046	4.16%	3.59%	4.81%
	17 Aluminum Cans	232	0.14%	0.12%	0.15%
	18 Other Non-Ferrous	901	0.53%	0.45%	0.64%
	19 Steel Food and Beverage Cans	772	0.46%	0.41%	0.51%
	20 Other Ferrous	5,130	3.03%	2.50%	3.65%
	21 White Goods	11	0.01%	0.00%	0.01%
Yard Waste		10,018	5.91%	4.31%	7.88%
	22 Leaves/Grass/Chips	5,910	3.49%	2.50%	4.73%
	23 Branches/Slumps/Prunings/Trimmings	4,108	2.42%	1.61%	3.48%
Organics		62,511	36.87%	33.50%	40.41%
	24 Food Waste	26,115	15.40%	14.44%	16.48%
	25 Tires	34	0.02%	0.01%	0.03%
	26 Untreated Lumber	3,708	2.19%	1.46%	3.05%
	27 Pallets	4,054	2.39%	1.61%	3.34%
	28 Treated Wood Waste	12,539	7.40%	5.17%	9.87%
	29 Textiles and Leather	5,239	3.09%	2.62%	3.64%
	30 Carpet	3,239	1.91%	0.97%	3.06%
	31 Diapers	4,336	2.56%	2.33%	2.83%
	32 Manure	1,675	0.99%	0.81%	1.23%
	33 Other Organics	1,571	0.93%	0.74%	1.15%
Inerts		20,034	11.82%	8.66%	15.38%
	34 Crushable Inerts	7,476	4.41%	2.90%	6.18%
	35 Other Inerts	7,617	4.49%	3.23%	6.05%
	36 Gypsum Board	2,638	1.56%	0.80%	2.46%
	37 Asphalt Roofing	2,303	1.36%	0.88%	1.99%
HHW		1,536	0.91%	0.66%	1.21%
	38 Paint/Adhesives	109	0.06%	0.04%	0.10%
	39 Vehicle & Equipment Fluids	66	0.04%	0.01%	0.07%
	40 Universal Hazardous Waste	415	0.24%	0.16%	0.36%
	41 Medical Waste	186	0.11%	0.08%	0.16%
	42 Medicine	35	0.02%	0.01%	0.03%
	43 Covered E-Waste	183	0.11%	0.04%	0.20%
	44 Other E-Waste	340	0.20%	0.13%	0.29%
	45 Other Hazardous Waste	202	0.12%	0.09%	0.16%
Special		7,870	4.64%	2.65%	6.97%
	46 Brown Goods	415	0.24%	0.19%	0.32%
	47 Composite Bulky Items	7,405	4.37%	2.39%	6.68%
	48 Other Special Waste	50	0.03%	0.01%	0.05%
TOTAL		169,544	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF FREMONT**

**Table 6
City of Fremont Single-Family Residential Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		8,179	21.79%	19.35%	24.32%
	1 Uncoated Corrugated Cardboard	123	0.33%	0.14%	0.60%
	2 High Grade Paper	209	0.56%	0.26%	0.97%
	3 Newspaper	477	1.27%	0.63%	2.13%
	4 Mixed Recyclable Paper	919	2.45%	1.59%	3.48%
	5 Compostable Paper	6,080	16.19%	14.39%	18.08%
	6 Other Paper	371	0.99%	0.74%	1.28%
Plastics		5,503	14.66%	13.00%	16.40%
	7 HDPE Bottles (#2)	206	0.55%	0.40%	0.72%
	8 PETE Bottles (#1)	215	0.57%	0.47%	0.68%
	9 Other Plastic Containers	329	0.88%	0.68%	1.10%
	10 Plastic Bags	676	1.80%	1.45%	2.19%
	11 Other Film	1,965	5.23%	4.35%	6.20%
	12 Expanded Polystyrene Blocks	30	0.08%	0.03%	0.15%
	13 Mixed Rigid Plastics	1,479	3.94%	3.12%	4.85%
	14 Other Plastics	602	1.60%	1.25%	2.00%
Glass		775	2.07%	1.53%	2.68%
	15 Recyclable Glass Bottles/Containers	599	1.60%	1.15%	2.11%
	16 Other Glass	176	0.47%	0.20%	0.86%
Metals		1,519	4.04%	3.15%	5.04%
	17 Aluminum Cans	68	0.18%	0.14%	0.23%
	18 Other Non-Ferrous	198	0.53%	0.38%	0.71%
	19 Steel Food and Beverage Cans	373	0.99%	0.77%	1.24%
	20 Other Ferrous	880	2.34%	1.53%	3.33%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		388	1.03%	0.64%	1.52%
	22 Leaves/Grass/Chips	296	0.79%	0.43%	1.25%
	23 Branches/Stumps/Prunings/Trimnings	93	0.25%	0.09%	0.48%
Organics		19,321	51.46%	48.60%	54.31%
	24 Food Waste	13,300	35.42%	31.73%	39.21%
	25 Tires	10	0.03%	0.01%	0.06%
	26 Untreated Lumber	212	0.57%	0.24%	1.03%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	248	0.66%	0.35%	1.07%
	29 Textiles and Leather	1,613	4.30%	2.95%	5.89%
	30 Carpet	87	0.23%	0.07%	0.48%
	31 Diapers	2,412	6.42%	5.31%	7.64%
	32 Manure	1,168	3.11%	1.46%	5.36%
	33 Other Organics	272	0.72%	0.36%	1.21%
Inerts		1,517	4.04%	2.50%	5.94%
	34 Crushable Inerts	484	1.29%	0.61%	2.21%
	35 Other Inerts	1,033	2.75%	1.44%	4.47%
	36 Gypsum Board	0	0.00%	0.00%	0.00%
	37 Asphalt Roofing	1	0.00%	0.00%	0.00%
HHW		226	0.60%	0.30%	1.00%
	38 Paint/Adhesives	10	0.03%	0.01%	0.06%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	63	0.17%	0.06%	0.33%
	41 Medical Waste	23	0.06%	0.02%	0.12%
	42 Medicine	5	0.01%	0.00%	0.02%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	10	0.03%	0.01%	0.06%
	45 Other Hazardous Waste	114	0.30%	0.11%	0.60%
Special		116	0.31%	0.09%	0.65%
	46 Brown Goods	116	0.31%	0.09%	0.65%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		37,545	100.00%		

Table 7
City of Fremont Multi-Family Residential Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		4,223	24.29%	21.26%	27.46%
	1 Uncoated Corrugated Cardboard	308	1.77%	1.08%	2.63%
	2 High Grade Paper	61	0.35%	0.15%	0.65%
	3 Newspaper	232	1.34%	0.74%	2.11%
	4 Mixed Recyclable Paper	748	4.30%	2.49%	6.58%
	5 Compostable Paper	2,737	15.74%	12.45%	19.34%
	6 Other Paper	137	0.79%	0.50%	1.14%
Plastics		2,300	13.23%	11.29%	15.31%
	7 HDPE Bottles (#2)	123	0.71%	0.46%	1.01%
	8 PETE Bottles (#1)	143	0.82%	0.64%	1.03%
	9 Other Plastic Containers	231	1.33%	0.78%	2.02%
	10 Plastic Bags	251	1.44%	1.06%	1.88%
	11 Other Film	762	4.38%	3.33%	5.56%
	12 Expanded Polystyrene Blocks	12	0.07%	0.03%	0.13%
	13 Mixed Rigid Plastics	466	2.68%	2.09%	3.34%
	14 Other Plastics	313	1.80%	1.05%	2.74%
Glass		659	3.79%	2.76%	4.99%
	15 Recyclable Glass Bottles/Containers	506	2.91%	2.15%	3.79%
	16 Other Glass	153	0.88%	0.35%	1.64%
Metals		965	5.55%	3.97%	7.38%
	17 Aluminum Cans	56	0.32%	0.20%	0.47%
	18 Other Non-Ferrous	190	1.10%	0.55%	1.82%
	19 Steel Food and Beverage Cans	161	0.92%	0.61%	1.30%
	20 Other Ferrous	558	3.21%	1.72%	5.15%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		819	4.71%	2.17%	8.15%
	22 Leaves/Grass/Chips	603	3.47%	1.40%	6.42%
	23 Branches/Stumps/Prunings/Trimmings	216	1.24%	0.35%	2.69%
Organics		7,938	45.66%	38.96%	52.45%
	24 Food Waste	4,341	24.97%	18.78%	31.74%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	162	0.93%	0.28%	1.96%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	556	3.20%	1.33%	5.83%
	29 Textiles and Leather	1,025	5.90%	4.03%	8.09%
	30 Carpet	251	1.44%	0.34%	3.28%
	31 Diapers	1,205	6.93%	4.42%	9.97%
	32 Manure	179	1.03%	0.34%	2.08%
	33 Other Organics	219	1.26%	0.63%	2.09%
Inerts		358	2.06%	0.92%	3.64%
	34 Crushable Inerts	105	0.60%	0.17%	1.31%
	35 Other Inerts	237	1.36%	0.58%	2.48%
	36 Gypsum Board	16	0.09%	0.02%	0.22%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		92	0.53%	0.22%	0.98%
	38 Paint/Adhesives	42	0.24%	0.04%	0.59%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	5	0.03%	0.01%	0.06%
	41 Medical Waste	2	0.01%	0.00%	0.03%
	42 Medicine	10	0.06%	0.02%	0.11%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	5	0.03%	0.01%	0.08%
	45 Other Hazardous Waste	28	0.16%	0.03%	0.38%
Special		28	0.16%	0.03%	0.40%
	46 Brown Goods	28	0.16%	0.03%	0.40%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		17,384	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF FREMONT**

**Table 8
City of Fremont Commercial Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		9,063	28.34%	25.08%	31.71%
	1 Uncoated Corrugated Cardboard	1,097	3.43%	2.20%	4.92%
	2 High Grade Paper	342	1.07%	0.70%	1.51%
	3 Newspaper	207	0.65%	0.40%	0.95%
	4 Mixed Recyclable Paper	1,359	4.25%	2.93%	5.80%
	5 Compostable Paper	5,840	18.26%	15.47%	21.22%
	6 Other Paper	219	0.68%	0.53%	0.85%
Plastics		4,866	15.21%	13.34%	17.19%
	7 HDPE Bottles (#2)	191	0.60%	0.45%	0.77%
	8 PETE Bottles (#1)	172	0.54%	0.42%	0.67%
	9 Other Plastic Containers	226	0.71%	0.54%	0.90%
	10 Plastic Bags	364	1.14%	0.80%	1.53%
	11 Other Film	2,019	6.31%	5.23%	7.49%
	12 Expanded Polystyrene Blocks	59	0.18%	0.11%	0.28%
	13 Mixed Rigid Plastics	1,413	4.42%	3.39%	5.57%
	14 Other Plastics	421	1.32%	1.00%	1.68%
Glass		875	2.74%	1.65%	4.08%
	15 Recyclable Glass Bottles/Containers	348	1.09%	0.74%	1.51%
	16 Other Glass	527	1.65%	0.75%	2.88%
Metals		1,478	4.62%	3.41%	6.00%
	17 Aluminum Cans	59	0.18%	0.15%	0.23%
	18 Other Non-Ferrous	296	0.93%	0.57%	1.37%
	19 Steel Food and Beverage Cans	188	0.59%	0.37%	0.86%
	20 Other Ferrous	934	2.92%	1.90%	4.15%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		1,675	5.24%	3.17%	7.79%
	22 Leaves/Grass/Chips	1,080	3.38%	1.90%	5.25%
	23 Branches/Stumps/Prunings/Trimnings	594	1.86%	0.89%	3.16%
Organics		11,172	34.93%	31.04%	38.93%
	24 Food Waste	6,611	20.67%	16.23%	25.50%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	596	1.87%	1.05%	2.91%
	27 Pallets	332	1.04%	0.44%	1.89%
	28 Treated Wood Waste	1,285	4.02%	2.49%	5.90%
	29 Textiles and Leather	774	2.42%	1.73%	3.23%
	30 Carpet	201	0.63%	0.29%	1.09%
	31 Diapers	699	2.19%	1.33%	3.25%
	32 Manure	302	0.95%	0.43%	1.66%
	33 Other Organics	370	1.16%	0.71%	1.71%
Inerts		2,235	6.99%	4.43%	10.07%
	34 Crushable Inerts	884	2.76%	1.52%	4.36%
	35 Other Inerts	645	2.02%	1.32%	2.86%
	36 Gypsum Board	259	0.81%	0.33%	1.49%
	37 Asphalt Roofing	447	1.40%	0.54%	2.65%
HHW		253	0.79%	0.44%	1.25%
	38 Paint/Adhesives	3	0.01%	0.00%	0.02%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	15	0.05%	0.03%	0.07%
	41 Medical Waste	68	0.21%	0.10%	0.38%
	42 Medicine	20	0.06%	0.03%	0.11%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	142	0.45%	0.20%	0.78%
	45 Other Hazardous Waste	5	0.01%	0.01%	0.03%
Special		364	1.14%	0.53%	1.98%
	46 Brown Goods	29	0.09%	0.04%	0.16%
	47 Composite Bulky Items	285	0.89%	0.38%	1.63%
	48 Other Special Waste	50	0.16%	0.06%	0.29%
TOTAL		31,981	100.00%		

Table 9
City of Fremont Roll-Off Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		11,580	30.40%	23.37%	37.91%
	1 Uncoated Corrugated Cardboard	4,405	11.56%	8.03%	15.64%
	2 High Grade Paper	1,445	3.79%	2.22%	5.77%
	3 Newspaper	329	0.86%	0.48%	1.36%
	4 Mixed Recyclable Paper	2,211	5.80%	3.61%	8.48%
	5 Compostable Paper	836	2.20%	1.42%	3.14%
	6 Other Paper	2,355	6.18%	3.61%	9.39%
Plastics		3,389	8.90%	6.25%	11.96%
	7 HDPE Bottles (#2)	18	0.05%	0.03%	0.07%
	8 PETE Bottles (#1)	49	0.13%	0.08%	0.18%
	9 Other Plastic Containers	58	0.15%	0.08%	0.25%
	10 Plastic Bags	25	0.06%	0.04%	0.10%
	11 Other Film	1,384	3.63%	2.48%	5.00%
	12 Expanded Polystyrene Blocks	47	0.12%	0.07%	0.19%
	13 Mixed Rigid Plastics	585	1.54%	1.00%	2.18%
	14 Other Plastics	1,224	3.21%	1.94%	4.79%
Glass		2,257	5.92%	3.29%	9.26%
	15 Recyclable Glass Bottles/Containers	197	0.52%	0.27%	0.83%
	16 Other Glass	2,060	5.41%	2.88%	8.67%
Metals		1,424	3.74%	2.42%	5.33%
	17 Aluminum Cans	34	0.09%	0.05%	0.13%
	18 Other Non-Ferrous	66	0.17%	0.10%	0.27%
	19 Steel Food and Beverage Cans	48	0.13%	0.07%	0.20%
	20 Other Ferrous	1,275	3.35%	2.09%	4.88%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		4,331	11.37%	6.33%	17.65%
	22 Leaves/Grass/Chips	1,866	4.90%	2.59%	7.88%
	23 Branches/Stumps/Prunings/Trimmings	2,465	6.47%	3.28%	10.64%
Organics		7,679	20.16%	14.80%	26.11%
	24 Food Waste	1,521	3.99%	2.27%	6.17%
	25 Tires	24	0.06%	0.03%	0.11%
	26 Untreated Lumber	562	1.48%	0.85%	2.27%
	27 Pallets	3,156	8.28%	5.10%	12.15%
	28 Treated Wood Waste	1,540	4.04%	2.23%	6.37%
	29 Textiles and Leather	438	1.15%	0.63%	1.82%
	30 Carpet	175	0.46%	0.24%	0.74%
	31 Diapers	16	0.04%	0.02%	0.07%
	32 Manure	0	0.00%	0.00%	0.00%
	33 Other Organics	247	0.65%	0.36%	1.03%
Inerts		5,588	14.67%	8.65%	21.95%
	34 Crushable Inerts	1,236	3.24%	1.71%	5.25%
	35 Other Inerts	3,052	8.01%	4.47%	12.47%
	36 Gypsum Board	175	0.46%	0.23%	0.77%
	37 Asphalt Roofing	1,125	2.95%	1.41%	5.04%
HHW		446	1.17%	0.62%	1.89%
	38 Paint/Adhesives	54	0.14%	0.07%	0.24%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	275	0.72%	0.37%	1.19%
	41 Medical Waste	92	0.24%	0.12%	0.40%
	42 Medicine	0	0.00%	0.00%	0.00%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	25	0.07%	0.03%	0.11%
	45 Other Hazardous Waste	0	0.00%	0.00%	0.00%
Special		1,400	3.68%	2.11%	5.66%
	46 Brown Goods	144	0.38%	0.20%	0.60%
	47 Composite Bulky Items	1,256	3.30%	1.83%	5.18%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		38,094	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF FREMONT**

**Table 10
City of Fremont Self Haul Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		3,374	7.58%	5.67%	9.73%
	1 Uncoated Corrugated Cardboard	1,269	2.85%	2.07%	3.75%
	2 High Grade Paper	222	0.50%	0.32%	0.72%
	3 Newspaper	142	0.32%	0.20%	0.46%
	4 Mixed Recyclable Paper	1,383	3.11%	2.10%	4.30%
	5 Compostable Paper	183	0.41%	0.28%	0.57%
	6 Other Paper	175	0.39%	0.24%	0.58%
Plastics		1,259	2.83%	2.16%	3.58%
	7 HDPE Bottles (#2)	9	0.02%	0.01%	0.03%
	8 PETE Bottles (#1)	22	0.05%	0.03%	0.07%
	9 Other Plastic Containers	8	0.02%	0.01%	0.03%
	10 Plastic Bags	41	0.09%	0.06%	0.13%
	11 Other Film	510	1.15%	0.81%	1.53%
	12 Expanded Polystyrene Blocks	43	0.10%	0.06%	0.14%
	13 Mixed Rigid Plastics	334	0.75%	0.55%	0.99%
	14 Other Plastics	291	0.65%	0.44%	0.90%
Glass		2,227	5.00%	3.42%	6.87%
	15 Recyclable Glass Bottles/Containers	113	0.25%	0.16%	0.37%
	16 Other Glass	2,114	4.75%	3.21%	6.57%
Metals		1,660	3.73%	2.79%	4.79%
	17 Aluminum Cans	15	0.03%	0.02%	0.05%
	18 Other Non-Ferrous	150	0.34%	0.23%	0.47%
	19 Steel Food and Beverage Cans	2	0.01%	0.00%	0.01%
	20 Other Ferrous	1,482	3.33%	2.45%	4.34%
	21 White Goods	11	0.03%	0.02%	0.04%
Yard Waste		2,805	6.30%	4.00%	9.07%
	22 Leaves/Grass/Chips	2,064	4.64%	2.85%	6.82%
	23 Branches/Stumps/Prunings/Trimnings	740	1.66%	1.07%	2.38%
Organics		16,400	36.82%	29.92%	44.00%
	24 Food Waste	342	0.77%	0.48%	1.11%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	2,175	4.88%	3.29%	6.77%
	27 Pallets	566	1.27%	0.81%	1.83%
	28 Treated Wood Waste	8,911	20.01%	15.07%	25.44%
	29 Textiles and Leather	1,389	3.12%	2.19%	4.20%
	30 Carpet	2,525	5.67%	3.53%	8.28%
	31 Diapers	4	0.01%	0.01%	0.01%
	32 Manure	26	0.06%	0.04%	0.09%
	33 Other Organics	463	1.04%	0.70%	1.44%
Inerts		10,335	23.20%	16.87%	30.21%
	34 Crushable Inerts	4,767	10.70%	7.40%	14.53%
	35 Other Inerts	2,650	5.95%	3.82%	8.52%
	36 Gypsum Board	2,188	4.91%	3.21%	6.95%
	37 Asphalt Roofing	730	1.64%	1.00%	2.44%
HHW		519	1.16%	0.72%	1.71%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	66	0.15%	0.09%	0.22%
	40 Universal Hazardous Waste	57	0.13%	0.08%	0.19%
	41 Medical Waste	0	0.00%	0.00%	0.00%
	42 Medicine	0	0.00%	0.00%	0.00%
	43 Covered E-Waste	183	0.41%	0.25%	0.62%
	44 Other E-Waste	157	0.35%	0.21%	0.52%
	45 Other Hazardous Waste	55	0.12%	0.07%	0.19%
Special		5,961	13.38%	8.94%	18.57%
	46 Brown Goods	98	0.22%	0.14%	0.33%
	47 Composite Bulky Items	5,863	13.16%	8.74%	18.33%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		44,540	100.00%		

Table 11
City of Fremont Detailed Historic Comparison of Overall Jurisdiction-wide Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		25.7%	22.4%	21.5%	47,662	44,786	36,419
	1 Uncoated Corrugated Cardboard	5.1%	3.8%	4.2%	9,469	7,667	7,201
	2 High Grade Paper	2.3%	2.9%	1.3%	4,207	5,803	2,279
	3 Newspaper	2.6%	1.8%	0.8%	4,837	3,674	1,387
	4 Mixed Recyclable Paper	6.5%	5.2%	3.9%	12,101	10,344	6,620
	5 Compostable Paper	NA	NA	9.2%	NA	NA	15,676
	6 Other Paper	9.2%	8.7%	1.9%	17,049	17,298	3,256
Plastics		14.9%	12.1%	10.2%	27,519	24,248	17,317
	7 HDPE Bottles (#2)	0.6%	0.6%	0.3%	1,130	1,294	547
	8 PETE Bottles (#1)	0.2%	0.4%	0.4%	445	850	601
	9 Other Plastic Containers	NA	0.2%	0.5%	NA	455	852
	10 Plastic Bags	NA	NA	0.8%	NA	NA	1,357
	11 Other Film	4.4%	5.0%	3.9%	8,080	10,070	6,640
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	192
	13 Mixed Rigid Plastics	NA	NA	2.5%	NA	NA	4,278
	14 Other Plastics	9.6%	5.8%	1.7%	17,864	11,580	2,850
Glass		2.0%	2.0%	4.0%	3,780	4,053	6,794
	15 Recyclable Glass Bottles/Containers	1.6%	1.6%	1.0%	2,946	3,242	1,764
	16 Other Glass	0.5%	0.4%	3.0%	834	811	5,030
Metals		5.2%	6.5%	4.2%	9,710	12,932	7,046
	17 Aluminum Cans	0.3%	0.4%	0.1%	593	737	232
	18 Other Non-Ferrous	0.3%	0.7%	0.5%	630	1,342	901
	19 Steel Food and Beverage Cans	0.6%	0.6%	0.5%	1,038	1,205	772
	20 Other Ferrous	3.6%	4.6%	3.0%	6,634	9,265	5,130
	21 White Goods	0.4%	0.2%	0.0%	815	382	11
Yard Waste		8.6%	6.0%	5.9%	15,900	11,964	10,018
	22 Leaves/Grass/Chips	4.2%	3.7%	3.5%	7,728	7,408	5,910
	23 Branches/Stumps/Prunings/Trimings	4.4%	2.3%	2.4%	8,172	4,556	4,108
Organics		26.8%	31.4%	36.9%	49,571	62,773	62,511
	24 Food Waste	8.0%	11.1%	15.4%	14,732	22,095	26,115
	25 Tires	0.2%	0.6%	0.0%	389	1,170	34
	26 Untreated Lumber	9.1%	7.6%	2.2%	16,808	15,228	3,708
	27 Pallets	NA	NA	2.4%	NA	NA	4,054
	28 Treated Wood Waste	2.8%	4.7%	7.4%	5,152	9,419	12,539
	29 Textiles and Leather	3.7%	1.7%	3.1%	6,801	3,330	5,239
	30 Carpet	NA	2.3%	1.9%	NA	4,583	3,239
	31 Diapers	1.8%	1.7%	2.6%	3,336	3,446	4,336
	32 Manure	NA	NA	1.0%	NA	NA	1,675
	33 Other Organics	1.3%	1.8%	0.9%	2,353	3,502	1,571
Inerts		12.4%	12.7%	11.8%	22,886	25,393	20,034
	34 Crushable Inerts	2.2%	4.6%	4.4%	4,058	9,107	7,476
	35 Other Inerts	2.6%	4.8%	4.5%	4,800	9,625	7,617
	36 Gypsum Board	4.8%	1.7%	1.6%	8,839	3,406	2,638
	37 Asphalt Roofing	2.8%	1.6%	1.4%	5,189	3,255	2,303
HHW		0.5%	0.2%	0.9%	982	391	1,536
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	109
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	66
	40 Universal Hazardous Waste	NA	NA	0.2%	NA	NA	415
	41 Medical Waste	NA	NA	0.1%	NA	NA	186
	42 Medicine	NA	NA	0.0%	NA	NA	35
	43 Covered E-Waste	NA	NA	0.1%	NA	NA	183
	44 Other E-Waste	NA	NA	0.2%	NA	NA	340
	45 Other Hazardous Waste	0.5%	0.2%	0.1%	982	391	202
Special		4.0%	6.7%	4.6%	7,320	13,382	7,870
	46 Brown Goods	1.4%	2.0%	0.2%	2,576	4,046	415
	47 Composite Bulky Items	2.6%	4.7%	4.4%	4,744	9,336	7,405
	48 Other Special Waste	NA	NA	0.0%	NA	NA	50
TOTAL		100.0%	100.0%	100.0%	185,312	199,922	169,544

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF FREMONT**

**Table 12
City of Fremont Detailed Historic Comparison of Single-Family Residential Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		34.7%	35.7%	21.8%	12,721	13,448	8,179
	1 Uncoated Corrugated Cardboard	3.6%	1.9%	0.3%	1,303	707	123
	2 High Grade Paper	2.9%	2.4%	0.6%	1,057	921	209
	3 Newspaper	3.3%	3.9%	1.3%	1,218	1,449	477
	4 Mixed Recyclable Paper	8.7%	9.7%	2.4%	3,178	3,639	919
	5 Compostable Paper	NA	NA	16.2%	NA	NA	6,080
	6 Other Paper	16.3%	17.9%	1.0%	5,966	6,732	371
Plastics		13.8%	15.6%	14.7%	5,075	5,852	5,503
	7 HDPE Bottles (#2)	0.6%	0.6%	0.5%	231	215	206
	8 PETE Bottles (#1)	0.4%	0.8%	0.6%	143	299	215
	9 Other Plastic Containers	NA	0.3%	0.9%	NA	118	329
	10 Plastic Bags	NA	NA	1.8%	NA	NA	676
	11 Other Film	6.7%	8.5%	5.2%	2,462	3,196	1,965
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	30
	13 Mixed Rigid Plastics	NA	NA	3.9%	NA	NA	1,479
	14 Other Plastics	6.1%	5.4%	1.6%	2,238	2,025	602
Glass		3.2%	2.7%	2.1%	1,181	1,017	775
	15 Recyclable Glass Bottles/Containers	2.8%	2.4%	1.6%	1,035	915	599
	16 Other Glass	0.4%	0.3%	0.5%	147	101	176
Metals		5.4%	4.4%	4.0%	1,963	1,658	1,519
	17 Aluminum Cans	0.5%	0.4%	0.2%	172	138	68
	18 Other Non-Ferrous	0.6%	0.7%	0.5%	216	274	198
	19 Steel Food and Beverage Cans	1.2%	1.2%	1.0%	426	457	373
	20 Other Ferrous	3.1%	2.1%	2.3%	1,148	788	880
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		5.0%	1.1%	1.0%	1,820	428	388
	22 Leaves/Grass/Chips	2.6%	0.9%	0.8%	947	321	296
	23 Branches/Stumps/Prunings/Trimmings	2.4%	0.3%	0.2%	873	107	93
Organics		34.1%	35.5%	51.5%	12,497	13,344	19,321
	24 Food Waste	18.7%	22.6%	35.4%	6,872	8,510	13,300
	25 Tires	0.0%	0.0%	0.0%	0	0	10
	26 Untreated Lumber	0.4%	0.3%	0.6%	143	98	212
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	0.2%	1.0%	0.7%	66	375	248
	29 Textiles and Leather	6.4%	3.3%	4.3%	2,348	1,257	1,613
	30 Carpet	NA	0.3%	0.2%	NA	103	87
	31 Diapers	5.5%	4.8%	6.4%	2,000	1,788	2,412
	32 Manure	NA	NA	3.1%	NA	NA	1,168
	33 Other Organics	2.9%	3.2%	0.7%	1,068	1,212	272
Inerts		1.4%	2.7%	4.0%	517	1,022	1,517
	34 Crushable Inerts	0.2%	1.4%	1.3%	70	541	484
	35 Other Inerts	1.2%	0.4%	2.8%	448	168	1,033
	36 Gypsum Board	0.0%	0.8%	0.0%	0	313	0
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	0	1
HHW		0.8%	0.4%	0.6%	286	164	226
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	10
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.2%	NA	NA	63
	41 Medical Waste	NA	NA	0.1%	NA	NA	23
	42 Medicine	NA	NA	0.0%	NA	NA	5
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	10
	45 Other Hazardous Waste	0.8%	0.4%	0.3%	286	164	114
Special		1.7%	1.9%	0.3%	624	699	116
	46 Brown Goods	1.7%	1.9%	0.3%	624	699	116
	47 Composite Bulky Items	0.0%	0.0%	0.0%	0	0	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	36,692	37,632	37,545

Table 13
City of Fremont Detailed Historic Comparison of Multi-Family Residential Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		32.7%	31.7%	24.3%	7,123	4,564	4,223
	1 Uncoated Corrugated Cardboard	3.4%	3.6%	1.8%	748	515	308
	2 High Grade Paper	1.0%	2.6%	0.4%	218	376	61
	3 Newspaper	9.7%	6.1%	1.3%	2,108	883	232
	4 Mixed Recyclable Paper	8.6%	7.9%	4.3%	1,867	1,143	748
	5 Compostable Paper	NA	NA	15.7%	NA	NA	2,737
	6 Other Paper	10.0%	11.5%	0.8%	2,182	1,647	137
Plastics		11.8%	11.1%	13.2%	2,569	1,597	2,300
	7 HDPE Bottles (#2)	1.9%	0.7%	0.7%	405	95	123
	8 PETE Bottles (#1)	0.7%	0.7%	0.8%	157	98	143
	9 Other Plastic Containers	NA	0.4%	1.3%	NA	51	231
	10 Plastic Bags	NA	NA	1.4%	NA	NA	251
	11 Other Film	3.6%	5.3%	4.4%	781	755	762
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	12
	13 Mixed Rigid Plastics	NA	NA	2.7%	NA	NA	466
	14 Other Plastics	5.6%	4.2%	1.8%	1,227	598	313
Glass		4.5%	4.9%	3.8%	977	700	659
	15 Recyclable Glass Bottles/Containers	4.2%	4.7%	2.9%	903	672	506
	16 Other Glass	0.3%	0.2%	0.9%	74	29	153
Metals		5.5%	2.4%	5.6%	1,190	348	965
	17 Aluminum Cans	0.8%	0.5%	0.3%	165	76	56
	18 Other Non-Ferrous	0.3%	0.4%	1.1%	74	62	190
	19 Steel Food and Beverage Cans	1.7%	1.0%	0.9%	379	140	161
	20 Other Ferrous	1.5%	0.5%	3.2%	324	69	558
	21 White Goods	1.1%	0.0%	0.0%	248	0	0
Yard Waste		9.5%	8.7%	4.7%	2,073	1,257	819
	22 Leaves/Grass/Chips	7.4%	6.7%	3.5%	1,619	958	603
	23 Branches/Stumps/Prunings/Trimnings	2.1%	2.1%	1.2%	455	299	216
Organics		27.8%	33.9%	45.7%	6,039	4,876	7,938
	24 Food Waste	12.6%	21.4%	25.0%	2,741	3,075	4,341
	25 Tires	0.0%	3.1%	0.0%	0	451	0
	26 Untreated Lumber	2.0%	0.2%	0.9%	433	33	162
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	2.9%	0.9%	3.2%	635	127	556
	29 Textiles and Leather	6.1%	2.2%	5.9%	1,327	320	1,025
	30 Carpet	NA	0.3%	1.4%	NA	46	251
	31 Diapers	3.2%	4.4%	6.9%	696	637	1,205
	32 Manure	NA	NA	1.0%	NA	NA	179
	33 Other Organics	1.0%	1.3%	1.3%	207	188	219
Inerts		0.4%	0.9%	2.1%	80	132	358
	34 Crushable Inerts	0.2%	0.0%	0.6%	48	6	105
	35 Other Inerts	0.2%	0.9%	1.4%	33	126	237
	36 Gypsum Board	0.0%	0.0%	0.1%	0	0	16
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	0	0
HHW		0.5%	0.3%	0.5%	107	37	92
	38 Paint/Adhesives	NA	NA	0.2%	NA	NA	42
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	5
	41 Medical Waste	NA	NA	0.0%	NA	NA	2
	42 Medicine	NA	NA	0.1%	NA	NA	10
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	5
	45 Other Hazardous Waste	0.5%	0.3%	0.2%	107	37	28
Special		7.4%	6.0%	0.2%	1,601	870	28
	46 Brown Goods	0.1%	2.9%	0.2%	28	412	28
	47 Composite Bulky Items	7.2%	3.2%	0.0%	1,573	457	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	21,755	14,381	17,384

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF FREMONT**

**Table 14
City of Fremont Detailed Historic Comparison of Commercial Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		35.1%	31.4%	28.3%	9,895	16,508	9,063
	1 Uncoated Corrugated Cardboard	4.8%	5.2%	3.4%	1,350	2,747	1,097
	2 High Grade Paper	6.3%	5.4%	1.1%	1,778	2,839	342
	3 Newspaper	3.6%	2.1%	0.6%	1,020	1,105	207
	4 Mixed Recyclable Paper	8.5%	4.4%	4.2%	2,398	2,333	1,359
	5 Compostable Paper	NA	NA	18.3%	NA	NA	5,840
	6 Other Paper	11.9%	14.2%	0.7%	3,348	7,484	219
Plastics		17.8%	16.6%	15.2%	5,019	8,718	4,866
	7 HDPE Bottles (#2)	0.7%	0.9%	0.6%	194	477	191
	8 PETE Bottles (#1)	0.3%	0.6%	0.5%	96	334	172
	9 Other Plastic Containers	NA	0.4%	0.7%	NA	207	226
	10 Plastic Bags	NA	NA	1.1%	NA	NA	364
	11 Other Film	5.3%	7.1%	6.3%	1,485	3,713	2,019
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	59
	13 Mixed Rigid Plastics	NA	NA	4.4%	NA	NA	1,413
	14 Other Plastics	11.5%	7.6%	1.3%	3,244	3,987	421
Glass		2.5%	2.9%	2.7%	705	1,518	875
	15 Recyclable Glass Bottles/Containers	2.3%	2.7%	1.1%	654	1,414	348
	16 Other Glass	0.2%	0.2%	1.6%	51	104	527
Metals		8.7%	5.7%	4.6%	2,438	3,027	1,478
	17 Aluminum Cans	0.4%	0.4%	0.2%	121	210	59
	18 Other Non-Ferrous	0.4%	0.4%	0.9%	118	204	296
	19 Steel Food and Beverage Cans	0.5%	0.9%	0.6%	132	453	188
	20 Other Ferrous	5.4%	4.1%	2.9%	1,516	2,160	934
	21 White Goods	2.0%	0.0%	0.0%	550	0	0
Yard Waste		6.4%	3.1%	5.2%	1,809	1,621	1,675
	22 Leaves/Grass/Chips	2.9%	2.0%	3.4%	806	1,057	1,080
	23 Branches/Stumps/Prunings/Trimmings	3.6%	1.1%	1.9%	1,003	565	594
Organics		21.1%	31.7%	34.9%	5,938	16,683	11,172
	24 Food Waste	8.1%	15.7%	20.7%	2,269	8,258	6,611
	25 Tires	1.1%	1.1%	0.0%	313	564	0
	26 Untreated Lumber	3.7%	2.9%	1.9%	1,046	1,502	596
	27 Pallets	NA	NA	1.0%	NA	NA	332
	28 Treated Wood Waste	1.6%	4.5%	4.0%	445	2,368	1,285
	29 Textiles and Leather	4.7%	2.0%	2.4%	1,313	1,050	774
	30 Carpet	NA	1.7%	0.6%	NA	921	201
	31 Diapers	0.9%	1.6%	2.2%	259	866	699
	32 Manure	NA	NA	0.9%	NA	NA	302
	33 Other Organics	1.0%	2.2%	1.2%	293	1,155	370
Inerts		2.9%	1.9%	7.0%	826	1,017	2,235
	34 Crushable Inerts	1.2%	0.2%	2.8%	344	82	884
	35 Other Inerts	0.8%	1.8%	2.0%	217	935	645
	36 Gypsum Board	0.9%	0.0%	0.8%	265	0	259
	37 Asphalt Roofing	0.0%	0.0%	1.4%	0	0	447
HHW		1.9%	0.1%	0.8%	535	62	253
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	3
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	15
	41 Medical Waste	NA	NA	0.2%	NA	NA	68
	42 Medicine	NA	NA	0.1%	NA	NA	20
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.4%	NA	NA	142
	45 Other Hazardous Waste	1.9%	0.1%	0.0%	535	62	5
Special		3.6%	6.6%	1.1%	1,017	3,484	364
	46 Brown Goods	2.2%	3.6%	0.1%	631	1,919	29
	47 Composite Bulky Items	1.4%	3.0%	0.9%	386	1,565	285
	48 Other Special Waste	NA	NA	0.2%	NA	NA	50
TOTAL		100.0%	100.0%	100.0%	28,182	52,639	31,981

Table 15
City of Fremont Detailed Historic Comparison of Roll-Off Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		23.3%	17.8%	30.4%	14,531	8,781	11,580
	1 Uncoated Corrugated Cardboard	8.2%	5.8%	11.6%	5,095	2,871	4,405
	2 High Grade Paper	1.6%	3.2%	3.8%	965	1,563	1,445
	3 Newspaper	0.5%	0.4%	0.9%	280	184	329
	4 Mixed Recyclable Paper	5.4%	5.9%	5.8%	3,388	2,927	2,211
	5 Compostable Paper	NA	NA	2.2%	NA	NA	836
	6 Other Paper	7.7%	2.5%	6.2%	4,802	1,236	2,355
Plastics		19.5%	12.5%	8.9%	12,170	6,133	3,389
	7 HDPE Bottles (#2)	0.2%	0.8%	0.0%	137	396	18
	8 PETE Bottles (#1)	0.1%	0.2%	0.1%	44	102	49
	9 Other Plastic Containers	NA	0.1%	0.2%	NA	63	58
	10 Plastic Bags	NA	NA	0.1%	NA	NA	25
	11 Other Film	5.1%	4.5%	3.6%	3,145	2,200	1,384
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	47
	13 Mixed Rigid Plastics	NA	NA	1.5%	NA	NA	585
	14 Other Plastics	14.2%	6.9%	3.2%	8,844	3,373	1,224
Glass		0.4%	1.1%	5.9%	218	550	2,257
	15 Recyclable Glass Bottles/Containers	0.3%	0.4%	0.5%	193	215	197
	16 Other Glass	0.0%	0.7%	5.4%	25	336	2,060
Metals		3.7%	9.1%	3.7%	2,273	4,469	1,424
	17 Aluminum Cans	0.0%	0.6%	0.1%	19	300	34
	18 Other Non-Ferrous	0.2%	1.3%	0.2%	118	663	66
	19 Steel Food and Beverage Cans	0.1%	0.3%	0.1%	62	142	48
	20 Other Ferrous	3.3%	6.3%	3.3%	2,074	3,108	1,275
	21 White Goods	0.0%	0.5%	0.0%	0	256	0
Yard Waste		5.7%	4.0%	11.4%	3,544	1,969	4,331
	22 Leaves/Grass/Chips	2.2%	2.2%	4.9%	1,389	1,097	1,866
	23 Branches/Stumps/Prunings/Trimmings	3.5%	1.8%	6.5%	2,155	872	2,465
Organics		24.6%	27.3%	20.2%	15,303	13,444	7,679
	24 Food Waste	3.5%	4.2%	4.0%	2,174	2,090	1,521
	25 Tires	0.1%	0.2%	0.1%	75	89	24
	26 Untreated Lumber	16.3%	14.7%	1.5%	10,134	7,257	562
	27 Pallets	NA	NA	8.3%	NA	NA	3,156
	28 Treated Wood Waste	3.2%	4.8%	4.0%	2,006	2,343	1,540
	29 Textiles and Leather	0.6%	0.8%	1.2%	380	379	438
	30 Carpet	NA	1.4%	0.5%	NA	696	175
	31 Diapers	0.4%	0.3%	0.0%	237	125	16
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	0.5%	0.9%	0.6%	299	465	247
Inerts		20.2%	19.3%	14.7%	12,581	9,479	5,588
	34 Crushable Inerts	2.2%	4.7%	3.2%	1,339	2,320	1,236
	35 Other Inerts	2.0%	8.1%	8.0%	1,264	3,969	3,052
	36 Gypsum Board	12.6%	2.8%	0.5%	7,866	1,357	175
	37 Asphalt Roofing	3.4%	3.7%	3.0%	2,111	1,832	1,125
HHW		0.0%	0.3%	1.2%	25	125	446
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	54
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.7%	NA	NA	275
	41 Medical Waste	NA	NA	0.2%	NA	NA	92
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.1%	NA	NA	25
	45 Other Hazardous Waste	0.0%	0.3%	0.0%	25	125	0
Special		2.6%	8.7%	3.7%	1,626	4,285	1,400
	46 Brown Goods	0.4%	1.7%	0.4%	230	832	144
	47 Composite Bulky Items	2.2%	7.0%	3.3%	1,395	3,452	1,256
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	62,284	49,236	38,094

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF FREMONT**

**Table 16
City of Fremont Detailed Historic Comparison of Self-Haul Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		8.1%	3.2%	7.6%	2,948	1,485	3,374
	1 Uncoated Corrugated Cardboard	2.5%	1.8%	2.8%	910	826	1,269
	2 High Grade Paper	0.4%	0.2%	0.5%	131	104	222
	3 Newspaper	0.5%	0.1%	0.3%	164	53	142
	4 Mixed Recyclable Paper	3.3%	0.7%	3.1%	1,190	303	1,383
	5 Compostable Paper	NA	NA	0.4%	NA	NA	183
	6 Other Paper	1.5%	0.4%	0.4%	553	198	175
Plastics		6.9%	4.2%	2.8%	2,508	1,947	1,259
	7 HDPE Bottles (#2)	0.5%	0.2%	0.0%	164	111	9
	8 PETE Bottles (#1)	0.0%	0.0%	0.0%	7	16	22
	9 Other Plastic Containers	NA	0.0%	0.0%	NA	16	8
	10 Plastic Bags	NA	NA	0.1%	NA	NA	41
	11 Other Film	0.3%	0.4%	1.1%	109	207	510
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	43
	13 Mixed Rigid Plastics	NA	NA	0.8%	NA	NA	334
	14 Other Plastics	6.1%	3.5%	0.7%	2,228	1,598	291
Glass		1.9%	0.6%	5.0%	688	268	2,227
	15 Recyclable Glass Bottles/Containers	0.3%	0.1%	0.3%	124	27	113
	16 Other Glass	1.6%	0.5%	4.7%	564	241	2,114
Metals		5.0%	7.5%	3.7%	1,809	3,430	1,660
	17 Aluminum Cans	0.3%	0.0%	0.0%	106	13	15
	18 Other Non-Ferrous	0.3%	0.3%	0.3%	95	138	150
	19 Steel Food and Beverage Cans	0.1%	0.0%	0.0%	22	14	2
	20 Other Ferrous	4.4%	6.8%	3.3%	1,587	3,139	1,482
	21 White Goods	0.0%	0.3%	0.0%	0	126	11
Yard Waste		19.0%	14.5%	6.3%	6,909	6,689	2,805
	22 Leaves/Grass/Chips	8.4%	8.6%	4.6%	3,068	3,975	2,064
	23 Branches/Stumps/Prunings/Trimmings	10.6%	5.9%	1.7%	3,840	2,714	740
Organics		26.9%	31.3%	36.8%	9,806	14,426	16,400
	24 Food Waste	1.4%	0.4%	0.8%	524	162	342
	25 Tires	0.0%	0.1%	0.0%	4	65	0
	26 Untreated Lumber	14.2%	13.8%	4.9%	5,172	6,338	2,175
	27 Pallets	NA	NA	1.3%	NA	NA	566
	28 Treated Wood Waste	5.7%	9.1%	20.0%	2,067	4,207	8,911
	29 Textiles and Leather	4.0%	0.7%	3.1%	1,438	323	1,389
	30 Carpet	NA	6.1%	5.7%	NA	2,817	2,525
	31 Diapers	0.3%	0.1%	0.0%	106	31	4
	32 Manure	NA	NA	0.1%	NA	NA	26
	33 Other Organics	1.4%	1.0%	1.0%	495	483	463
Inerts		25.3%	29.9%	23.2%	9,198	13,742	10,335
	34 Crushable Inerts	6.5%	13.4%	10.7%	2,366	6,157	4,767
	35 Other Inerts	8.2%	9.6%	5.9%	2,974	4,426	2,650
	36 Gypsum Board	1.8%	3.8%	4.9%	637	1,737	2,188
	37 Asphalt Roofing	8.9%	3.1%	1.6%	3,221	1,422	730
HHW		0.1%	0.0%	1.2%	18	4	519
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.1%	NA	NA	66
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	57
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.4%	NA	NA	183
	44 Other E-Waste	NA	NA	0.4%	NA	NA	157
	45 Other Hazardous Waste	0.1%	0.0%	0.1%	18	4	55
Special		6.9%	8.8%	13.4%	2,512	4,044	5,961
	46 Brown Goods	3.0%	0.4%	0.2%	1,096	183	98
	47 Composite Bulky Items	3.9%	8.4%	13.2%	1,416	3,862	5,863
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	36,399	46,034	44,540

Appendix A8

2008 WASTE CHARACTERIZATION RESULTS

CITY OF HAYWARD

This section presents a summary of the composition and quantity of disposed waste from the City of Hayward. The 2008 Study results presented herein are based on compositions developed using data obtained from field sample collection and sorting activities performed over four seasons during calendar year 2008. A complete description of the Study and presentation of Countywide aggregate results are included in Section 3 of the report.

Table 1 summarizes selected demographic and waste disposal characteristics for the City of Hayward. The total amount of waste disposed in 2008 represents 10.2 percent of the Countywide waste stream, and decreased approximately 32 percent from 2000.

Table 1
City of Hayward Waste Disposal Data

	2000	2008
Population ¹	129,610	149,205
Housing Units	44,991	48,273
Number of Business Establishments ²	4,201	4,269
Waste Disposal (tons) ³	178,518	121,095
Single Family	27,621	28,201
Multi-Family	9,771	14,611
Commercial	53,534	20,514
Roll-off	64,832	40,962
Self-Haul	22,759	16,807
Residential Disposal Rate (lbs/capita/year) ⁴	803	803
Non-residential Disposal Rate (tons/establishment/year)	30	14

¹ Source: State of California, Department of Finance, City/County Population and Housing Estimates for 2000 and Jan 2008.

² Source: California Board of Equalization. "Taxable Sales in California (Sales & Use Tax)", 1999 and 2007.

³ Data provided by StopWaste.Org staff.

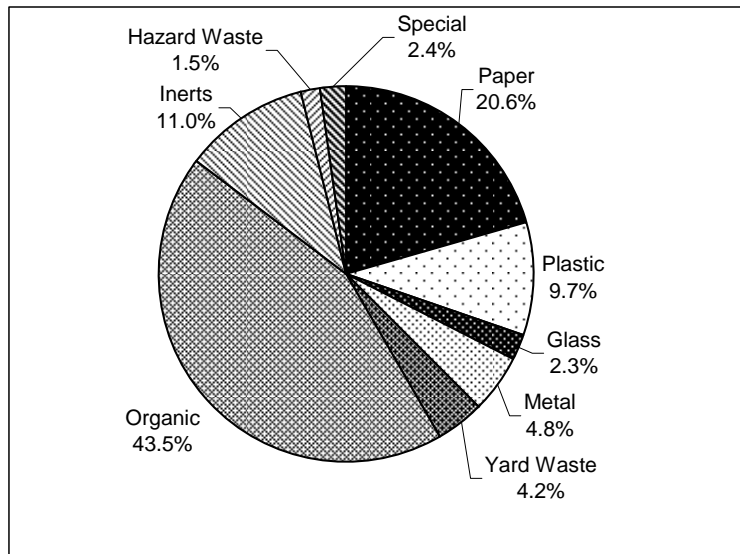
Table 2 presents the number of samples collected from each type of waste stream. Approximately 9 percent of the total number of samples collected were from this jurisdiction.

Table 2
Summary of Samples Obtained from City of Hayward

Waste Stream	Total Samples
Single-family	22
Multi-family	14
Commercial	39
Roll-off	78
Self-haul	50
Total	203

The following tables and figures are presented for waste originating from the City of Hayward. The introduction to Appendix B presents a summary of the information provided within each table or figure.

Figure 1 City of Hayward 2008 Aggregate Waste Composition by Major Material Group



Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	24,891	20.6%	18.6%	22.7%
Plastic	11,784	9.7%	8.8%	10.8%
Glass	2,816	2.3%	1.9%	2.9%
Metal	5,816	4.8%	4.0%	5.8%
Yard Waste	5,090	4.2%	2.9%	5.9%
Organic	52,706	43.5%	39.9%	47.3%
Inerts	13,379	11.0%	8.2%	14.4%
Hazard Waste	1,764	1.5%	1.1%	1.9%
Special	2,849	2.4%	1.4%	3.5%
TOTAL	121,095	100.0%		

2008 WASTE CHARACTERIZATION RESULTS CITY OF HAYWARD

Figure 2 City of Hayward Single-Family Residential Composition by Major Material Group

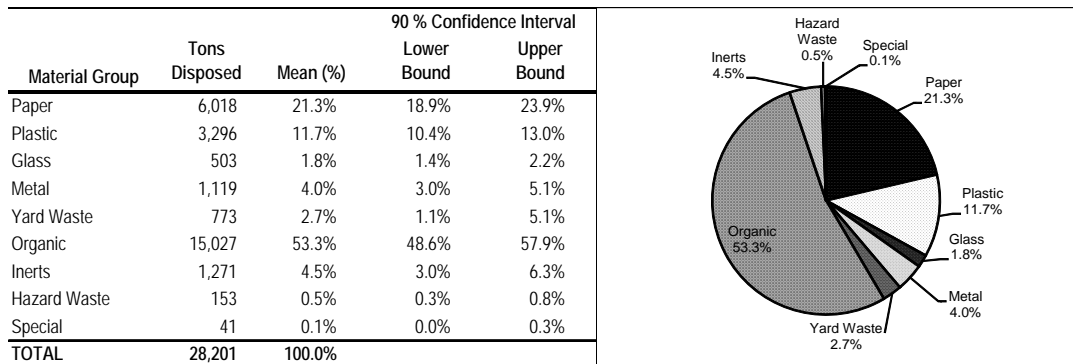


Figure 3 City of Hayward Multi-Family Residential Composition by Major Material Group

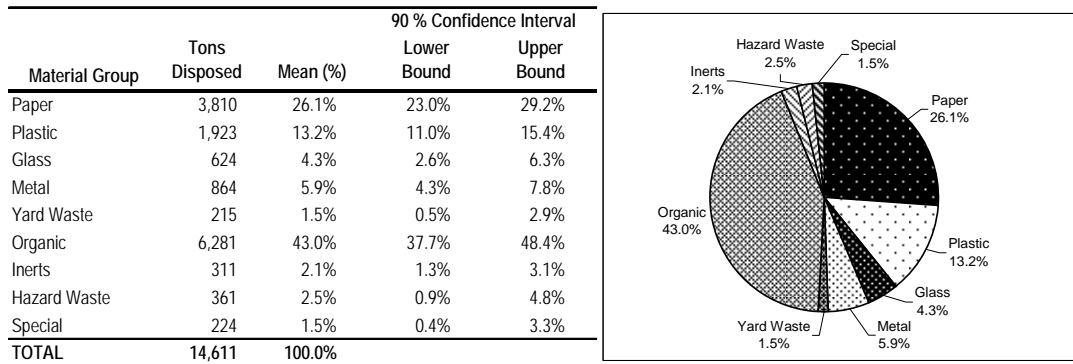


Figure 4 City of Hayward Commercial Composition by Major Material Group

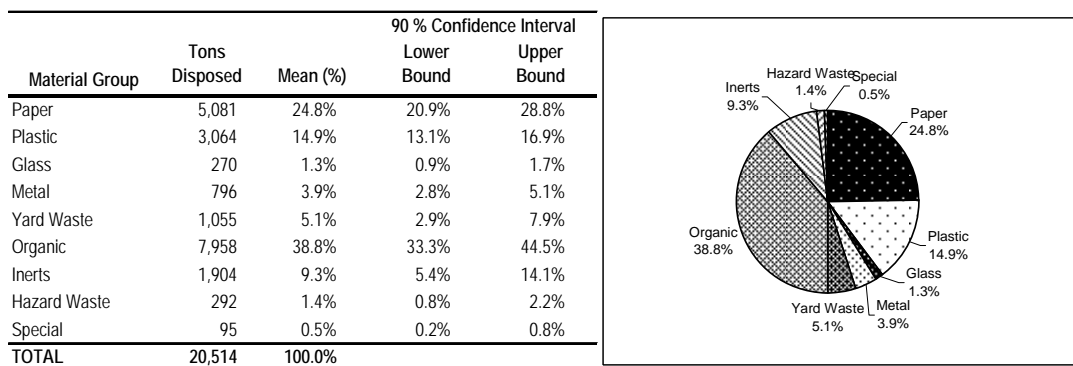


Figure 5 City of Hayward Roll-off Composition by Major Material Group

Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	8,528	20.8%	16.4%	25.6%
Plastic	2,590	6.3%	4.7%	8.1%
Glass	1,049	2.6%	1.6%	3.7%
Metal	2,091	5.1%	3.6%	6.8%
Yard Waste	1,302	3.2%	2.0%	4.6%
Organic	16,733	40.9%	33.9%	48.0%
Inerts	6,743	16.5%	11.1%	22.6%
Hazard Waste	581	1.4%	0.9%	2.1%
Special	1,345	3.3%	2.0%	4.9%
TOTAL	40,962	100.0%		

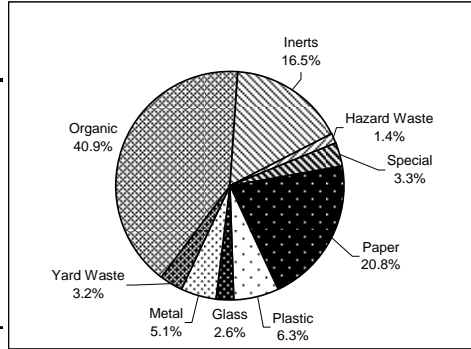
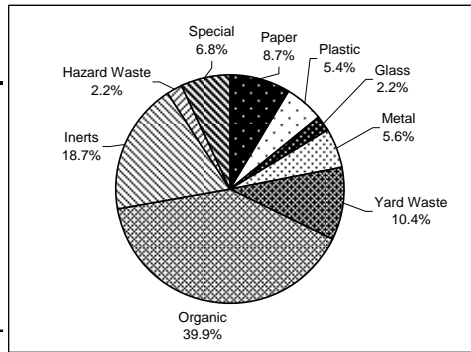


Figure 6 City of Hayward Self Hauler Composition by Major Material Group

Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	1,455	8.7%	5.7%	12.2%
Plastic	912	5.4%	3.3%	8.1%
Glass	371	2.2%	1.2%	3.5%
Metal	946	5.6%	3.5%	8.2%
Yard Waste	1,745	10.4%	5.6%	16.5%
Organic	6,706	39.9%	30.7%	49.5%
Inerts	3,149	18.7%	11.1%	27.8%
Hazard Waste	378	2.2%	1.2%	3.6%
Special	1,145	6.8%	3.7%	10.8%
TOTAL	16,807	100.0%		



2008 WASTE CHARACTERIZATION RESULTS
CITY OF HAYWARD

Figure 7 Historic Comparison of City of Hayward Aggregate Disposal

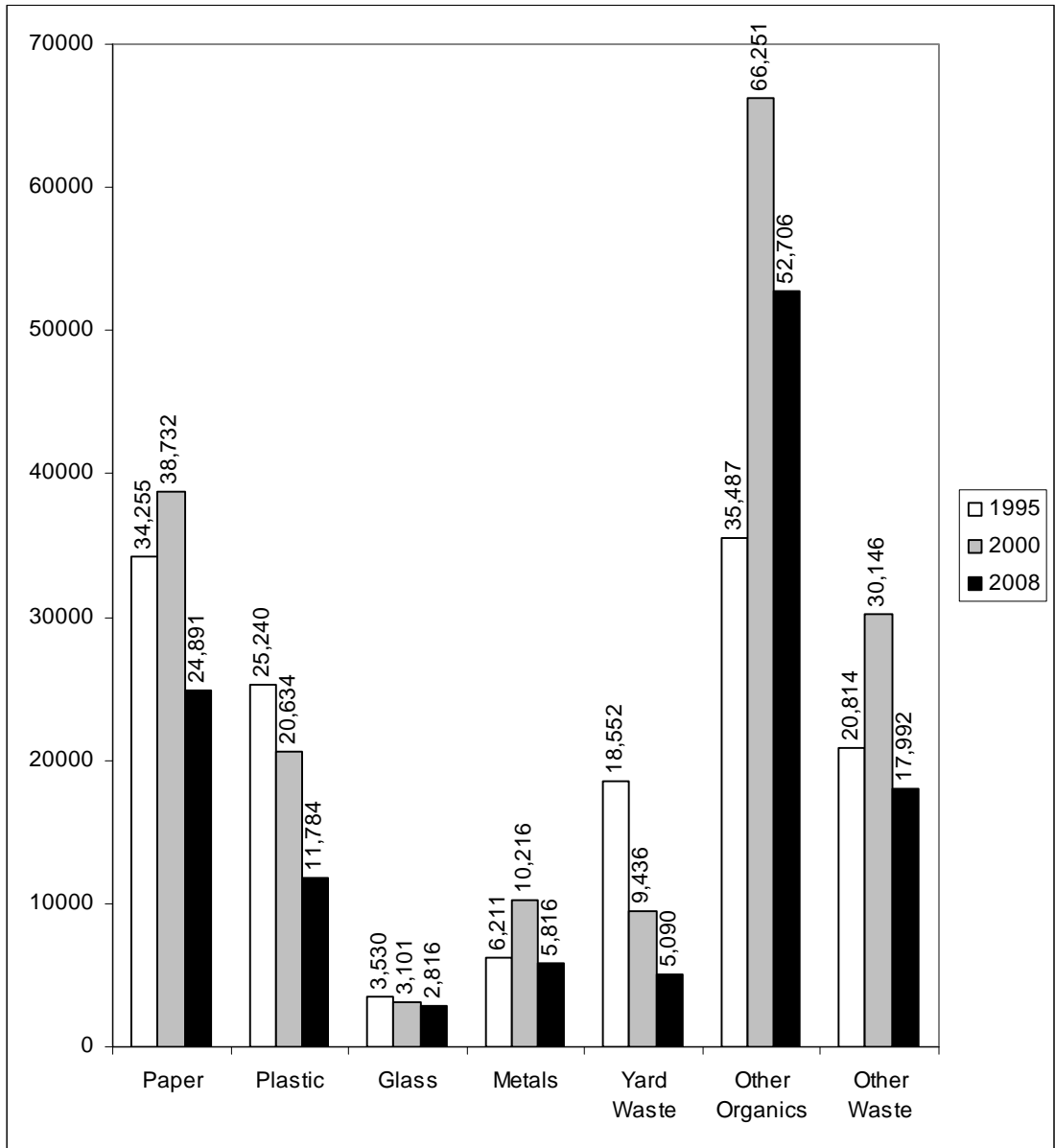
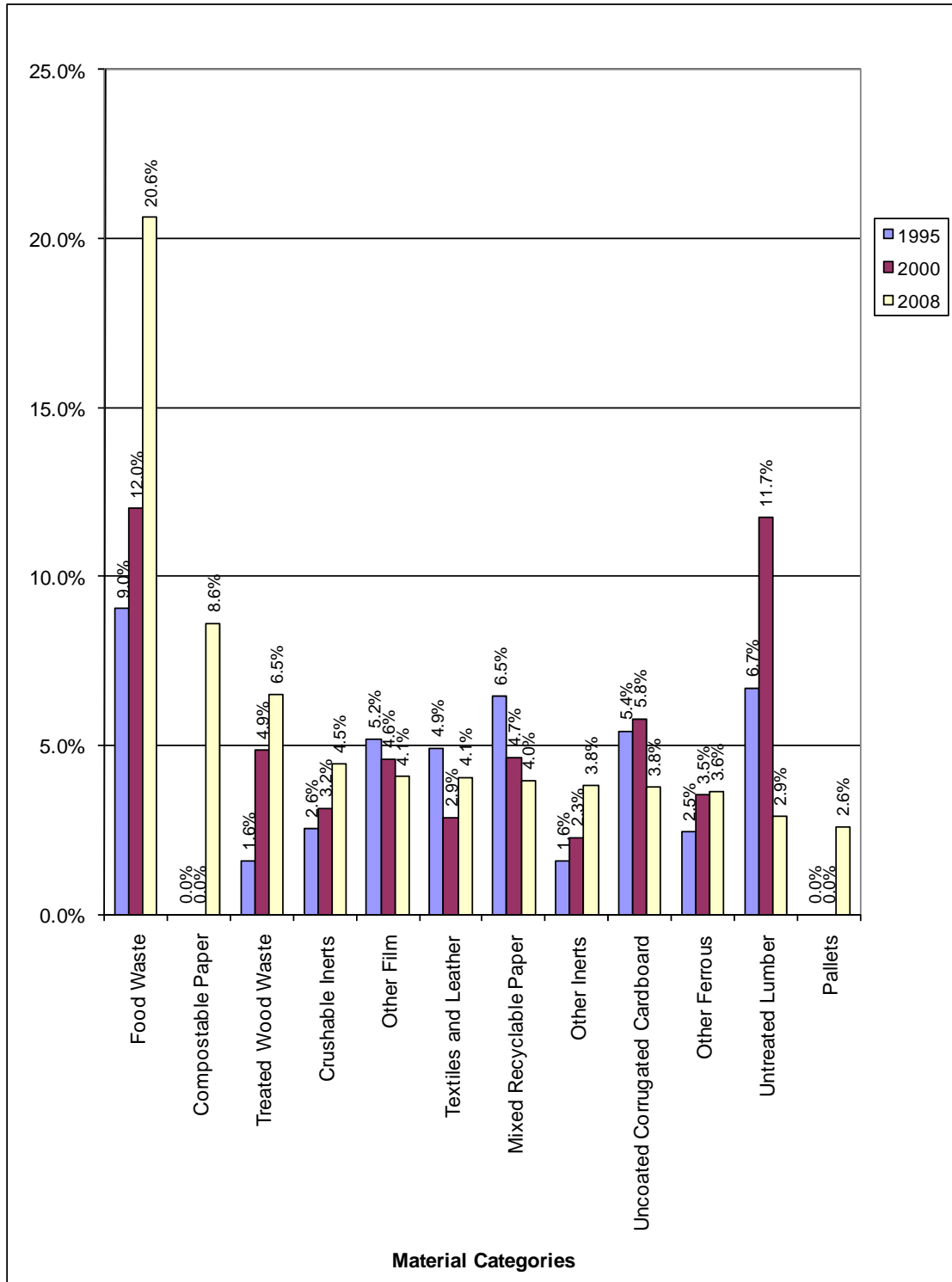


Figure 8 City of Hayward Top 12 Most Common Materials – Aggregate



2008 WASTE CHARACTERIZATION RESULTS
CITY OF HAYWARD

Figure 9 City of Hayward Top 12 Most Common Materials from 2000

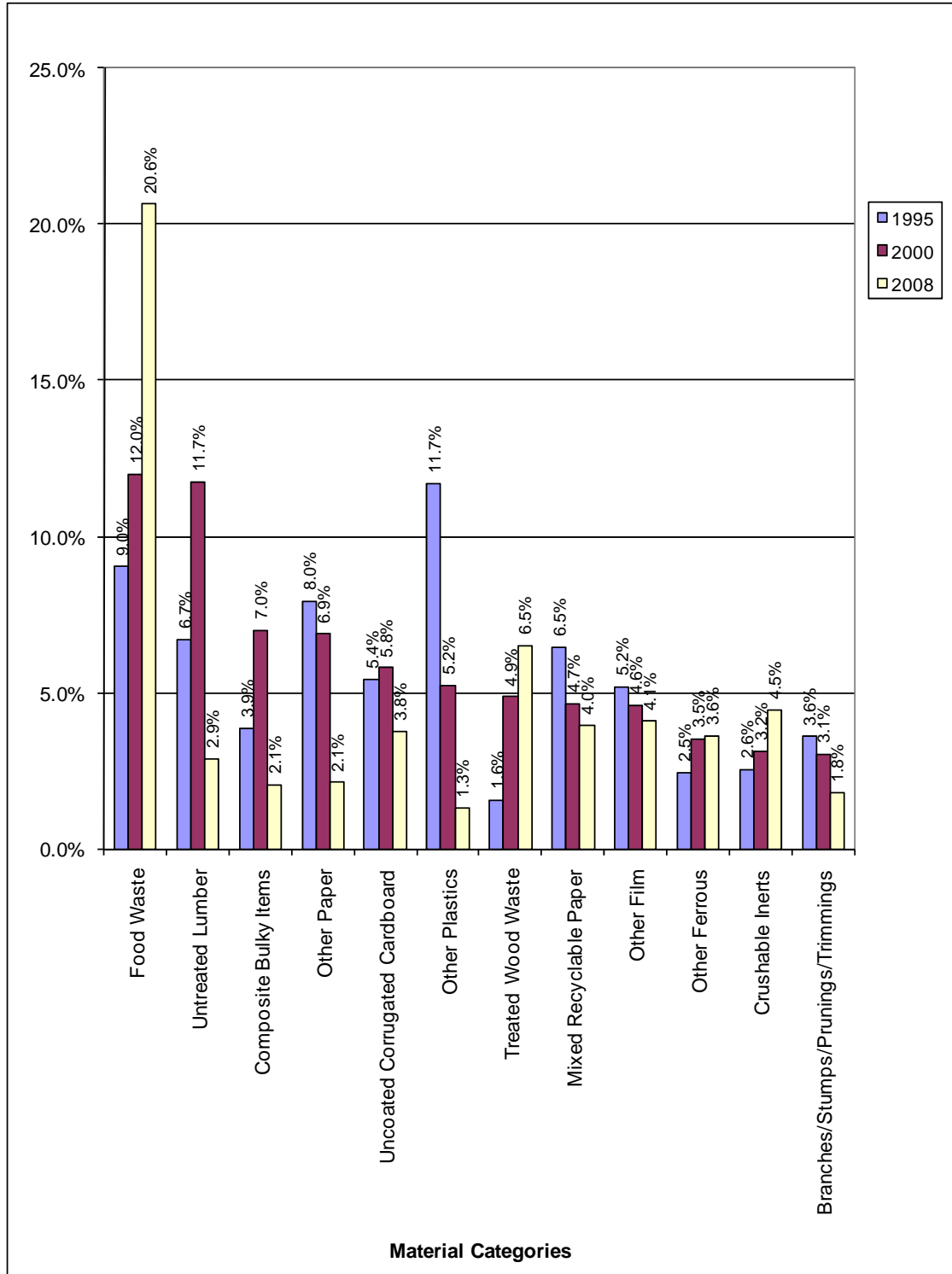


Table 3
Summary of Overall Material Proportions for City of Hayward

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Aggregated
Paper		21.3%	26.1%	24.8%	20.8%	8.7%	20.6%
	1 Uncoated Corrugated Cardboard	0.3%	2.0%	2.4%	7.3%	4.2%	3.8%
	2 High Grade Paper	0.4%	0.6%	1.4%	3.0%	0.4%	1.5%
	3 Newspaper	0.2%	2.0%	0.9%	0.3%	0.4%	0.6%
	4 Mixed Recyclable Paper	2.6%	5.2%	3.5%	5.1%	3.1%	4.0%
	5 Compostable Paper	16.2%	15.3%	15.4%	1.1%	0.4%	8.6%
	6 Other Paper	1.7%	1.1%	1.3%	4.1%	0.1%	2.1%
Plastics		11.7%	13.2%	14.9%	6.3%	5.4%	9.7%
	7 HDPE Bottles (#2)	0.4%	0.8%	0.7%	0.1%	0.0%	0.3%
	8 PETE Bottles (#1)	0.4%	0.9%	0.4%	0.1%	0.0%	0.3%
	9 Other Plastic Containers	0.9%	0.7%	0.7%	0.1%	0.0%	0.4%
	10 Plastic Bags	1.4%	1.3%	0.9%	0.0%	0.1%	0.6%
	11 Other Film	4.7%	4.6%	6.5%	3.5%	1.0%	4.1%
	12 Expanded Polystyrene Blocks	0.3%	0.5%	0.1%	0.1%	1.6%	0.4%
	13 Mixed Rigid Plastics	2.2%	2.7%	3.9%	1.0%	2.3%	2.2%
	14 Other Plastics	1.3%	1.6%	1.7%	1.4%	0.4%	1.3%
Glass		1.8%	4.3%	1.3%	2.6%	2.2%	2.3%
	15 Recyclable Glass Bottles/Containers	1.3%	4.0%	1.2%	0.9%	1.1%	1.5%
	16 Other Glass	0.4%	0.3%	0.1%	1.6%	1.1%	0.9%
Metals		4.0%	5.9%	3.9%	5.1%	5.6%	4.8%
	17 Aluminum Cans	0.1%	0.3%	0.1%	0.1%	0.1%	0.1%
	18 Other Non-Ferrous	0.4%	0.3%	0.4%	0.3%	0.7%	0.4%
	19 Steel Food and Beverage Cans	0.9%	1.2%	0.5%	0.1%	0.0%	0.5%
	20 Other Ferrous	2.5%	3.8%	2.8%	4.5%	4.3%	3.6%
	21 White Goods	0.0%	0.4%	0.0%	0.1%	0.5%	0.2%
Yard Waste		2.7%	1.5%	5.1%	3.2%	10.4%	4.2%
	22 Leaves/Grass/Chips	1.2%	0.9%	3.6%	2.1%	5.0%	2.4%
	23 Branches/Stumps/Prunings/Trimmings	1.5%	0.6%	1.5%	1.1%	5.4%	1.8%
Organics		53.3%	43.0%	38.8%	40.9%	39.9%	43.5%
	24 Food Waste	37.3%	24.4%	27.1%	12.9%	0.5%	20.6%
	25 Tires	0.0%	0.0%	0.6%	0.1%	0.0%	0.1%
	26 Untreated Lumber	0.4%	3.8%	1.2%	5.0%	3.1%	2.9%
	27 Pallets	0.0%	0.0%	0.7%	6.6%	1.9%	2.6%
	28 Treated Wood Waste	1.1%	1.6%	2.0%	9.5%	18.2%	6.5%
	29 Textiles and Leather	4.1%	7.8%	2.8%	2.7%	5.7%	4.1%
	30 Carpet	0.0%	0.5%	0.6%	0.8%	8.2%	1.6%
	31 Diapers	6.2%	2.8%	2.2%	0.0%	0.0%	2.2%
	32 Manure	3.8%	1.5%	0.4%	0.0%	0.0%	1.2%
	33 Other Organics	0.4%	0.5%	1.2%	3.2%	2.2%	1.7%
Inerts		4.5%	2.1%	9.3%	16.5%	18.7%	11.0%
	34 Crushable Inerts	0.8%	1.2%	4.2%	5.5%	11.0%	4.5%
	35 Other Inerts	2.1%	0.8%	2.8%	6.2%	4.8%	3.8%
	36 Gypsum Board	1.6%	0.1%	2.3%	2.6%	2.0%	1.9%
	37 Asphalt Roofing	0.0%	0.0%	0.0%	2.1%	0.9%	0.8%
HHW		0.5%	2.5%	1.4%	1.4%	2.2%	1.5%
	38 Paint/Adhesives	0.0%	0.0%	0.0%	0.1%	0.3%	0.1%
	39 Vehicle & Equipment Fluids	0.0%	0.0%	0.2%	0.0%	0.2%	0.1%
	40 Universal Hazardous Waste	0.1%	0.1%	0.1%	0.6%	0.7%	0.3%
	41 Medical Waste	0.1%	0.2%	0.0%	0.1%	0.0%	0.1%
	42 Medicine	0.2%	0.0%	0.1%	0.1%	0.0%	0.1%
	43 Covered E-Waste	0.0%	1.3%	0.7%	0.1%	0.6%	0.4%
	44 Other E-Waste	0.1%	0.9%	0.3%	0.5%	0.1%	0.4%
	45 Other Hazardous Waste	0.1%	0.0%	0.0%	0.1%	0.3%	0.1%
Special		0.1%	1.5%	0.5%	3.3%	6.8%	2.4%
	46 Brown Goods	0.1%	1.1%	0.0%	0.1%	0.5%	0.3%
	47 Composite Bulky Items	0.0%	0.4%	0.5%	3.2%	6.3%	2.1%
	48 Other Special Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

2008 WASTE CHARACTERIZATION RESULTS CITY OF HAYWARD

**Table 4
Summary of Overall Material Tonnages for City of Hayward**

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
Paper		6,018	3,810	5,081	8,528	1,455	24,891
	1 Uncoated Corrugated Cardboard	78	286	486	3,008	712	4,570
	2 High Grade Paper	126	81	279	1,224	70	1,781
	3 Newspaper	49	291	179	121	72	713
	4 Mixed Recyclable Paper	727	760	714	2,082	515	4,796
	5 Compostable Paper	4,559	2,235	3,151	431	72	10,449
	6 Other Paper	479	156	271	1,662	14	2,582
Plastics		3,296	1,923	3,064	2,590	912	11,784
	7 HDPE Bottles (#2)	112	121	135	36	2	407
	8 PETE Bottles (#1)	126	132	91	33	6	388
	9 Other Plastic Containers	244	106	138	21	4	513
	10 Plastic Bags	403	185	176	11	12	787
	11 Other Film	1,329	669	1,340	1,443	169	4,950
	12 Expanded Polystyrene Blocks	88	76	31	58	268	521
	13 Mixed Rigid Plastics	626	398	801	418	380	2,624
	14 Other Plastics	368	235	352	569	69	1,593
Glass		503	624	270	1,049	371	2,816
	15 Recyclable Glass Bottles/Containers	376	584	254	380	179	1,773
	16 Other Glass	126	40	16	669	192	1,044
Metals		1,119	864	796	2,091	946	5,816
	17 Aluminum Cans	37	48	25	50	9	169
	18 Other Non-Ferrous	109	37	83	105	120	454
	19 Steel Food and Beverage Cans	255	169	109	46	7	587
	20 Other Ferrous	718	549	578	1,837	716	4,398
	21 White Goods	0	61	1	54	92	208
Yard Waste		773	215	1,055	1,302	1,745	5,090
	22 Leaves/Grass/Chips	345	134	745	846	840	2,908
	23 Branches/Stumps/Prunings/Trimmings	429	81	311	456	906	2,182
Organics		15,027	6,281	7,958	16,733	6,706	52,706
	24 Food Waste	10,505	3,566	5,564	5,273	84	24,992
	25 Tires	0	0	119	52	8	178
	26 Untreated Lumber	124	560	255	2,056	522	3,516
	27 Pallets	0	0	135	2,689	324	3,148
	28 Treated Wood Waste	297	239	407	3,895	3,061	7,900
	29 Textiles and Leather	1,166	1,138	577	1,090	958	4,929
	30 Carpet	0	68	126	346	1,372	1,911
	31 Diapers	1,738	416	450	13	3	2,620
	32 Manure	1,083	219	87	12	0	1,401
	33 Other Organics	114	75	238	1,308	376	2,111
Inerts		1,271	311	1,904	6,743	3,149	13,379
	34 Crushable Inerts	226	177	860	2,273	1,854	5,390
	35 Other Inerts	604	120	572	2,535	800	4,632
	36 Gypsum Board	441	14	472	1,078	338	2,343
	37 Asphalt Roofing	0	0	0	857	157	1,014
HHW		153	361	292	581	378	1,764
	38 Paint/Adhesives	12	0	9	33	59	112
	39 Vehicle & Equipment Fluids	1	0	33	0	35	68
	40 Universal Hazardous Waste	27	9	27	233	113	407
	41 Medical Waste	20	26	5	35	0	85
	42 Medicine	49	2	13	0	0	64
	43 Covered E-Waste	0	187	134	37	106	463
	44 Other E-Waste	25	137	72	194	21	449
	45 Other Hazardous Waste	20	0	0	50	44	114
Special		41	224	95	1,345	1,145	2,849
	46 Brown Goods	41	163	2	44	88	337
	47 Composite Bulky Items	0	61	93	1,301	1,057	2,512
	48 Other Special Waste	0	0	0	0	0	0
TOTAL		28,201	14,611	20,514	40,962	16,807	121,095

Table 5
City of Hayward Aggregate Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		24,891	20.6%	18.6%	22.7%
	1 Uncoated Corrugated Cardboard	4,570	3.8%	2.9%	4.8%
	2 High Grade Paper	1,781	1.5%	1.1%	2.0%
	3 Newspaper	713	0.6%	0.5%	0.8%
	4 Mixed Recyclable Paper	4,796	4.0%	3.2%	4.9%
	5 Compostable Paper	10,449	8.6%	8.1%	9.2%
	6 Other Paper	2,582	2.1%	1.6%	2.8%
Plastics		11,784	9.7%	8.8%	10.8%
	7 HDPE Bottles (#2)	407	0.3%	0.3%	0.4%
	8 PETE Bottles (#1)	388	0.3%	0.3%	0.4%
	9 Other Plastic Containers	513	0.4%	0.4%	0.5%
	10 Plastic Bags	787	0.6%	0.6%	0.7%
	11 Other Film	4,950	4.1%	3.6%	4.7%
	12 Expanded Polystyrene Blocks	521	0.4%	0.2%	0.7%
	13 Mixed Rigid Plastics	2,624	2.2%	1.8%	2.6%
	14 Other Plastics	1,593	1.3%	1.1%	1.6%
Glass		2,816	2.3%	1.9%	2.9%
	15 Recyclable Glass Bottles/Containers	1,773	1.5%	1.2%	1.8%
	16 Other Glass	1,044	0.9%	0.6%	1.2%
Metals		5,816	4.8%	4.0%	5.8%
	17 Aluminum Cans	169	0.1%	0.1%	0.2%
	18 Other Non-Ferrous	454	0.4%	0.3%	0.5%
	19 Steel Food and Beverage Cans	587	0.5%	0.4%	0.5%
	20 Other Ferrous	4,398	3.6%	2.9%	4.5%
	21 White Goods	208	0.2%	0.1%	0.3%
Yard Waste		5,090	4.2%	2.9%	5.9%
	22 Leaves/Grass/Chips	2,908	2.4%	1.6%	3.4%
	23 Branches/Stumps/Prunings/Trimmings	2,182	1.8%	1.1%	2.7%
Organics		52,706	43.5%	39.9%	47.3%
	24 Food Waste	24,992	20.6%	18.3%	23.3%
	25 Tires	178	0.1%	0.1%	0.2%
	26 Untreated Lumber	3,516	2.9%	2.1%	3.9%
	27 Pallets	3,148	2.6%	1.8%	3.6%
	28 Treated Wood Waste	7,900	6.5%	4.5%	8.9%
	29 Textiles and Leather	4,929	4.1%	3.4%	5.0%
	30 Carpet	1,911	1.6%	0.5%	3.0%
	31 Diapers	2,620	2.2%	1.9%	2.5%
	32 Manure	1,401	1.2%	1.0%	1.4%
	33 Other Organics	2,111	1.7%	1.2%	2.5%
Inerts		13,379	11.0%	8.2%	14.4%
	34 Crushable Inerts	5,390	4.5%	2.9%	6.4%
	35 Other Inerts	4,632	3.8%	2.7%	5.3%
	36 Gypsum Board	2,343	1.9%	1.4%	2.7%
	37 Asphalt Roofing	1,014	0.8%	0.5%	1.3%
HHW		1,764	1.5%	1.1%	1.9%
	38 Paint/Adhesives	112	0.1%	0.0%	0.2%
	39 Vehicle & Equipment Fluids	68	0.1%	0.0%	0.1%
	40 Universal Hazardous Waste	407	0.3%	0.2%	0.5%
	41 Medical Waste	85	0.1%	0.1%	0.1%
	42 Medicine	64	0.1%	0.0%	0.1%
	43 Covered E-Waste	463	0.4%	0.3%	0.6%
	44 Other E-Waste	449	0.4%	0.3%	0.5%
	45 Other Hazardous Waste	114	0.1%	0.1%	0.1%
Special		2,849	2.4%	1.4%	3.5%
	46 Brown Goods	337	0.3%	0.2%	0.4%
	47 Composite Bulky Items	2,512	2.1%	1.2%	3.2%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		121,095	100.0%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF HAYWARD**

**Table 6
City of Hayward Single-Family Residential Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		6,018	21.3%	18.9%	23.9%
	1 Uncoated Corrugated Cardboard	78	0.3%	0.1%	0.5%
	2 High Grade Paper	126	0.4%	0.2%	0.9%
	3 Newspaper	49	0.2%	0.1%	0.3%
	4 Mixed Recyclable Paper	727	2.6%	1.8%	3.5%
	5 Compostable Paper	4,559	16.2%	13.9%	18.6%
	6 Other Paper	479	1.7%	1.1%	2.4%
Plastics		3,296	11.7%	10.4%	13.0%
	7 HDPE Bottles (#2)	112	0.4%	0.3%	0.5%
	8 PETE Bottles (#1)	126	0.4%	0.4%	0.5%
	9 Other Plastic Containers	244	0.9%	0.6%	1.2%
	10 Plastic Bags	403	1.4%	1.0%	1.9%
	11 Other Film	1,329	4.7%	3.7%	5.8%
	12 Expanded Polystyrene Blocks	88	0.3%	0.1%	0.6%
	13 Mixed Rigid Plastics	626	2.2%	1.6%	2.9%
	14 Other Plastics	368	1.3%	1.0%	1.7%
Glass		503	1.8%	1.4%	2.2%
	15 Recyclable Glass Bottles/Containers	376	1.3%	1.0%	1.7%
	16 Other Glass	126	0.4%	0.2%	0.7%
Metals		1,119	4.0%	3.0%	5.1%
	17 Aluminum Cans	37	0.1%	0.1%	0.2%
	18 Other Non-Ferrous	109	0.4%	0.3%	0.5%
	19 Steel Food and Beverage Cans	255	0.9%	0.7%	1.2%
	20 Other Ferrous	718	2.5%	1.5%	3.8%
	21 White Goods	0	0.0%	0.0%	0.0%
Yard Waste		773	2.7%	1.1%	5.1%
	22 Leaves/Grass/Chips	345	1.2%	0.5%	2.3%
	23 Branches/Stumps/Prunings/Trimmings	429	1.5%	0.5%	3.1%
Organics		15,027	53.3%	48.6%	57.9%
	24 Food Waste	10,505	37.3%	33.1%	41.5%
	25 Tires	0	0.0%	0.0%	0.0%
	26 Untreated Lumber	124	0.4%	0.2%	0.8%
	27 Pallets	0	0.0%	0.0%	0.0%
	28 Treated Wood Waste	297	1.1%	0.4%	2.0%
	29 Textiles and Leather	1,166	4.1%	3.2%	5.1%
	30 Carpet	0	0.0%	0.0%	0.0%
	31 Diapers	1,738	6.2%	4.5%	8.1%
	32 Manure	1,083	3.8%	2.1%	6.2%
	33 Other Organics	114	0.4%	0.2%	0.6%
Inerts		1,271	4.5%	3.0%	6.3%
	34 Crushable Inerts	226	0.8%	0.4%	1.4%
	35 Other Inerts	604	2.1%	1.2%	3.3%
	36 Gypsum Board	441	1.6%	0.6%	3.0%
	37 Asphalt Roofing	0	0.0%	0.0%	0.0%
HHW		153	0.5%	0.3%	0.8%
	38 Paint/Adhesives	12	0.0%	0.0%	0.1%
	39 Vehicle & Equipment Fluids	1	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	27	0.1%	0.0%	0.2%
	41 Medical Waste	20	0.1%	0.0%	0.1%
	42 Medicine	49	0.2%	0.1%	0.3%
	43 Covered E-Waste	0	0.0%	0.0%	0.0%
	44 Other E-Waste	25	0.1%	0.0%	0.2%
	45 Other Hazardous Waste	20	0.1%	0.0%	0.1%
Special		41	0.1%	0.0%	0.3%
	46 Brown Goods	41	0.1%	0.0%	0.3%
	47 Composite Bulky Items	0	0.0%	0.0%	0.0%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		28,201	100.0%		

Table 7
City of Hayward Multi-Family Residential Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		3,810	26.1%	23.0%	29.2%
	1 Uncoated Corrugated Cardboard	286	2.0%	0.7%	3.7%
	2 High Grade Paper	81	0.6%	0.3%	1.0%
	3 Newspaper	291	2.0%	0.8%	3.7%
	4 Mixed Recyclable Paper	760	5.2%	3.4%	7.4%
	5 Compostable Paper	2,235	15.3%	12.3%	18.5%
	6 Other Paper	156	1.1%	0.5%	1.8%
Plastics		1,923	13.2%	11.0%	15.4%
	7 HDPE Bottles (#2)	121	0.8%	0.7%	1.0%
	8 PETE Bottles (#1)	132	0.9%	0.6%	1.2%
	9 Other Plastic Containers	106	0.7%	0.5%	0.9%
	10 Plastic Bags	185	1.3%	0.8%	1.9%
	11 Other Film	669	4.6%	3.0%	6.4%
	12 Expanded Polystyrene Blocks	76	0.5%	0.2%	1.1%
	13 Mixed Rigid Plastics	398	2.7%	1.9%	3.7%
	14 Other Plastics	235	1.6%	0.9%	2.6%
Glass		624	4.3%	2.6%	6.3%
	15 Recyclable Glass Bottles/Containers	584	4.0%	2.3%	6.1%
	16 Other Glass	40	0.3%	0.1%	0.5%
Metals		864	5.9%	4.3%	7.8%
	17 Aluminum Cans	48	0.3%	0.2%	0.5%
	18 Other Non-Ferrous	37	0.3%	0.1%	0.4%
	19 Steel Food and Beverage Cans	169	1.2%	0.8%	1.6%
	20 Other Ferrous	549	3.8%	2.2%	5.7%
	21 White Goods	61	0.4%	0.1%	1.1%
Yard Waste		215	1.5%	0.5%	2.9%
	22 Leaves/Grass/Chips	134	0.9%	0.3%	2.0%
	23 Branches/Stumps/Prunings/Trimmings	81	0.6%	0.1%	1.2%
Organics		6,281	43.0%	37.7%	48.4%
	24 Food Waste	3,566	24.4%	20.0%	29.1%
	25 Tires	0	0.0%	0.0%	0.0%
	26 Untreated Lumber	560	3.8%	0.8%	8.9%
	27 Pallets	0	0.0%	0.0%	0.0%
	28 Treated Wood Waste	239	1.6%	0.6%	3.2%
	29 Textiles and Leather	1,138	7.8%	4.7%	11.6%
	30 Carpet	68	0.5%	0.1%	1.1%
	31 Diapers	416	2.8%	1.7%	4.3%
	32 Manure	219	1.5%	0.3%	3.5%
	33 Other Organics	75	0.5%	0.2%	0.9%
Inerts		311	2.1%	1.3%	3.1%
	34 Crushable Inerts	177	1.2%	0.4%	2.5%
	35 Other Inerts	120	0.8%	0.5%	1.2%
	36 Gypsum Board	14	0.1%	0.0%	0.2%
	37 Asphalt Roofing	0	0.0%	0.0%	0.0%
HHW		361	2.5%	0.9%	4.8%
	38 Paint/Adhesives	0	0.0%	0.0%	0.0%
	39 Vehicle & Equipment Fluids	0	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	9	0.1%	0.0%	0.1%
	41 Medical Waste	26	0.2%	0.0%	0.4%
	42 Medicine	2	0.0%	0.0%	0.0%
	43 Covered E-Waste	187	1.3%	0.2%	3.1%
	44 Other E-Waste	137	0.9%	0.2%	2.2%
	45 Other Hazardous Waste	0	0.0%	0.0%	0.0%
Special		224	1.5%	0.4%	3.3%
	46 Brown Goods	163	1.1%	0.3%	2.5%
	47 Composite Bulky Items	61	0.4%	0.1%	1.1%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		14,611	100.0%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF HAYWARD**

**Table 8
City of Hayward Commercial Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		5,081	24.8%	20.9%	28.8%
	1 Uncoated Corrugated Cardboard	486	2.4%	1.4%	3.6%
	2 High Grade Paper	279	1.4%	0.8%	2.0%
	3 Newspaper	179	0.9%	0.5%	1.3%
	4 Mixed Recyclable Paper	714	3.5%	2.4%	4.7%
	5 Compostable Paper	3,151	15.4%	13.1%	17.7%
	6 Other Paper	271	1.3%	0.9%	1.9%
Plastics		3,064	14.9%	13.1%	16.9%
	7 HDPE Bottles (#2)	135	0.7%	0.5%	0.9%
	8 PETE Bottles (#1)	91	0.4%	0.3%	0.6%
	9 Other Plastic Containers	138	0.7%	0.5%	0.9%
	10 Plastic Bags	176	0.9%	0.6%	1.1%
	11 Other Film	1,340	6.5%	5.1%	8.2%
	12 Expanded Polystyrene Blocks	31	0.1%	0.1%	0.2%
	13 Mixed Rigid Plastics	801	3.9%	3.0%	5.0%
	14 Other Plastics	352	1.7%	1.3%	2.2%
Glass		270	1.3%	0.9%	1.7%
	15 Recyclable Glass Bottles/Containers	254	1.2%	0.9%	1.7%
	16 Other Glass	16	0.1%	0.0%	0.1%
Metals		796	3.9%	2.8%	5.1%
	17 Aluminum Cans	25	0.1%	0.1%	0.1%
	18 Other Non-Ferrous	83	0.4%	0.3%	0.6%
	19 Steel Food and Beverage Cans	109	0.5%	0.4%	0.7%
	20 Other Ferrous	578	2.8%	1.7%	4.1%
	21 White Goods	1	0.0%	0.0%	0.0%
Yard Waste		1,055	5.1%	2.9%	7.9%
	22 Leaves/Grass/Chips	745	3.6%	1.9%	5.9%
	23 Branches/Stumps/Prunings/Trimnings	311	1.5%	0.7%	2.6%
Organics		7,958	38.8%	33.3%	44.5%
	24 Food Waste	5,564	27.1%	21.1%	33.6%
	25 Tires	119	0.6%	0.2%	1.1%
	26 Untreated Lumber	255	1.2%	0.6%	2.1%
	27 Pallets	135	0.7%	0.3%	1.2%
	28 Treated Wood Waste	407	2.0%	1.1%	3.1%
	29 Textiles and Leather	577	2.8%	1.8%	4.0%
	30 Carpet	126	0.6%	0.3%	1.1%
	31 Diapers	450	2.2%	1.3%	3.3%
	32 Manure	87	0.4%	0.2%	0.7%
	33 Other Organics	238	1.2%	0.6%	1.9%
Inerts		1,904	9.3%	5.4%	14.1%
	34 Crushable Inerts	860	4.2%	2.2%	6.8%
	35 Other Inerts	572	2.8%	1.6%	4.3%
	36 Gypsum Board	472	2.3%	0.9%	4.3%
	37 Asphalt Roofing	0	0.0%	0.0%	0.0%
HHW		292	1.4%	0.8%	2.2%
	38 Paint/Adhesives	9	0.0%	0.0%	0.1%
	39 Vehicle & Equipment Fluids	33	0.2%	0.1%	0.3%
	40 Universal Hazardous Waste	27	0.1%	0.1%	0.2%
	41 Medical Waste	5	0.0%	0.0%	0.0%
	42 Medicine	13	0.1%	0.0%	0.1%
	43 Covered E-Waste	134	0.7%	0.3%	1.2%
	44 Other E-Waste	72	0.3%	0.2%	0.6%
	45 Other Hazardous Waste	0	0.0%	0.0%	0.0%
Special		95	0.5%	0.2%	0.8%
	46 Brown Goods	2	0.0%	0.0%	0.0%
	47 Composite Bulky Items	93	0.5%	0.2%	0.8%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		20,514	100.0%		

Table 9
City of Hayward Roll-Off Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		8,528	20.8%	16.4%	25.6%
	1 Uncoated Corrugated Cardboard	3,008	7.3%	5.3%	9.6%
	2 High Grade Paper	1,224	3.0%	2.0%	4.2%
	3 Newspaper	121	0.3%	0.2%	0.4%
	4 Mixed Recyclable Paper	2,082	5.1%	3.4%	7.0%
	5 Compostable Paper	431	1.1%	0.7%	1.4%
	6 Other Paper	1,662	4.1%	2.6%	5.8%
Plastics		2,590	6.3%	4.7%	8.1%
	7 HDPE Bottles (#2)	36	0.1%	0.1%	0.1%
	8 PETE Bottles (#1)	33	0.1%	0.1%	0.1%
	9 Other Plastic Containers	21	0.1%	0.0%	0.1%
	10 Plastic Bags	11	0.0%	0.0%	0.0%
	11 Other Film	1,443	3.5%	2.5%	4.7%
	12 Expanded Polystyrene Blocks	58	0.1%	0.1%	0.2%
	13 Mixed Rigid Plastics	418	1.0%	0.7%	1.4%
	14 Other Plastics	569	1.4%	1.0%	1.9%
Glass		1,049	2.6%	1.6%	3.7%
	15 Recyclable Glass Bottles/Containers	380	0.9%	0.6%	1.4%
	16 Other Glass	669	1.6%	1.0%	2.5%
Metals		2,091	5.1%	3.6%	6.8%
	17 Aluminum Cans	50	0.1%	0.1%	0.2%
	18 Other Non-Ferrous	105	0.3%	0.2%	0.4%
	19 Steel Food and Beverage Cans	46	0.1%	0.1%	0.2%
	20 Other Ferrous	1,837	4.5%	3.0%	6.2%
	21 White Goods	54	0.1%	0.1%	0.2%
Yard Waste		1,302	3.2%	2.0%	4.6%
	22 Leaves/Grass/Chips	846	2.1%	1.3%	3.1%
	23 Branches/Stumps/Prunings/Trimmings	456	1.1%	0.7%	1.7%
Organics		16,733	40.9%	33.9%	48.0%
	24 Food Waste	5,273	12.9%	7.8%	18.9%
	25 Tires	52	0.1%	0.1%	0.2%
	26 Untreated Lumber	2,056	5.0%	3.2%	7.2%
	27 Pallets	2,689	6.6%	4.4%	9.1%
	28 Treated Wood Waste	3,895	9.5%	6.4%	13.1%
	29 Textiles and Leather	1,090	2.7%	1.7%	3.9%
	30 Carpet	346	0.8%	0.5%	1.3%
	31 Diapers	13	0.0%	0.0%	0.0%
	32 Manure	12	0.0%	0.0%	0.0%
	33 Other Organics	1,308	3.2%	1.9%	4.7%
Inerts		6,743	16.5%	11.1%	22.6%
	34 Crushable Inerts	2,273	5.5%	3.3%	8.4%
	35 Other Inerts	2,535	6.2%	3.8%	9.1%
	36 Gypsum Board	1,078	2.6%	1.5%	4.0%
	37 Asphalt Roofing	857	2.1%	1.2%	3.3%
HHW		581	1.4%	0.9%	2.1%
	38 Paint/Adhesives	33	0.1%	0.0%	0.1%
	39 Vehicle & Equipment Fluids	0	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	233	0.6%	0.3%	0.9%
	41 Medical Waste	35	0.1%	0.0%	0.1%
	42 Medicine	0	0.0%	0.0%	0.0%
	43 Covered E-Waste	37	0.1%	0.1%	0.1%
	44 Other E-Waste	194	0.5%	0.3%	0.7%
	45 Other Hazardous Waste	50	0.1%	0.1%	0.2%
Special		1,345	3.3%	2.0%	4.9%
	46 Brown Goods	44	0.1%	0.1%	0.2%
	47 Composite Bulky Items	1,301	3.2%	1.9%	4.8%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		40,962	100.0%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF HAYWARD**

**Table 10
City of Hayward Self Haul Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		1,455	8.7%	5.7%	12.2%
	1 Uncoated Corrugated Cardboard	712	4.2%	2.5%	6.4%
	2 High Grade Paper	70	0.4%	0.2%	0.7%
	3 Newspaper	72	0.4%	0.2%	0.7%
	4 Mixed Recyclable Paper	515	3.1%	1.7%	4.8%
	5 Compostable Paper	72	0.4%	0.2%	0.7%
	6 Other Paper	14	0.1%	0.0%	0.1%
Plastics		912	5.4%	3.3%	8.1%
	7 HDPE Bottles (#2)	2	0.0%	0.0%	0.0%
	8 PETE Bottles (#1)	6	0.0%	0.0%	0.1%
	9 Other Plastic Containers	4	0.0%	0.0%	0.0%
	10 Plastic Bags	12	0.1%	0.0%	0.1%
	11 Other Film	169	1.0%	0.6%	1.5%
	12 Expanded Polystyrene Blocks	268	1.6%	0.7%	2.9%
	13 Mixed Rigid Plastics	380	2.3%	1.2%	3.7%
	14 Other Plastics	69	0.4%	0.2%	0.7%
Glass		371	2.2%	1.2%	3.5%
	15 Recyclable Glass Bottles/Containers	179	1.1%	0.5%	1.8%
	16 Other Glass	192	1.1%	0.6%	1.9%
Metals		946	5.6%	3.5%	8.2%
	17 Aluminum Cans	9	0.1%	0.0%	0.1%
	18 Other Non-Ferrous	120	0.7%	0.4%	1.2%
	19 Steel Food and Beverage Cans	7	0.0%	0.0%	0.1%
	20 Other Ferrous	716	4.3%	2.5%	6.4%
	21 White Goods	92	0.5%	0.3%	0.9%
Yard Waste		1,745	10.4%	5.6%	16.5%
	22 Leaves/Grass/Chips	840	5.0%	2.4%	8.5%
	23 Branches/Stumps/Prunings/Trimming	906	5.4%	2.8%	8.7%
Organics		6,706	39.9%	30.7%	49.5%
	24 Food Waste	84	0.5%	0.3%	0.8%
	25 Tires	8	0.0%	0.0%	0.1%
	26 Untreated Lumber	522	3.1%	1.8%	4.7%
	27 Pallets	324	1.9%	0.9%	3.3%
	28 Treated Wood Waste	3,061	18.2%	11.6%	26.0%
	29 Textiles and Leather	958	5.7%	3.5%	8.5%
	30 Carpet	1,372	8.2%	3.7%	14.1%
	31 Diapers	3	0.0%	0.0%	0.0%
	32 Manure	0	0.0%	0.0%	0.0%
	33 Other Organics	376	2.2%	0.9%	4.2%
Inerts		3,149	18.7%	11.1%	27.8%
	34 Crushable Inerts	1,854	11.0%	6.1%	17.2%
	35 Other Inerts	800	4.8%	2.1%	8.4%
	36 Gypsum Board	338	2.0%	1.0%	3.3%
	37 Asphalt Roofing	157	0.9%	0.5%	1.6%
HHW		378	2.2%	1.2%	3.6%
	38 Paint/Adhesives	59	0.3%	0.2%	0.6%
	39 Vehicle & Equipment Fluids	35	0.2%	0.1%	0.4%
	40 Universal Hazardous Waste	113	0.7%	0.3%	1.1%
	41 Medical Waste	0	0.0%	0.0%	0.0%
	42 Medicine	0	0.0%	0.0%	0.0%
	43 Covered E-Waste	106	0.6%	0.3%	1.0%
	44 Other E-Waste	21	0.1%	0.1%	0.2%
	45 Other Hazardous Waste	44	0.3%	0.1%	0.5%
Special		1,145	6.8%	3.7%	10.8%
	46 Brown Goods	88	0.5%	0.3%	0.9%
	47 Composite Bulky Items	1,057	6.3%	3.4%	10.1%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		16,807	100.0%		

Table 11
City of Hayward Detailed Historic Comparison of Overall Jurisdiction-wide Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		23.8%	21.7%	20.6%	34,251	38,732	24,891
	1 Uncoated Corrugated Cardboard	5.4%	5.8%	3.8%	7,839	10,363	4,570
	2 High Grade Paper	2.1%	2.1%	1.5%	2,997	3,763	1,781
	3 Newspaper	1.8%	2.2%	0.6%	2,637	4,007	713
	4 Mixed Recyclable Paper	6.5%	4.7%	4.0%	9,323	8,323	4,796
	5 Compostable Paper	NA	NA	8.6%	NA	NA	10,449
	6 Other Paper	8.0%	6.9%	2.1%	11,455	12,276	2,582
Plastics		17.5%	11.6%	9.7%	25,245	20,634	11,784
	7 HDPE Bottles (#2)	0.4%	1.1%	0.3%	620	1,883	407
	8 PETE Bottles (#1)	0.2%	0.4%	0.3%	245	708	388
	9 Other Plastic Containers	NA	0.2%	0.4%	NA	432	513
	10 Plastic Bags	NA	NA	0.6%	NA	NA	787
	11 Other Film	5.2%	4.6%	4.1%	7,507	8,248	4,950
	12 Expanded Polystyrene Blocks	NA	NA	0.4%	NA	NA	521
	13 Mixed Rigid Plastics	NA	NA	2.2%	NA	NA	2,624
	14 Other Plastics	11.7%	5.2%	1.3%	16,873	9,364	1,593
Glass		2.5%	1.7%	2.3%	3,530	3,101	2,816
	15 Recyclable Glass Bottles/Containers	1.9%	1.3%	1.5%	2,738	2,402	1,773
	16 Other Glass	0.6%	0.4%	0.9%	793	699	1,044
Metals		4.3%	5.7%	4.8%	6,210	10,216	5,816
	17 Aluminum Cans	0.2%	0.2%	0.1%	245	359	169
	18 Other Non-Ferrous	1.1%	1.0%	0.4%	1,585	1,711	454
	19 Steel Food and Beverage Cans	0.6%	0.7%	0.5%	850	1,171	587
	20 Other Ferrous	2.5%	3.5%	3.6%	3,530	6,313	4,398
	21 White Goods	0.0%	0.4%	0.2%	0	661	208
Yard Waste		12.9%	5.3%	4.2%	18,559	9,436	5,090
	22 Leaves/Grass/Chips	9.3%	2.2%	2.4%	13,357	3,990	2,908
	23 Branches/Stumps/Prunings/Trimmings	3.6%	3.1%	1.8%	5,202	5,447	2,182
Organics		26.5%	37.1%	43.5%	38,170	66,251	52,706
	24 Food Waste	9.0%	12.0%	20.6%	13,026	21,432	24,992
	25 Tires	0.3%	0.3%	0.1%	403	478	178
	26 Untreated Lumber	6.7%	11.7%	2.9%	9,669	20,970	3,516
	27 Pallets	NA	NA	2.6%	NA	NA	3,148
	28 Treated Wood Waste	1.6%	4.9%	6.5%	2,291	8,698	7,900
	29 Textiles and Leather	4.9%	2.9%	4.1%	7,104	5,123	4,929
	30 Carpet	NA	2.5%	1.6%	NA	4,493	1,911
	31 Diapers	1.9%	1.4%	2.2%	2,680	2,484	2,620
	32 Manure	NA	NA	1.2%	NA	NA	1,401
	33 Other Organics	2.1%	1.4%	1.7%	2,997	2,572	2,111
Inerts		7.2%	8.3%	11.0%	10,331	14,776	13,379
	34 Crushable Inerts	2.6%	3.2%	4.5%	3,689	5,625	5,390
	35 Other Inerts	1.6%	2.3%	3.8%	2,291	4,102	4,632
	36 Gypsum Board	1.5%	2.7%	1.9%	2,118	4,854	2,343
	37 Asphalt Roofing	1.6%	0.1%	0.8%	2,233	194	1,014
HHW		0.2%	0.5%	1.5%	317	959	1,764
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	112
	39 Vehicle & Equipment Fluids	NA	NA	0.1%	NA	NA	68
	40 Universal Hazardous Waste	NA	NA	0.3%	NA	NA	407
	41 Medical Waste	NA	NA	0.1%	NA	NA	85
	42 Medicine	NA	NA	0.1%	NA	NA	64
	43 Covered E-Waste	NA	NA	0.4%	NA	NA	463
	44 Other E-Waste	NA	NA	0.4%	NA	NA	449
	45 Other Hazardous Waste	0.2%	0.5%	0.1%	317	959	114
Special		5.2%	8.1%	2.4%	7,464	14,412	2,849
	46 Brown Goods	1.3%	1.1%	0.3%	1,873	1,880	337
	47 Composite Bulky Items	3.9%	7.0%	2.1%	5,591	12,532	2,512
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	144,092	178,518	121,095

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF HAYWARD**

**Table 12
City of Hayward Detailed Historic Comparison of Single-Family Residential Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		27.4%	32.7%	21.3%	6,249	9,044	6,018
	1 Uncoated Corrugated Cardboard	2.3%	1.8%	0.3%	513	496	78
	2 High Grade Paper	0.9%	1.6%	0.4%	210	439	126
	3 Newspaper	3.6%	5.2%	0.2%	821	1,449	49
	4 Mixed Recyclable Paper	6.8%	8.1%	2.6%	1,553	2,230	727
	5 Compostable Paper	NA	NA	16.2%	NA	NA	4,559
	6 Other Paper	13.8%	16.0%	1.7%	3,152	4,429	479
Plastics		8.7%	13.6%	11.7%	1,979	3,753	3,296
	7 HDPE Bottles (#2)	0.5%	0.7%	0.4%	114	206	112
	8 PETE Bottles (#1)	0.3%	0.7%	0.4%	66	185	126
	9 Other Plastic Containers	NA	0.3%	0.9%	NA	79	244
	10 Plastic Bags	NA	NA	1.4%	NA	NA	403
	11 Other Film	4.4%	7.8%	4.7%	997	2,161	1,329
	12 Expanded Polystyrene Blocks	NA	NA	0.3%	NA	NA	88
	13 Mixed Rigid Plastics	NA	NA	2.2%	NA	NA	626
	14 Other Plastics	3.5%	4.1%	1.3%	803	1,122	368
Glass		4.3%	3.4%	1.8%	971	940	503
	15 Recyclable Glass Bottles/Containers	3.9%	2.9%	1.3%	887	803	376
	16 Other Glass	0.4%	0.5%	0.4%	84	136	126
Metals		2.9%	3.7%	4.0%	650	1,011	1,119
	17 Aluminum Cans	0.3%	0.4%	0.1%	73	124	37
	18 Other Non-Ferrous	0.5%	0.7%	0.4%	105	200	109
	19 Steel Food and Beverage Cans	1.6%	1.6%	0.9%	358	448	255
	20 Other Ferrous	0.5%	0.7%	2.5%	114	196	718
	21 White Goods	0.0%	0.2%	0.0%	0	44	0
Yard Waste		17.5%	2.5%	2.7%	3,979	686	773
	22 Leaves/Grass/Chips	13.1%	1.7%	1.2%	2,985	471	345
	23 Branches/Stumps/Prunings/Trimmings	4.4%	0.8%	1.5%	994	216	429
Organics		37.1%	40.2%	53.3%	8,467	11,117	15,027
	24 Food Waste	23.7%	27.4%	37.3%	5,414	7,582	10,505
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	0.2%	0.1%	0.4%	55	15	124
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	1.0%	0.2%	1.1%	228	52	297
	29 Textiles and Leather	4.2%	5.6%	4.1%	962	1,548	1,166
	30 Carpet	NA	0.1%	0.0%	NA	32	0
	31 Diapers	7.1%	5.2%	6.2%	1,621	1,441	1,738
	32 Manure	NA	NA	3.8%	NA	NA	1,083
	33 Other Organics	0.8%	1.6%	0.4%	187	449	114
Inerts		1.6%	2.2%	4.5%	365	599	1,271
	34 Crushable Inerts	0.2%	0.1%	0.8%	48	26	226
	35 Other Inerts	1.2%	1.7%	2.1%	281	477	604
	36 Gypsum Board	0.1%	0.3%	1.6%	32	96	441
	37 Asphalt Roofing	0.0%	0.0%	0.0%	5	0	0
HHW		0.6%	0.4%	0.5%	135	119	153
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	12
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	1
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	27
	41 Medical Waste	NA	NA	0.1%	NA	NA	20
	42 Medicine	NA	NA	0.2%	NA	NA	49
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.1%	NA	NA	25
	45 Other Hazardous Waste	0.6%	0.4%	0.1%	135	119	20
Special		0.0%	1.3%	0.1%	9	351	41
	46 Brown Goods	0.0%	1.3%	0.1%	9	351	41
	47 Composite Bulky Items	0.0%	0.0%	0.0%	0	0	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	22,805	27,621	28,201

Table 13
City of Hayward Detailed Historic Comparison of Multi-Family Residential Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		32.8%	25.4%	26.1%	2,338	2,483	3,810
	1 Uncoated Corrugated Cardboard	4.8%	5.6%	2.0%	342	547	286
	2 High Grade Paper	5.0%	2.1%	0.6%	355	209	81
	3 Newspaper	4.6%	4.5%	2.0%	325	435	291
	4 Mixed Recyclable Paper	6.9%	5.6%	5.2%	492	547	760
	5 Compostable Paper	NA	NA	15.3%	NA	NA	2,235
	6 Other Paper	11.6%	7.6%	1.1%	824	744	156
Plastics		12.0%	13.1%	13.2%	855	1,277	1,923
	7 HDPE Bottles (#2)	1.0%	1.0%	0.8%	68	102	121
	8 PETE Bottles (#1)	0.4%	0.8%	0.9%	30	77	132
	9 Other Plastic Containers	NA	0.8%	0.7%	NA	82	106
	10 Plastic Bags	NA	NA	1.3%	NA	NA	185
	11 Other Film	5.2%	5.4%	4.6%	370	526	669
	12 Expanded Polystyrene Blocks	NA	NA	0.5%	NA	NA	76
	13 Mixed Rigid Plastics	NA	NA	2.7%	NA	NA	398
	14 Other Plastics	5.4%	5.0%	1.6%	387	490	235
Glass		5.6%	3.4%	4.3%	398	332	624
	15 Recyclable Glass Bottles/Containers	4.8%	3.2%	4.0%	338	317	584
	16 Other Glass	0.8%	0.2%	0.3%	60	15	40
Metals		5.2%	4.9%	5.9%	369	483	864
	17 Aluminum Cans	0.6%	0.4%	0.3%	42	38	48
	18 Other Non-Ferrous	0.6%	1.6%	0.3%	44	158	37
	19 Steel Food and Beverage Cans	1.9%	0.7%	1.2%	136	68	169
	20 Other Ferrous	2.1%	2.2%	3.8%	147	219	549
	21 White Goods	0.0%	0.0%	0.4%	0	0	61
Yard Waste		6.4%	7.3%	1.5%	453	709	215
	22 Leaves/Grass/Chips	6.1%	6.2%	0.9%	436	605	134
	23 Branches/Stumps/Prunings/Trimmings	0.2%	1.1%	0.6%	17	105	81
Organics		36.6%	37.2%	43.0%	2,605	3,634	6,281
	24 Food Waste	18.8%	19.1%	24.4%	1,339	1,865	3,566
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	1.2%	1.2%	3.8%	83	121	560
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	2.2%	0.9%	1.6%	153	87	239
	29 Textiles and Leather	7.6%	6.3%	7.8%	543	616	1,138
	30 Carpet	NA	1.2%	0.5%	NA	119	68
	31 Diapers	5.3%	4.7%	2.8%	374	455	416
	32 Manure	NA	NA	1.5%	NA	NA	219
	33 Other Organics	1.6%	3.8%	0.5%	113	372	75
Inerts		0.6%	1.9%	2.1%	39	181	311
	34 Crushable Inerts	0.3%	0.7%	1.2%	19	64	177
	35 Other Inerts	0.3%	1.2%	0.8%	21	117	120
	36 Gypsum Board	0.0%	0.0%	0.1%	0	0	14
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	0	0
HHW		0.9%	0.8%	2.5%	67	77	361
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	9
	41 Medical Waste	NA	NA	0.2%	NA	NA	26
	42 Medicine	NA	NA	0.0%	NA	NA	2
	43 Covered E-Waste	NA	NA	1.3%	NA	NA	187
	44 Other E-Waste	NA	NA	0.9%	NA	NA	137
	45 Other Hazardous Waste	0.9%	0.8%	0.0%	67	77	0
Special		0.0%	6.1%	1.5%	0	595	224
	46 Brown Goods	0.0%	1.5%	1.1%	0	146	163
	47 Composite Bulky Items	0.0%	4.6%	0.4%	0	449	61
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	7,121	9,771	14,611

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF HAYWARD**

**Table 14
City of Hayward Detailed Historic Comparison of Commercial Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		32.6%	30.7%	24.8%	12,196	16,424	5,081
	1 Uncoated Corrugated Cardboard	6.8%	9.4%	2.4%	2,530	5,027	486
	2 High Grade Paper	4.2%	2.9%	1.4%	1,566	1,542	279
	3 Newspaper	3.1%	3.2%	0.9%	1,159	1,715	179
	4 Mixed Recyclable Paper	6.6%	5.1%	3.5%	2,474	2,710	714
	5 Compostable Paper	NA	NA	15.4%	NA	NA	3,151
	6 Other Paper	12.0%	10.1%	1.3%	4,467	5,430	271
Plastics		15.0%	15.6%	14.9%	5,618	8,329	3,064
	7 HDPE Bottles (#2)	1.0%	1.4%	0.7%	381	753	135
	8 PETE Bottles (#1)	0.2%	0.5%	0.4%	82	285	91
	9 Other Plastic Containers	NA	0.2%	0.7%	NA	129	138
	10 Plastic Bags	NA	NA	0.9%	NA	NA	176
	11 Other Film	6.3%	7.3%	6.5%	2,344	3,906	1,340
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	31
	13 Mixed Rigid Plastics	NA	NA	3.9%	NA	NA	801
	14 Other Plastics	7.5%	6.1%	1.7%	2,811	3,256	352
Glass		3.9%	2.2%	1.3%	1,446	1,184	270
	15 Recyclable Glass Bottles/Containers	3.3%	2.0%	1.2%	1,248	1,076	254
	16 Other Glass	0.5%	0.2%	0.1%	198	109	16
Metals		5.1%	4.6%	3.9%	1,917	2,444	796
	17 Aluminum Cans	0.3%	0.2%	0.1%	93	113	25
	18 Other Non-Ferrous	0.7%	1.0%	0.4%	273	511	83
	19 Steel Food and Beverage Cans	0.7%	0.9%	0.5%	277	479	109
	20 Other Ferrous	3.4%	2.2%	2.8%	1,275	1,201	578
	21 White Goods	0.0%	0.3%	0.0%	0	140	1
Yard Waste		7.4%	2.3%	5.1%	2,762	1,248	1,055
	22 Leaves/Grass/Chips	5.5%	1.5%	3.6%	2,067	790	745
	23 Branches/Stumps/Prunings/Trimmings	1.9%	0.9%	1.5%	695	458	311
Organics		31.1%	38.8%	38.8%	11,617	20,786	7,958
	24 Food Waste	13.5%	15.4%	27.1%	5,038	8,241	5,564
	25 Tires	1.1%	0.3%	0.6%	396	135	119
	26 Untreated Lumber	6.2%	9.1%	1.2%	2,317	4,847	255
	27 Pallets	NA	NA	0.7%	NA	NA	135
	28 Treated Wood Waste	1.5%	4.2%	2.0%	572	2,254	407
	29 Textiles and Leather	4.0%	4.1%	2.8%	1,495	2,202	577
	30 Carpet	NA	3.1%	0.6%	NA	1,646	126
	31 Diapers	1.1%	1.1%	2.2%	392	574	450
	32 Manure	NA	NA	0.4%	NA	NA	87
	33 Other Organics	3.8%	1.7%	1.2%	1,405	887	238
Inerts		3.0%	3.6%	9.3%	1,121	1,931	1,904
	34 Crushable Inerts	1.8%	2.4%	4.2%	680	1,288	860
	35 Other Inerts	0.7%	0.5%	2.8%	247	243	572
	36 Gypsum Board	0.5%	0.7%	2.3%	176	372	472
	37 Asphalt Roofing	0.1%	0.1%	0.0%	19	28	0
HHW		0.2%	0.4%	1.4%	71	239	292
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	9
	39 Vehicle & Equipment Fluids	NA	NA	0.2%	NA	NA	33
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	27
	41 Medical Waste	NA	NA	0.0%	NA	NA	5
	42 Medicine	NA	NA	0.1%	NA	NA	13
	43 Covered E-Waste	NA	NA	0.7%	NA	NA	134
	44 Other E-Waste	NA	NA	0.3%	NA	NA	72
	45 Other Hazardous Waste	0.2%	0.4%	0.0%	71	239	0
Special		1.7%	1.8%	0.5%	632	950	95
	46 Brown Goods	1.0%	1.4%	0.0%	366	766	2
	47 Composite Bulky Items	0.7%	0.3%	0.5%	265	185	93
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	37,377	53,534	20,514

Table 15
City of Hayward Detailed Historic Comparison of Roll-Off Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		24.4%	14.1%	20.8%	9,911	9,135	8,528
	1 Uncoated Corrugated Cardboard	8.7%	5.6%	7.3%	3,526	3,623	3,008
	2 High Grade Paper	2.1%	1.7%	3.0%	836	1,072	1,224
	3 Newspaper	0.5%	0.6%	0.3%	219	398	121
	4 Mixed Recyclable Paper	8.4%	4.0%	5.1%	3,388	2,590	2,082
	5 Compostable Paper	NA	NA	1.1%	NA	NA	431
	6 Other Paper	4.8%	2.2%	4.1%	1,943	1,451	1,662
Plastics		30.6%	8.6%	6.3%	12,419	5,602	2,590
	7 HDPE Bottles (#2)	0.1%	1.0%	0.1%	20	637	36
	8 PETE Bottles (#1)	0.1%	0.2%	0.1%	49	134	33
	9 Other Plastic Containers	NA	0.2%	0.1%	NA	140	21
	10 Plastic Bags	NA	NA	0.0%	NA	NA	11
	11 Other Film	8.8%	2.3%	3.5%	3,558	1,512	1,443
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	58
	13 Mixed Rigid Plastics	NA	NA	1.0%	NA	NA	418
	14 Other Plastics	21.7%	4.9%	1.4%	8,792	3,179	569
Glass		1.2%	0.9%	2.6%	499	578	1,049
	15 Recyclable Glass Bottles/Containers	0.3%	0.2%	0.9%	122	144	380
	16 Other Glass	0.9%	0.7%	1.6%	377	434	669
Metals		4.0%	7.9%	5.1%	1,619	5,115	2,091
	17 Aluminum Cans	0.1%	0.1%	0.1%	20	71	50
	18 Other Non-Ferrous	0.4%	1.2%	0.3%	142	790	105
	19 Steel Food and Beverage Cans	0.1%	0.3%	0.1%	37	162	46
	20 Other Ferrous	3.5%	5.6%	4.5%	1,420	3,614	1,837
	21 White Goods	0.0%	0.7%	0.1%	0	478	54
Yard Waste		7.8%	2.0%	3.2%	3,156	1,280	1,302
	22 Leaves/Grass/Chips	7.7%	0.4%	2.1%	3,108	263	846
	23 Branches/Stumps/Prunings/Trimmings	0.1%	1.6%	1.1%	49	1,017	456
Organics		18.3%	39.0%	40.9%	7,420	25,277	16,733
	24 Food Waste	2.4%	5.7%	12.9%	953	3,713	5,273
	25 Tires	0.0%	0.4%	0.1%	4	234	52
	26 Untreated Lumber	5.0%	20.9%	5.0%	2,029	13,545	2,056
	27 Pallets	NA	NA	6.6%	NA	NA	2,689
	28 Treated Wood Waste	2.6%	7.1%	9.5%	1,051	4,572	3,895
	29 Textiles and Leather	5.0%	0.8%	2.7%	2,016	496	1,090
	30 Carpet	NA	3.5%	0.8%	NA	2,277	346
	31 Diapers	0.5%	0.0%	0.0%	219	14	13
	32 Manure	NA	NA	0.0%	NA	NA	12
	33 Other Organics	2.8%	0.7%	3.2%	1,148	426	1,308
Inerts		5.7%	11.8%	16.5%	2,300	7,638	6,743
	34 Crushable Inerts	1.0%	4.3%	5.5%	410	2,770	2,273
	35 Other Inerts	2.1%	3.1%	6.2%	848	2,029	2,535
	36 Gypsum Board	0.1%	4.4%	2.6%	57	2,830	1,078
	37 Asphalt Roofing	2.4%	0.0%	2.1%	986	8	857
HHW		0.1%	0.8%	1.4%	20	506	581
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	33
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.6%	NA	NA	233
	41 Medical Waste	NA	NA	0.1%	NA	NA	35
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.1%	NA	NA	37
	44 Other E-Waste	NA	NA	0.5%	NA	NA	194
	45 Other Hazardous Waste	0.1%	0.8%	0.1%	20	506	50
Special		8.0%	15.0%	3.3%	3,229	9,701	1,345
	46 Brown Goods	1.9%	0.6%	0.1%	755	360	44
	47 Composite Bulky Items	6.1%	14.4%	3.2%	2,475	9,341	1,301
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	40,571	64,832	40,962

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF HAYWARD**

**Table 16
City of Hayward Detailed Historic Comparison of Self-Haul Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		9.9%	7.2%	8.7%	3,567	1,647	1,455
	1 Uncoated Corrugated Cardboard	2.6%	2.9%	4.2%	931	670	712
	2 High Grade Paper	0.1%	2.2%	0.4%	29	501	70
	3 Newspaper	0.3%	0.0%	0.4%	116	10	72
	4 Mixed Recyclable Paper	3.9%	1.1%	3.1%	1,420	245	515
	5 Compostable Paper	NA	NA	0.4%	NA	NA	72
	6 Other Paper	3.0%	1.0%	0.1%	1,072	221	14
Plastics		12.1%	7.4%	5.4%	4,368	1,674	912
	7 HDPE Bottles (#2)	0.1%	0.8%	0.0%	25	186	2
	8 PETE Bottles (#1)	0.1%	0.1%	0.0%	22	28	6
	9 Other Plastic Containers	NA	0.0%	0.0%	NA	1	4
	10 Plastic Bags	NA	NA	0.1%	NA	NA	12
	11 Other Film	0.7%	0.6%	1.0%	243	143	169
	12 Expanded Polystyrene Blocks	NA	NA	1.6%	NA	NA	268
	13 Mixed Rigid Plastics	NA	NA	2.3%	NA	NA	380
	14 Other Plastics	11.3%	5.8%	0.4%	4,078	1,317	69
Glass		0.6%	0.3%	2.2%	217	66	371
	15 Recyclable Glass Bottles/Containers	0.4%	0.3%	1.1%	141	61	179
	16 Other Glass	0.2%	0.0%	1.1%	76	5	192
Metals		4.6%	5.1%	5.6%	1,659	1,164	946
	17 Aluminum Cans	0.0%	0.1%	0.1%	11	14	9
	18 Other Non-Ferrous	2.8%	0.2%	0.7%	1,025	53	120
	19 Steel Food and Beverage Cans	0.1%	0.1%	0.0%	40	14	7
	20 Other Ferrous	1.6%	4.8%	4.3%	583	1,084	716
	21 White Goods	0.0%	0.0%	0.5%	0	0	92
Yard Waste		22.7%	24.2%	10.4%	8,203	5,513	1,745
	22 Leaves/Grass/Chips	13.1%	8.2%	5.0%	4,759	1,862	840
	23 Branches/Stumps/Prunings/Trimmings	9.5%	16.0%	5.4%	3,444	3,651	906
Organics		22.2%	23.9%	39.9%	8,051	5,437	6,706
	24 Food Waste	0.8%	0.1%	0.5%	286	32	84
	25 Tires	0.0%	0.5%	0.0%	0	109	8
	26 Untreated Lumber	14.3%	10.7%	3.1%	5,179	2,443	522
	27 Pallets	NA	NA	1.9%	NA	NA	324
	28 Treated Wood Waste	0.8%	7.6%	18.2%	283	1,733	3,061
	29 Textiles and Leather	5.8%	1.2%	5.7%	2,093	262	958
	30 Carpet	NA	1.8%	8.2%	NA	419	1,372
	31 Diapers	0.2%	0.0%	0.0%	69	0	3
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	0.4%	1.9%	2.2%	141	439	376
Inerts		18.0%	19.5%	18.7%	6,519	4,427	3,149
	34 Crushable Inerts	7.0%	6.5%	11.0%	2,539	1,478	1,854
	35 Other Inerts	2.5%	5.4%	4.8%	898	1,236	800
	36 Gypsum Board	5.1%	6.8%	2.0%	1,858	1,556	338
	37 Asphalt Roofing	3.4%	0.7%	0.9%	1,224	157	157
HHW		0.1%	0.1%	2.2%	29	17	378
	38 Paint/Adhesives	NA	NA	0.3%	NA	NA	59
	39 Vehicle & Equipment Fluids	NA	NA	0.2%	NA	NA	35
	40 Universal Hazardous Waste	NA	NA	0.7%	NA	NA	113
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.6%	NA	NA	106
	44 Other E-Waste	NA	NA	0.1%	NA	NA	21
	45 Other Hazardous Waste	0.1%	0.1%	0.3%	29	17	44
Special		10.0%	12.4%	6.8%	3,604	2,814	1,145
	46 Brown Goods	2.1%	1.1%	0.5%	746	257	88
	47 Composite Bulky Items	7.9%	11.2%	6.3%	2,858	2,556	1,057
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	36,218	22,759	16,807

Appendix A9

2008 WASTE CHARACTERIZATION RESULTS

CITY OF LIVERMORE

This section presents a summary of the composition and quantity of disposed waste from the City of Livermore. The 2008 Study results presented herein are based on compositions developed using data obtained from field sample collection and sorting activities performed over four seasons during calendar year 2008. A complete description of the Study and presentation of Countywide aggregate results are included in Section 3 of the report.

Table 1 summarizes selected demographic and waste disposal characteristics for the City of Livermore. The total amount of waste disposed in 2008 represents 8.6 percent of the Countywide waste stream, and decreased approximately 19 percent from 2000.

Table 1
City of Livermore Waste Disposal Data

	2000	2008
Population ¹	74,303	83,604
Housing Units	26,130	29,955
Number of Business Establishments ²	1,842	2,290
Waste Disposal (tons) ³	126,183	102,290
Single Family	25,327	29,003
Multi-Family	5,368	6,954
Commercial	24,454	23,952
Roll-off	26,348	18,759
Self-Haul	44,687	23,622
Residential Disposal Rate (lbs/capita/year) ⁴	1,278	1,387
Non-residential Disposal Rate (tons/establishment/year)	43	19

¹ Source: State of California, Department of Finance, City/County Population and Housing Estimates for 2000 and Jan 2008.

² Source: California Board of Equalization. "Taxable Sales in California (Sales & Use Tax)", 1999 and 2007.

³ Data provided by StopWaste.Org staff.

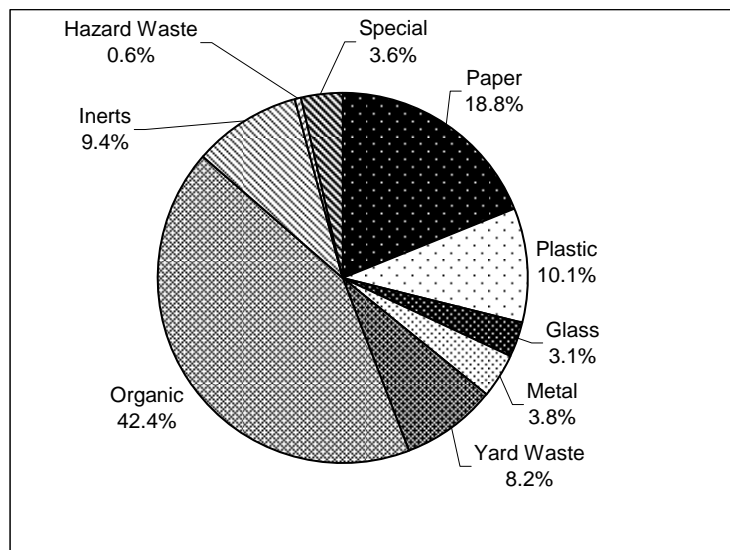
Table 2 presents the number of samples collected from each type of waste stream. Approximately 7 percent of the total number of samples collected were from this jurisdiction.

Table 2
Summary of Samples Obtained from City of Livermore

Waste Stream	Total Samples
Single-family	22
Multi-family	13
Commercial	37
Roll-off	9
Self-haul	88
Total	169

The following tables and figures are presented for waste originating from the City of Livermore. The introduction to Appendix B presents a summary of the information provided within each table or figure.

Figure 1 City of Livermore 2008 Aggregate Waste Composition by Major Material Group



Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	19,268	18.8%	17.3%	20.6%
Plastic	10,339	10.1%	9.4%	10.9%
Glass	3,168	3.1%	2.3%	4.1%
Metal	3,913	3.8%	3.2%	4.5%
Yard Waste	8,377	8.2%	5.0%	12.0%
Organic	43,338	42.4%	38.2%	46.8%
Inerts	9,577	9.4%	5.3%	13.9%
Hazard Waste	588	0.6%	0.4%	0.8%
Special	3,722	3.6%	2.3%	5.4%
TOTAL	102,290	100.0%		

2008 WASTE CHARACTERIZATION RESULTS CITY OF LIVERMORE

Figure 2 City of Livermore Single-Family Residential Composition by Major Material Group

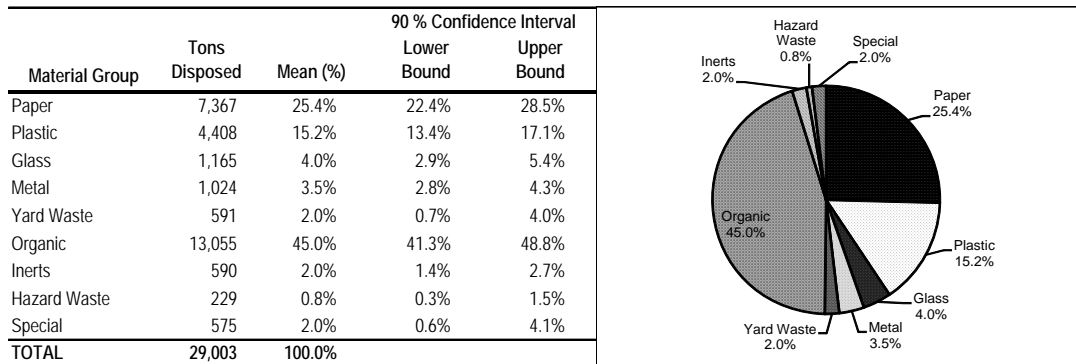


Figure 3 City of Livermore Multi-Family Residential Composition by Major Material Group

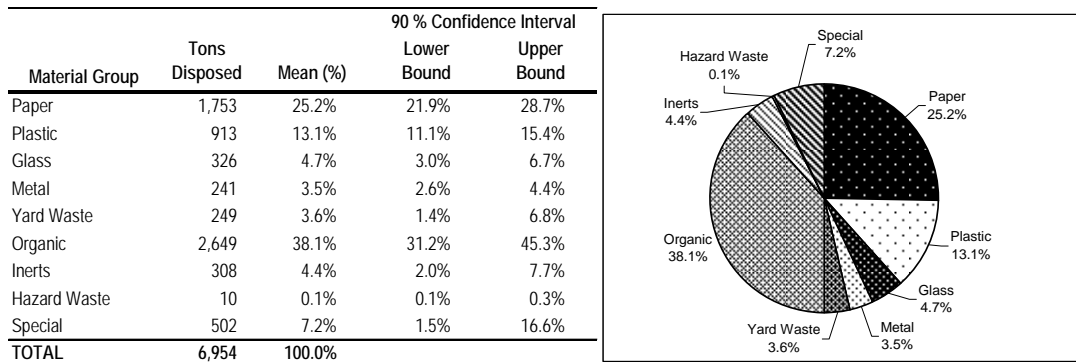


Figure 4 City of Livermore Commercial Composition by Major Material Group

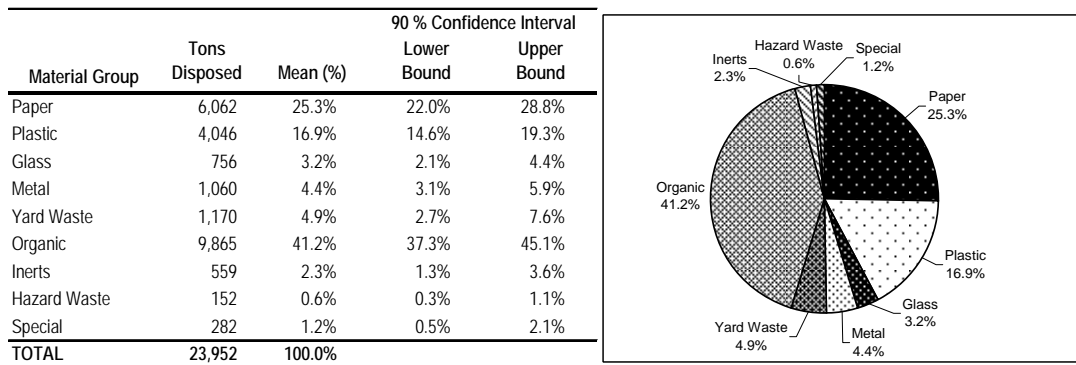


Figure 5 City of Livermore Roll-off Composition by Major Material Group

Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	2,318	12.4%	3.6%	25.4%
Plastic	355	1.9%	1.0%	3.1%
Glass	33	0.2%	0.0%	0.5%
Metal	845	4.5%	1.8%	8.4%
Yard Waste	2,328	12.4%	1.7%	30.7%
Organic	10,157	54.1%	28.0%	79.1%
Inerts	1,494	8.0%	0.7%	21.8%
Hazard Waste	69	0.4%	0.0%	1.1%
Special	1,158	6.2%	0.6%	17.0%
TOTAL	18,759	100.0%		

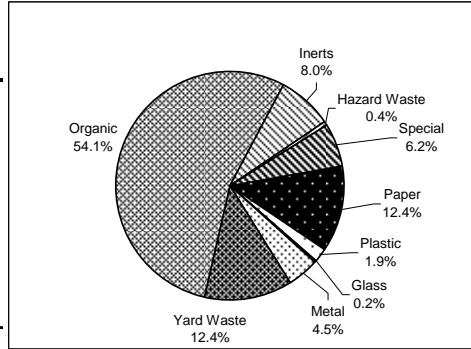
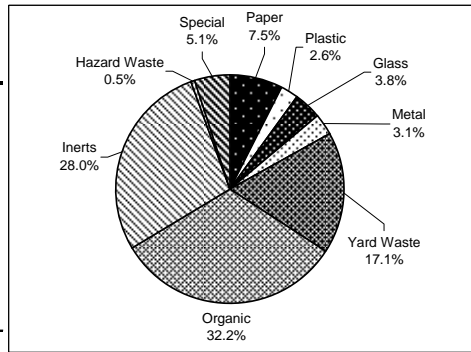


Figure 6 City of Livermore Self Hauler Composition by Major Material Group

Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	1,767	7.5%	5.2%	10.2%
Plastic	617	2.6%	1.8%	3.5%
Glass	888	3.8%	2.3%	5.5%
Metal	742	3.1%	2.2%	4.2%
Yard Waste	4,040	17.1%	11.1%	24.1%
Organic	7,611	32.2%	24.8%	40.1%
Inerts	6,626	28.0%	20.2%	36.6%
Hazard Waste	128	0.5%	0.3%	0.8%
Special	1,204	5.1%	2.8%	8.0%
TOTAL	23,622	100.0%		



2008 WASTE CHARACTERIZATION RESULTS
CITY OF LIVERMORE

Figure 7 Historic Comparison of City of Livermore Aggregate Disposal

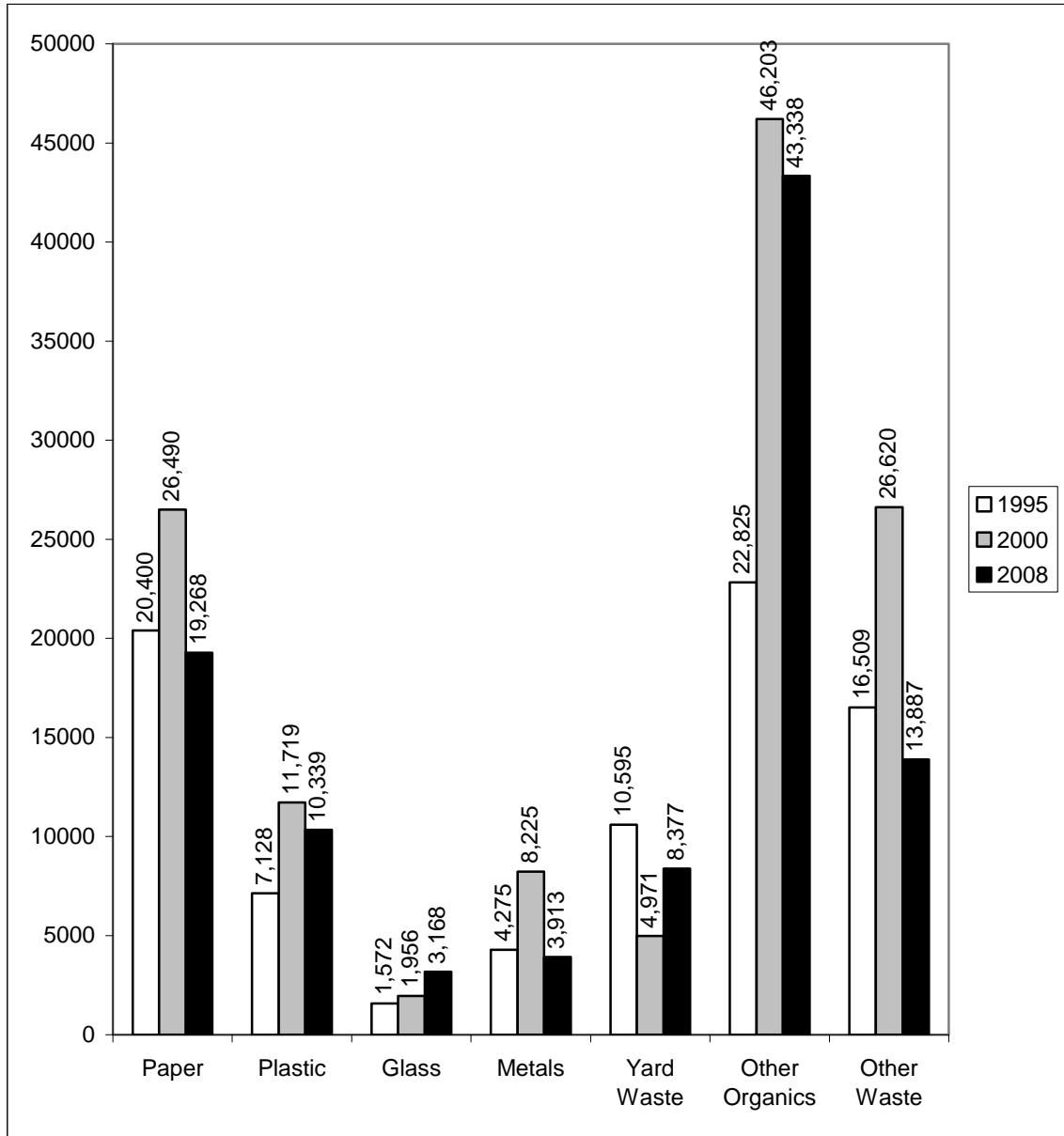
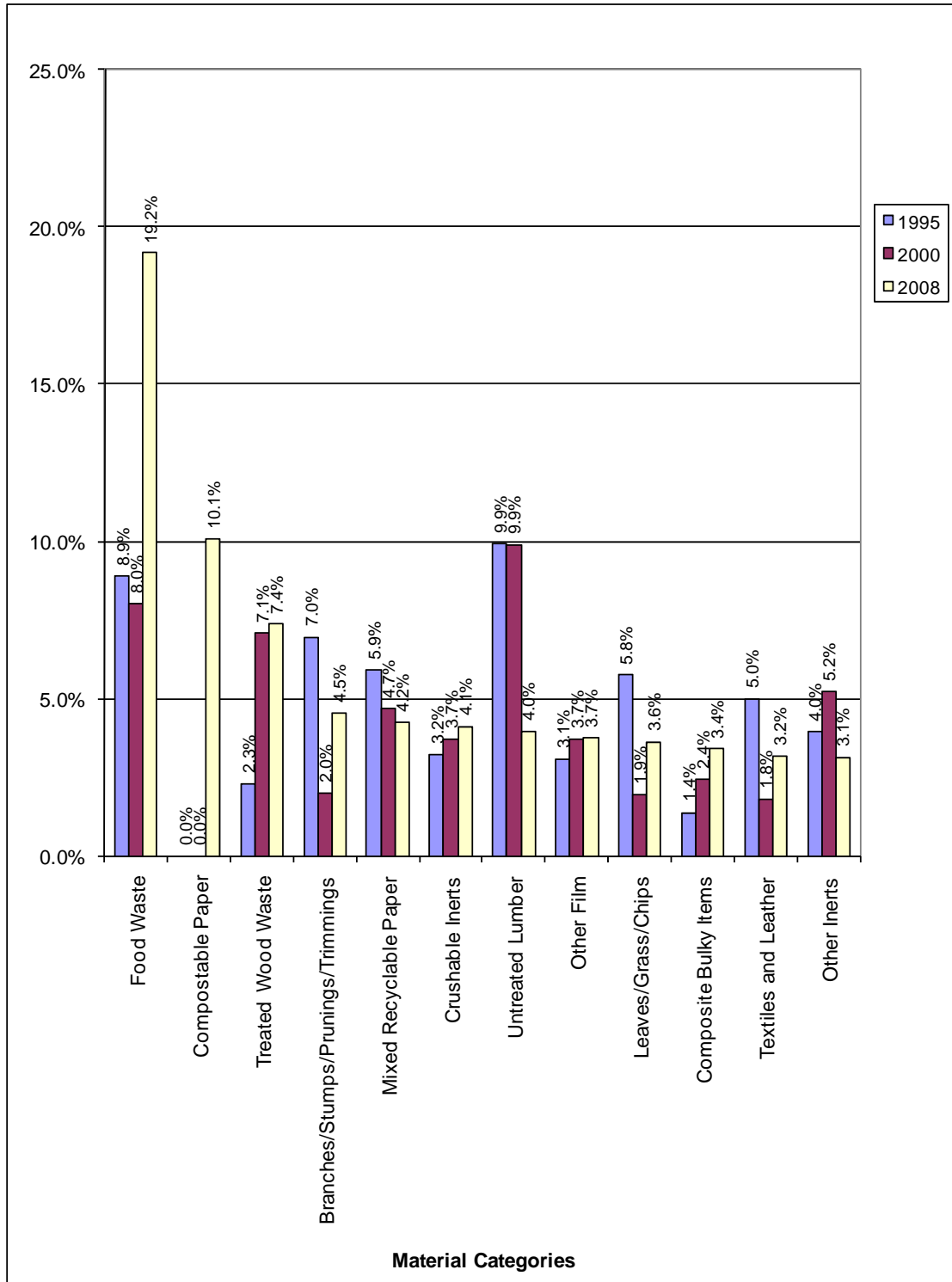


Figure 8 City of Livermore Top 12 Most Common Materials – Aggregate



2008 WASTE CHARACTERIZATION RESULTS
CITY OF LIVERMORE

Figure 9 City of Livermore Top 12 Most Common Materials from 2000

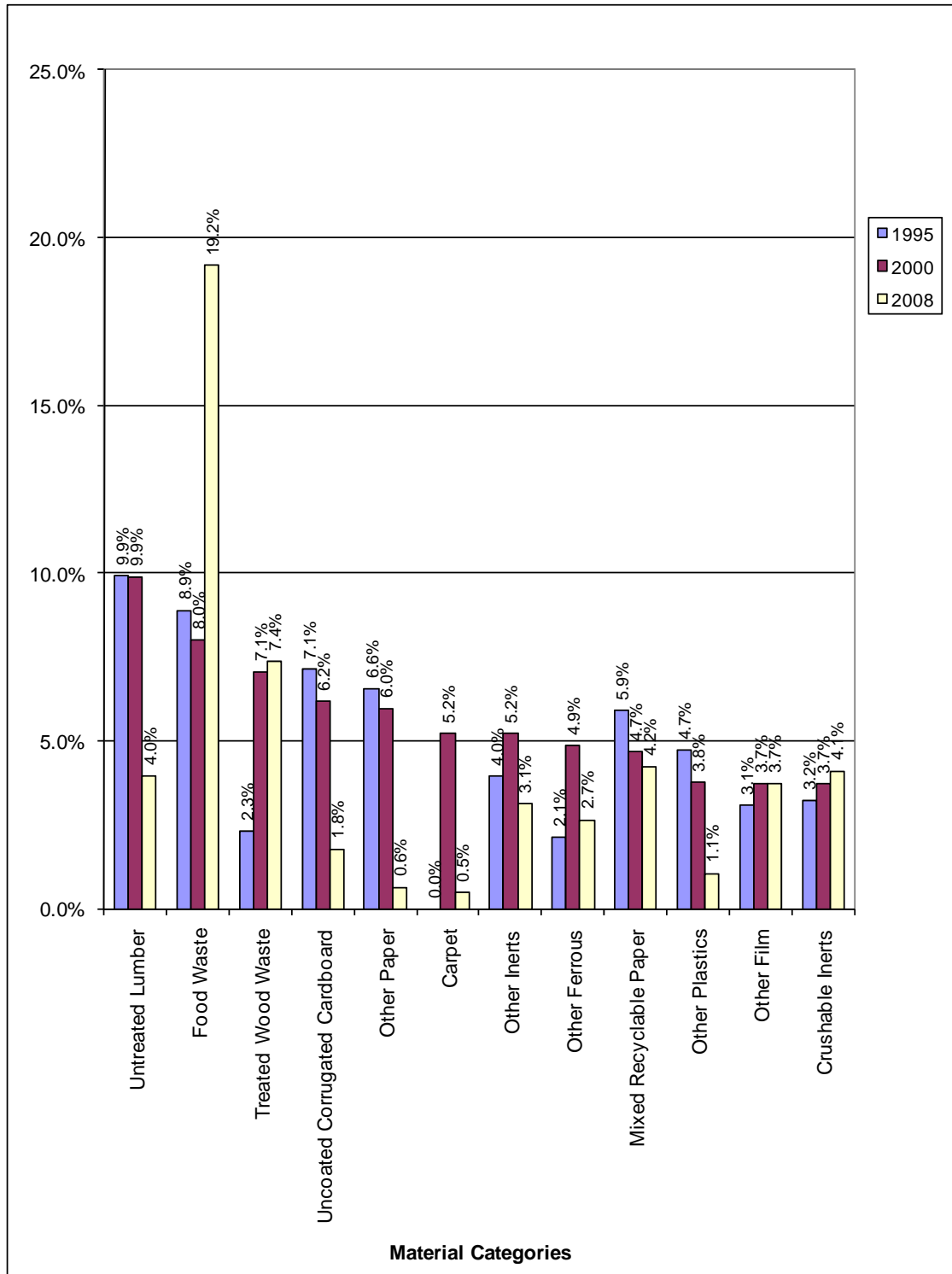


Table 3
Summary of Overall Material Proportions for City of Livermore

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Aggregated
Paper		25.4%	25.2%	25.3%	12.4%	7.5%	18.8%
	1 Uncoated Corrugated Cardboard	0.3%	0.5%	2.3%	2.3%	3.1%	1.8%
	2 High Grade Paper	0.2%	0.7%	1.8%	2.6%	0.7%	1.1%
	3 Newspaper	1.1%	1.7%	1.0%	0.9%	0.5%	1.0%
	4 Mixed Recyclable Paper	4.0%	6.0%	4.7%	5.7%	2.4%	4.2%
	5 Compostable Paper	19.2%	15.7%	14.4%	0.9%	0.2%	10.1%
	6 Other Paper	0.7%	0.7%	1.2%	0.0%	0.5%	0.6%
Plastics		15.2%	13.1%	16.9%	1.9%	2.6%	10.1%
	7 HDPE Bottles (#2)	0.6%	0.7%	0.5%	0.0%	0.0%	0.4%
	8 PETE Bottles (#1)	0.9%	1.0%	0.6%	0.1%	0.0%	0.5%
	9 Other Plastic Containers	1.2%	1.0%	0.8%	0.0%	0.2%	0.7%
	10 Plastic Bags	2.0%	1.7%	1.1%	0.1%	0.0%	0.9%
	11 Other Film	4.9%	4.4%	7.5%	0.7%	0.8%	3.7%
	12 Expanded Polystyrene Blocks	0.0%	0.0%	0.1%	0.0%	0.2%	0.1%
	13 Mixed Rigid Plastics	3.6%	3.6%	4.8%	0.7%	1.0%	2.8%
	14 Other Plastics	1.9%	0.7%	1.5%	0.3%	0.3%	1.1%
Glass		4.0%	4.7%	3.2%	0.2%	3.8%	3.1%
	15 Recyclable Glass Bottles/Containers	3.7%	4.4%	3.1%	0.0%	0.7%	2.2%
	16 Other Glass	0.3%	0.3%	0.1%	0.2%	3.1%	0.9%
Metals		3.5%	3.5%	4.4%	4.5%	3.1%	3.8%
	17 Aluminum Cans	0.3%	0.4%	0.2%	0.1%	0.0%	0.2%
	18 Other Non-Ferrous	0.6%	0.8%	0.4%	0.1%	0.4%	0.4%
	19 Steel Food and Beverage Cans	0.9%	0.9%	0.9%	0.1%	0.0%	0.6%
	20 Other Ferrous	1.8%	1.4%	2.9%	4.2%	2.7%	2.7%
	21 White Goods	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Yard Waste		2.0%	3.6%	4.9%	12.4%	17.1%	8.2%
	22 Leaves/Grass/Chips	1.7%	1.9%	3.4%	1.6%	8.4%	3.6%
	23 Branches/Stumps/Prunings/Trimmings	0.4%	1.7%	1.4%	10.8%	8.7%	4.5%
Organics		45.0%	38.1%	41.2%	54.1%	32.2%	42.4%
	24 Food Waste	29.2%	23.1%	26.7%	15.2%	1.2%	19.2%
	25 Tires	0.0%	0.0%	0.0%	0.7%	0.0%	0.1%
	26 Untreated Lumber	1.0%	0.3%	3.9%	8.4%	5.3%	4.0%
	27 Pallets	0.0%	0.0%	1.3%	7.0%	0.5%	1.7%
	28 Treated Wood Waste	1.1%	1.6%	2.3%	8.6%	21.0%	7.4%
	29 Textiles and Leather	4.6%	5.6%	2.0%	2.2%	2.8%	3.2%
	30 Carpet	0.4%	0.6%	0.6%	0.3%	0.6%	0.5%
	31 Diapers	5.2%	4.3%	3.4%	0.0%	0.0%	2.6%
	32 Manure	2.6%	1.0%	0.7%	0.0%	0.0%	1.0%
	33 Other Organics	1.0%	1.6%	0.4%	11.8%	0.9%	2.9%
Inerts		2.0%	4.4%	2.3%	8.0%	28.0%	9.4%
	34 Crushable Inerts	0.5%	1.5%	1.9%	6.4%	9.9%	4.1%
	35 Other Inerts	1.5%	2.7%	0.5%	0.0%	10.4%	3.1%
	36 Gypsum Board	0.0%	0.2%	0.0%	0.0%	3.3%	0.8%
	37 Asphalt Roofing	0.0%	0.0%	0.0%	1.6%	4.5%	1.3%
HHW		0.8%	0.1%	0.6%	0.4%	0.5%	0.6%
	38 Paint/Adhesives	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
	39 Vehicle & Equipment Fluids	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	0.1%	0.1%	0.0%	0.0%	0.4%	0.1%
	41 Medical Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	42 Medicine	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	43 Covered E-Waste	0.0%	0.0%	0.5%	0.0%	0.0%	0.1%
	44 Other E-Waste	0.6%	0.0%	0.1%	0.4%	0.0%	0.3%
	45 Other Hazardous Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Special		2.0%	7.2%	1.2%	6.2%	5.1%	3.6%
	46 Brown Goods	0.5%	0.3%	0.2%	0.0%	0.1%	0.2%
	47 Composite Bulky Items	1.5%	6.7%	1.0%	6.2%	5.0%	3.4%
	48 Other Special Waste	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%
TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

2008 WASTE CHARACTERIZATION RESULTS CITY OF LIVERMORE

**Table 4
Summary of Overall Material Tonnages for City of Livermore**

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
Paper		7,367	1,753	6,062	2,318	1,767	19,268
	1 Uncoated Corrugated Cardboard	85	37	540	425	741	1,827
	2 High Grade Paper	53	45	422	480	156	1,156
	3 Newspaper	323	115	248	175	126	989
	4 Mixed Recyclable Paper	1,150	415	1,121	1,072	574	4,331
	5 Compostable Paper	5,565	1,090	3,443	167	40	10,305
	6 Other Paper	192	51	289	0	129	661
Plastics		4,408	913	4,046	355	617	10,339
	7 HDPE Bottles (#2)	177	49	131	8	3	367
	8 PETE Bottles (#1)	268	66	140	16	7	497
	9 Other Plastic Containers	351	68	199	7	57	684
	10 Plastic Bags	577	117	253	10	4	961
	11 Other Film	1,418	309	1,792	134	178	3,832
	12 Expanded Polystyrene Blocks	8	3	21	0	47	78
	13 Mixed Rigid Plastics	1,057	253	1,145	123	248	2,826
	14 Other Plastics	551	47	366	57	73	1,094
Glass		1,165	326	756	33	888	3,168
	15 Recyclable Glass Bottles/Containers	1,077	303	734	0	164	2,277
	16 Other Glass	88	23	22	33	725	891
Metals		1,024	241	1,060	845	742	3,913
	17 Aluminum Cans	82	29	38	22	12	182
	18 Other Non-Ferrous	166	54	105	20	86	432
	19 Steel Food and Beverage Cans	267	63	212	23	10	575
	20 Other Ferrous	509	95	705	781	634	2,723
	21 White Goods	0	0	0	0	0	0
Yard Waste		591	249	1,170	2,328	4,040	8,377
	22 Leaves/Grass/Chips	484	131	823	299	1,988	3,725
	23 Branches/Stumps/Prunings/Trimings	107	119	347	2,028	2,051	4,652
Organics		13,055	2,649	9,865	10,157	7,611	43,338
	24 Food Waste	8,462	1,608	6,388	2,858	283	19,598
	25 Tires	0	0	0	125	1	126
	26 Untreated Lumber	282	24	935	1,570	1,240	4,051
	27 Pallets	0	0	318	1,316	112	1,745
	28 Treated Wood Waste	315	109	541	1,610	4,960	7,535
	29 Textiles and Leather	1,325	389	468	407	658	3,247
	30 Carpet	110	40	150	66	135	502
	31 Diapers	1,514	302	806	0	8	2,630
	32 Manure	755	67	166	0	0	988
	33 Other Organics	293	111	92	2,206	214	2,916
Inerts		590	308	559	1,494	6,626	9,577
	34 Crushable Inerts	147	102	444	1,194	2,327	4,215
	35 Other Inerts	441	191	111	0	2,468	3,210
	36 Gypsum Board	0	15	5	0	778	797
	37 Asphalt Roofing	2	0	0	300	1,053	1,355
HHW		229	10	152	69	128	588
	38 Paint/Adhesives	7	1	6	0	26	40
	39 Vehicle & Equipment Fluids	0	0	0	0	0	0
	40 Universal Hazardous Waste	37	4	9	0	91	141
	41 Medical Waste	3	2	0	0	0	5
	42 Medicine	7	2	1	0	0	10
	43 Covered E-Waste	0	0	108	0	1	109
	44 Other E-Waste	168	0	27	69	0	264
	45 Other Hazardous Waste	7	2	1	0	10	20
Special		575	502	282	1,158	1,204	3,722
	46 Brown Goods	137	18	39	0	26	220
	47 Composite Bulky Items	438	465	243	1,158	1,178	3,482
	48 Other Special Waste	0	19	0	0	0	19
TOTAL		29,003	6,954	23,952	18,759	23,622	102,290

Table 5
City of Livermore Aggregate Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		19,268	18.84%	17.31%	20.60%
	1 Uncoated Corrugated Cardboard	1,827	1.79%	1.19%	2.51%
	2 High Grade Paper	1,156	1.13%	0.88%	1.47%
	3 Newspaper	989	0.97%	0.80%	1.19%
	4 Mixed Recyclable Paper	4,331	4.23%	3.60%	5.06%
	5 Compostable Paper	10,305	10.07%	9.35%	10.86%
	6 Other Paper	661	0.65%	0.49%	0.84%
Plastics		10,339	10.11%	9.42%	10.86%
	7 HDPE Bottles (#2)	367	0.36%	0.32%	0.41%
	8 PETE Bottles (#1)	497	0.49%	0.44%	0.53%
	9 Other Plastic Containers	684	0.67%	0.59%	0.76%
	10 Plastic Bags	961	0.94%	0.84%	1.06%
	11 Other Film	3,832	3.75%	3.39%	4.14%
	12 Expanded Polystyrene Blocks	78	0.08%	0.03%	0.13%
	13 Mixed Rigid Plastics	2,826	2.76%	2.43%	3.15%
	14 Other Plastics	1,094	1.07%	0.90%	1.27%
Glass		3,168	3.10%	2.31%	4.06%
	15 Recyclable Glass Bottles/Containers	2,277	2.23%	1.90%	2.62%
	16 Other Glass	891	0.87%	0.24%	1.66%
Metals		3,913	3.82%	3.24%	4.51%
	17 Aluminum Cans	182	0.18%	0.16%	0.20%
	18 Other Non-Ferrous	432	0.42%	0.34%	0.53%
	19 Steel Food and Beverage Cans	575	0.56%	0.49%	0.65%
	20 Other Ferrous	2,723	2.66%	2.12%	3.32%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		8,377	8.19%	5.00%	11.98%
	22 Leaves/Grass/Chips	3,725	3.64%	1.95%	5.71%
	23 Branches/Stumps/Prunings/Trimnings	4,652	4.55%	2.77%	6.80%
Organics		43,338	42.37%	38.19%	46.77%
	24 Food Waste	19,598	19.16%	17.66%	21.06%
	25 Tires	126	0.12%	0.09%	0.19%
	26 Untreated Lumber	4,051	3.96%	2.95%	5.22%
	27 Pallets	1,745	1.71%	1.36%	2.31%
	28 Treated Wood Waste	7,535	7.37%	4.11%	11.07%
	29 Textiles and Leather	3,247	3.17%	2.57%	3.92%
	30 Carpet	502	0.49%	0.34%	0.70%
	31 Diapers	2,630	2.57%	2.19%	3.04%
	32 Manure	988	0.97%	0.77%	1.24%
	33 Other Organics	2,916	2.85%	2.26%	4.18%
Inerts		9,577	9.36%	5.27%	13.88%
	34 Crushable Inerts	4,215	4.12%	2.21%	6.45%
	35 Other Inerts	3,210	3.14%	1.30%	5.31%
	36 Gypsum Board	797	0.78%	0.10%	1.62%
	37 Asphalt Roofing	1,355	1.32%	0.32%	2.61%
HHW		588	0.57%	0.43%	0.77%
	38 Paint/Adhesives	40	0.04%	0.01%	0.07%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	141	0.14%	0.05%	0.24%
	41 Medical Waste	5	0.00%	0.00%	0.01%
	42 Medicine	10	0.01%	0.01%	0.01%
	43 Covered E-Waste	109	0.11%	0.05%	0.19%
	44 Other E-Waste	264	0.26%	0.20%	0.35%
	45 Other Hazardous Waste	20	0.02%	0.01%	0.03%
Special		3,722	3.64%	2.35%	5.39%
	46 Brown Goods	220	0.22%	0.16%	0.29%
	47 Composite Bulky Items	3,482	3.40%	2.13%	5.15%
	48 Other Special Waste	19	0.02%	0.00%	0.05%
TOTAL		102,290	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF LIVERMORE**

**Table 6
City of Livermore Single-Family Residential Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		7,367	25.40%	22.45%	28.47%
	1 Uncoated Corrugated Cardboard	85	0.29%	0.13%	0.52%
	2 High Grade Paper	53	0.18%	0.08%	0.33%
	3 Newspaper	323	1.11%	0.67%	1.68%
	4 Mixed Recyclable Paper	1,150	3.96%	3.12%	4.91%
	5 Compostable Paper	5,565	19.19%	16.38%	22.16%
	6 Other Paper	192	0.66%	0.49%	0.86%
Plastics		4,408	15.20%	13.43%	17.06%
	7 HDPE Bottles (#2)	177	0.61%	0.48%	0.75%
	8 PETE Bottles (#1)	268	0.92%	0.71%	1.17%
	9 Other Plastic Containers	351	1.21%	0.94%	1.52%
	10 Plastic Bags	577	1.99%	1.53%	2.51%
	11 Other Film	1,418	4.89%	4.06%	5.79%
	12 Expanded Polystyrene Blocks	8	0.03%	0.01%	0.05%
	13 Mixed Rigid Plastics	1,057	3.64%	3.10%	4.24%
	14 Other Plastics	551	1.90%	1.17%	2.80%
Glass		1,165	4.02%	2.86%	5.36%
	15 Recyclable Glass Bottles/Containers	1,077	3.71%	2.60%	5.02%
	16 Other Glass	88	0.30%	0.16%	0.49%
Metals		1,024	3.53%	2.83%	4.30%
	17 Aluminum Cans	82	0.28%	0.20%	0.38%
	18 Other Non-Ferrous	166	0.57%	0.44%	0.73%
	19 Steel Food and Beverage Cans	267	0.92%	0.70%	1.17%
	20 Other Ferrous	509	1.75%	1.08%	2.59%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		591	2.04%	0.72%	4.00%
	22 Leaves/Grass/Chips	484	1.67%	0.50%	3.51%
	23 Branches/Stumps/Prunings/Trimmings	107	0.37%	0.13%	0.72%
Organics		13,055	45.01%	41.26%	48.79%
	24 Food Waste	8,462	29.18%	24.52%	34.06%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	282	0.97%	0.34%	1.92%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	315	1.09%	0.50%	1.89%
	29 Textiles and Leather	1,325	4.57%	3.54%	5.72%
	30 Carpet	110	0.38%	0.10%	0.82%
	31 Diapers	1,514	5.22%	3.50%	7.26%
	32 Manure	755	2.60%	1.24%	4.45%
	33 Other Organics	293	1.01%	0.65%	1.44%
Inerts		590	2.03%	1.43%	2.74%
	34 Crushable Inerts	147	0.51%	0.24%	0.88%
	35 Other Inerts	441	1.52%	1.02%	2.11%
	36 Gypsum Board	0	0.00%	0.00%	0.00%
	37 Asphalt Roofing	2	0.01%	0.00%	0.01%
HHW		229	0.79%	0.32%	1.47%
	38 Paint/Adhesives	7	0.02%	0.01%	0.05%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	37	0.13%	0.06%	0.23%
	41 Medical Waste	3	0.01%	0.00%	0.02%
	42 Medicine	7	0.02%	0.01%	0.05%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	168	0.58%	0.16%	1.26%
	45 Other Hazardous Waste	7	0.02%	0.01%	0.05%
Special		575	1.98%	0.63%	4.07%
	46 Brown Goods	137	0.47%	0.16%	0.97%
	47 Composite Bulky Items	438	1.51%	0.40%	3.31%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		29,003	100.00%		

Table 7
City of Livermore Multi-Family Residential Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		1,753	25.21%	21.90%	28.68%
	1 Uncoated Corrugated Cardboard	37	0.53%	0.23%	0.96%
	2 High Grade Paper	45	0.65%	0.30%	1.14%
	3 Newspaper	115	1.66%	0.74%	2.94%
	4 Mixed Recyclable Paper	415	5.97%	4.34%	7.84%
	5 Compostable Paper	1,090	15.68%	12.12%	19.59%
	6 Other Paper	51	0.73%	0.56%	0.92%
Plastics		913	13.14%	11.07%	15.35%
	7 HDPE Bottles (#2)	49	0.70%	0.46%	1.00%
	8 PETE Bottles (#1)	66	0.95%	0.76%	1.17%
	9 Other Plastic Containers	68	0.98%	0.75%	1.24%
	10 Plastic Bags	117	1.68%	1.09%	2.39%
	11 Other Film	309	4.45%	3.42%	5.60%
	12 Expanded Polystyrene Blocks	3	0.05%	0.01%	0.10%
	13 Mixed Rigid Plastics	253	3.64%	2.52%	4.97%
	14 Other Plastics	47	0.68%	0.49%	0.90%
Glass		326	4.69%	3.02%	6.71%
	15 Recyclable Glass Bottles/Containers	303	4.36%	2.77%	6.27%
	16 Other Glass	23	0.34%	0.11%	0.70%
Metals		241	3.47%	2.64%	4.41%
	17 Aluminum Cans	29	0.42%	0.26%	0.61%
	18 Other Non-Ferrous	54	0.78%	0.47%	1.17%
	19 Steel Food and Beverage Cans	63	0.91%	0.66%	1.19%
	20 Other Ferrous	95	1.36%	0.58%	2.46%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		249	3.59%	1.35%	6.84%
	22 Leaves/Grass/Chips	131	1.88%	0.39%	4.44%
	23 Branches/Stumps/Prunings/Trimnings	119	1.71%	0.54%	3.51%
Organics		2,649	38.10%	31.19%	45.26%
	24 Food Waste	1,608	23.12%	17.64%	29.10%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	24	0.34%	0.09%	0.75%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	109	1.56%	0.45%	3.33%
	29 Textiles and Leather	389	5.59%	3.82%	7.68%
	30 Carpet	40	0.58%	0.08%	1.53%
	31 Diapers	302	4.34%	2.05%	7.43%
	32 Manure	67	0.97%	0.24%	2.17%
	33 Other Organics	111	1.60%	0.73%	2.79%
Inerts		308	4.43%	2.04%	7.69%
	34 Crushable Inerts	102	1.47%	0.43%	3.12%
	35 Other Inerts	191	2.74%	1.00%	5.32%
	36 Gypsum Board	15	0.21%	0.03%	0.56%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		10	0.15%	0.07%	0.26%
	38 Paint/Adhesives	1	0.02%	0.00%	0.04%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	4	0.06%	0.02%	0.14%
	41 Medical Waste	2	0.02%	0.00%	0.06%
	42 Medicine	2	0.02%	0.01%	0.05%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	0	0.00%	0.00%	0.01%
	45 Other Hazardous Waste	2	0.02%	0.00%	0.05%
Special		502	7.22%	1.54%	16.60%
	46 Brown Goods	18	0.26%	0.06%	0.62%
	47 Composite Bulky Items	465	6.68%	1.14%	16.32%
	48 Other Special Waste	19	0.28%	0.04%	0.73%
TOTAL		6,954	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF LIVERMORE**

**Table 8
City of Livermore Commercial Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		6,062	25.31%	21.96%	28.81%
	1 Uncoated Corrugated Cardboard	540	2.25%	1.26%	3.52%
	2 High Grade Paper	422	1.76%	0.97%	2.79%
	3 Newspaper	248	1.04%	0.64%	1.52%
	4 Mixed Recyclable Paper	1,121	4.68%	3.20%	6.42%
	5 Compostable Paper	3,443	14.37%	11.67%	17.31%
	6 Other Paper	289	1.21%	0.74%	1.79%
Plastics		4,046	16.89%	14.60%	19.31%
	7 HDPE Bottles (#2)	131	0.55%	0.38%	0.74%
	8 PETE Bottles (#1)	140	0.58%	0.45%	0.73%
	9 Other Plastic Containers	199	0.83%	0.64%	1.05%
	10 Plastic Bags	253	1.05%	0.73%	1.44%
	11 Other Film	1,792	7.48%	6.05%	9.06%
	12 Expanded Polystyrene Blocks	21	0.09%	0.05%	0.14%
	13 Mixed Rigid Plastics	1,145	4.78%	3.60%	6.11%
	14 Other Plastics	366	1.53%	0.95%	2.23%
Glass		756	3.15%	2.10%	4.41%
	15 Recyclable Glass Bottles/Containers	734	3.06%	2.01%	4.34%
	16 Other Glass	22	0.09%	0.05%	0.15%
Metals		1,060	4.43%	3.14%	5.92%
	17 Aluminum Cans	38	0.16%	0.12%	0.21%
	18 Other Non-Ferrous	105	0.44%	0.28%	0.63%
	19 Steel Food and Beverage Cans	212	0.89%	0.59%	1.23%
	20 Other Ferrous	705	2.94%	1.71%	4.50%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		1,170	4.88%	2.71%	7.65%
	22 Leaves/Grass/Chips	823	3.43%	1.77%	5.62%
	23 Branches/Stumps/Prunings/Trimings	347	1.45%	0.69%	2.48%
Organics		9,865	41.19%	37.29%	45.14%
	24 Food Waste	6,388	26.67%	21.45%	32.24%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	935	3.90%	2.12%	6.21%
	27 Pallets	318	1.33%	0.58%	2.38%
	28 Treated Wood Waste	541	2.26%	1.15%	3.74%
	29 Textiles and Leather	468	1.95%	1.37%	2.63%
	30 Carpet	150	0.63%	0.25%	1.18%
	31 Diapers	806	3.37%	2.11%	4.90%
	32 Manure	166	0.69%	0.31%	1.23%
	33 Other Organics	92	0.39%	0.22%	0.59%
Inerts		559	2.34%	1.33%	3.62%
	34 Crushable Inerts	444	1.85%	0.92%	3.10%
	35 Other Inerts	111	0.46%	0.27%	0.71%
	36 Gypsum Board	5	0.02%	0.01%	0.04%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		152	0.63%	0.30%	1.09%
	38 Paint/Adhesives	6	0.03%	0.01%	0.04%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	9	0.04%	0.02%	0.06%
	41 Medical Waste	0	0.00%	0.00%	0.00%
	42 Medicine	1	0.01%	0.00%	0.01%
	43 Covered E-Waste	108	0.45%	0.18%	0.85%
	44 Other E-Waste	27	0.11%	0.05%	0.20%
	45 Other Hazardous Waste	1	0.00%	0.00%	0.01%
Special		282	1.18%	0.54%	2.06%
	46 Brown Goods	39	0.16%	0.07%	0.30%
	47 Composite Bulky Items	243	1.02%	0.44%	1.82%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		23,952	100.00%		

Table 9
City of Livermore Roll-Off Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		2,318	12.36%	3.57%	25.41%
	1 Uncoated Corrugated Cardboard	425	2.26%	0.64%	4.84%
	2 High Grade Paper	480	2.56%	0.37%	6.64%
	3 Newspaper	175	0.93%	0.10%	2.62%
	4 Mixed Recyclable Paper	1,072	5.72%	0.84%	14.52%
	5 Compostable Paper	167	0.89%	0.15%	2.24%
	6 Other Paper	0	0.00%	0.00%	0.00%
Plastics		355	1.89%	0.98%	3.10%
	7 HDPE Bottles (#2)	8	0.04%	0.01%	0.11%
	8 PETE Bottles (#1)	16	0.09%	0.02%	0.20%
	9 Other Plastic Containers	7	0.04%	0.00%	0.12%
	10 Plastic Bags	10	0.05%	0.01%	0.14%
	11 Other Film	134	0.72%	0.21%	1.52%
	12 Expanded Polystyrene Blocks	0	0.00%	0.00%	0.00%
	13 Mixed Rigid Plastics	123	0.66%	0.17%	1.47%
	14 Other Plastics	57	0.30%	0.05%	0.78%
Glass		33	0.18%	0.01%	0.55%
	15 Recyclable Glass Bottles/Containers	0	0.00%	0.00%	0.00%
	16 Other Glass	33	0.18%	0.01%	0.55%
Metals		845	4.51%	1.79%	8.38%
	17 Aluminum Cans	22	0.11%	0.02%	0.30%
	18 Other Non-Ferrous	20	0.11%	0.01%	0.33%
	19 Steel Food and Beverage Cans	23	0.12%	0.01%	0.35%
	20 Other Ferrous	781	4.16%	1.24%	8.69%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		2,328	12.41%	1.74%	30.74%
	22 Leaves/Grass/Chips	299	1.60%	0.22%	4.22%
	23 Branches/Stumps/Prunings/Trimmings	2,028	10.81%	1.09%	28.72%
Organics		10,157	54.15%	27.98%	79.14%
	24 Food Waste	2,858	15.23%	1.08%	41.30%
	25 Tires	125	0.67%	0.04%	2.07%
	26 Untreated Lumber	1,570	8.37%	1.87%	18.91%
	27 Pallets	1,316	7.01%	0.81%	18.60%
	28 Treated Wood Waste	1,610	8.58%	1.14%	21.95%
	29 Textiles and Leather	407	2.17%	0.42%	5.22%
	30 Carpet	66	0.35%	0.02%	1.08%
	31 Diapers	0	0.00%	0.00%	0.00%
	32 Manure	0	0.00%	0.00%	0.00%
	33 Other Organics	2,206	11.76%	0.05%	39.23%
Inerts		1,494	7.97%	0.74%	21.83%
	34 Crushable Inerts	1,194	6.37%	0.62%	17.49%
	35 Other Inerts	0	0.00%	0.00%	0.00%
	36 Gypsum Board	0	0.00%	0.00%	0.00%
	37 Asphalt Roofing	300	1.60%	0.09%	4.94%
HHW		69	0.37%	0.02%	1.13%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	0	0.00%	0.00%	0.00%
	41 Medical Waste	0	0.00%	0.00%	0.00%
	42 Medicine	0	0.00%	0.00%	0.00%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	69	0.37%	0.02%	1.13%
	45 Other Hazardous Waste	0	0.00%	0.00%	0.00%
Special		1,158	6.18%	0.60%	16.99%
	46 Brown Goods	0	0.00%	0.00%	0.00%
	47 Composite Bulky Items	1,158	6.18%	0.60%	16.99%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		18,759	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF LIVERMORE**

**Table 10
City of Livermore Self Haul Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		1,767	7.48%	5.16%	10.19%
	1 Uncoated Corrugated Cardboard	741	3.14%	2.08%	4.41%
	2 High Grade Paper	156	0.66%	0.39%	1.00%
	3 Newspaper	126	0.54%	0.32%	0.81%
	4 Mixed Recyclable Paper	574	2.43%	1.52%	3.54%
	5 Compostable Paper	40	0.17%	0.11%	0.25%
	6 Other Paper	129	0.55%	0.32%	0.83%
Plastics		617	2.61%	1.85%	3.50%
	7 HDPE Bottles (#2)	3	0.01%	0.01%	0.02%
	8 PETE Bottles (#1)	7	0.03%	0.02%	0.04%
	9 Other Plastic Containers	57	0.24%	0.14%	0.37%
	10 Plastic Bags	4	0.02%	0.01%	0.03%
	11 Other Film	178	0.75%	0.51%	1.04%
	12 Expanded Polystyrene Blocks	47	0.20%	0.12%	0.30%
	13 Mixed Rigid Plastics	248	1.05%	0.69%	1.48%
	14 Other Plastics	73	0.31%	0.19%	0.45%
Glass		888	3.76%	2.34%	5.50%
	15 Recyclable Glass Bottles/Containers	164	0.69%	0.41%	1.04%
	16 Other Glass	725	3.07%	1.85%	4.58%
Metals		742	3.14%	2.20%	4.24%
	17 Aluminum Cans	12	0.05%	0.03%	0.07%
	18 Other Non-Ferrous	86	0.36%	0.22%	0.54%
	19 Steel Food and Beverage Cans	10	0.04%	0.02%	0.06%
	20 Other Ferrous	634	2.69%	1.84%	3.68%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		4,040	17.10%	11.09%	24.10%
	22 Leaves/Grass/Chips	1,988	8.42%	5.24%	12.26%
	23 Branches/Stumps/Prunings/Trimnings	2,051	8.68%	5.38%	12.68%
Organics		7,611	32.22%	24.80%	40.12%
	24 Food Waste	283	1.20%	0.71%	1.81%
	25 Tires	1	0.00%	0.00%	0.00%
	26 Untreated Lumber	1,240	5.25%	3.55%	7.27%
	27 Pallets	112	0.47%	0.29%	0.71%
	28 Treated Wood Waste	4,960	21.00%	14.76%	28.00%
	29 Textiles and Leather	658	2.79%	1.71%	4.11%
	30 Carpet	135	0.57%	0.35%	0.85%
	31 Diapers	8	0.03%	0.02%	0.05%
	32 Manure	0	0.00%	0.00%	0.00%
	33 Other Organics	214	0.91%	0.55%	1.35%
Inerts		6,626	28.05%	20.19%	36.65%
	34 Crushable Inerts	2,327	9.85%	6.22%	14.20%
	35 Other Inerts	2,468	10.45%	6.91%	14.61%
	36 Gypsum Board	778	3.29%	1.99%	4.91%
	37 Asphalt Roofing	1,053	4.46%	2.52%	6.92%
HHW		128	0.54%	0.32%	0.82%
	38 Paint/Adhesives	26	0.11%	0.06%	0.17%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	91	0.38%	0.22%	0.59%
	41 Medical Waste	0	0.00%	0.00%	0.00%
	42 Medicine	0	0.00%	0.00%	0.00%
	43 Covered E-Waste	1	0.00%	0.00%	0.01%
	44 Other E-Waste	0	0.00%	0.00%	0.00%
	45 Other Hazardous Waste	10	0.04%	0.03%	0.07%
Special		1,204	5.10%	2.82%	7.99%
	46 Brown Goods	26	0.11%	0.07%	0.17%
	47 Composite Bulky Items	1,178	4.99%	2.73%	7.87%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		23,622	100.00%		

Table 11
City of Livermore Detailed Historic Comparison of Overall Jurisdiction-wide Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		24.5%	21.0%	18.8%	20,401	26,490	19,268
	1 Uncoated Corrugated Cardboard	7.1%	6.2%	1.8%	5,939	7,796	1,827
	2 High Grade Paper	2.6%	2.0%	1.1%	2,158	2,577	1,156
	3 Newspaper	2.3%	2.1%	1.0%	1,916	2,659	989
	4 Mixed Recyclable Paper	5.9%	4.7%	4.2%	4,923	5,909	4,331
	5 Compostable Paper	NA	NA	10.1%	NA	NA	10,305
	6 Other Paper	6.6%	6.0%	0.6%	5,465	7,549	661
Plastics		8.6%	9.3%	10.1%	7,131	11,719	10,339
	7 HDPE Bottles (#2)	0.5%	0.7%	0.4%	392	919	367
	8 PETE Bottles (#1)	0.3%	0.5%	0.5%	242	665	497
	9 Other Plastic Containers	NA	0.5%	0.7%	NA	667	684
	10 Plastic Bags	NA	NA	0.9%	NA	NA	961
	11 Other Film	3.1%	3.7%	3.7%	2,566	4,707	3,832
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	78
	13 Mixed Rigid Plastics	NA	NA	2.8%	NA	NA	2,826
	14 Other Plastics	4.7%	3.8%	1.1%	3,932	4,761	1,094
Glass		1.9%	1.6%	3.1%	1,574	1,956	3,168
	15 Recyclable Glass Bottles/Containers	1.8%	1.3%	2.2%	1,474	1,682	2,277
	16 Other Glass	0.1%	0.2%	0.9%	100	274	891
Metals		5.1%	6.5%	3.8%	4,273	8,225	3,913
	17 Aluminum Cans	0.2%	0.2%	0.2%	158	215	182
	18 Other Non-Ferrous	0.3%	0.7%	0.4%	233	878	432
	19 Steel Food and Beverage Cans	1.2%	0.4%	0.6%	1,008	466	575
	20 Other Ferrous	2.1%	4.9%	2.7%	1,783	6,127	2,723
	21 White Goods	1.3%	0.4%	0.0%	1,091	538	0
Yard Waste		12.7%	3.9%	8.2%	10,596	4,971	8,377
	22 Leaves/Grass/Chips	5.8%	1.9%	3.6%	4,790	2,453	3,725
	23 Branches/Stumps/Prunings/Trimmings	7.0%	2.0%	4.5%	5,806	2,518	4,652
Organics		29.3%	36.6%	42.4%	24,399	46,203	43,338
	24 Food Waste	8.9%	8.0%	19.2%	7,414	10,105	19,598
	25 Tires	0.2%	0.1%	0.1%	192	69	126
	26 Untreated Lumber	9.9%	9.9%	4.0%	8,264	12,490	4,051
	27 Pallets	NA	NA	1.7%	NA	NA	1,745
	28 Treated Wood Waste	2.3%	7.1%	7.4%	1,924	8,926	7,535
	29 Textiles and Leather	5.0%	1.8%	3.2%	4,165	2,271	3,247
	30 Carpet	NA	5.2%	0.5%	NA	6,590	502
	31 Diapers	1.9%	1.8%	2.6%	1,574	2,285	2,630
	32 Manure	NA	NA	1.0%	NA	NA	988
	33 Other Organics	1.0%	2.7%	2.9%	866	3,467	2,916
Inerts		15.0%	15.7%	9.4%	12,470	19,815	9,577
	34 Crushable Inerts	3.2%	3.7%	4.1%	2,682	4,686	4,215
	35 Other Inerts	4.0%	5.2%	3.1%	3,290	6,583	3,210
	36 Gypsum Board	3.4%	3.2%	0.8%	2,816	4,084	797
	37 Asphalt Roofing	4.4%	3.5%	1.3%	3,682	4,462	1,355
HHW		0.3%	2.0%	0.6%	225	2,474	588
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	40
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	141
	41 Medical Waste	NA	NA	0.0%	NA	NA	5
	42 Medicine	NA	NA	0.0%	NA	NA	10
	43 Covered E-Waste	NA	NA	0.1%	NA	NA	109
	44 Other E-Waste	NA	NA	0.3%	NA	NA	264
	45 Other Hazardous Waste	0.3%	2.0%	0.0%	225	2,474	20
Special		2.7%	3.4%	3.6%	2,241	4,331	3,722
	46 Brown Goods	1.3%	1.0%	0.2%	1,083	1,247	220
	47 Composite Bulky Items	1.4%	2.4%	3.4%	1,158	3,084	3,482
	48 Other Special Waste	NA	NA	0.0%	NA	NA	19
TOTAL		100.0%	100.0%	100.0%	83,302	126,183	102,290

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF LIVERMORE**

**Table 12
City of Livermore Detailed Historic Comparison of Single-Family Residential Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		41.1%	34.1%	25.4%	5,740	8,629	7,367
	1 Uncoated Corrugated Cardboard	4.3%	2.2%	0.3%	600	555	85
	2 High Grade Paper	3.5%	2.1%	0.2%	487	533	53
	3 Newspaper	6.2%	6.5%	1.1%	867	1,653	323
	4 Mixed Recyclable Paper	12.0%	10.0%	4.0%	1,678	2,540	1,150
	5 Compostable Paper	NA	NA	19.2%	NA	NA	5,565
	6 Other Paper	15.1%	13.2%	0.7%	2,108	3,349	192
Plastics		10.6%	12.9%	15.2%	1,473	3,263	4,408
	7 HDPE Bottles (#2)	1.1%	1.1%	0.6%	149	283	177
	8 PETE Bottles (#1)	0.6%	1.0%	0.9%	88	256	268
	9 Other Plastic Containers	NA	1.1%	1.2%	NA	287	351
	10 Plastic Bags	NA	NA	2.0%	NA	NA	577
	11 Other Film	4.4%	6.0%	4.9%	607	1,521	1,418
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	8
	13 Mixed Rigid Plastics	NA	NA	3.6%	NA	NA	1,057
	14 Other Plastics	4.5%	3.6%	1.9%	628	916	551
Glass		4.4%	4.4%	4.0%	613	1,103	1,165
	15 Recyclable Glass Bottles/Containers	4.0%	3.8%	3.7%	553	952	1,077
	16 Other Glass	0.4%	0.6%	0.3%	60	151	88
Metals		3.0%	3.0%	3.5%	503	757	1,024
	17 Aluminum Cans	0.3%	0.3%	0.3%	42	83	82
	18 Other Non-Ferrous	0.6%	0.8%	0.6%	84	209	166
	19 Steel Food and Beverage Cans	1.6%	1.3%	0.9%	229	328	267
	20 Other Ferrous	1.1%	0.5%	1.8%	148	136	509
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		3.7%	1.7%	2.0%	519	426	591
	22 Leaves/Grass/Chips	1.7%	0.7%	1.7%	241	167	484
	23 Branches/Stumps/Prunings/Trimmings	2.0%	1.0%	0.4%	278	259	107
Organics		33.2%	40.2%	45.0%	4,629	10,192	13,055
	24 Food Waste	21.4%	21.8%	29.2%	2,986	5,533	8,462
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	0.2%	0.3%	1.0%	22	67	282
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	0.1%	0.3%	1.1%	13	85	315
	29 Textiles and Leather	4.1%	4.8%	4.6%	570	1,209	1,325
	30 Carpet	NA	0.5%	0.4%	NA	136	110
	31 Diapers	6.5%	7.1%	5.2%	907	1,805	1,514
	32 Manure	NA	NA	2.6%	NA	NA	755
	33 Other Organics	0.9%	5.4%	1.0%	131	1,357	293
Inerts		2.6%	2.8%	2.0%	367	699	590
	34 Crushable Inerts	0.5%	0.2%	0.5%	71	44	147
	35 Other Inerts	2.1%	2.0%	1.5%	286	500	441
	36 Gypsum Board	0.1%	0.6%	0.0%	10	155	0
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	0	2
HHW		0.5%	0.1%	0.8%	66	15	229
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	7
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	37
	41 Medical Waste	NA	NA	0.0%	NA	NA	3
	42 Medicine	NA	NA	0.0%	NA	NA	7
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.6%	NA	NA	168
	45 Other Hazardous Waste	0.5%	0.1%	0.0%	66	15	7
Special		0.3%	1.0%	2.0%	46	244	575
	46 Brown Goods	0.2%	0.4%	0.5%	21	91	137
	47 Composite Bulky Items	0.2%	0.6%	1.5%	25	153	438
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	13,959	25,327	29,003

Table 13
City of Livermore Detailed Historic Comparison of Multi-Family Residential Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		32.7%	36.8%	25.2%	1,367	1,975	1,753
	1 Uncoated Corrugated Cardboard	4.3%	5.6%	0.5%	179	299	37
	2 High Grade Paper	3.2%	3.2%	0.7%	135	169	45
	3 Newspaper	5.6%	5.2%	1.7%	234	277	115
	4 Mixed Recyclable Paper	9.4%	8.8%	6.0%	391	472	415
	5 Compostable Paper	NA	NA	15.7%	NA	NA	1,090
	6 Other Paper	10.2%	14.1%	0.7%	427	758	51
Plastics		8.4%	12.5%	13.1%	353	671	913
	7 HDPE Bottles (#2)	1.2%	1.1%	0.7%	48	60	49
	8 PETE Bottles (#1)	0.7%	0.8%	1.0%	28	41	66
	9 Other Plastic Containers	NA	1.1%	1.0%	NA	58	68
	10 Plastic Bags	NA	NA	1.7%	NA	NA	117
	11 Other Film	4.1%	5.5%	4.4%	172	297	309
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	3
	13 Mixed Rigid Plastics	NA	NA	3.6%	NA	NA	253
	14 Other Plastics	2.5%	4.0%	0.7%	104	214	47
Glass		10.0%	3.9%	4.7%	416	208	326
	15 Recyclable Glass Bottles/Containers	9.5%	3.8%	4.4%	398	205	303
	16 Other Glass	0.4%	0.1%	0.3%	18	3	23
Metals		4.1%	5.0%	3.5%	169	268	241
	17 Aluminum Cans	0.6%	0.4%	0.4%	25	22	29
	18 Other Non-Ferrous	0.2%	0.8%	0.8%	7	42	54
	19 Steel Food and Beverage Cans	1.3%	0.8%	0.9%	53	41	63
	20 Other Ferrous	2.0%	3.0%	1.4%	84	163	95
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		4.3%	3.1%	3.6%	180	167	249
	22 Leaves/Grass/Chips	3.9%	1.9%	1.9%	165	103	131
	23 Branches/Stumps/Prunings/Trimmings	0.4%	1.2%	1.7%	15	64	119
Organics		29.2%	26.7%	38.1%	1,220	1,433	2,649
	24 Food Waste	14.5%	13.6%	23.1%	606	730	1,608
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	2.1%	1.3%	0.3%	88	70	24
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	2.1%	0.3%	1.6%	88	14	109
	29 Textiles and Leather	6.3%	3.1%	5.6%	265	164	389
	30 Carpet	NA	0.3%	0.6%	NA	16	40
	31 Diapers	3.5%	3.4%	4.3%	148	180	302
	32 Manure	NA	NA	1.0%	NA	NA	67
	33 Other Organics	0.6%	4.8%	1.6%	26	259	111
Inerts		7.3%	9.2%	4.4%	303	492	308
	34 Crushable Inerts	1.0%	1.0%	1.5%	42	56	102
	35 Other Inerts	4.9%	7.2%	2.7%	203	384	191
	36 Gypsum Board	1.4%	1.0%	0.2%	59	52	15
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	0	0
HHW		0.3%	0.2%	0.1%	14	12	10
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	1
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	4
	41 Medical Waste	NA	NA	0.0%	NA	NA	2
	42 Medicine	NA	NA	0.0%	NA	NA	2
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.3%	0.2%	0.0%	14	12	2
Special		3.8%	2.6%	7.2%	157	142	502
	46 Brown Goods	0.5%	2.6%	0.3%	21	142	18
	47 Composite Bulky Items	3.3%	0.0%	6.7%	136	0	465
	48 Other Special Waste	NA	NA	0.3%	NA	NA	19
TOTAL		100.0%	100.0%	100.0%	4,180	5,368	6,954

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF LIVERMORE**

**Table 14
City of Livermore Detailed Historic Comparison of Commercial Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		37.3%	29.4%	25.3%	4,675	7,191	6,062
	1 Uncoated Corrugated Cardboard	7.4%	5.8%	2.3%	924	1,421	540
	2 High Grade Paper	6.3%	6.4%	1.8%	785	1,556	422
	3 Newspaper	3.7%	2.1%	1.0%	463	525	248
	4 Mixed Recyclable Paper	7.9%	5.7%	4.7%	992	1,394	1,121
	5 Compostable Paper	NA	NA	14.4%	NA	NA	3,443
	6 Other Paper	12.1%	9.4%	1.2%	1,512	2,296	289
Plastics		10.9%	9.3%	16.9%	1,371	2,263	4,046
	7 HDPE Bottles (#2)	1.2%	0.9%	0.5%	145	231	131
	8 PETE Bottles (#1)	0.5%	0.9%	0.6%	63	222	140
	9 Other Plastic Containers	NA	0.4%	0.8%	NA	91	199
	10 Plastic Bags	NA	NA	1.1%	NA	NA	253
	11 Other Film	3.6%	3.1%	7.5%	450	751	1,792
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	21
	13 Mixed Rigid Plastics	NA	NA	4.8%	NA	NA	1,145
	14 Other Plastics	5.7%	4.0%	1.5%	713	969	366
Glass		2.0%	1.8%	3.2%	251	441	756
	15 Recyclable Glass Bottles/Containers	1.9%	1.6%	3.1%	243	395	734
	16 Other Glass	0.1%	0.2%	0.1%	8	46	22
Metals		7.4%	8.7%	4.4%	929	2,123	1,060
	17 Aluminum Cans	0.4%	0.2%	0.2%	46	53	38
	18 Other Non-Ferrous	0.5%	0.6%	0.4%	68	136	105
	19 Steel Food and Beverage Cans	0.8%	0.3%	0.9%	95	71	212
	20 Other Ferrous	4.6%	7.6%	2.9%	575	1,863	705
	21 White Goods	1.2%	0.0%	0.0%	144	0	0
Yard Waste		6.7%	3.9%	4.9%	835	963	1,170
	22 Leaves/Grass/Chips	2.9%	2.3%	3.4%	369	553	823
	23 Branches/Stumps/Prunings/Trimmings	3.7%	1.7%	1.4%	466	410	347
Organics		31.0%	36.2%	41.2%	3,885	8,858	9,865
	24 Food Waste	9.7%	11.1%	26.7%	1,218	2,723	6,388
	25 Tires	1.5%	0.0%	0.0%	184	0	0
	26 Untreated Lumber	9.3%	10.1%	3.9%	1,163	2,470	935
	27 Pallets	NA	NA	1.3%	NA	NA	318
	28 Treated Wood Waste	1.9%	6.3%	2.3%	243	1,529	541
	29 Textiles and Leather	3.9%	2.0%	2.0%	491	482	468
	30 Carpet	NA	3.1%	0.6%	NA	750	150
	31 Diapers	2.7%	0.9%	3.4%	343	220	806
	32 Manure	NA	NA	0.7%	NA	NA	166
	33 Other Organics	1.9%	2.8%	0.4%	241	683	92
Inerts		1.4%	6.2%	2.3%	179	1,523	559
	34 Crushable Inerts	0.5%	2.4%	1.9%	61	575	444
	35 Other Inerts	0.4%	1.5%	0.5%	54	358	111
	36 Gypsum Board	0.3%	0.7%	0.0%	34	160	5
	37 Asphalt Roofing	0.2%	1.8%	0.0%	30	430	0
HHW		0.2%	0.5%	0.6%	29	112	152
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	6
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	9
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	1
	43 Covered E-Waste	NA	NA	0.5%	NA	NA	108
	44 Other E-Waste	NA	NA	0.1%	NA	NA	27
	45 Other Hazardous Waste	0.2%	0.5%	0.0%	29	112	1
Special		3.0%	4.0%	1.2%	379	980	282
	46 Brown Goods	1.8%	2.5%	0.2%	228	620	39
	47 Composite Bulky Items	1.2%	1.5%	1.0%	150	360	243
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	12,536	24,454	23,952

Table 15
City of Livermore Detailed Historic Comparison of Roll-Off Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		30.1%	16.5%	12.4%	5,712	4,347	2,318
	1 Uncoated Corrugated Cardboard	19.7%	11.5%	2.3%	3,734	3,039	425
	2 High Grade Paper	1.3%	0.5%	2.6%	246	130	480
	3 Newspaper	0.6%	0.4%	0.9%	119	113	175
	4 Mixed Recyclable Paper	3.7%	1.5%	5.7%	705	402	1,072
	5 Compostable Paper	NA	NA	0.9%	NA	NA	167
	6 Other Paper	4.8%	2.5%	0.0%	908	663	0
Plastics		17.1%	11.2%	1.9%	3,243	2,954	355
	7 HDPE Bottles (#2)	0.1%	0.2%	0.0%	13	55	8
	8 PETE Bottles (#1)	0.1%	0.1%	0.1%	21	36	16
	9 Other Plastic Containers	NA	0.5%	0.0%	NA	122	7
	10 Plastic Bags	NA	NA	0.1%	NA	NA	10
	11 Other Film	6.5%	6.8%	0.7%	1,234	1,800	134
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	0
	13 Mixed Rigid Plastics	NA	NA	0.7%	NA	NA	123
	14 Other Plastics	10.4%	3.6%	0.3%	1,975	942	57
Glass		0.7%	0.3%	0.2%	125	69	33
	15 Recyclable Glass Bottles/Containers	0.6%	0.2%	0.0%	121	53	0
	16 Other Glass	0.0%	0.1%	0.2%	4	15	33
Metals		6.5%	6.2%	4.5%	1,222	1,632	845
	17 Aluminum Cans	0.2%	0.1%	0.1%	32	29	22
	18 Other Non-Ferrous	0.1%	0.7%	0.1%	17	177	20
	19 Steel Food and Beverage Cans	3.1%	0.0%	0.1%	595	8	23
	20 Other Ferrous	3.1%	5.4%	4.2%	578	1,418	781
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		3.4%	0.9%	12.4%	650	250	2,328
	22 Leaves/Grass/Chips	0.3%	0.3%	1.6%	63	81	299
	23 Branches/Stumps/Prunings/Trimmings	3.1%	0.6%	10.8%	588	169	2,028
Organics		39.3%	45.7%	54.1%	7,441	12,053	10,157
	24 Food Waste	11.4%	2.8%	15.2%	2,163	738	2,858
	25 Tires	0.0%	0.0%	0.7%	2	0	125
	26 Untreated Lumber	25.9%	21.6%	8.4%	4,901	5,693	1,570
	27 Pallets	NA	NA	7.0%	NA	NA	1,316
	28 Treated Wood Waste	1.0%	4.1%	8.6%	197	1,087	1,610
	29 Textiles and Leather	0.4%	0.4%	2.2%	72	111	407
	30 Carpet	NA	13.4%	0.3%	NA	3,521	66
	31 Diapers	0.4%	0.0%	0.0%	80	12	0
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	0.1%	3.4%	11.8%	27	891	2,206
Inerts		0.8%	12.5%	8.0%	155	3,290	1,494
	34 Crushable Inerts	0.1%	0.3%	6.4%	17	80	1,194
	35 Other Inerts	0.2%	2.8%	0.0%	45	728	0
	36 Gypsum Board	0.5%	4.5%	0.0%	93	1,190	0
	37 Asphalt Roofing	0.0%	4.9%	1.6%	0	1,292	300
HHW		0.1%	6.2%	0.4%	9	1,641	69
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	0
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.4%	NA	NA	69
	45 Other Hazardous Waste	0.1%	6.2%	0.0%	9	1,641	0
Special		2.1%	0.4%	6.2%	394	113	1,158
	46 Brown Goods	0.5%	0.2%	0.0%	95	40	0
	47 Composite Bulky Items	1.6%	0.3%	6.2%	299	72	1,158
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	18,953	26,348	18,759

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF LIVERMORE**

**Table 16
City of Livermore Detailed Historic Comparison of Self-Haul Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		8.6%	9.7%	7.5%	2,906	4,347	1,767
	1 Uncoated Corrugated Cardboard	1.5%	5.6%	3.1%	498	2,483	741
	2 High Grade Paper	1.5%	0.4%	0.7%	508	188	156
	3 Newspaper	0.7%	0.2%	0.5%	229	92	126
	4 Mixed Recyclable Paper	3.4%	2.5%	2.4%	1,155	1,101	574
	5 Compostable Paper	NA	NA	0.2%	NA	NA	40
	6 Other Paper	1.5%	1.1%	0.5%	515	483	129
Plastics		2.0%	5.7%	2.6%	687	2,568	617
	7 HDPE Bottles (#2)	0.1%	0.6%	0.0%	34	290	3
	8 PETE Bottles (#1)	0.1%	0.2%	0.0%	37	110	7
	9 Other Plastic Containers	NA	0.2%	0.2%	NA	109	57
	10 Plastic Bags	NA	NA	0.0%	NA	NA	4
	11 Other Film	0.3%	0.8%	0.8%	101	339	178
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	47
	13 Mixed Rigid Plastics	NA	NA	1.0%	NA	NA	248
	14 Other Plastics	1.5%	3.8%	0.3%	515	1,720	73
Glass		0.5%	0.3%	3.8%	168	136	888
	15 Recyclable Glass Bottles/Containers	0.5%	0.2%	0.7%	158	77	164
	16 Other Glass	0.0%	0.1%	3.1%	10	59	725
Metals		4.3%	7.7%	3.1%	1,451	3,446	742
	17 Aluminum Cans	0.0%	0.1%	0.0%	10	28	12
	18 Other Non-Ferrous	0.2%	0.7%	0.4%	54	314	86
	19 Steel Food and Beverage Cans	0.1%	0.0%	0.0%	34	18	10
	20 Other Ferrous	1.2%	5.7%	2.7%	401	2,548	634
	21 White Goods	2.8%	1.2%	0.0%	953	538	0
Yard Waste		25.0%	7.1%	17.1%	8,408	3,165	4,040
	22 Leaves/Grass/Chips	11.7%	3.5%	8.4%	3,950	1,548	1,988
	23 Branches/Stumps/Prunings/Trimmings	13.2%	3.6%	8.7%	4,458	1,617	2,051
Organics		21.5%	30.6%	32.2%	7,230	13,668	7,611
	24 Food Waste	1.3%	0.9%	1.2%	441	380	283
	25 Tires	0.0%	0.2%	0.0%	3	69	1
	26 Untreated Lumber	6.2%	9.4%	5.3%	2,091	4,190	1,240
	27 Pallets	NA	NA	0.5%	NA	NA	112
	28 Treated Wood Waste	4.1%	13.9%	21.0%	1,387	6,212	4,960
	29 Textiles and Leather	8.2%	0.7%	2.8%	2,768	305	658
	30 Carpet	NA	4.9%	0.6%	NA	2,167	135
	31 Diapers	0.3%	0.2%	0.0%	98	68	8
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	1.3%	0.6%	0.9%	441	277	214
Inerts		34.0%	30.9%	28.0%	11,459	13,811	6,626
	34 Crushable Inerts	7.4%	8.8%	9.9%	2,489	3,931	2,327
	35 Other Inerts	8.0%	10.3%	10.4%	2,701	4,613	2,468
	36 Gypsum Board	7.8%	5.7%	3.3%	2,620	2,527	778
	37 Asphalt Roofing	10.8%	6.1%	4.5%	3,650	2,741	1,053
HHW		0.3%	1.6%	0.5%	111	694	128
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	26
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.4%	NA	NA	91
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	1
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.3%	1.6%	0.0%	111	694	10
Special		3.8%	6.4%	5.1%	1,263	2,853	1,204
	46 Brown Goods	2.1%	0.8%	0.1%	714	354	26
	47 Composite Bulky Items	1.6%	5.6%	5.0%	549	2,498	1,178
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	33,674	44,687	23,622

Appendix A10

2008 WASTE CHARACTERIZATION RESULTS

CITY OF NEWARK

This section presents a summary of the composition and quantity of disposed waste from the City of Newark. The 2008 Study results presented herein are based on compositions developed using data obtained from field sample collection and sorting activities performed over four seasons during calendar year 2008. A complete description of the Study and presentation of Countywide aggregate results are included in Section 3 of the report.

Table 1 summarizes selected demographic and waste disposal characteristics for the City of Newark. The total amount of waste disposed in 2008 represents 3 percent of the Countywide waste stream, and decreased approximately 31 percent from 2000.

Table 1
City of Newark Waste Disposal Data

	2000	2008
Population ¹	43,043	43,872
Housing Units	13,152	13,423
Number of Business Establishments ²	1,165	1,202
Waste Disposal (tons) ³	52,558	36,145
Single Family	8,740	7,819
Multi-Family	1,234	3,667
Commercial	13,652	9,839
Roll-off	23,952	13,567
Self-Haul	4,979	1,253
Residential Disposal Rate (lbs/capita/year) ⁴	657	657
Non-residential Disposal Rate (tons/establishment/year)	33	18

¹ Source: State of California, Department of Finance, City/County Population and Housing Estimates for 2000 and Jan 2008.

² Source: California Board of Equalization. "Taxable Sales in California (Sales & Use Tax)", 1999 and 2007.

³ Data provided by StopWaste.Org staff.

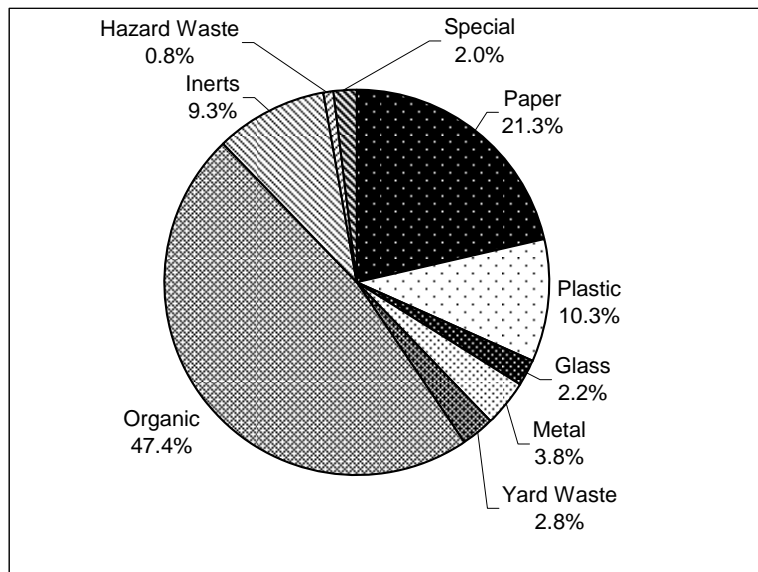
Table 2 presents the number of samples collected from each type of waste stream. Approximately 5 percent of the total number of samples collected were from this jurisdiction.

Table 2
Summary of Samples Obtained from City of Newark

Waste Stream	Total Samples
Single-family	21
Multi-family	13
Commercial	39
Roll-off	20
Self-haul	24
Total	117

The following tables and figures are presented for waste originating from the City of Newark. The introduction to Appendix B presents a summary of the information provided within each table or figure.

Figure 1 City of Newark 2008 Aggregate Waste Composition by Major Material Group



Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	7,699	21.3%	19.4%	23.6%
Plastic	3,740	10.3%	9.4%	11.5%
Glass	797	2.2%	1.8%	2.7%
Metal	1,391	3.8%	3.2%	4.8%
Yard Waste	1,002	2.8%	1.5%	4.7%
Organic	17,122	47.4%	43.1%	51.8%
Inerts	3,376	9.3%	6.6%	12.9%
Hazard Waste	296	0.8%	0.5%	1.3%
Special	722	2.0%	0.6%	4.1%
TOTAL	36,145	100.0%		

2008 WASTE CHARACTERIZATION RESULTS CITY OF NEWARK

Figure 2 City of Newark Single-Family Residential Composition by Major Material Group

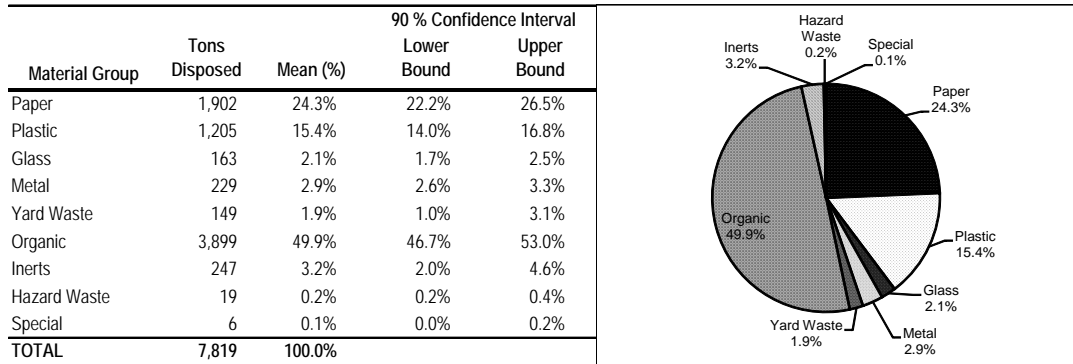


Figure 3 City of Newark Multi-Family Residential Composition by Major Material Group

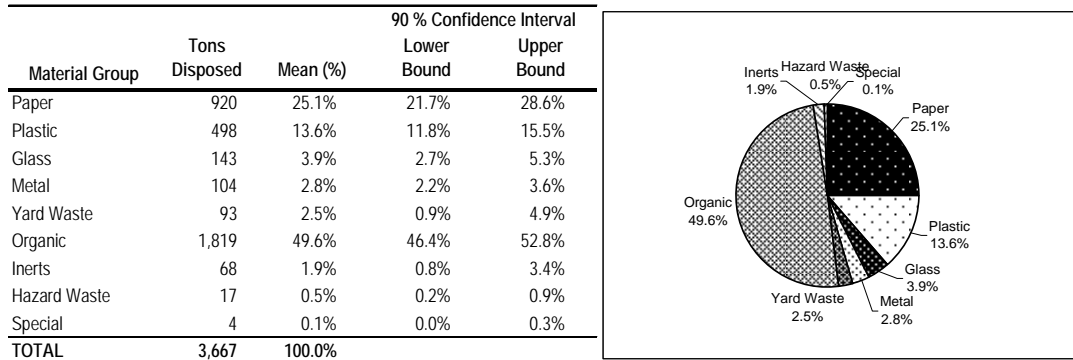


Figure 4 City of Newark Commercial Composition by Major Material Group

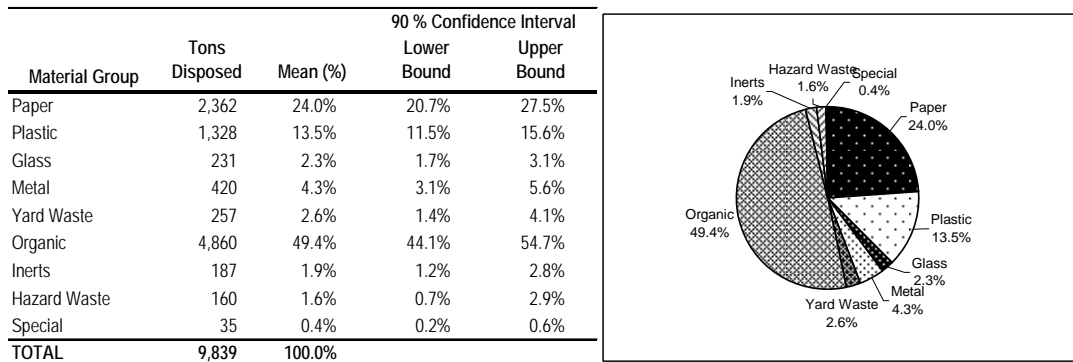


Figure 5 City of Newark Roll-off Composition by Major Material Group

Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	2,396	17.7%	10.2%	26.7%
Plastic	625	4.6%	2.8%	6.8%
Glass	234	1.7%	0.7%	3.2%
Metal	595	4.4%	1.6%	8.4%
Yard Waste	401	3.0%	0.8%	6.3%
Organic	5,998	44.2%	27.3%	61.8%
Inerts	2,668	19.7%	7.1%	36.5%
Hazard Waste	95	0.7%	0.2%	1.4%
Special	554	4.1%	1.2%	8.5%
TOTAL	13,567	100.0%		

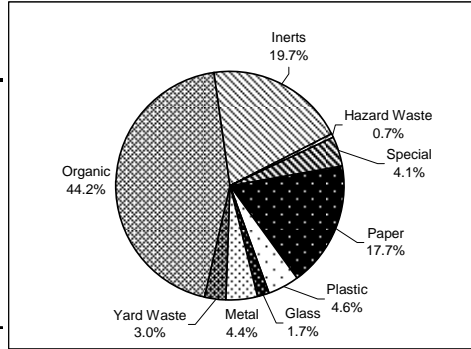
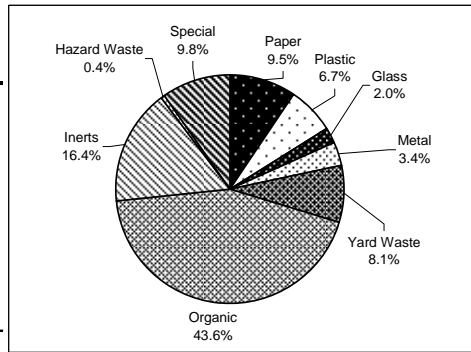


Figure 6 City of Newark Self Hauler Composition by Major Material Group

Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	119	9.5%	4.9%	15.4%
Plastic	84	6.7%	3.7%	10.4%
Glass	26	2.0%	0.8%	3.9%
Metal	43	3.4%	1.7%	5.7%
Yard Waste	101	8.1%	2.4%	16.8%
Organic	547	43.6%	30.2%	57.5%
Inerts	206	16.4%	7.6%	27.9%
Hazard Waste	5	0.4%	0.1%	0.8%
Special	123	9.8%	3.2%	19.6%
TOTAL	1,253	100.0%		



2008 WASTE CHARACTERIZATION RESULTS
CITY OF NEWARK

Figure 7 Historic Comparison of City of Newark Aggregate Disposal

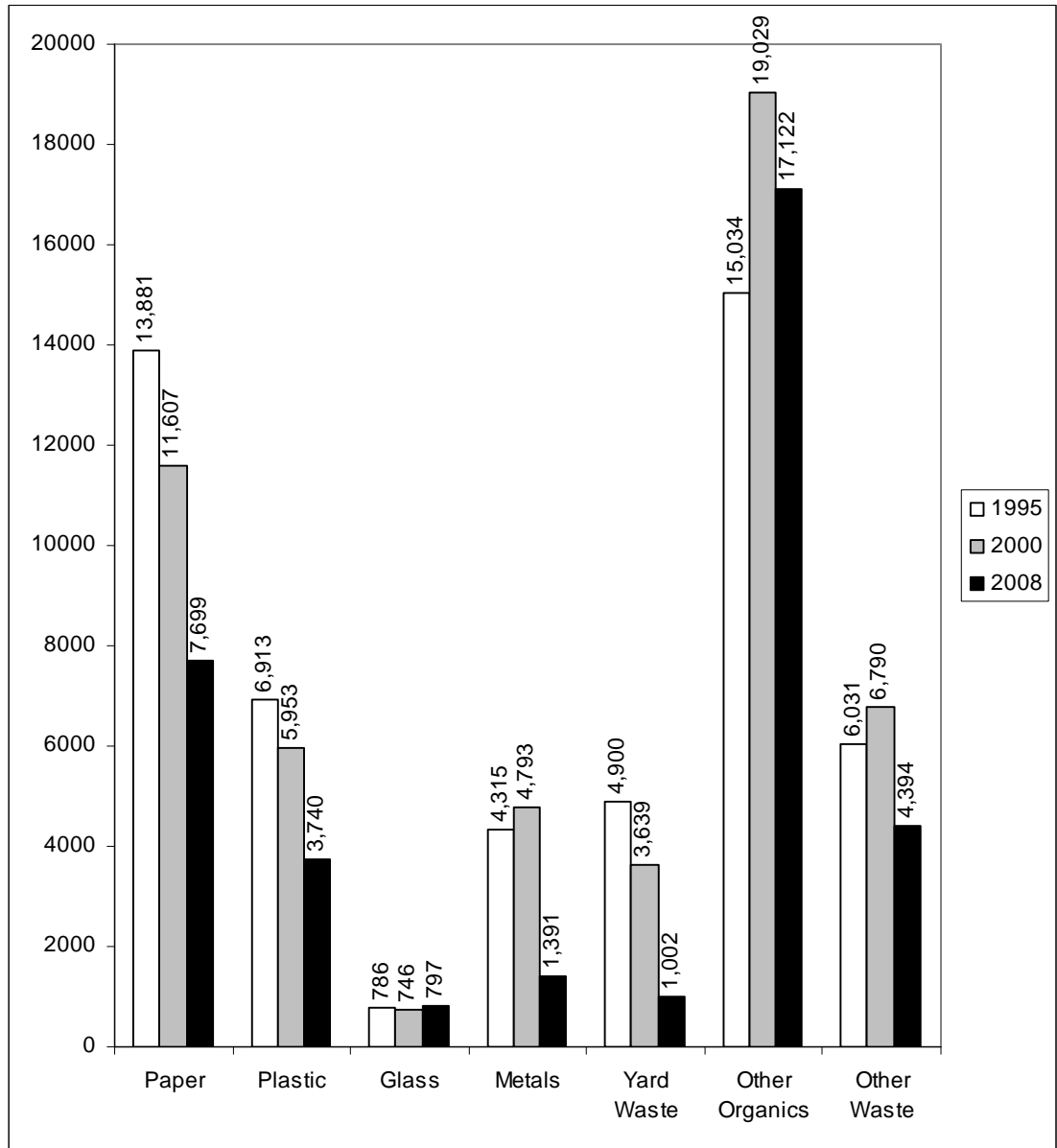
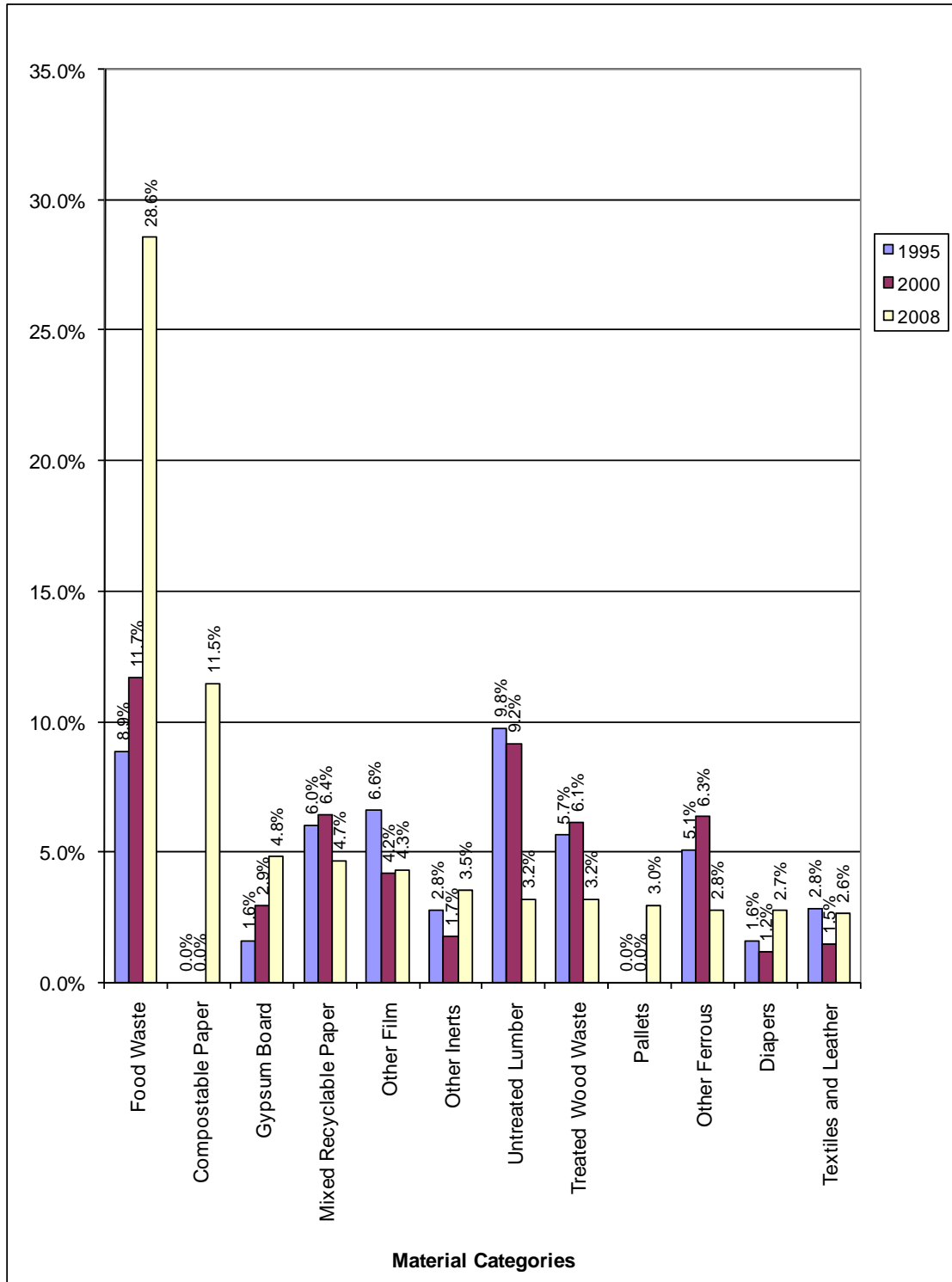


Figure 8 City of Newark Top 12 Most Common Materials – Aggregate



2008 WASTE CHARACTERIZATION RESULTS
CITY OF NEWARK

Figure 9 City of Newark Top 12 Most Common Materials from 2000

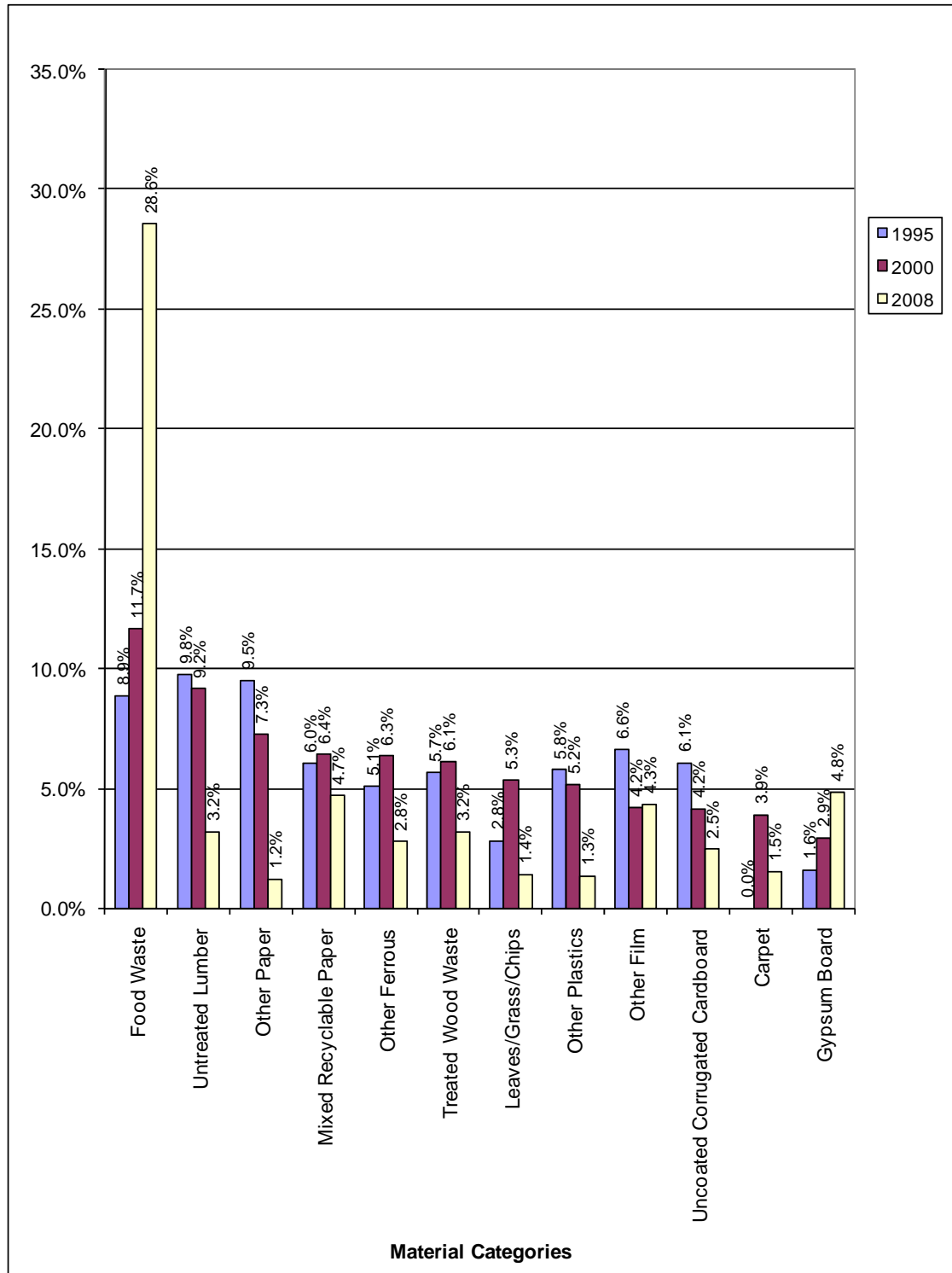


Table 3
Summary of Overall Material Proportions for City of Newark

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Aggregated
Paper		24.3%	25.1%	24.0%	17.7%	9.5%	21.3%
	1 Uncoated Corrugated Cardboard	0.3%	0.8%	2.2%	4.2%	4.2%	2.5%
	2 High Grade Paper	0.2%	0.2%	1.0%	1.1%	0.0%	0.8%
	3 Newspaper	0.3%	2.0%	1.3%	0.2%	0.0%	0.7%
	4 Mixed Recyclable Paper	3.1%	3.6%	3.6%	6.7%	4.7%	4.7%
	5 Compostable Paper	19.4%	17.8%	15.3%	3.4%	0.4%	11.5%
	6 Other Paper	1.0%	0.6%	0.5%	2.1%	0.3%	1.2%
Plastics		15.4%	13.6%	13.5%	4.6%	6.7%	10.3%
	7 HDPE Bottles (#2)	0.4%	1.0%	0.7%	0.1%	0.0%	0.4%
	8 PETE Bottles (#1)	0.7%	0.8%	0.6%	0.1%	0.1%	0.4%
	9 Other Plastic Containers	1.1%	0.7%	0.7%	0.0%	0.0%	0.5%
	10 Plastic Bags	2.2%	1.7%	1.2%	0.0%	0.1%	1.0%
	11 Other Film	6.0%	3.8%	5.4%	3.0%	1.4%	4.3%
	12 Expanded Polystyrene Blocks	0.1%	0.0%	0.2%	0.2%	1.7%	0.2%
	13 Mixed Rigid Plastics	3.6%	4.7%	2.2%	0.8%	1.2%	2.2%
	14 Other Plastics	1.4%	0.9%	2.5%	0.5%	2.1%	1.3%
Glass		2.1%	3.9%	2.3%	1.7%	2.0%	2.2%
	15 Recyclable Glass Bottles/Containers	1.8%	3.2%	2.2%	1.5%	0.7%	1.9%
	16 Other Glass	0.3%	0.7%	0.2%	0.2%	1.4%	0.3%
Metals		2.9%	2.8%	4.3%	4.4%	3.4%	3.8%
	17 Aluminum Cans	0.2%	0.3%	0.2%	0.0%	0.1%	0.1%
	18 Other Non-Ferrous	0.7%	0.5%	0.4%	0.0%	0.2%	0.3%
	19 Steel Food and Beverage Cans	1.3%	1.0%	0.8%	0.1%	0.0%	0.6%
	20 Other Ferrous	0.8%	1.1%	2.9%	4.2%	3.1%	2.8%
	21 White Goods	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
Yard Waste		1.9%	2.5%	2.6%	3.0%	8.1%	2.8%
	22 Leaves/Grass/Chips	0.9%	2.4%	2.4%	0.2%	6.4%	1.4%
	23 Branches/Stumps/Prunings/Trimings	1.0%	0.1%	0.3%	2.7%	1.6%	1.4%
Organics		49.9%	49.6%	49.4%	44.2%	43.6%	47.4%
	24 Food Waste	33.9%	29.1%	34.1%	23.8%	1.5%	28.6%
	25 Tires	0.0%	1.8%	0.4%	0.0%	0.0%	0.3%
	26 Untreated Lumber	0.2%	0.0%	2.7%	6.4%	0.7%	3.2%
	27 Pallets	0.0%	0.0%	0.7%	7.4%	0.0%	3.0%
	28 Treated Wood Waste	0.6%	3.1%	5.3%	1.4%	22.3%	3.2%
	29 Textiles and Leather	4.1%	6.2%	2.6%	0.5%	6.2%	2.6%
	30 Carpet	0.0%	0.0%	0.2%	2.9%	11.3%	1.5%
	31 Diapers	7.9%	5.0%	2.0%	0.0%	0.0%	2.7%
	32 Manure	2.7%	3.8%	0.6%	0.0%	0.0%	1.1%
	33 Other Organics	0.4%	0.7%	0.9%	1.7%	1.6%	1.1%
Inerts		3.2%	1.9%	1.9%	19.7%	16.4%	9.3%
	34 Crushable Inerts	0.8%	0.5%	0.4%	1.0%	5.1%	0.9%
	35 Other Inerts	1.8%	1.2%	1.3%	7.0%	1.0%	3.5%
	36 Gypsum Board	0.1%	0.2%	0.1%	11.7%	10.3%	4.8%
	37 Asphalt Roofing	0.4%	0.0%	0.1%	0.0%	0.0%	0.1%
HHW		0.2%	0.5%	1.6%	0.7%	0.4%	0.8%
	38 Paint/Adhesives	0.0%	0.0%	0.1%	0.4%	0.0%	0.2%
	39 Vehicle & Equipment Fluids	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%
	41 Medical Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	42 Medicine	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	43 Covered E-Waste	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%
	44 Other E-Waste	0.0%	0.3%	1.5%	0.3%	0.0%	0.5%
	45 Other Hazardous Waste	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Special		0.1%	0.1%	0.4%	4.1%	9.8%	2.0%
	46 Brown Goods	0.1%	0.1%	0.1%	0.1%	1.0%	0.1%
	47 Composite Bulky Items	0.0%	0.0%	0.3%	4.0%	8.8%	1.9%
	48 Other Special Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF NEWARK**

**Table 4
Summary of Overall Material Tonnages for City of Newark**

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
Paper		1,902	920	2,362	2,396	119	7,699
	1 Uncoated Corrugated Cardboard	21	30	217	572	52	892
	2 High Grade Paper	18	7	103	145	0	273
	3 Newspaper	27	75	131	31	0	264
	4 Mixed Recyclable Paper	243	132	353	907	59	1,694
	5 Compostable Paper	1,516	654	1,510	457	5	4,142
	6 Other Paper	77	21	48	285	4	435
Plastics		1,205	498	1,328	625	84	3,740
	7 HDPE Bottles (#2)	32	35	68	8	0	143
	8 PETE Bottles (#1)	54	29	61	8	2	154
	9 Other Plastic Containers	83	27	65	1	0	176
	10 Plastic Bags	171	62	119	1	1	354
	11 Other Film	467	140	531	409	17	1,564
	12 Expanded Polystyrene Blocks	7	1	16	22	22	68
	13 Mixed Rigid Plastics	284	172	221	107	15	799
	14 Other Plastics	108	31	248	69	27	482
Glass		163	143	231	234	26	797
	15 Recyclable Glass Bottles/Containers	138	119	213	209	9	687
	16 Other Glass	25	25	18	25	17	110
Metals		229	104	420	595	43	1,391
	17 Aluminum Cans	15	9	16	2	1	43
	18 Other Non-Ferrous	54	18	39	6	3	119
	19 Steel Food and Beverage Cans	98	35	75	8	0	217
	20 Other Ferrous	62	42	290	571	39	1,003
	21 White Goods	0	0	0	8	0	8
Yard Waste		149	93	257	401	101	1,002
	22 Leaves/Grass/Chips	71	89	232	34	81	507
	23 Branches/Stumps/Prunings/Trimnings	78	4	25	367	20	494
Organics		3,899	1,819	4,860	5,998	547	17,122
	24 Food Waste	2,654	1,066	3,356	3,233	19	10,328
	25 Tires	0	66	38	0	0	103
	26 Untreated Lumber	19	0	263	870	8	1,159
	27 Pallets	0	0	67	1,010	0	1,077
	28 Treated Wood Waste	45	114	522	191	280	1,152
	29 Textiles and Leather	320	226	255	70	78	949
	30 Carpet	0	0	18	389	141	548
	31 Diapers	618	182	192	0	0	992
	32 Manure	210	141	60	0	0	411
	33 Other Organics	33	24	90	236	20	403
Inerts		247	68	187	2,668	206	3,376
	34 Crushable Inerts	60	17	39	129	64	310
	35 Other Inerts	143	44	127	947	12	1,273
	36 Gypsum Board	9	7	7	1,592	129	1,745
	37 Asphalt Roofing	34	0	14	0	0	48
HHW		19	17	160	95	5	296
	38 Paint/Adhesives	1	0	12	61	0	73
	39 Vehicle & Equipment Fluids	0	1	0	0	0	1
	40 Universal Hazardous Waste	13	2	2	0	0	16
	41 Medical Waste	1	0	1	0	0	3
	42 Medicine	3	1	2	0	0	6
	43 Covered E-Waste	0	0	0	0	5	5
	44 Other E-Waste	2	11	143	34	0	190
	45 Other Hazardous Waste	0	2	0	0	0	2
Special		6	4	35	554	123	722
	46 Brown Goods	6	4	10	11	13	43
	47 Composite Bulky Items	0	0	25	543	111	679
	48 Other Special Waste	0	0	0	0	0	0
TOTAL		7,819	3,667	9,839	13,567	1,253	36,145

Table 5
City of Newark Aggregate Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		7,699	21.30%	19.36%	23.56%
	1 Uncoated Corrugated Cardboard	892	2.47%	1.83%	3.32%
	2 High Grade Paper	273	0.75%	0.55%	1.03%
	3 Newspaper	264	0.73%	0.54%	0.97%
	4 Mixed Recyclable Paper	1,694	4.69%	3.66%	6.12%
	5 Compostable Paper	4,142	11.46%	10.59%	12.45%
	6 Other Paper	435	1.20%	0.97%	1.56%
Plastics		3,740	10.35%	9.38%	11.47%
	7 HDPE Bottles (#2)	143	0.40%	0.33%	0.47%
	8 PETE Bottles (#1)	154	0.43%	0.38%	0.48%
	9 Other Plastic Containers	176	0.49%	0.43%	0.55%
	10 Plastic Bags	354	0.98%	0.81%	1.17%
	11 Other Film	1,564	4.33%	3.89%	4.84%
	12 Expanded Polystyrene Blocks	68	0.19%	0.00%	0.56%
	13 Mixed Rigid Plastics	799	2.21%	1.94%	2.54%
	14 Other Plastics	482	1.33%	0.94%	1.84%
Glass		797	2.20%	1.81%	2.74%
	15 Recyclable Glass Bottles/Containers	687	1.90%	1.59%	2.30%
	16 Other Glass	110	0.30%	0.11%	0.60%
Metals		1,391	3.85%	3.16%	4.77%
	17 Aluminum Cans	43	0.12%	0.10%	0.14%
	18 Other Non-Ferrous	119	0.33%	0.27%	0.40%
	19 Steel Food and Beverage Cans	217	0.60%	0.51%	0.70%
	20 Other Ferrous	1,003	2.78%	2.09%	3.73%
	21 White Goods	8	0.02%	0.02%	0.04%
Yard Waste		1,002	2.77%	1.50%	4.68%
	22 Leaves/Grass/Chips	507	1.40%	0.37%	3.02%
	23 Branches/Stumps/Prunings/Trimmings	494	1.37%	0.95%	2.02%
Organics		17,122	47.37%	43.11%	51.77%
	24 Food Waste	10,328	28.57%	25.23%	32.60%
	25 Tires	103	0.29%	0.11%	0.61%
	26 Untreated Lumber	1,159	3.21%	2.40%	4.34%
	27 Pallets	1,077	2.98%	2.11%	4.30%
	28 Treated Wood Waste	1,152	3.19%	0.74%	6.23%
	29 Textiles and Leather	949	2.63%	1.87%	3.60%
	30 Carpet	548	1.52%	0.00%	3.84%
	31 Diapers	992	2.75%	2.33%	3.25%
	32 Manure	411	1.14%	0.76%	1.67%
	33 Other Organics	403	1.11%	0.79%	1.60%
Inerts		3,376	9.34%	6.61%	12.95%
	34 Crushable Inerts	310	0.86%	0.19%	1.82%
	35 Other Inerts	1,273	3.52%	2.63%	4.92%
	36 Gypsum Board	1,745	4.83%	2.91%	7.67%
	37 Asphalt Roofing	48	0.13%	0.07%	0.23%
HHW		296	0.82%	0.50%	1.27%
	38 Paint/Adhesives	73	0.20%	0.14%	0.30%
	39 Vehicle & Equipment Fluids	1	0.00%	0.00%	0.01%
	40 Universal Hazardous Waste	16	0.05%	0.03%	0.07%
	41 Medical Waste	3	0.01%	0.00%	0.01%
	42 Medicine	6	0.02%	0.01%	0.02%
	43 Covered E-Waste	5	0.01%	0.00%	0.10%
	44 Other E-Waste	190	0.53%	0.24%	0.95%
	45 Other Hazardous Waste	2	0.01%	0.00%	0.01%
Special		722	2.00%	0.59%	4.07%
	46 Brown Goods	43	0.12%	0.00%	0.33%
	47 Composite Bulky Items	679	1.88%	0.55%	3.90%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		36,145	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF NEWARK**

**Table 6
City of Newark Single-Family Residential Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		1,902	24.32%	22.21%	26.50%
	1 Uncoated Corrugated Cardboard	21	0.27%	0.13%	0.45%
	2 High Grade Paper	18	0.24%	0.10%	0.42%
	3 Newspaper	27	0.34%	0.14%	0.62%
	4 Mixed Recyclable Paper	243	3.11%	2.08%	4.34%
	5 Compostable Paper	1,516	19.39%	17.81%	21.01%
	6 Other Paper	77	0.98%	0.80%	1.19%
Plastics		1,205	15.41%	14.04%	16.84%
	7 HDPE Bottles (#2)	32	0.41%	0.28%	0.56%
	8 PETE Bottles (#1)	54	0.69%	0.58%	0.82%
	9 Other Plastic Containers	83	1.06%	0.88%	1.26%
	10 Plastic Bags	171	2.18%	1.61%	2.83%
	11 Other Film	467	5.97%	4.76%	7.31%
	12 Expanded Polystyrene Blocks	7	0.09%	0.03%	0.18%
	13 Mixed Rigid Plastics	284	3.63%	2.90%	4.44%
	14 Other Plastics	108	1.38%	1.09%	1.70%
Glass		163	2.09%	1.70%	2.51%
	15 Recyclable Glass Bottles/Containers	138	1.77%	1.40%	2.18%
	16 Other Glass	25	0.31%	0.18%	0.49%
Metals		229	2.93%	2.57%	3.30%
	17 Aluminum Cans	15	0.19%	0.15%	0.23%
	18 Other Non-Ferrous	54	0.69%	0.52%	0.89%
	19 Steel Food and Beverage Cans	98	1.25%	1.06%	1.46%
	20 Other Ferrous	62	0.79%	0.50%	1.15%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		149	1.91%	0.99%	3.12%
	22 Leaves/Grass/Chips	71	0.91%	0.46%	1.52%
	23 Branches/Stumps/Prunings/Trimnings	78	0.99%	0.32%	2.03%
Organics		3,899	49.86%	46.72%	53.00%
	24 Food Waste	2,654	33.95%	31.15%	36.80%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	19	0.24%	0.09%	0.46%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	45	0.57%	0.26%	1.01%
	29 Textiles and Leather	320	4.09%	3.12%	5.18%
	30 Carpet	0	0.00%	0.00%	0.00%
	31 Diapers	618	7.90%	6.29%	9.68%
	32 Manure	210	2.69%	1.13%	4.89%
	33 Other Organics	33	0.42%	0.27%	0.60%
Inerts		247	3.16%	1.96%	4.64%
	34 Crushable Inerts	60	0.77%	0.36%	1.34%
	35 Other Inerts	143	1.83%	1.13%	2.69%
	36 Gypsum Board	9	0.12%	0.04%	0.24%
	37 Asphalt Roofing	34	0.44%	0.12%	0.97%
HHW		19	0.25%	0.15%	0.37%
	38 Paint/Adhesives	1	0.01%	0.00%	0.01%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	13	0.16%	0.08%	0.27%
	41 Medical Waste	1	0.02%	0.01%	0.03%
	42 Medicine	3	0.04%	0.01%	0.06%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	2	0.03%	0.01%	0.06%
	45 Other Hazardous Waste	0	0.00%	0.00%	0.00%
Special		6	0.08%	0.02%	0.16%
	46 Brown Goods	6	0.08%	0.02%	0.16%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		7,819	100.00%		

Table 7
City of Newark Multi-Family Residential Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		920	25.08%	21.71%	28.61%
	1 Uncoated Corrugated Cardboard	30	0.83%	0.29%	1.64%
	2 High Grade Paper	7	0.19%	0.05%	0.40%
	3 Newspaper	75	2.05%	1.02%	3.42%
	4 Mixed Recyclable Paper	132	3.61%	2.49%	4.92%
	5 Compostable Paper	654	17.84%	14.91%	20.96%
	6 Other Paper	21	0.57%	0.37%	0.82%
Plastics		498	13.59%	11.77%	15.53%
	7 HDPE Bottles (#2)	35	0.95%	0.72%	1.22%
	8 PETE Bottles (#1)	29	0.80%	0.64%	0.98%
	9 Other Plastic Containers	27	0.75%	0.59%	0.93%
	10 Plastic Bags	62	1.69%	1.12%	2.39%
	11 Other Film	140	3.82%	2.83%	4.94%
	12 Expanded Polystyrene Blocks	1	0.02%	0.00%	0.05%
	13 Mixed Rigid Plastics	172	4.70%	3.24%	6.43%
	14 Other Plastics	31	0.85%	0.63%	1.11%
Glass		143	3.91%	2.73%	5.30%
	15 Recyclable Glass Bottles/Containers	119	3.23%	2.09%	4.61%
	16 Other Glass	25	0.68%	0.29%	1.23%
Metals		104	2.84%	2.18%	3.57%
	17 Aluminum Cans	9	0.25%	0.19%	0.32%
	18 Other Non-Ferrous	18	0.48%	0.30%	0.70%
	19 Steel Food and Beverage Cans	35	0.96%	0.69%	1.27%
	20 Other Ferrous	42	1.15%	0.56%	1.94%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		93	2.55%	0.93%	4.95%
	22 Leaves/Grass/Chips	89	2.43%	0.81%	4.91%
	23 Branches/Stumps/Prunings/Trimmings	4	0.11%	0.02%	0.28%
Organics		1,819	49.60%	46.37%	52.83%
	24 Food Waste	1,066	29.07%	25.22%	33.06%
	25 Tires	66	1.79%	0.24%	4.72%
	26 Untreated Lumber	0	0.00%	0.00%	0.00%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	114	3.11%	1.07%	6.17%
	29 Textiles and Leather	226	6.17%	4.01%	8.76%
	30 Carpet	0	0.00%	0.00%	0.00%
	31 Diapers	182	4.97%	3.63%	6.50%
	32 Manure	141	3.84%	1.53%	7.16%
	33 Other Organics	24	0.65%	0.30%	1.13%
Inerts		68	1.87%	0.79%	3.39%
	34 Crushable Inerts	17	0.47%	0.12%	1.05%
	35 Other Inerts	44	1.20%	0.54%	2.10%
	36 Gypsum Board	7	0.20%	0.03%	0.51%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		17	0.46%	0.16%	0.92%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	1	0.04%	0.01%	0.10%
	40 Universal Hazardous Waste	2	0.05%	0.01%	0.11%
	41 Medical Waste	0	0.01%	0.00%	0.03%
	42 Medicine	1	0.01%	0.00%	0.03%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	11	0.29%	0.05%	0.72%
	45 Other Hazardous Waste	2	0.05%	0.01%	0.13%
Special		4	0.10%	0.01%	0.27%
	46 Brown Goods	4	0.10%	0.01%	0.27%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		3,667	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF NEWARK**

**Table 8
City of Newark Commercial Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		2,362	24.01%	20.71%	27.48%
	1 Uncoated Corrugated Cardboard	217	2.21%	1.32%	3.32%
	2 High Grade Paper	103	1.04%	0.55%	1.69%
	3 Newspaper	131	1.33%	0.86%	1.91%
	4 Mixed Recyclable Paper	353	3.59%	2.28%	5.19%
	5 Compostable Paper	1,510	15.34%	13.26%	17.55%
	6 Other Paper	48	0.49%	0.38%	0.62%
Plastics		1,328	13.50%	11.52%	15.60%
	7 HDPE Bottles (#2)	68	0.69%	0.53%	0.87%
	8 PETE Bottles (#1)	61	0.62%	0.50%	0.75%
	9 Other Plastic Containers	65	0.66%	0.53%	0.80%
	10 Plastic Bags	119	1.21%	0.84%	1.63%
	11 Other Film	531	5.40%	4.58%	6.27%
	12 Expanded Polystyrene Blocks	16	0.17%	0.08%	0.27%
	13 Mixed Rigid Plastics	221	2.24%	1.86%	2.66%
	14 Other Plastics	248	2.52%	1.58%	3.67%
Glass		231	2.35%	1.68%	3.12%
	15 Recyclable Glass Bottles/Containers	213	2.16%	1.52%	2.91%
	16 Other Glass	18	0.19%	0.09%	0.31%
Metals		420	4.26%	3.07%	5.64%
	17 Aluminum Cans	16	0.17%	0.13%	0.21%
	18 Other Non-Ferrous	39	0.39%	0.28%	0.51%
	19 Steel Food and Beverage Cans	75	0.76%	0.53%	1.04%
	20 Other Ferrous	290	2.94%	1.73%	4.46%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		257	2.61%	1.43%	4.13%
	22 Leaves/Grass/Chips	232	2.36%	1.26%	3.80%
	23 Branches/Stumps/Prunings/Trimmings	25	0.25%	0.11%	0.44%
Organics		4,860	49.39%	44.14%	54.65%
	24 Food Waste	3,356	34.10%	27.62%	40.90%
	25 Tires	38	0.38%	0.16%	0.71%
	26 Untreated Lumber	263	2.67%	1.29%	4.54%
	27 Pallets	67	0.68%	0.27%	1.26%
	28 Treated Wood Waste	522	5.30%	2.90%	8.37%
	29 Textiles and Leather	255	2.59%	1.78%	3.54%
	30 Carpet	18	0.18%	0.08%	0.33%
	31 Diapers	192	1.95%	1.09%	3.06%
	32 Manure	60	0.61%	0.30%	1.04%
	33 Other Organics	90	0.92%	0.57%	1.34%
Inerts		187	1.90%	1.18%	2.78%
	34 Crushable Inerts	39	0.39%	0.20%	0.65%
	35 Other Inerts	127	1.29%	0.79%	1.91%
	36 Gypsum Board	7	0.07%	0.03%	0.13%
	37 Asphalt Roofing	14	0.14%	0.06%	0.26%
HHW		160	1.62%	0.70%	2.92%
	38 Paint/Adhesives	12	0.12%	0.05%	0.22%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	2	0.02%	0.01%	0.03%
	41 Medical Waste	1	0.01%	0.00%	0.02%
	42 Medicine	2	0.02%	0.01%	0.04%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	143	1.45%	0.57%	2.73%
	45 Other Hazardous Waste	0	0.00%	0.00%	0.00%
Special		35	0.36%	0.16%	0.64%
	46 Brown Goods	10	0.10%	0.04%	0.18%
	47 Composite Bulky Items	25	0.26%	0.11%	0.47%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		9,839	100.00%		

Table 9
City of Newark Roll-Off Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		2,396	17.66%	10.19%	26.66%
	1 Uncoated Corrugated Cardboard	572	4.21%	2.31%	6.66%
	2 High Grade Paper	145	1.07%	0.36%	2.15%
	3 Newspaper	31	0.23%	0.07%	0.48%
	4 Mixed Recyclable Paper	907	6.69%	2.46%	12.78%
	5 Compostable Paper	457	3.37%	1.20%	6.58%
	6 Other Paper	285	2.10%	0.71%	4.21%
Plastics		625	4.61%	2.79%	6.85%
	7 HDPE Bottles (#2)	8	0.06%	0.02%	0.12%
	8 PETE Bottles (#1)	8	0.06%	0.02%	0.11%
	9 Other Plastic Containers	1	0.01%	0.00%	0.02%
	10 Plastic Bags	1	0.01%	0.00%	0.02%
	11 Other Film	409	3.01%	1.63%	4.80%
	12 Expanded Polystyrene Blocks	22	0.16%	0.05%	0.33%
	13 Mixed Rigid Plastics	107	0.79%	0.36%	1.39%
	14 Other Plastics	69	0.51%	0.22%	0.92%
Glass		234	1.72%	0.69%	3.21%
	15 Recyclable Glass Bottles/Containers	209	1.54%	0.58%	2.95%
	16 Other Glass	25	0.18%	0.05%	0.41%
Metals		595	4.39%	1.64%	8.38%
	17 Aluminum Cans	2	0.01%	0.00%	0.03%
	18 Other Non-Ferrous	6	0.05%	0.01%	0.10%
	19 Steel Food and Beverage Cans	8	0.06%	0.02%	0.13%
	20 Other Ferrous	571	4.21%	1.50%	8.18%
	21 White Goods	8	0.06%	0.02%	0.14%
Yard Waste		401	2.96%	0.85%	6.28%
	22 Leaves/Grass/Chips	34	0.25%	0.07%	0.54%
	23 Branches/Stumps/Prunings/Trimmings	367	2.71%	0.76%	5.79%
Organics		5,998	44.21%	27.33%	61.82%
	24 Food Waste	3,233	23.83%	8.56%	43.77%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	870	6.41%	2.38%	12.20%
	27 Pallets	1,010	7.44%	2.21%	15.42%
	28 Treated Wood Waste	191	1.41%	0.49%	2.79%
	29 Textiles and Leather	70	0.52%	0.14%	1.13%
	30 Carpet	389	2.86%	0.64%	6.60%
	31 Diapers	0	0.00%	0.00%	0.00%
	32 Manure	0	0.00%	0.00%	0.00%
	33 Other Organics	236	1.74%	0.53%	3.62%
Inerts		2,668	19.67%	7.12%	36.51%
	34 Crushable Inerts	129	0.95%	0.31%	1.93%
	35 Other Inerts	947	6.98%	1.76%	15.28%
	36 Gypsum Board	1,592	11.73%	2.96%	25.24%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		95	0.70%	0.22%	1.43%
	38 Paint/Adhesives	61	0.45%	0.11%	1.00%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	0	0.00%	0.00%	0.00%
	41 Medical Waste	0	0.00%	0.00%	0.00%
	42 Medicine	0	0.00%	0.00%	0.00%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	34	0.25%	0.08%	0.53%
	45 Other Hazardous Waste	0	0.00%	0.00%	0.00%
Special		554	4.08%	1.24%	8.48%
	46 Brown Goods	11	0.08%	0.02%	0.17%
	47 Composite Bulky Items	543	4.00%	1.17%	8.43%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		13,567	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF NEWARK**

**Table 10
City of Newark Self Haul Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		119	9.50%	4.90%	15.40%
	1 Uncoated Corrugated Cardboard	52	4.15%	1.81%	7.41%
	2 High Grade Paper	0	0.00%	0.00%	0.00%
	3 Newspaper	0	0.00%	0.00%	0.00%
	4 Mixed Recyclable Paper	59	4.67%	1.76%	8.88%
	5 Compostable Paper	5	0.37%	0.17%	0.66%
	6 Other Paper	4	0.30%	0.10%	0.59%
Plastics		84	6.67%	3.71%	10.40%
	7 HDPE Bottles (#2)	0	0.01%	0.00%	0.01%
	8 PETE Bottles (#1)	2	0.15%	0.06%	0.27%
	9 Other Plastic Containers	0	0.00%	0.00%	0.01%
	10 Plastic Bags	1	0.07%	0.03%	0.14%
	11 Other Film	17	1.37%	0.75%	2.18%
	12 Expanded Polystyrene Blocks	22	1.72%	0.53%	3.58%
	13 Mixed Rigid Plastics	15	1.19%	0.59%	2.00%
	14 Other Plastics	27	2.14%	0.97%	3.77%
Glass		26	2.04%	0.78%	3.88%
	15 Recyclable Glass Bottles/Containers	9	0.68%	0.24%	1.34%
	16 Other Glass	17	1.36%	0.44%	2.78%
Metals		43	3.45%	1.73%	5.73%
	17 Aluminum Cans	1	0.07%	0.03%	0.14%
	18 Other Non-Ferrous	3	0.22%	0.07%	0.43%
	19 Steel Food and Beverage Cans	0	0.03%	0.01%	0.06%
	20 Other Ferrous	39	3.13%	1.42%	5.47%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		101	8.07%	2.36%	16.77%
	22 Leaves/Grass/Chips	81	6.45%	1.65%	14.09%
	23 Branches/Stumps/Prunings/Trimnings	20	1.62%	0.47%	3.44%
Organics		547	43.64%	30.22%	57.55%
	24 Food Waste	19	1.54%	0.48%	3.18%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	8	0.65%	0.24%	1.26%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	280	22.32%	10.76%	36.62%
	29 Textiles and Leather	78	6.24%	3.00%	10.56%
	30 Carpet	141	11.26%	3.56%	22.54%
	31 Diapers	0	0.00%	0.00%	0.00%
	32 Manure	0	0.00%	0.00%	0.00%
	33 Other Organics	20	1.62%	0.49%	3.37%
Inerts		206	16.42%	7.55%	27.87%
	34 Crushable Inerts	64	5.14%	1.88%	9.88%
	35 Other Inerts	12	0.96%	0.35%	1.85%
	36 Gypsum Board	129	10.33%	3.97%	19.21%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		5	0.39%	0.12%	0.82%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	0	0.00%	0.00%	0.00%
	41 Medical Waste	0	0.00%	0.00%	0.00%
	42 Medicine	0	0.00%	0.00%	0.00%
	43 Covered E-Waste	5	0.39%	0.12%	0.82%
	44 Other E-Waste	0	0.00%	0.00%	0.00%
	45 Other Hazardous Waste	0	0.00%	0.00%	0.00%
Special		123	9.83%	3.19%	19.56%
	46 Brown Goods	13	1.00%	0.32%	2.04%
	47 Composite Bulky Items	111	8.83%	2.59%	18.29%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		1,253	100.00%		

**Table 11
City of Newark Detailed Historic Comparison of Overall Jurisdiction-wide Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		26.4%	22.1%	21.3%	13,696	11,607	7,699
	1 Uncoated Corrugated Cardboard	6.1%	4.2%	2.5%	3,153	2,182	892
	2 High Grade Paper	2.1%	2.4%	0.8%	1,079	1,273	273
	3 Newspaper	2.7%	1.8%	0.7%	1,390	955	264
	4 Mixed Recyclable Paper	6.0%	6.4%	4.7%	3,132	3,375	1,694
	5 Compostable Paper	NA	NA	11.5%	NA	NA	4,142
	6 Other Paper	9.5%	7.3%	1.2%	4,942	3,822	435
Plastics		13.1%	11.3%	10.3%	6,788	5,953	3,740
	7 HDPE Bottles (#2)	0.5%	1.1%	0.4%	280	595	143
	8 PETE Bottles (#1)	0.2%	0.5%	0.4%	88	288	154
	9 Other Plastic Containers	NA	0.3%	0.5%	NA	157	176
	10 Plastic Bags	NA	NA	1.0%	NA	NA	354
	11 Other Film	6.6%	4.2%	4.3%	3,428	2,204	1,564
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	68
	13 Mixed Rigid Plastics	NA	NA	2.2%	NA	NA	799
	14 Other Plastics	5.8%	5.2%	1.3%	2,992	2,708	482
Glass		1.5%	1.4%	2.2%	773	746	797
	15 Recyclable Glass Bottles/Containers	1.4%	1.2%	1.9%	700	628	687
	16 Other Glass	0.1%	0.2%	0.3%	73	118	110
Metals		8.4%	9.1%	3.8%	4,330	4,793	1,391
	17 Aluminum Cans	0.2%	0.4%	0.1%	88	186	43
	18 Other Non-Ferrous	0.6%	0.5%	0.3%	306	283	119
	19 Steel Food and Beverage Cans	0.5%	0.6%	0.6%	244	325	217
	20 Other Ferrous	5.1%	6.3%	2.8%	2,634	3,335	1,003
	21 White Goods	2.0%	1.3%	0.0%	1,058	663	8
Yard Waste		9.9%	6.9%	2.8%	5,155	3,639	1,002
	22 Leaves/Grass/Chips	2.8%	5.3%	1.4%	1,468	2,805	507
	23 Branches/Stumps/Prunings/Trimmings	7.1%	1.6%	1.4%	3,687	835	494
Organics		30.4%	36.2%	47.4%	15,750	19,029	17,122
	24 Food Waste	8.9%	11.7%	28.6%	4,605	6,133	10,328
	25 Tires	0.1%	0.1%	0.3%	41	57	103
	26 Untreated Lumber	9.8%	9.2%	3.2%	5,056	4,819	1,159
	27 Pallets	NA	NA	3.0%	NA	NA	1,077
	28 Treated Wood Waste	5.7%	6.1%	3.2%	2,930	3,221	1,152
	29 Textiles and Leather	2.8%	1.5%	2.6%	1,473	766	949
	30 Carpet	NA	3.9%	1.5%	NA	2,059	548
	31 Diapers	1.6%	1.2%	2.7%	825	607	992
	32 Manure	NA	NA	1.1%	NA	NA	411
	33 Other Organics	1.6%	2.6%	1.1%	819	1,367	403
Inerts		6.6%	8.4%	9.3%	3,402	4,406	3,376
	34 Crushable Inerts	0.4%	2.8%	0.9%	228	1,493	310
	35 Other Inerts	2.8%	1.7%	3.5%	1,437	919	1,273
	36 Gypsum Board	1.6%	2.9%	4.8%	835	1,550	1,745
	37 Asphalt Roofing	1.7%	0.8%	0.1%	902	445	48
HHW		0.5%	0.2%	0.8%	270	129	296
	38 Paint/Adhesives	NA	NA	0.2%	NA	NA	73
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	1
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	16
	41 Medical Waste	NA	NA	0.0%	NA	NA	3
	42 Medicine	NA	NA	0.0%	NA	NA	6
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	5
	44 Other E-Waste	NA	NA	0.5%	NA	NA	190
	45 Other Hazardous Waste	0.5%	0.2%	0.0%	270	129	2
Special		3.3%	4.3%	2.0%	1,711	2,255	722
	46 Brown Goods	0.8%	2.5%	0.1%	410	1,310	43
	47 Composite Bulky Items	2.5%	1.8%	1.9%	1,302	945	679
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	51,860	52,558	36,145

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF NEWARK**

**Table 12
City of Newark Detailed Historic Comparison of Single-Family Residential Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		32.9%	30.7%	24.3%	2,374	2,681	1,902
	1 Uncoated Corrugated Cardboard	3.0%	1.4%	0.3%	218	119	21
	2 High Grade Paper	1.8%	2.8%	0.2%	131	241	18
	3 Newspaper	3.6%	3.6%	0.3%	260	315	27
	4 Mixed Recyclable Paper	8.6%	7.5%	3.1%	624	659	243
	5 Compostable Paper	NA	NA	19.4%	NA	NA	1,516
	6 Other Paper	15.8%	15.4%	1.0%	1,142	1,347	77
Plastics		9.9%	13.0%	15.4%	716	1,137	1,205
	7 HDPE Bottles (#2)	0.7%	0.7%	0.4%	53	59	32
	8 PETE Bottles (#1)	0.4%	0.7%	0.7%	30	65	54
	9 Other Plastic Containers	NA	0.7%	1.1%	NA	59	83
	10 Plastic Bags	NA	NA	2.2%	NA	NA	171
	11 Other Film	4.4%	6.6%	6.0%	320	579	467
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	7
	13 Mixed Rigid Plastics	NA	NA	3.6%	NA	NA	284
	14 Other Plastics	4.3%	4.3%	1.4%	312	376	108
Glass		3.7%	3.4%	2.1%	266	296	163
	15 Recyclable Glass Bottles/Containers	3.4%	2.8%	1.8%	242	241	138
	16 Other Glass	0.3%	0.6%	0.3%	25	55	25
Metals		3.7%	5.2%	2.9%	263	451	229
	17 Aluminum Cans	0.3%	1.2%	0.2%	20	105	15
	18 Other Non-Ferrous	0.4%	0.5%	0.7%	26	44	54
	19 Steel Food and Beverage Cans	1.5%	1.6%	1.3%	110	142	98
	20 Other Ferrous	1.5%	1.0%	0.8%	107	90	62
	21 White Goods	0.0%	0.8%	0.0%	0	70	0
Yard Waste		5.7%	1.6%	1.9%	413	142	149
	22 Leaves/Grass/Chips	4.0%	1.2%	0.9%	292	108	71
	23 Branches/Stumps/Prunings/Trimmings	1.7%	0.4%	1.0%	121	34	78
Organics		38.0%	40.7%	49.9%	2,740	3,555	3,899
	24 Food Waste	23.7%	24.3%	33.9%	1,711	2,124	2,654
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	1.2%	0.6%	0.2%	84	54	19
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	0.3%	0.8%	0.6%	24	72	45
	29 Textiles and Leather	5.2%	2.9%	4.1%	375	257	320
	30 Carpet	NA	2.8%	0.0%	NA	248	0
	31 Diapers	6.5%	5.2%	7.9%	469	459	618
	32 Manure	NA	NA	2.7%	NA	NA	210
	33 Other Organics	1.1%	3.9%	0.4%	78	343	33
Inerts		4.7%	0.6%	3.2%	340	56	247
	34 Crushable Inerts	0.7%	0.5%	0.8%	51	45	60
	35 Other Inerts	4.0%	0.1%	1.8%	285	11	143
	36 Gypsum Board	0.0%	0.0%	0.1%	0	0	9
	37 Asphalt Roofing	0.1%	0.0%	0.4%	4	0	34
HHW		0.5%	0.2%	0.2%	35	18	19
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	1
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.2%	NA	NA	13
	41 Medical Waste	NA	NA	0.0%	NA	NA	1
	42 Medicine	NA	NA	0.0%	NA	NA	3
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	2
	45 Other Hazardous Waste	0.5%	0.2%	0.0%	35	18	0
Special		1.0%	4.6%	0.1%	71	403	6
	46 Brown Goods	0.9%	2.9%	0.1%	63	253	6
	47 Composite Bulky Items	0.1%	1.7%	0.0%	8	150	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	7,217	8,740	7,819

Table 13
City of Newark Detailed Historic Comparison of Multi-Family Residential Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		28.9%	34.0%	25.1%	857	419	920
	1 Uncoated Corrugated Cardboard	3.7%	4.3%	0.8%	109	53	30
	2 High Grade Paper	0.7%	2.4%	0.2%	21	30	7
	3 Newspaper	7.1%	9.1%	2.0%	210	112	75
	4 Mixed Recyclable Paper	6.7%	8.0%	3.6%	198	98	132
	5 Compostable Paper	NA	NA	17.8%	NA	NA	654
	6 Other Paper	10.8%	10.1%	0.6%	320	125	21
Plastics		8.4%	12.2%	13.6%	248	151	498
	7 HDPE Bottles (#2)	1.5%	0.6%	1.0%	43	8	35
	8 PETE Bottles (#1)	0.5%	0.7%	0.8%	15	8	29
	9 Other Plastic Containers	NA	0.2%	0.7%	NA	3	27
	10 Plastic Bags	NA	NA	1.7%	NA	NA	62
	11 Other Film	3.9%	5.0%	3.8%	116	62	140
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	1
	13 Mixed Rigid Plastics	NA	NA	4.7%	NA	NA	172
	14 Other Plastics	2.5%	5.7%	0.9%	74	70	31
Glass		7.0%	2.7%	3.9%	208	34	143
	15 Recyclable Glass Bottles/Containers	6.4%	2.7%	3.2%	190	33	119
	16 Other Glass	0.6%	0.1%	0.7%	18	1	25
Metals		3.9%	4.5%	2.8%	114	56	104
	17 Aluminum Cans	0.3%	0.4%	0.3%	10	4	9
	18 Other Non-Ferrous	0.6%	0.7%	0.5%	19	9	18
	19 Steel Food and Beverage Cans	1.7%	1.0%	1.0%	51	13	35
	20 Other Ferrous	1.2%	2.4%	1.1%	35	30	42
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		1.4%	7.6%	2.5%	40	93	93
	22 Leaves/Grass/Chips	0.8%	2.4%	2.4%	24	30	89
	23 Branches/Stumps/Prunings/Trimnings	0.5%	5.1%	0.1%	16	63	4
Organics		44.4%	30.1%	49.6%	1,315	372	1,819
	24 Food Waste	27.1%	16.5%	29.1%	803	204	1,066
	25 Tires	0.0%	0.0%	1.8%	0	0	66
	26 Untreated Lumber	0.2%	3.9%	0.0%	7	49	0
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	0.2%	0.2%	3.1%	4	2	114
	29 Textiles and Leather	5.0%	3.2%	6.2%	149	39	226
	30 Carpet	NA	1.4%	0.0%	NA	17	0
	31 Diapers	5.4%	3.5%	5.0%	160	43	182
	32 Manure	NA	NA	3.8%	NA	NA	141
	33 Other Organics	6.5%	1.4%	0.7%	192	18	24
Inerts		3.1%	1.4%	1.9%	92	17	68
	34 Crushable Inerts	0.5%	0.3%	0.5%	14	3	17
	35 Other Inerts	2.6%	0.1%	1.2%	78	1	44
	36 Gypsum Board	0.0%	0.6%	0.2%	0	8	7
	37 Asphalt Roofing	0.0%	0.3%	0.0%	0	4	0
HHW		0.8%	0.3%	0.5%	22	3	17
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	1
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	2
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	1
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.3%	NA	NA	11
	45 Other Hazardous Waste	0.8%	0.3%	0.1%	22	3	2
Special		2.3%	7.3%	0.1%	68	90	4
	46 Brown Goods	2.3%	2.0%	0.1%	68	25	4
	47 Composite Bulky Items	0.0%	5.3%	0.0%	0	65	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	2,965	1,234	3,667

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF NEWARK**

**Table 14
City of Newark Detailed Historic Comparison of Commercial Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		40.0%	26.1%	24.0%	2,909	3,557	2,362
	1 Uncoated Corrugated Cardboard	7.9%	5.0%	2.2%	575	679	217
	2 High Grade Paper	6.4%	3.7%	1.0%	467	506	103
	3 Newspaper	3.7%	3.6%	1.3%	269	488	131
	4 Mixed Recyclable Paper	7.7%	4.1%	3.6%	563	566	353
	5 Compostable Paper	NA	NA	15.3%	NA	NA	1,510
	6 Other Paper	14.2%	9.7%	0.5%	1,034	1,318	48
Plastics		13.7%	8.2%	13.5%	997	1,126	1,328
	7 HDPE Bottles (#2)	1.5%	0.9%	0.7%	107	123	68
	8 PETE Bottles (#1)	0.4%	0.6%	0.6%	28	84	61
	9 Other Plastic Containers	NA	0.1%	0.7%	NA	11	65
	10 Plastic Bags	NA	NA	1.2%	NA	NA	119
	11 Other Film	5.2%	3.9%	5.4%	378	535	531
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	16
	13 Mixed Rigid Plastics	NA	NA	2.2%	NA	NA	221
	14 Other Plastics	6.7%	2.7%	2.5%	484	373	248
Glass		2.9%	2.4%	2.3%	211	326	231
	15 Recyclable Glass Bottles/Containers	2.7%	2.3%	2.2%	193	315	213
	16 Other Glass	0.2%	0.1%	0.2%	17	11	18
Metals		6.4%	8.4%	4.3%	468	1,141	420
	17 Aluminum Cans	0.5%	0.3%	0.2%	34	41	16
	18 Other Non-Ferrous	0.9%	0.4%	0.4%	62	57	39
	19 Steel Food and Beverage Cans	0.7%	0.8%	0.8%	52	111	75
	20 Other Ferrous	4.4%	3.3%	2.9%	321	456	290
	21 White Goods	0.0%	3.5%	0.0%	0	476	0
Yard Waste		3.9%	4.0%	2.6%	287	544	257
	22 Leaves/Grass/Chips	1.9%	3.9%	2.4%	140	539	232
	23 Branches/Stumps/Prunings/Trimmings	2.0%	0.0%	0.3%	146	5	25
Organics		28.3%	46.3%	49.4%	2,061	6,319	4,860
	24 Food Waste	12.1%	19.8%	34.1%	879	2,705	3,356
	25 Tires	0.6%	0.2%	0.4%	41	22	38
	26 Untreated Lumber	5.2%	7.6%	2.7%	381	1,035	263
	27 Pallets	NA	NA	0.7%	NA	NA	67
	28 Treated Wood Waste	2.2%	7.7%	5.3%	157	1,053	522
	29 Textiles and Leather	4.7%	2.0%	2.6%	342	270	255
	30 Carpet	NA	4.2%	0.2%	NA	569	18
	31 Diapers	1.5%	0.7%	2.0%	105	101	192
	32 Manure	NA	NA	0.6%	NA	NA	60
	33 Other Organics	2.1%	4.1%	0.9%	155	563	90
Inerts		2.3%	1.2%	1.9%	170	166	187
	34 Crushable Inerts	0.7%	0.6%	0.4%	49	77	39
	35 Other Inerts	1.0%	0.2%	1.3%	74	21	127
	36 Gypsum Board	0.6%	0.0%	0.1%	45	1	7
	37 Asphalt Roofing	0.0%	0.5%	0.1%	1	66	14
HHW		0.7%	0.2%	1.6%	52	21	160
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	12
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	2
	41 Medical Waste	NA	NA	0.0%	NA	NA	1
	42 Medicine	NA	NA	0.0%	NA	NA	2
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	1.5%	NA	NA	143
	45 Other Hazardous Waste	0.7%	0.2%	0.0%	52	21	0
Special		1.7%	3.3%	0.4%	120	453	35
	46 Brown Goods	1.1%	3.0%	0.1%	82	415	10
	47 Composite Bulky Items	0.5%	0.3%	0.3%	38	38	25
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	7,274	13,652	9,839

Table 15
City of Newark Detailed Historic Comparison of Roll-Off Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		26.1%	19.9%	17.7%	6,556	4,765	2,396
	1 Uncoated Corrugated Cardboard	8.4%	5.2%	4.2%	2,106	1,236	572
	2 High Grade Paper	1.7%	2.1%	1.1%	435	494	145
	3 Newspaper	0.3%	0.1%	0.2%	81	36	31
	4 Mixed Recyclable Paper	6.0%	8.5%	6.7%	1,505	2,034	907
	5 Compostable Paper	NA	NA	3.4%	NA	NA	457
	6 Other Paper	9.7%	4.0%	2.1%	2,430	966	285
Plastics		18.4%	14.2%	4.6%	4,627	3,395	625
	7 HDPE Bottles (#2)	0.3%	1.7%	0.1%	68	405	8
	8 PETE Bottles (#1)	0.0%	0.5%	0.1%	10	129	8
	9 Other Plastic Containers	NA	0.2%	0.0%	NA	39	1
	10 Plastic Bags	NA	NA	0.0%	NA	NA	1
	11 Other Film	10.5%	4.2%	3.0%	2,629	1,006	409
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	22
	13 Mixed Rigid Plastics	NA	NA	0.8%	NA	NA	107
	14 Other Plastics	7.6%	7.6%	0.5%	1,920	1,816	69
Glass		0.2%	0.3%	1.7%	58	67	234
	15 Recyclable Glass Bottles/Containers	0.2%	0.2%	1.5%	50	38	209
	16 Other Glass	0.0%	0.1%	0.2%	8	29	25
Metals		10.2%	8.8%	4.4%	2,566	2,106	595
	17 Aluminum Cans	0.1%	0.1%	0.0%	20	34	2
	18 Other Non-Ferrous	0.7%	0.7%	0.0%	171	161	6
	19 Steel Food and Beverage Cans	0.0%	0.1%	0.1%	5	25	8
	20 Other Ferrous	5.1%	7.5%	4.2%	1,283	1,800	571
	21 White Goods	4.3%	0.4%	0.1%	1,087	86	8
Yard Waste		6.0%	8.3%	3.0%	1,505	1,977	401
	22 Leaves/Grass/Chips	1.4%	6.9%	0.2%	357	1,662	34
	23 Branches/Stumps/Prunings/Trimmings	4.6%	1.3%	2.7%	1,147	314	367
Organics		30.9%	30.0%	44.2%	7,782	7,196	5,998
	24 Food Waste	4.8%	4.6%	23.8%	1,200	1,097	3,233
	25 Tires	0.0%	0.1%	0.0%	0	13	0
	26 Untreated Lumber	16.5%	13.2%	6.4%	4,159	3,160	870
	27 Pallets	NA	NA	7.4%	NA	NA	1,010
	28 Treated Wood Waste	7.1%	6.8%	1.4%	1,791	1,639	191
	29 Textiles and Leather	1.1%	0.7%	0.5%	277	156	70
	30 Carpet	NA	4.1%	2.9%	NA	973	389
	31 Diapers	0.1%	0.0%	0.0%	30	4	0
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	1.3%	0.6%	1.7%	325	153	236
Inerts		2.5%	13.6%	19.7%	624	3,252	2,668
	34 Crushable Inerts	0.1%	3.4%	1.0%	33	812	129
	35 Other Inerts	1.0%	3.5%	7.0%	249	843	947
	36 Gypsum Board	0.5%	5.6%	11.7%	113	1,342	1,592
	37 Asphalt Roofing	0.9%	1.1%	0.0%	229	254	0
HHW		0.3%	0.4%	0.7%	83	86	95
	38 Paint/Adhesives	NA	NA	0.4%	NA	NA	61
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	0
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.3%	NA	NA	34
	45 Other Hazardous Waste	0.3%	0.4%	0.0%	83	86	0
Special		5.4%	4.6%	4.1%	1,356	1,108	554
	46 Brown Goods	0.6%	2.2%	0.1%	156	520	11
	47 Composite Bulky Items	4.8%	2.5%	4.0%	1,200	588	543
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	25,159	23,952	13,567

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF NEWARK**

**Table 16
City of Newark Detailed Historic Comparison of Self-Haul Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		12.8%	3.7%	9.5%	1,182	186	119
	1 Uncoated Corrugated Cardboard	2.1%	1.9%	4.2%	198	94	52
	2 High Grade Paper	0.5%	0.1%	0.0%	45	3	0
	3 Newspaper	5.7%	0.1%	0.0%	529	4	0
	4 Mixed Recyclable Paper	3.0%	0.4%	4.7%	281	18	59
	5 Compostable Paper	NA	NA	0.4%	NA	NA	5
	6 Other Paper	1.4%	1.3%	0.3%	129	66	4
Plastics		3.5%	2.9%	6.7%	327	144	84
	7 HDPE Bottles (#2)	0.1%	0.0%	0.0%	13	1	0
	8 PETE Bottles (#1)	0.1%	0.0%	0.1%	5	1	2
	9 Other Plastic Containers	NA	0.9%	0.0%	NA	46	0
	10 Plastic Bags	NA	NA	0.1%	NA	NA	1
	11 Other Film	0.7%	0.4%	1.4%	65	22	17
	12 Expanded Polystyrene Blocks	NA	NA	1.7%	NA	NA	22
	13 Mixed Rigid Plastics	NA	NA	1.2%	NA	NA	15
	14 Other Plastics	2.7%	1.5%	2.1%	245	74	27
Glass		0.5%	0.5%	2.0%	42	23	26
	15 Recyclable Glass Bottles/Containers	0.4%	0.0%	0.7%	35	1	9
	16 Other Glass	0.1%	0.4%	1.4%	6	22	17
Metals		9.8%	20.9%	3.4%	906	1,039	43
	17 Aluminum Cans	0.1%	0.0%	0.1%	6	2	1
	18 Other Non-Ferrous	0.4%	0.2%	0.2%	33	12	3
	19 Steel Food and Beverage Cans	0.3%	0.7%	0.0%	30	34	0
	20 Other Ferrous	9.1%	19.3%	3.1%	838	959	39
	21 White Goods	0.0%	0.7%	0.0%	0	32	0
Yard Waste		28.7%	17.7%	8.1%	2,654	884	101
	22 Leaves/Grass/Chips	6.5%	9.3%	6.4%	605	465	81
	23 Branches/Stumps/Prunings/Trimmings	22.2%	8.4%	1.6%	2,050	419	20
Organics		21.3%	31.9%	43.6%	1,969	1,588	547
	24 Food Waste	1.2%	0.1%	1.5%	115	3	19
	25 Tires	0.0%	0.5%	0.0%	0	23	0
	26 Untreated Lumber	5.3%	10.5%	0.7%	486	522	8
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	9.7%	9.1%	22.3%	897	454	280
	29 Textiles and Leather	3.5%	0.9%	6.2%	321	43	78
	30 Carpet	NA	5.0%	11.3%	NA	251	141
	31 Diapers	0.8%	0.0%	0.0%	69	0	0
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	0.9%	5.9%	1.6%	81	291	20
Inerts		21.3%	18.4%	16.4%	1,967	915	206
	34 Crushable Inerts	0.8%	11.1%	5.1%	75	555	64
	35 Other Inerts	7.4%	0.8%	1.0%	685	41	12
	36 Gypsum Board	6.6%	4.0%	10.3%	606	199	129
	37 Asphalt Roofing	6.5%	2.4%	0.0%	601	120	0
HHW		0.8%	0.0%	0.4%	74	0	5
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	0
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.4%	NA	NA	5
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.8%	0.0%	0.0%	74	0	0
Special		1.3%	4.0%	9.8%	122	201	123
	46 Brown Goods	0.5%	1.9%	1.0%	46	97	13
	47 Composite Bulky Items	0.8%	2.1%	8.8%	76	104	111
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	9,245	4,979	1,253

Appendix A11

2008 WASTE CHARACTERIZATION RESULTS

CITY OF OAKLAND

This section presents a summary of the composition and quantity of disposed waste from the City of Oakland. The 2008 Study results presented herein are based on compositions developed using data obtained from field sample collection and sorting activities performed over four seasons during calendar year 2008. A complete description of the Study and presentation of Countywide aggregate results are included in Section 3 of the report.

Table 1 summarizes selected demographic and waste disposal characteristics for the City of Oakland. The total amount of waste disposed in 2008 represents 22.6 percent of the Countywide waste stream, and decreased approximately 32 percent from 2000.

Table 1
City of Oakland Waste Disposal Data

	2000	2008
Population ¹	402,104	420,183
Housing Units	155,676	164,053
Number of Business Establishments ²	10,581	11,225
Waste Disposal (tons) ³	392,456	268,809
Single Family	97,216	55,555
Multi-Family	40,277	51,621
Commercial	90,360	55,284
Roll-off	69,669	41,975
Self-Haul	94,934	64,373
Residential Disposal Rate (lbs/capita/year) ⁴	876	803
Non-residential Disposal Rate (tons/establishment/year)	21	9

¹ Source: State of California, Department of Finance, City/County Population and Housing Estimates for 2000 and Jan 2008.

² Source: California Board of Equalization. "Taxable Sales in California (Sales & Use Tax)", 1999 and 2007.

³ Data provided by StopWaste.Org staff.

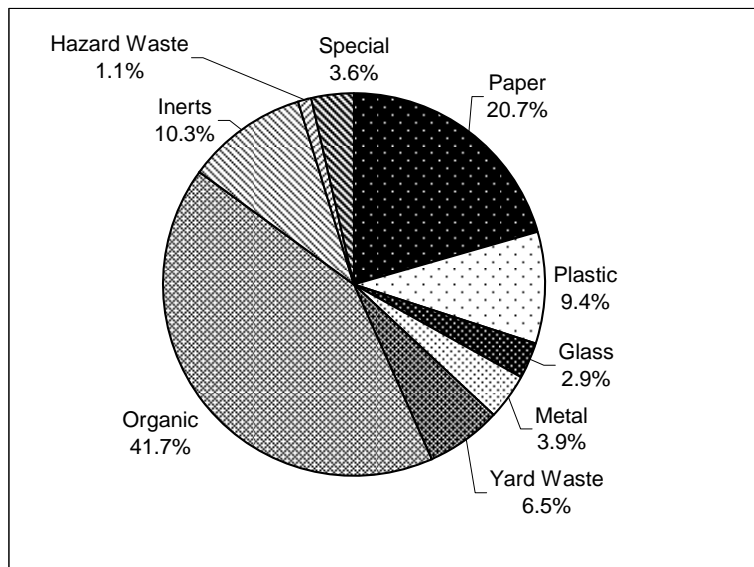
Table 2 presents the number of samples collected from each type of waste stream. Approximately 16 percent of the total number of samples collected were from this jurisdiction.

Table 2
Summary of Samples Obtained from City of Oakland

Waste Stream	Total Samples
Single-family	22
Multi-family	15
Commercial	40
Roll-off	149
Self-haul	153
Total	379

The following tables and figures are presented for waste originating from the City of Oakland. The introduction to Appendix B presents a summary of the information provided within each table or figure.

Figure 1 City of Oakland 2008 Aggregate Waste Composition by Major Material Group



Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	55,545	20.7%	19.1%	22.3%
Plastic	25,233	9.4%	9.0%	9.9%
Glass	7,804	2.9%	2.5%	3.4%
Metal	10,401	3.9%	3.3%	4.5%
Yard Waste	17,515	6.5%	5.1%	8.2%
Organic	112,069	41.7%	38.9%	44.6%
Inerts	27,693	10.3%	7.9%	12.9%
Hazard Waste	2,950	1.1%	0.8%	1.5%
Special	9,598	3.6%	2.3%	5.0%
TOTAL	268,809	100.0%		

2008 WASTE CHARACTERIZATION RESULTS CITY OF OAKLAND

Figure 2 City of Oakland Single-Family Residential Composition by Major Material Group

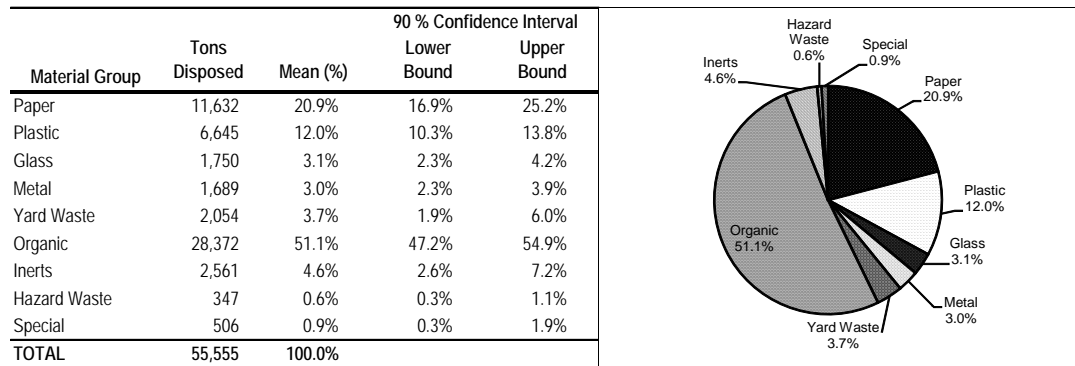


Figure 3 City of Oakland Multi-Family Residential Composition by Major Material Group

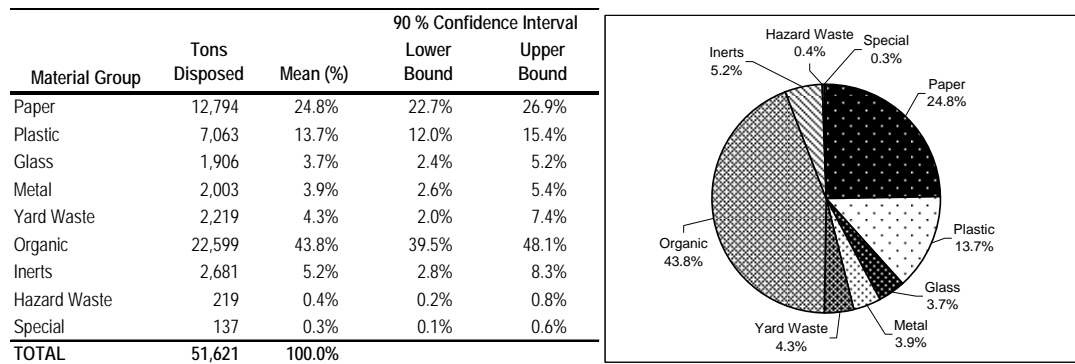


Figure 4 City of Oakland Commercial Composition by Major Material Group

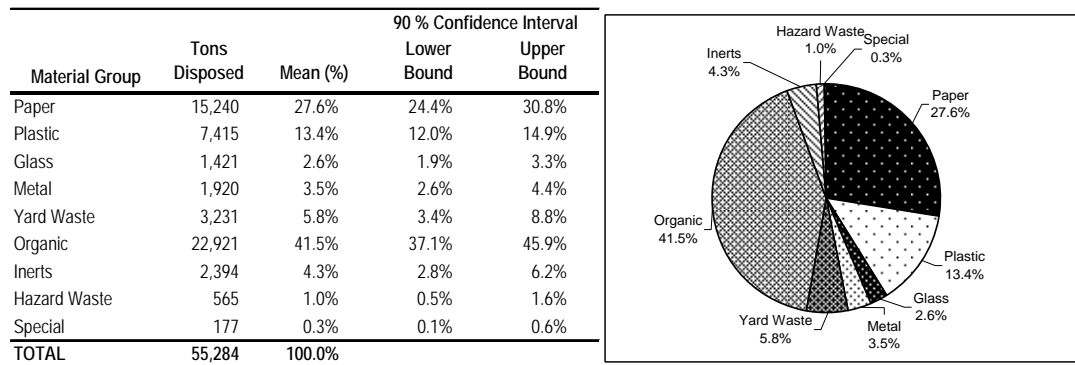


Figure 5 City of Oakland Roll-Off Waste Composition by Major Material Group

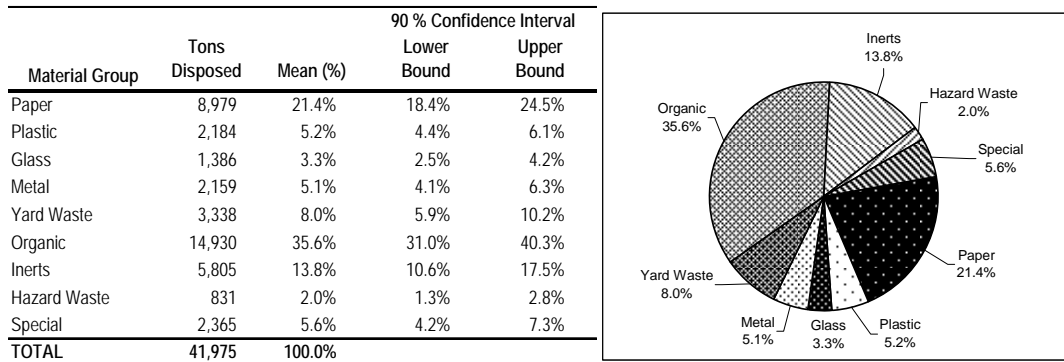
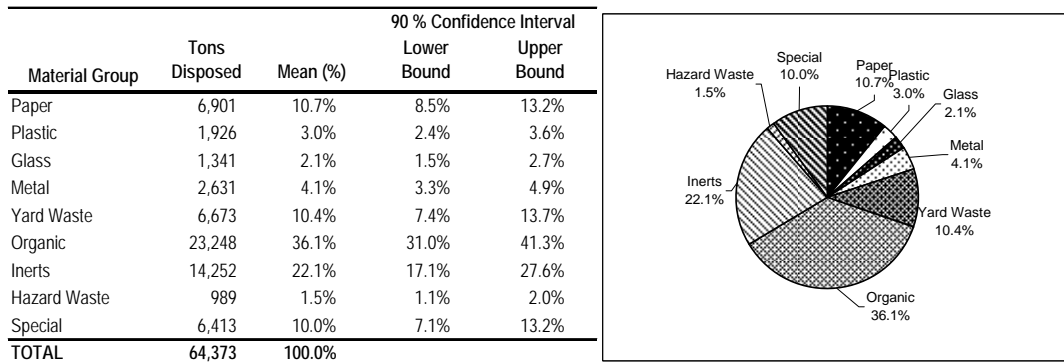


Figure 6 City of Oakland Self-Haul Waste Composition by Major Material Group



2008 WASTE CHARACTERIZATION RESULTS
CITY OF OAKLAND

Figure 7 Historic Comparison of City of Oakland Aggregate Disposal

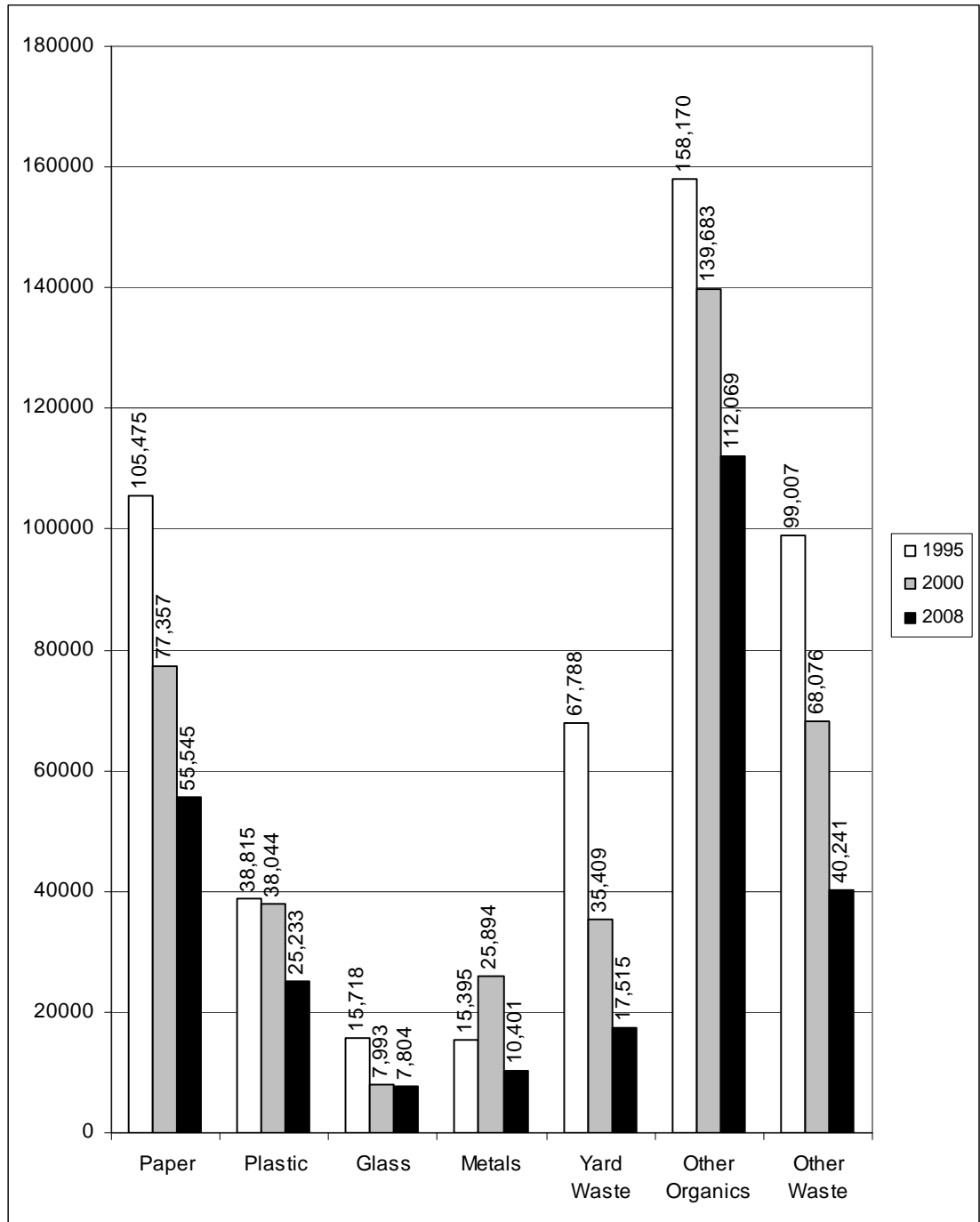
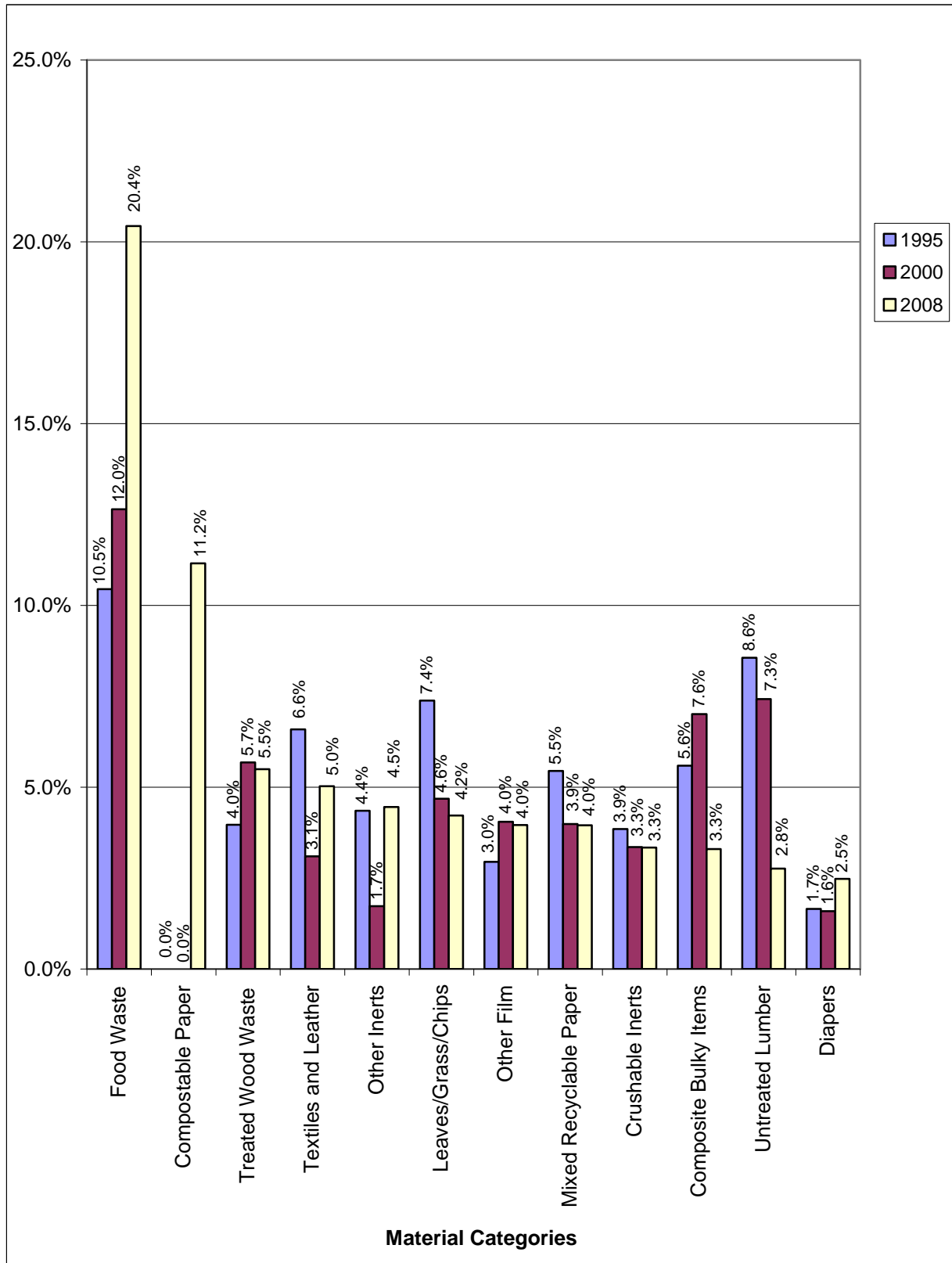


Figure 8 City of Oakland Top 12 Most Common Materials - Aggregate



2008 WASTE CHARACTERIZATION RESULTS
CITY OF OAKLAND

Figure 9 City of Oakland Top 12 Most Common Materials from 2000

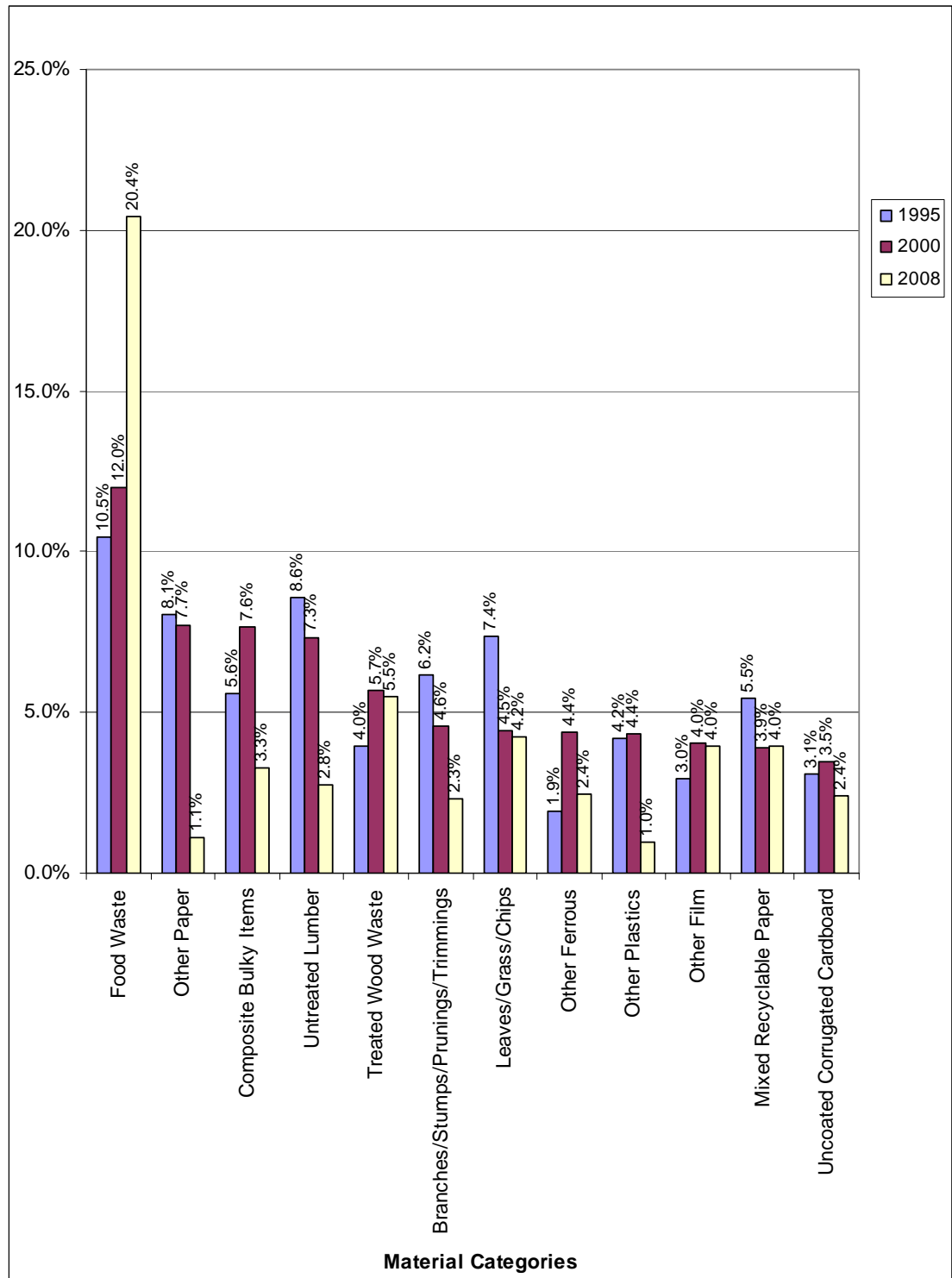


Table 3
Summary of Overall Material Proportions for City of Oakland

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Aggregated
Paper		20.9%	24.8%	27.6%	21.4%	10.7%	20.7%
	1 Uncoated Corrugated Cardboard	0.8%	0.9%	1.1%	5.5%	4.2%	2.4%
	2 High Grade Paper	0.3%	0.9%	0.7%	3.8%	1.1%	1.2%
	3 Newspaper	0.4%	0.8%	0.7%	1.5%	0.7%	0.8%
	4 Mixed Recyclable Paper	3.0%	3.3%	3.8%	6.9%	3.5%	4.0%
	5 Compostable Paper	15.6%	18.1%	20.0%	1.9%	0.2%	11.2%
	6 Other Paper	0.8%	0.8%	1.3%	1.7%	1.0%	1.1%
Plastics		12.0%	13.7%	13.4%	5.2%	3.0%	9.4%
	7 HDPE Bottles (#2)	0.5%	0.7%	0.5%	0.0%	0.0%	0.3%
	8 PETE Bottles (#1)	0.5%	0.7%	0.5%	0.1%	0.1%	0.4%
	9 Other Plastic Containers	0.9%	0.9%	0.6%	0.1%	0.0%	0.5%
	10 Plastic Bags	1.1%	1.8%	1.1%	0.0%	0.1%	0.8%
	11 Other Film	4.9%	4.5%	6.0%	3.2%	1.5%	4.0%
	12 Expanded Polystyrene Blocks	0.2%	0.2%	0.2%	0.2%	0.1%	0.2%
	13 Mixed Rigid Plastics	2.5%	3.8%	3.0%	0.8%	0.9%	2.2%
	14 Other Plastics	1.3%	1.1%	1.4%	0.7%	0.3%	1.0%
Glass		3.1%	3.7%	2.6%	3.3%	2.1%	2.9%
	15 Recyclable Glass Bottles/Containers	2.8%	3.2%	1.9%	2.1%	0.9%	2.1%
	16 Other Glass	0.4%	0.5%	0.7%	1.2%	1.2%	0.8%
Metals		3.0%	3.9%	3.5%	5.1%	4.1%	3.9%
	17 Aluminum Cans	0.1%	0.2%	0.2%	0.1%	0.1%	0.1%
	18 Other Non-Ferrous	0.4%	0.5%	0.5%	1.2%	0.8%	0.6%
	19 Steel Food and Beverage Cans	0.9%	0.9%	0.7%	0.1%	0.1%	0.5%
	20 Other Ferrous	1.6%	2.0%	2.1%	3.6%	3.0%	2.4%
	21 White Goods	0.0%	0.2%	0.0%	0.1%	0.1%	0.1%
Yard Waste		3.7%	4.3%	5.8%	8.0%	10.4%	6.5%
	22 Leaves/Grass/Chips	2.4%	3.0%	4.4%	5.0%	6.1%	4.2%
	23 Branches/Stumps/Prunings/Trimmings	1.3%	1.3%	1.5%	2.9%	4.3%	2.3%
Organics		51.1%	43.8%	41.5%	35.6%	36.1%	41.7%
	24 Food Waste	33.8%	27.0%	27.5%	12.2%	2.9%	20.4%
	25 Tires	0.2%	0.0%	0.2%	0.0%	0.1%	0.1%
	26 Untreated Lumber	0.8%	0.3%	1.7%	3.9%	6.5%	2.8%
	27 Pallets	0.0%	0.0%	0.4%	7.3%	0.8%	1.4%
	28 Treated Wood Waste	3.3%	1.3%	3.3%	5.6%	12.6%	5.5%
	29 Textiles and Leather	4.5%	6.6%	3.6%	2.9%	6.8%	5.0%
	30 Carpet	0.7%	0.5%	0.0%	1.1%	5.1%	1.6%
	31 Diapers	4.7%	5.4%	2.0%	0.3%	0.1%	2.5%
	32 Manure	2.3%	2.1%	0.4%	0.0%	0.0%	1.0%
	33 Other Organics	0.8%	0.5%	2.3%	2.2%	1.2%	1.4%
Inerts		4.6%	5.2%	4.3%	13.8%	22.1%	10.3%
	34 Crushable Inerts	1.4%	0.9%	1.1%	3.9%	8.6%	3.3%
	35 Other Inerts	2.1%	4.1%	3.2%	8.5%	5.3%	4.5%
	36 Gypsum Board	1.2%	0.2%	0.1%	0.5%	6.6%	2.0%
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0.9%	1.6%	0.5%
HHW		0.6%	0.4%	1.0%	2.0%	1.5%	1.1%
	38 Paint/Adhesives	0.0%	0.2%	0.2%	0.0%	0.3%	0.1%
	39 Vehicle & Equipment Fluids	0.0%	0.1%	0.0%	0.0%	0.1%	0.1%
	40 Universal Hazardous Waste	0.2%	0.0%	0.0%	0.8%	0.3%	0.3%
	41 Medical Waste	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
	42 Medicine	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	43 Covered E-Waste	0.0%	0.0%	0.0%	0.2%	0.3%	0.1%
	44 Other E-Waste	0.3%	0.0%	0.7%	0.2%	0.4%	0.3%
	45 Other Hazardous Waste	0.0%	0.0%	0.1%	0.8%	0.1%	0.2%
Special		0.9%	0.3%	0.3%	5.6%	10.0%	3.6%
	46 Brown Goods	0.2%	0.3%	0.0%	0.2%	0.4%	0.2%
	47 Composite Bulky Items	0.7%	0.0%	0.1%	5.4%	9.5%	3.3%
	48 Other Special Waste	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%
TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF OAKLAND**

**Table 4
Summary of Overall Material Tonnages for City of Oakland**

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
Paper		11,632	12,794	15,240	8,979	6,901	55,545
	1 Uncoated Corrugated Cardboard	451	457	604	2,311	2,687	6,511
	2 High Grade Paper	177	480	371	1,600	719	3,346
	3 Newspaper	225	408	372	611	451	2,068
	4 Mixed Recyclable Paper	1,674	1,713	2,109	2,909	2,222	10,627
	5 Compostable Paper	8,659	9,319	11,049	814	156	29,996
	6 Other Paper	445	418	735	734	665	2,998
Plastics		6,645	7,063	7,415	2,184	1,926	25,233
	7 HDPE Bottles (#2)	256	345	285	16	17	919
	8 PETE Bottles (#1)	288	368	297	60	43	1,056
	9 Other Plastic Containers	473	448	352	21	17	1,311
	10 Plastic Bags	618	941	614	19	47	2,239
	11 Other Film	2,729	2,303	3,308	1,331	979	10,650
	12 Expanded Polystyrene Blocks	128	104	100	87	58	477
	13 Mixed Rigid Plastics	1,410	1,969	1,667	355	579	5,979
	14 Other Plastics	742	585	792	295	186	2,601
Glass		1,750	1,906	1,421	1,386	1,341	7,804
	15 Recyclable Glass Bottles/Containers	1,531	1,646	1,037	882	583	5,679
	16 Other Glass	219	261	384	504	758	2,125
Metals		1,689	2,003	1,920	2,159	2,631	10,401
	17 Aluminum Cans	74	103	106	60	42	385
	18 Other Non-Ferrous	219	240	262	492	532	1,745
	19 Steel Food and Beverage Cans	494	488	375	49	53	1,459
	20 Other Ferrous	896	1,054	1,155	1,505	1,962	6,572
	21 White Goods	5	119	21	52	43	240
Yard Waste		2,054	2,219	3,231	3,338	6,673	17,515
	22 Leaves/Grass/Chips	1,349	1,573	2,405	2,117	3,905	11,350
	23 Branches/Stumps/Prunings/Trimmings	705	646	825	1,221	2,768	6,165
Organics		28,372	22,599	22,921	14,930	23,248	112,069
	24 Food Waste	18,797	13,944	15,179	5,133	1,877	54,931
	25 Tires	116	0	120	17	36	289
	26 Untreated Lumber	451	177	952	1,637	4,204	7,421
	27 Pallets	0	0	223	3,073	514	3,811
	28 Treated Wood Waste	1,821	672	1,845	2,331	8,099	14,768
	29 Textiles and Leather	2,476	3,407	2,013	1,215	4,406	13,517
	30 Carpet	402	239	0	478	3,262	4,381
	31 Diapers	2,593	2,791	1,102	122	50	6,658
	32 Manure	1,297	1,107	233	0	0	2,637
	33 Other Organics	419	262	1,253	923	799	3,657
Inerts		2,561	2,681	2,394	5,805	14,252	27,693
	34 Crushable Inerts	763	443	585	1,618	5,562	8,972
	35 Other Inerts	1,143	2,129	1,747	3,577	3,388	11,984
	36 Gypsum Board	656	108	44	230	4,261	5,300
	37 Asphalt Roofing	0	0	18	379	1,040	1,436
HHW		347	219	565	831	989	2,950
	38 Paint/Adhesives	22	91	92	0	165	370
	39 Vehicle & Equipment Fluids	0	71	4	0	80	155
	40 Universal Hazardous Waste	119	11	25	350	214	719
	41 Medical Waste	32	5	24	19	0	80
	42 Medicine	25	17	17	0	2	61
	43 Covered E-Waste	3	0	0	82	213	298
	44 Other E-Waste	145	12	369	64	238	828
	45 Other Hazardous Waste	0	12	34	316	77	438
Special		506	137	177	2,365	6,413	9,598
	46 Brown Goods	103	137	0	104	273	618
	47 Composite Bulky Items	403	0	66	2,261	6,139	8,870
	48 Other Special Waste	0	0	111	0	0	111
TOTAL		55,555	51,621	55,284	41,975	64,373	268,809

Table 5
City of Oakland Aggregate Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		55,545	20.66%	19.14%	22.29%
	1 Uncoated Corrugated Cardboard	6,511	2.42%	1.89%	3.02%
	2 High Grade Paper	3,346	1.24%	0.84%	1.71%
	3 Newspaper	2,068	0.77%	0.60%	0.97%
	4 Mixed Recyclable Paper	10,627	3.95%	3.23%	4.77%
	5 Compostable Paper	29,996	11.16%	10.79%	11.55%
	6 Other Paper	2,998	1.12%	0.87%	1.40%
Plastics		25,233	9.39%	8.96%	9.85%
	7 HDPE Bottles (#2)	919	0.34%	0.33%	0.36%
	8 PETE Bottles (#1)	1,056	0.39%	0.37%	0.42%
	9 Other Plastic Containers	1,311	0.49%	0.46%	0.52%
	10 Plastic Bags	2,239	0.83%	0.78%	0.89%
	11 Other Film	10,650	3.96%	3.65%	4.32%
	12 Expanded Polystyrene Blocks	477	0.18%	0.15%	0.22%
	13 Mixed Rigid Plastics	5,979	2.22%	2.10%	2.36%
	14 Other Plastics	2,601	0.97%	0.88%	1.06%
Glass		7,804	2.90%	2.50%	3.36%
	15 Recyclable Glass Bottles/Containers	5,679	2.11%	1.85%	2.41%
	16 Other Glass	2,125	0.79%	0.59%	1.02%
Metals		10,401	3.87%	3.34%	4.46%
	17 Aluminum Cans	385	0.14%	0.13%	0.16%
	18 Other Non-Ferrous	1,745	0.65%	0.48%	0.85%
	19 Steel Food and Beverage Cans	1,459	0.54%	0.51%	0.58%
	20 Other Ferrous	6,572	2.44%	2.01%	2.94%
	21 White Goods	240	0.09%	0.07%	0.11%
Yard Waste		17,515	6.52%	5.07%	8.17%
	22 Leaves/Grass/Chips	11,350	4.22%	3.31%	5.28%
	23 Branches/Stumps/Prunings/Trimnings	6,165	2.29%	1.65%	3.06%
Organics		112,069	41.69%	38.91%	44.55%
	24 Food Waste	54,931	20.43%	18.96%	22.09%
	25 Tires	289	0.11%	0.09%	0.13%
	26 Untreated Lumber	7,421	2.76%	2.00%	3.62%
	27 Pallets	3,811	1.42%	0.68%	2.25%
	28 Treated Wood Waste	14,768	5.49%	4.26%	6.86%
	29 Textiles and Leather	13,517	5.03%	4.29%	5.86%
	30 Carpet	4,381	1.63%	0.96%	2.42%
	31 Diapers	6,658	2.48%	2.33%	2.66%
	32 Manure	2,637	0.98%	0.90%	1.10%
	33 Other Organics	3,657	1.36%	1.05%	1.73%
Inerts		27,693	10.30%	7.90%	12.93%
	34 Crushable Inerts	8,972	3.34%	2.27%	4.57%
	35 Other Inerts	11,984	4.46%	3.32%	5.77%
	36 Gypsum Board	5,300	1.97%	1.25%	2.79%
	37 Asphalt Roofing	1,436	0.53%	0.29%	0.82%
HHW		2,950	1.10%	0.78%	1.47%
	38 Paint/Adhesives	370	0.14%	0.10%	0.18%
	39 Vehicle & Equipment Fluids	155	0.06%	0.04%	0.08%
	40 Universal Hazardous Waste	719	0.27%	0.15%	0.41%
	41 Medical Waste	80	0.03%	0.02%	0.04%
	42 Medicine	61	0.02%	0.02%	0.03%
	43 Covered E-Waste	298	0.11%	0.06%	0.17%
	44 Other E-Waste	828	0.31%	0.24%	0.39%
	45 Other Hazardous Waste	438	0.16%	0.04%	0.31%
Special		9,598	3.57%	2.29%	5.04%
	46 Brown Goods	618	0.23%	0.17%	0.30%
	47 Composite Bulky Items	8,870	3.30%	2.04%	4.75%
	48 Other Special Waste	111	0.04%	0.03%	0.06%
TOTAL		268,809	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF OAKLAND**

**Table 6
City of Oakland Single-Family Residential Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		11,632	20.94%	16.93%	25.25%
	1 Uncoated Corrugated Cardboard	451	0.81%	0.39%	1.38%
	2 High Grade Paper	177	0.32%	0.15%	0.54%
	3 Newspaper	225	0.41%	0.21%	0.66%
	4 Mixed Recyclable Paper	1,674	3.01%	1.84%	4.46%
	5 Compostable Paper	8,659	15.59%	12.52%	18.92%
	6 Other Paper	445	0.80%	0.53%	1.12%
Plastics		6,645	11.96%	10.27%	13.76%
	7 HDPE Bottles (#2)	256	0.46%	0.33%	0.61%
	8 PETE Bottles (#1)	288	0.52%	0.36%	0.70%
	9 Other Plastic Containers	473	0.85%	0.61%	1.14%
	10 Plastic Bags	618	1.11%	0.68%	1.64%
	11 Other Film	2,729	4.91%	3.66%	6.34%
	12 Expanded Polystyrene Blocks	128	0.23%	0.09%	0.43%
	13 Mixed Rigid Plastics	1,410	2.54%	2.04%	3.09%
	14 Other Plastics	742	1.34%	0.86%	1.91%
Glass		1,750	3.15%	2.28%	4.15%
	15 Recyclable Glass Bottles/Containers	1,531	2.76%	1.91%	3.76%
	16 Other Glass	219	0.39%	0.17%	0.70%
Metals		1,689	3.04%	2.27%	3.92%
	17 Aluminum Cans	74	0.13%	0.09%	0.18%
	18 Other Non-Ferrous	219	0.39%	0.28%	0.54%
	19 Steel Food and Beverage Cans	494	0.89%	0.63%	1.19%
	20 Other Ferrous	896	1.61%	0.88%	2.57%
	21 White Goods	5	0.01%	0.00%	0.02%
Yard Waste		2,054	3.70%	1.93%	6.01%
	22 Leaves/Grass/Chips	1,349	2.43%	1.12%	4.22%
	23 Branches/Stumps/Prunings/Trimnings	705	1.27%	0.52%	2.34%
Organics		28,372	51.07%	47.23%	54.90%
	24 Food Waste	18,797	33.84%	28.01%	39.92%
	25 Tires	116	0.21%	0.06%	0.45%
	26 Untreated Lumber	451	0.81%	0.35%	1.46%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	1,821	3.28%	1.55%	5.63%
	29 Textiles and Leather	2,476	4.46%	3.18%	5.94%
	30 Carpet	402	0.72%	0.20%	1.57%
	31 Diapers	2,593	4.67%	3.17%	6.43%
	32 Manure	1,297	2.33%	1.25%	3.74%
	33 Other Organics	419	0.75%	0.43%	1.17%
Inerts		2,561	4.61%	2.57%	7.20%
	34 Crushable Inerts	763	1.37%	0.68%	2.30%
	35 Other Inerts	1,143	2.06%	1.08%	3.34%
	36 Gypsum Board	656	1.18%	0.38%	2.42%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		347	0.62%	0.30%	1.07%
	38 Paint/Adhesives	22	0.04%	0.01%	0.08%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	119	0.21%	0.09%	0.39%
	41 Medical Waste	32	0.06%	0.02%	0.11%
	42 Medicine	25	0.05%	0.02%	0.09%
	43 Covered E-Waste	3	0.01%	0.00%	0.01%
	44 Other E-Waste	145	0.26%	0.08%	0.55%
	45 Other Hazardous Waste	0	0.00%	0.00%	0.00%
Special		506	0.91%	0.28%	1.89%
	46 Brown Goods	103	0.19%	0.06%	0.39%
	47 Composite Bulky Items	403	0.73%	0.20%	1.58%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		55,555	100.00%		

Table 7
City of Oakland Multi-Family Residential Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		12,794	24.78%	22.75%	26.88%
	1 Uncoated Corrugated Cardboard	457	0.89%	0.36%	1.64%
	2 High Grade Paper	480	0.93%	0.37%	1.74%
	3 Newspaper	408	0.79%	0.35%	1.41%
	4 Mixed Recyclable Paper	1,713	3.32%	2.27%	4.56%
	5 Compostable Paper	9,319	18.05%	15.74%	20.49%
	6 Other Paper	418	0.81%	0.59%	1.06%
Plastics		7,063	13.68%	12.05%	15.40%
	7 HDPE Bottles (#2)	345	0.67%	0.49%	0.87%
	8 PETE Bottles (#1)	368	0.71%	0.55%	0.90%
	9 Other Plastic Containers	448	0.87%	0.67%	1.09%
	10 Plastic Bags	941	1.82%	1.26%	2.48%
	11 Other Film	2,303	4.46%	3.16%	5.98%
	12 Expanded Polystyrene Blocks	104	0.20%	0.06%	0.43%
	13 Mixed Rigid Plastics	1,969	3.81%	2.85%	4.91%
	14 Other Plastics	585	1.13%	0.76%	1.58%
Glass		1,906	3.69%	2.42%	5.22%
	15 Recyclable Glass Bottles/Containers	1,646	3.19%	1.91%	4.78%
	16 Other Glass	261	0.50%	0.24%	0.87%
Metals		2,003	3.88%	2.58%	5.43%
	17 Aluminum Cans	103	0.20%	0.16%	0.25%
	18 Other Non-Ferrous	240	0.46%	0.26%	0.73%
	19 Steel Food and Beverage Cans	488	0.95%	0.64%	1.30%
	20 Other Ferrous	1,054	2.04%	0.93%	3.57%
	21 White Goods	119	0.23%	0.04%	0.57%
Yard Waste		2,219	4.30%	1.98%	7.45%
	22 Leaves/Grass/Chips	1,573	3.05%	1.18%	5.74%
	23 Branches/Stumps/Prunings/Trimnings	646	1.25%	0.35%	2.68%
Organics		22,599	43.78%	39.53%	48.08%
	24 Food Waste	13,944	27.01%	23.37%	30.82%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	177	0.34%	0.11%	0.71%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	672	1.30%	0.43%	2.64%
	29 Textiles and Leather	3,407	6.60%	4.18%	9.52%
	30 Carpet	239	0.46%	0.08%	1.15%
	31 Diapers	2,791	5.41%	3.13%	8.25%
	32 Manure	1,107	2.15%	0.74%	4.26%
	33 Other Organics	262	0.51%	0.23%	0.90%
Inerts		2,681	5.19%	2.76%	8.34%
	34 Crushable Inerts	443	0.86%	0.34%	1.61%
	35 Other Inerts	2,129	4.13%	1.96%	7.05%
	36 Gypsum Board	108	0.21%	0.04%	0.52%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		219	0.42%	0.15%	0.83%
	38 Paint/Adhesives	91	0.18%	0.04%	0.42%
	39 Vehicle & Equipment Fluids	71	0.14%	0.03%	0.34%
	40 Universal Hazardous Waste	11	0.02%	0.01%	0.04%
	41 Medical Waste	5	0.01%	0.00%	0.02%
	42 Medicine	17	0.03%	0.01%	0.07%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	12	0.02%	0.01%	0.06%
	45 Other Hazardous Waste	12	0.02%	0.00%	0.06%
Special		137	0.27%	0.06%	0.63%
	46 Brown Goods	137	0.27%	0.06%	0.63%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		51,621	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF OAKLAND**

**Table 8
City of Oakland Commercial Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		15,240	27.57%	24.40%	30.85%
	1 Uncoated Corrugated Cardboard	604	1.09%	0.70%	1.58%
	2 High Grade Paper	371	0.67%	0.42%	0.98%
	3 Newspaper	372	0.67%	0.44%	0.95%
	4 Mixed Recyclable Paper	2,109	3.81%	2.53%	5.35%
	5 Compostable Paper	11,049	19.99%	17.28%	22.84%
	6 Other Paper	735	1.33%	0.96%	1.76%
Plastics		7,415	13.41%	12.01%	14.88%
	7 HDPE Bottles (#2)	285	0.52%	0.41%	0.64%
	8 PETE Bottles (#1)	297	0.54%	0.42%	0.67%
	9 Other Plastic Containers	352	0.64%	0.47%	0.83%
	10 Plastic Bags	614	1.11%	0.77%	1.52%
	11 Other Film	3,308	5.98%	4.78%	7.31%
	12 Expanded Polystyrene Blocks	100	0.18%	0.10%	0.29%
	13 Mixed Rigid Plastics	1,667	3.01%	2.49%	3.59%
	14 Other Plastics	792	1.43%	1.06%	1.86%
Glass		1,421	2.57%	1.93%	3.30%
	15 Recyclable Glass Bottles/Containers	1,037	1.88%	1.38%	2.44%
	16 Other Glass	384	0.69%	0.37%	1.12%
Metals		1,920	3.47%	2.61%	4.45%
	17 Aluminum Cans	106	0.19%	0.15%	0.24%
	18 Other Non-Ferrous	262	0.47%	0.34%	0.63%
	19 Steel Food and Beverage Cans	375	0.68%	0.49%	0.89%
	20 Other Ferrous	1,155	2.09%	1.23%	3.17%
	21 White Goods	21	0.04%	0.02%	0.07%
Yard Waste		3,231	5.84%	3.43%	8.84%
	22 Leaves/Grass/Chips	2,405	4.35%	2.39%	6.87%
	23 Branches/Stumps/Prunings/Trimnings	825	1.49%	0.75%	2.49%
Organics		22,921	41.46%	37.06%	45.93%
	24 Food Waste	15,179	27.46%	23.13%	32.01%
	25 Tires	120	0.22%	0.09%	0.40%
	26 Untreated Lumber	952	1.72%	0.93%	2.76%
	27 Pallets	223	0.40%	0.17%	0.74%
	28 Treated Wood Waste	1,845	3.34%	1.91%	5.15%
	29 Textiles and Leather	2,013	3.64%	2.59%	4.86%
	30 Carpet	0	0.00%	0.00%	0.00%
	31 Diapers	1,102	1.99%	1.23%	2.93%
	32 Manure	233	0.42%	0.20%	0.72%
	33 Other Organics	1,253	2.27%	1.30%	3.50%
Inerts		2,394	4.33%	2.75%	6.24%
	34 Crushable Inerts	585	1.06%	0.57%	1.69%
	35 Other Inerts	1,747	3.16%	1.88%	4.76%
	36 Gypsum Board	44	0.08%	0.04%	0.14%
	37 Asphalt Roofing	18	0.03%	0.01%	0.06%
HHW		565	1.02%	0.55%	1.64%
	38 Paint/Adhesives	92	0.17%	0.08%	0.29%
	39 Vehicle & Equipment Fluids	4	0.01%	0.00%	0.01%
	40 Universal Hazardous Waste	25	0.05%	0.02%	0.07%
	41 Medical Waste	24	0.04%	0.02%	0.07%
	42 Medicine	17	0.03%	0.01%	0.05%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	369	0.67%	0.30%	1.18%
	45 Other Hazardous Waste	34	0.06%	0.03%	0.11%
Special		177	0.32%	0.14%	0.57%
	46 Brown Goods	0	0.00%	0.00%	0.00%
	47 Composite Bulky Items	66	0.12%	0.05%	0.22%
	48 Other Special Waste	111	0.20%	0.08%	0.37%
TOTAL		55,284	100.00%		

Table 9
City of Oakland Roll-Off Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		8,979	21.39%	18.43%	24.51%
	1 Uncoated Corrugated Cardboard	2,311	5.51%	4.58%	6.51%
	2 High Grade Paper	1,600	3.81%	2.84%	4.92%
	3 Newspaper	611	1.46%	1.09%	1.87%
	4 Mixed Recyclable Paper	2,909	6.93%	5.37%	8.67%
	5 Compostable Paper	814	1.94%	1.58%	2.33%
	6 Other Paper	734	1.75%	1.25%	2.33%
Plastics		2,184	5.20%	4.40%	6.07%
	7 HDPE Bottles (#2)	16	0.04%	0.03%	0.05%
	8 PETE Bottles (#1)	60	0.14%	0.11%	0.17%
	9 Other Plastic Containers	21	0.05%	0.04%	0.07%
	10 Plastic Bags	19	0.04%	0.03%	0.06%
	11 Other Film	1,331	3.17%	2.58%	3.82%
	12 Expanded Polystyrene Blocks	87	0.21%	0.14%	0.28%
	13 Mixed Rigid Plastics	355	0.85%	0.69%	1.02%
	14 Other Plastics	295	0.70%	0.54%	0.89%
Glass		1,386	3.30%	2.47%	4.24%
	15 Recyclable Glass Bottles/Containers	882	2.10%	1.53%	2.76%
	16 Other Glass	504	1.20%	0.85%	1.61%
Metals		2,159	5.14%	4.08%	6.32%
	17 Aluminum Cans	60	0.14%	0.11%	0.18%
	18 Other Non-Ferrous	492	1.17%	0.82%	1.59%
	19 Steel Food and Beverage Cans	49	0.12%	0.08%	0.16%
	20 Other Ferrous	1,505	3.59%	2.74%	4.54%
	21 White Goods	52	0.12%	0.08%	0.17%
Yard Waste		3,338	7.95%	5.94%	10.22%
	22 Leaves/Grass/Chips	2,117	5.04%	3.69%	6.59%
	23 Branches/Stumps/Prunings/Trimnings	1,221	2.91%	2.07%	3.89%
Organics		14,930	35.57%	30.96%	40.31%
	24 Food Waste	5,133	12.23%	8.91%	15.99%
	25 Tires	17	0.04%	0.03%	0.06%
	26 Untreated Lumber	1,637	3.90%	2.92%	5.01%
	27 Pallets	3,073	7.32%	5.46%	9.43%
	28 Treated Wood Waste	2,331	5.55%	4.19%	7.09%
	29 Textiles and Leather	1,215	2.89%	2.15%	3.74%
	30 Carpet	478	1.14%	0.79%	1.56%
	31 Diapers	122	0.29%	0.19%	0.41%
	32 Manure	0	0.00%	0.00%	0.00%
	33 Other Organics	923	2.20%	1.55%	2.97%
Inerts		5,805	13.83%	10.57%	17.45%
	34 Crushable Inerts	1,618	3.86%	2.72%	5.18%
	35 Other Inerts	3,577	8.52%	6.18%	11.20%
	36 Gypsum Board	230	0.55%	0.38%	0.75%
	37 Asphalt Roofing	379	0.90%	0.60%	1.26%
HHW		831	1.98%	1.33%	2.75%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	350	0.83%	0.56%	1.16%
	41 Medical Waste	19	0.05%	0.03%	0.06%
	42 Medicine	0	0.00%	0.00%	0.00%
	43 Covered E-Waste	82	0.19%	0.14%	0.26%
	44 Other E-Waste	64	0.15%	0.11%	0.21%
	45 Other Hazardous Waste	316	0.75%	0.45%	1.14%
Special		2,365	5.63%	4.17%	7.30%
	46 Brown Goods	104	0.25%	0.17%	0.34%
	47 Composite Bulky Items	2,261	5.39%	3.96%	7.02%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		41,975	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF OAKLAND**

**Table 10
Oakland Self Haul Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		6,901	10.72%	8.49%	13.18%
	1 Uncoated Corrugated Cardboard	2,687	4.17%	3.20%	5.27%
	2 High Grade Paper	719	1.12%	0.79%	1.50%
	3 Newspaper	451	0.70%	0.48%	0.96%
	4 Mixed Recyclable Paper	2,222	3.45%	2.55%	4.48%
	5 Compostable Paper	156	0.24%	0.18%	0.31%
	6 Other Paper	665	1.03%	0.70%	1.44%
Plastics		1,926	2.99%	2.41%	3.63%
	7 HDPE Bottles (#2)	17	0.03%	0.02%	0.03%
	8 PETE Bottles (#1)	43	0.07%	0.05%	0.09%
	9 Other Plastic Containers	17	0.03%	0.02%	0.04%
	10 Plastic Bags	47	0.07%	0.05%	0.09%
	11 Other Film	979	1.52%	1.14%	1.96%
	12 Expanded Polystyrene Blocks	58	0.09%	0.06%	0.12%
	13 Mixed Rigid Plastics	579	0.90%	0.70%	1.13%
	14 Other Plastics	186	0.29%	0.22%	0.37%
Glass		1,341	2.08%	1.53%	2.71%
	15 Recyclable Glass Bottles/Containers	583	0.91%	0.65%	1.21%
	16 Other Glass	758	1.18%	0.84%	1.57%
Metals		2,631	4.09%	3.31%	4.94%
	17 Aluminum Cans	42	0.07%	0.05%	0.09%
	18 Other Non-Ferrous	532	0.83%	0.60%	1.09%
	19 Steel Food and Beverage Cans	53	0.08%	0.06%	0.11%
	20 Other Ferrous	1,962	3.05%	2.40%	3.78%
	21 White Goods	43	0.07%	0.04%	0.09%
Yard Waste		6,673	10.37%	7.44%	13.72%
	22 Leaves/Grass/Chips	3,905	6.07%	4.32%	8.08%
	23 Branches/Stumps/Prunings/Trimmings	2,768	4.30%	2.94%	5.90%
Organics		23,248	36.11%	31.04%	41.35%
	24 Food Waste	1,877	2.92%	1.94%	4.09%
	25 Tires	36	0.06%	0.04%	0.08%
	26 Untreated Lumber	4,204	6.53%	4.92%	8.36%
	27 Pallets	514	0.80%	0.55%	1.09%
	28 Treated Wood Waste	8,099	12.58%	9.87%	15.57%
	29 Textiles and Leather	4,406	6.84%	5.20%	8.69%
	30 Carpet	3,262	5.07%	3.45%	6.98%
	31 Diapers	50	0.08%	0.05%	0.11%
	32 Manure	0	0.00%	0.00%	0.00%
	33 Other Organics	799	1.24%	0.88%	1.66%
Inerts		14,252	22.14%	17.12%	27.60%
	34 Crushable Inerts	5,562	8.64%	6.24%	11.39%
	35 Other Inerts	3,388	5.26%	3.65%	7.16%
	36 Gypsum Board	4,261	6.62%	4.85%	8.64%
	37 Asphalt Roofing	1,040	1.61%	1.09%	2.24%
HHW		989	1.54%	1.10%	2.04%
	38 Paint/Adhesives	165	0.26%	0.17%	0.36%
	39 Vehicle & Equipment Fluids	80	0.12%	0.08%	0.18%
	40 Universal Hazardous Waste	214	0.33%	0.23%	0.46%
	41 Medical Waste	0	0.00%	0.00%	0.00%
	42 Medicine	2	0.00%	0.00%	0.00%
	43 Covered E-Waste	213	0.33%	0.23%	0.45%
	44 Other E-Waste	238	0.37%	0.25%	0.51%
	45 Other Hazardous Waste	77	0.12%	0.08%	0.17%
Special		6,413	9.96%	7.12%	13.23%
	46 Brown Goods	273	0.42%	0.29%	0.58%
	47 Composite Bulky Items	6,139	9.54%	6.74%	12.76%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		64,373	100.00%		

Table 11
City of Oakland Detailed Historic Comparison of Overall Jurisdiction-wide Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		21.1%	19.7%	20.7%	105,427	77,357	55,545
	1 Uncoated Corrugated Cardboard	3.1%	3.5%	2.4%	15,461	13,661	6,511
	2 High Grade Paper	2.2%	1.8%	1.2%	11,208	7,168	3,346
	3 Newspaper	2.2%	2.8%	0.8%	11,208	10,958	2,068
	4 Mixed Recyclable Paper	5.5%	3.9%	4.0%	27,270	15,252	10,627
	5 Compostable Paper	NA	NA	11.2%	NA	NA	29,996
	6 Other Paper	8.1%	7.7%	1.1%	40,279	30,318	2,998
Plastics		7.8%	9.7%	9.4%	38,778	38,044	25,233
	7 HDPE Bottles (#2)	0.4%	0.6%	0.3%	1,801	2,427	919
	8 PETE Bottles (#1)	0.2%	0.4%	0.4%	1,201	1,592	1,056
	9 Other Plastic Containers	NA	0.3%	0.5%	NA	1,126	1,311
	10 Plastic Bags	NA	NA	0.8%	NA	NA	2,239
	11 Other Film	3.0%	4.0%	4.0%	14,761	15,819	10,650
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	477
	13 Mixed Rigid Plastics	NA	NA	2.2%	NA	NA	5,979
	14 Other Plastics	4.2%	4.4%	1.0%	21,015	17,080	2,601
Glass		3.2%	2.0%	2.9%	15,761	7,993	7,804
	15 Recyclable Glass Bottles/Containers	2.3%	1.4%	2.1%	11,608	5,496	5,679
	16 Other Glass	0.8%	0.6%	0.8%	4,153	2,497	2,125
Metals		3.1%	6.6%	3.9%	15,411	25,894	10,401
	17 Aluminum Cans	0.2%	0.3%	0.1%	901	1,326	385
	18 Other Non-Ferrous	0.4%	0.6%	0.6%	2,001	2,395	1,745
	19 Steel Food and Beverage Cans	0.6%	0.5%	0.5%	2,902	1,789	1,459
	20 Other Ferrous	1.9%	4.4%	2.4%	9,607	17,197	6,572
	21 White Goods	0.0%	0.8%	0.1%	0	3,188	240
Yard Waste		13.6%	9.0%	6.5%	67,799	35,409	17,515
	22 Leaves/Grass/Chips	7.4%	4.5%	4.2%	36,927	17,464	11,350
	23 Branches/Stumps/Prunings/Trimmings	6.2%	4.6%	2.3%	30,873	17,945	6,165
Organics		33.3%	35.6%	41.7%	166,421	139,683	112,069
	24 Food Waste	10.5%	12.0%	20.4%	52,288	46,978	54,931
	25 Tires	0.4%	0.6%	0.1%	1,801	2,438	289
	26 Untreated Lumber	8.6%	7.3%	2.8%	42,831	28,762	7,421
	27 Pallets	NA	NA	1.4%	NA	NA	3,811
	28 Treated Wood Waste	4.0%	5.7%	5.5%	19,864	22,246	14,768
	29 Textiles and Leather	6.6%	3.0%	5.0%	32,974	11,594	13,517
	30 Carpet	NA	3.2%	1.6%	NA	12,517	4,381
	31 Diapers	1.7%	1.6%	2.5%	8,256	6,146	6,658
	32 Manure	NA	NA	1.0%	NA	NA	2,637
	33 Other Organics	1.7%	2.3%	1.4%	8,406	9,001	3,657
Inerts		11.4%	8.2%	10.3%	57,042	32,324	27,693
	34 Crushable Inerts	3.9%	3.3%	3.3%	19,264	13,098	8,972
	35 Other Inerts	4.4%	1.6%	4.5%	21,766	6,181	11,984
	36 Gypsum Board	1.0%	2.4%	2.0%	4,804	9,552	5,300
	37 Asphalt Roofing	2.2%	0.9%	0.5%	11,208	3,494	1,436
HHW		0.3%	0.6%	1.1%	1,451	2,184	2,950
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	370
	39 Vehicle & Equipment Fluids	NA	NA	0.1%	NA	NA	155
	40 Universal Hazardous Waste	NA	NA	0.3%	NA	NA	719
	41 Medical Waste	NA	NA	0.0%	NA	NA	80
	42 Medicine	NA	NA	0.0%	NA	NA	61
	43 Covered E-Waste	NA	NA	0.1%	NA	NA	298
	44 Other E-Waste	NA	NA	0.3%	NA	NA	828
	45 Other Hazardous Waste	0.3%	0.6%	0.2%	1,451	2,184	438
Special		6.4%	8.6%	3.6%	32,224	33,568	9,598
	46 Brown Goods	0.9%	0.9%	0.2%	4,253	3,589	618
	47 Composite Bulky Items	5.6%	7.6%	3.3%	27,970	29,979	8,870
	48 Other Special Waste	NA	NA	0.0%	NA	NA	111
TOTAL		100.0%	100.0%	100.0%	500,365	392,456	268,809

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF OAKLAND**

**Table 12
City of Oakland Detailed Historic Comparison of Single-Family Residential Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		29.8%	30.4%	20.9%	35,980	29,585	11,632
	1 Uncoated Corrugated Cardboard	3.1%	2.6%	0.8%	3,693	2,544	451
	2 High Grade Paper	2.0%	1.3%	0.3%	2,402	1,292	177
	3 Newspaper	4.4%	5.6%	0.4%	5,311	5,452	225
	4 Mixed Recyclable Paper	7.8%	6.2%	3.0%	9,427	6,009	1,674
	5 Compostable Paper	NA	NA	15.6%	NA	NA	8,659
	6 Other Paper	12.6%	14.7%	0.8%	15,148	14,288	445
Plastics		10.0%	11.1%	12.0%	12,070	10,777	6,645
	7 HDPE Bottles (#2)	0.7%	0.6%	0.5%	809	622	256
	8 PETE Bottles (#1)	0.6%	0.6%	0.5%	676	603	288
	9 Other Plastic Containers	NA	0.5%	0.9%	NA	451	473
	10 Plastic Bags	NA	NA	1.1%	NA	NA	618
	11 Other Film	4.7%	5.7%	4.9%	5,612	5,531	2,729
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	128
	13 Mixed Rigid Plastics	NA	NA	2.5%	NA	NA	1,410
	14 Other Plastics	4.1%	3.7%	1.3%	4,973	3,570	742
Glass		4.9%	3.0%	3.1%	5,950	2,964	1,750
	15 Recyclable Glass Bottles/Containers	4.4%	2.6%	2.8%	5,299	2,484	1,531
	16 Other Glass	0.5%	0.5%	0.4%	652	480	219
Metals		3.6%	2.4%	3.0%	4,345	2,346	1,689
	17 Aluminum Cans	0.4%	0.2%	0.1%	471	225	74
	18 Other Non-Ferrous	0.8%	0.6%	0.4%	917	619	219
	19 Steel Food and Beverage Cans	1.5%	0.7%	0.9%	1,847	651	494
	20 Other Ferrous	0.9%	0.9%	1.6%	1,110	851	896
	21 White Goods	0.0%	0.0%	0.0%	0	0	5
Yard Waste		15.9%	9.6%	3.7%	19,239	9,306	2,054
	22 Leaves/Grass/Chips	10.6%	6.3%	2.4%	12,830	6,106	1,349
	23 Branches/Stumps/Prunings/Trimmings	5.3%	3.3%	1.3%	6,409	3,199	705
Organics		32.0%	40.0%	51.1%	38,647	38,881	28,372
	24 Food Waste	21.6%	24.0%	33.8%	26,022	23,320	18,797
	25 Tires	0.0%	0.0%	0.2%	0	0	116
	26 Untreated Lumber	0.4%	1.7%	0.8%	507	1,695	451
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	0.7%	0.8%	3.3%	833	817	1,821
	29 Textiles and Leather	3.8%	3.7%	4.5%	4,562	3,555	2,476
	30 Carpet	NA	1.3%	0.7%	NA	1,248	402
	31 Diapers	4.6%	3.9%	4.7%	5,552	3,749	2,593
	32 Manure	NA	NA	2.3%	NA	NA	1,297
	33 Other Organics	1.0%	4.6%	0.8%	1,171	4,497	419
Inerts		2.1%	2.1%	4.6%	2,535	1,994	2,561
	34 Crushable Inerts	0.4%	0.2%	1.4%	531	217	763
	35 Other Inerts	1.7%	1.6%	2.1%	1,992	1,592	1,143
	36 Gypsum Board	0.0%	0.2%	1.2%	12	185	656
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	0	0
HHW		0.6%	1.0%	0.6%	748	1,015	347
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	22
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.2%	NA	NA	119
	41 Medical Waste	NA	NA	0.1%	NA	NA	32
	42 Medicine	NA	NA	0.0%	NA	NA	25
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	3
	44 Other E-Waste	NA	NA	0.3%	NA	NA	145
	45 Other Hazardous Waste	0.6%	1.0%	0.0%	748	1,015	0
Special		1.0%	0.4%	0.9%	1,183	349	506
	46 Brown Goods	1.0%	0.4%	0.2%	1,183	349	103
	47 Composite Bulky Items	0.0%	0.0%	0.7%	0	0	403
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	120,698	97,216	55,555

Table 13
City of Oakland Detailed Historic Comparison of Multi-Family Residential Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		24.8%	23.4%	24.8%	6,893	9,428	12,794
	1 Uncoated Corrugated Cardboard	4.7%	1.9%	0.9%	1,304	783	457
	2 High Grade Paper	2.4%	0.8%	0.9%	672	303	480
	3 Newspaper	2.5%	4.1%	0.8%	685	1,635	408
	4 Mixed Recyclable Paper	5.1%	5.2%	3.3%	1,407	2,084	1,713
	5 Compostable Paper	NA	NA	18.1%	NA	NA	9,319
	6 Other Paper	10.2%	11.5%	0.8%	2,825	4,623	418
Plastics		9.2%	9.8%	13.7%	2,545	3,936	7,063
	7 HDPE Bottles (#2)	0.5%	0.7%	0.7%	147	288	345
	8 PETE Bottles (#1)	0.5%	0.5%	0.7%	133	219	368
	9 Other Plastic Containers	NA	0.1%	0.9%	NA	56	448
	10 Plastic Bags	NA	NA	1.8%	NA	NA	941
	11 Other Film	3.6%	5.5%	4.5%	996	2,216	2,303
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	104
	13 Mixed Rigid Plastics	NA	NA	3.8%	NA	NA	1,969
	14 Other Plastics	4.6%	2.9%	1.1%	1,268	1,157	585
Glass		5.2%	3.4%	3.7%	1,451	1,388	1,906
	15 Recyclable Glass Bottles/Containers	4.6%	3.3%	3.2%	1,277	1,326	1,646
	16 Other Glass	0.6%	0.2%	0.5%	175	61	261
Metals		4.3%	7.4%	3.9%	1,185	2,994	2,003
	17 Aluminum Cans	0.3%	0.3%	0.2%	89	104	103
	18 Other Non-Ferrous	0.3%	0.9%	0.5%	89	353	240
	19 Steel Food and Beverage Cans	1.0%	1.0%	0.9%	289	405	488
	20 Other Ferrous	2.6%	1.5%	2.0%	719	597	1,054
	21 White Goods	0.0%	3.8%	0.2%	0	1,535	119
Yard Waste		13.1%	7.1%	4.3%	3,635	2,872	2,219
	22 Leaves/Grass/Chips	12.5%	4.0%	3.0%	3,474	1,625	1,573
	23 Branches/Stumps/Prunings/Trimings	0.6%	3.1%	1.3%	161	1,246	646
Organics		34.1%	35.6%	43.8%	9,471	14,334	22,599
	24 Food Waste	11.2%	17.4%	27.0%	3,116	7,023	13,944
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	0.4%	0.8%	0.3%	119	320	177
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	3.2%	0.7%	1.3%	888	281	672
	29 Textiles and Leather	15.1%	2.3%	6.6%	4,188	907	3,407
	30 Carpet	NA	9.3%	0.5%	NA	3,748	239
	31 Diapers	1.4%	3.6%	5.4%	391	1,453	2,791
	32 Manure	NA	NA	2.1%	NA	NA	1,107
	33 Other Organics	2.8%	1.5%	0.5%	769	602	262
Inerts		2.3%	3.3%	5.2%	635	1,342	2,681
	34 Crushable Inerts	0.9%	0.0%	0.9%	250	16	443
	35 Other Inerts	1.4%	0.1%	4.1%	386	54	2,129
	36 Gypsum Board	0.0%	3.2%	0.2%	0	1,272	108
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	0	0
HHW		0.7%	1.0%	0.4%	191	389	219
	38 Paint/Adhesives	NA	NA	0.2%	NA	NA	91
	39 Vehicle & Equipment Fluids	NA	NA	0.1%	NA	NA	71
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	11
	41 Medical Waste	NA	NA	0.0%	NA	NA	5
	42 Medicine	NA	NA	0.0%	NA	NA	17
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	12
	45 Other Hazardous Waste	0.7%	1.0%	0.0%	191	389	12
Special		6.3%	8.9%	0.3%	1,748	3,595	137
	46 Brown Goods	0.0%	2.8%	0.3%	0	1,137	137
	47 Composite Bulky Items	6.3%	6.1%	0.0%	1,748	2,458	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	27,751	40,277	51,621

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF OAKLAND**

**Table 14
City of Oakland Detailed Historic Comparison of Commercial Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		35.9%	26.4%	27.6%	29,061	23,854	15,240
	1 Uncoated Corrugated Cardboard	4.6%	5.8%	1.1%	3,696	5,205	604
	2 High Grade Paper	3.1%	4.2%	0.7%	2,483	3,819	371
	3 Newspaper	4.5%	2.4%	0.7%	3,599	2,168	372
	4 Mixed Recyclable Paper	7.8%	4.7%	3.8%	6,333	4,247	2,109
	5 Compostable Paper	NA	NA	20.0%	NA	NA	11,049
	6 Other Paper	16.0%	9.3%	1.3%	12,949	8,415	735
Plastics		9.1%	15.0%	13.4%	7,368	13,580	7,415
	7 HDPE Bottles (#2)	0.6%	1.0%	0.5%	493	940	285
	8 PETE Bottles (#1)	0.4%	0.4%	0.5%	315	388	297
	9 Other Plastic Containers	NA	0.4%	0.6%	NA	378	352
	10 Plastic Bags	NA	NA	1.1%	NA	NA	614
	11 Other Film	4.3%	6.1%	6.0%	3,510	5,500	3,308
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	100
	13 Mixed Rigid Plastics	NA	NA	3.0%	NA	NA	1,667
	14 Other Plastics	3.8%	7.1%	1.4%	3,049	6,374	792
Glass		2.6%	1.6%	2.6%	2,127	1,403	1,421
	15 Recyclable Glass Bottles/Containers	1.8%	1.4%	1.9%	1,415	1,263	1,037
	16 Other Glass	0.9%	0.2%	0.7%	712	141	384
Metals		3.4%	5.8%	3.5%	2,766	5,240	1,920
	17 Aluminum Cans	0.2%	0.7%	0.2%	186	653	106
	18 Other Non-Ferrous	0.3%	0.3%	0.5%	259	227	262
	19 Steel Food and Beverage Cans	0.5%	0.7%	0.7%	429	630	375
	20 Other Ferrous	2.3%	4.1%	2.1%	1,893	3,731	1,155
	21 White Goods	0.0%	0.0%	0.0%	0	0	21
Yard Waste		2.9%	6.4%	5.8%	2,370	5,765	3,231
	22 Leaves/Grass/Chips	2.2%	2.3%	4.4%	1,787	2,119	2,405
	23 Branches/Stumps/Prunings/Trimmings	0.7%	4.0%	1.5%	582	3,646	825
Organics		39.3%	36.9%	41.5%	31,779	33,302	22,921
	24 Food Waste	16.4%	15.4%	27.5%	13,248	13,887	15,179
	25 Tires	0.8%	2.5%	0.2%	655	2,272	120
	26 Untreated Lumber	7.0%	7.4%	1.7%	5,678	6,665	952
	27 Pallets	NA	NA	0.4%	NA	NA	223
	28 Treated Wood Waste	3.0%	4.3%	3.3%	2,386	3,930	1,845
	29 Textiles and Leather	7.4%	2.9%	3.6%	5,961	2,580	2,013
	30 Carpet	NA	1.4%	0.0%	NA	1,262	0
	31 Diapers	1.4%	1.0%	2.0%	1,124	879	1,102
	32 Manure	NA	NA	0.4%	NA	NA	233
	33 Other Organics	3.4%	2.0%	2.3%	2,726	1,828	1,253
Inerts		4.1%	4.7%	4.3%	3,340	4,274	2,394
	34 Crushable Inerts	1.8%	4.0%	1.1%	1,432	3,633	585
	35 Other Inerts	2.3%	0.3%	3.2%	1,844	274	1,747
	36 Gypsum Board	0.0%	0.4%	0.1%	32	366	44
	37 Asphalt Roofing	0.0%	0.0%	0.0%	32	0	18
HHW		0.3%	0.6%	1.0%	259	584	565
	38 Paint/Adhesives	NA	NA	0.2%	NA	NA	92
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	4
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	25
	41 Medical Waste	NA	NA	0.0%	NA	NA	24
	42 Medicine	NA	NA	0.0%	NA	NA	17
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.7%	NA	NA	369
	45 Other Hazardous Waste	0.3%	0.6%	0.1%	259	584	34
Special		2.2%	2.6%	0.3%	1,796	2,357	177
	46 Brown Goods	1.8%	0.7%	0.0%	1,440	618	0
	47 Composite Bulky Items	0.4%	1.9%	0.1%	356	1,739	66
	48 Other Special Waste	NA	NA	0.2%	NA	NA	111
TOTAL		100.0%	100.0%	100.0%	80,882	90,360	55,284

Table 15
City of Oakland Detailed Historic Comparison of Roll-Off Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		24.2%	15.0%	21.4%	14,951	10,417	8,979
	1 Uncoated Corrugated Cardboard	5.4%	5.4%	5.5%	3,314	3,786	2,311
	2 High Grade Paper	6.4%	1.4%	3.8%	3,937	952	1,600
	3 Newspaper	1.3%	1.6%	1.5%	827	1,096	611
	4 Mixed Recyclable Paper	5.3%	3.0%	6.9%	3,283	2,088	2,909
	5 Compostable Paper	NA	NA	1.9%	NA	NA	814
	6 Other Paper	5.8%	3.6%	1.7%	3,591	2,495	734
Plastics		9.2%	9.9%	5.2%	5,665	6,902	2,184
	7 HDPE Bottles (#2)	0.2%	0.4%	0.0%	117	286	16
	8 PETE Bottles (#1)	0.1%	0.4%	0.1%	49	290	60
	9 Other Plastic Containers	NA	0.3%	0.1%	NA	203	21
	10 Plastic Bags	NA	NA	0.0%	NA	NA	19
	11 Other Film	3.4%	2.8%	3.2%	2,092	1,946	1,331
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	87
	13 Mixed Rigid Plastics	NA	NA	0.8%	NA	NA	355
	14 Other Plastics	5.5%	6.0%	0.7%	3,406	4,176	295
Glass		4.7%	0.7%	3.3%	2,888	495	1,386
	15 Recyclable Glass Bottles/Containers	4.6%	0.4%	2.1%	2,832	258	882
	16 Other Glass	0.1%	0.3%	1.2%	56	237	504
Metals		2.2%	12.0%	5.1%	1,364	8,326	2,159
	17 Aluminum Cans	0.2%	0.4%	0.1%	105	295	60
	18 Other Non-Ferrous	0.1%	1.0%	1.2%	49	676	492
	19 Steel Food and Beverage Cans	0.2%	0.1%	0.1%	130	52	49
	20 Other Ferrous	1.8%	9.6%	3.6%	1,080	6,717	1,505
	21 White Goods	0.0%	0.8%	0.1%	0	586	52
Yard Waste		2.6%	2.4%	8.0%	1,573	1,648	3,338
	22 Leaves/Grass/Chips	1.4%	1.6%	5.0%	852	1,128	2,117
	23 Branches/Stumps/Prunings/Trimings	1.2%	0.7%	2.9%	722	520	1,221
Organics		31.9%	31.0%	35.6%	19,653	21,611	14,930
	24 Food Waste	3.9%	3.7%	12.2%	2,382	2,549	5,133
	25 Tires	0.0%	0.0%	0.0%	6	22	17
	26 Untreated Lumber	10.3%	15.4%	3.9%	6,356	10,702	1,637
	27 Pallets	NA	NA	7.3%	NA	NA	3,073
	28 Treated Wood Waste	3.1%	6.3%	5.6%	1,938	4,413	2,331
	29 Textiles and Leather	11.1%	4.1%	2.9%	6,837	2,847	1,215
	30 Carpet	NA	0.4%	1.1%	NA	276	478
	31 Diapers	0.4%	0.0%	0.3%	265	14	122
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	3.0%	1.1%	2.2%	1,870	788	923
Inerts		15.2%	14.8%	13.8%	9,385	10,309	5,805
	34 Crushable Inerts	5.7%	8.5%	3.9%	3,530	5,936	1,618
	35 Other Inerts	6.9%	2.6%	8.5%	4,258	1,828	3,577
	36 Gypsum Board	1.2%	3.6%	0.5%	747	2,490	230
	37 Asphalt Roofing	1.4%	0.1%	0.9%	852	55	379
HHW		0.1%	0.2%	2.0%	68	152	831
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.8%	NA	NA	350
	41 Medical Waste	NA	NA	0.0%	NA	NA	19
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.2%	NA	NA	82
	44 Other E-Waste	NA	NA	0.2%	NA	NA	64
	45 Other Hazardous Waste	0.1%	0.2%	0.8%	68	152	316
Special		10.0%	14.1%	5.6%	6,164	9,810	2,365
	46 Brown Goods	0.7%	0.9%	0.2%	432	610	104
	47 Composite Bulky Items	9.3%	13.2%	5.4%	5,732	9,200	2,261
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	61,705	69,669	41,975

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF OAKLAND**

**Table 16
City of Oakland Detailed Historic Comparison of Self-Haul Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		8.9%	4.3%	10.7%	18,588	4,073	6,901
	1 Uncoated Corrugated Cardboard	1.7%	1.4%	4.2%	3,475	1,342	2,687
	2 High Grade Paper	0.8%	0.8%	1.1%	1,737	803	719
	3 Newspaper	0.4%	0.6%	0.7%	795	607	451
	4 Mixed Recyclable Paper	3.3%	0.9%	3.5%	6,824	824	2,222
	5 Compostable Paper	NA	NA	0.2%	NA	NA	156
	6 Other Paper	2.8%	0.5%	1.0%	5,757	498	665
Plastics		5.3%	3.0%	3.0%	11,157	2,850	1,926
	7 HDPE Bottles (#2)	0.1%	0.3%	0.0%	251	292	17
	8 PETE Bottles (#1)	0.0%	0.1%	0.1%	63	92	43
	9 Other Plastic Containers	NA	0.0%	0.0%	NA	37	17
	10 Plastic Bags	NA	NA	0.1%	NA	NA	47
	11 Other Film	1.2%	0.7%	1.5%	2,554	625	979
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	58
	13 Mixed Rigid Plastics	NA	NA	0.9%	NA	NA	579
	14 Other Plastics	4.0%	1.9%	0.3%	8,289	1,803	186
Glass		1.6%	1.8%	2.1%	3,307	1,743	1,341
	15 Recyclable Glass Bottles/Containers	0.4%	0.2%	0.9%	754	165	583
	16 Other Glass	1.2%	1.7%	1.2%	2,554	1,578	758
Metals		2.8%	7.4%	4.1%	5,757	6,987	2,631
	17 Aluminum Cans	0.0%	0.1%	0.1%	42	49	42
	18 Other Non-Ferrous	0.3%	0.5%	0.8%	712	521	532
	19 Steel Food and Beverage Cans	0.1%	0.1%	0.1%	209	51	53
	20 Other Ferrous	2.3%	5.6%	3.0%	4,794	5,299	1,962
	21 White Goods	0.0%	1.1%	0.1%	0	1,067	43
Yard Waste		19.6%	16.7%	10.4%	40,966	15,819	6,673
	22 Leaves/Grass/Chips	8.6%	6.8%	6.1%	17,960	6,486	3,905
	23 Branches/Stumps/Prunings/Trimmings	11.0%	9.8%	4.3%	23,005	9,333	2,768
Organics		31.9%	33.2%	36.1%	66,860	31,555	23,248
	24 Food Waste	3.6%	0.2%	2.9%	7,515	201	1,877
	25 Tires	0.5%	0.2%	0.1%	1,130	144	36
	26 Untreated Lumber	14.4%	9.9%	6.5%	30,164	9,379	4,204
	27 Pallets	NA	NA	0.8%	NA	NA	514
	28 Treated Wood Waste	6.6%	13.5%	12.6%	13,858	12,805	8,099
	29 Textiles and Leather	5.5%	1.8%	6.8%	11,408	1,705	4,406
	30 Carpet	NA	6.3%	5.1%	NA	5,983	3,262
	31 Diapers	0.4%	0.1%	0.1%	900	51	50
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	0.9%	1.4%	1.2%	1,884	1,287	799
Inerts		19.7%	15.2%	22.1%	41,154	14,405	14,252
	34 Crushable Inerts	6.5%	3.5%	8.6%	13,523	3,296	5,562
	35 Other Inerts	6.4%	2.6%	5.3%	13,292	2,432	3,388
	36 Gypsum Board	1.9%	5.5%	6.6%	4,040	5,239	4,261
	37 Asphalt Roofing	4.9%	3.6%	1.6%	10,299	3,438	1,040
HHW		0.1%	0.0%	1.5%	188	44	989
	38 Paint/Adhesives	NA	NA	0.3%	NA	NA	165
	39 Vehicle & Equipment Fluids	NA	NA	0.1%	NA	NA	80
	40 Universal Hazardous Waste	NA	NA	0.3%	NA	NA	214
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	2
	43 Covered E-Waste	NA	NA	0.3%	NA	NA	213
	44 Other E-Waste	NA	NA	0.4%	NA	NA	238
	45 Other Hazardous Waste	0.1%	0.0%	0.1%	188	44	77
Special		10.2%	18.4%	10.0%	21,352	17,458	6,413
	46 Brown Goods	0.6%	0.9%	0.4%	1,214	875	273
	47 Composite Bulky Items	9.6%	17.5%	9.5%	20,137	16,583	6,139
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	209,329	94,934	64,373

Appendix A12

2008 WASTE CHARACTERIZATION RESULTS ORO LOMA SANITARY DISTRICT

This section presents a summary of the composition and quantity of disposed waste from the Oro Loma Sanitary District. The 2008 Study results presented herein are based on compositions developed using data obtained from field sample collection and sorting activities performed over four seasons during calendar year 2008. A complete description of the Study and presentation of Countywide aggregate results are included in Section 3 of the report.

Table 1 summarizes selected demographic and waste disposal characteristics for the Oro Loma Sanitary District. The total amount of waste disposed in 2008 represents 2.9 percent of the Countywide waste stream, and decreased approximately 9 percent from 2000.

**Table 1
Oro Loma Sanitary District Waste Disposal Data**

	2000	2008
Population ¹	70,117	84,495
Housing Units	30,094	30,511
Number of Business Establishments ²	1,293	1,443
Waste Disposal (tons) ³	37,758	34,479
Single Family	15,033	16,413
Multi-Family	4,484	5,466
Commercial	8,645	7,531
Roll-off	6,033	4,134
Self-Haul	3,563	935
Residential Disposal Rate (lbs/capita/year) ⁴	621	840
Non-residential Disposal Rate (tons/establishment/year)	13	14

¹ Source: State of California, Department of Finance, City/County Population and Housing Estimates for 2000 and Jan 2008.

² Source: California Board of Equalization. "Taxable Sales in California (Sales & Use Tax)", 1999 and 2007.

³ Data provided by StopWaste.Org staff.

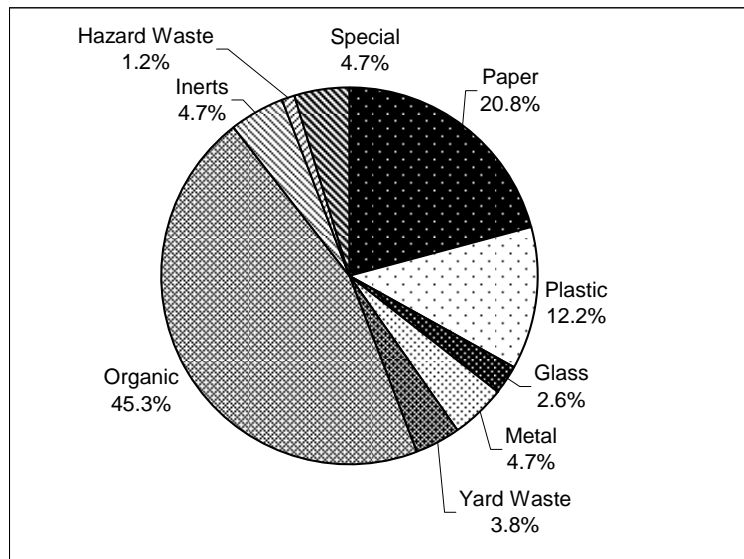
Table 2 presents the number of samples collected from each type of waste stream. Approximately 3 percent of the total number of samples collected were from this jurisdiction.

Table 2
Summary of Samples Obtained from Oro Loma Sanitary District

Waste Stream	Total Samples
Single-family	22
Multi-family	14
Commercial	36
Roll-off	5
Self-haul	4
Total	81

The following tables and figures are presented for waste originating from the Oro Loma Sanitary District. The introduction to Appendix B presents a summary of the information provided within each table or figure.

Figure 1 Oro Loma Sanitary District 2008 Aggregate Waste Composition by Major Material Group



Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	7,186	20.8%	19.0%	22.9%
Plastic	4,208	12.2%	11.2%	13.5%
Glass	895	2.6%	2.2%	3.3%
Metal	1,618	4.7%	3.8%	6.0%
Yard Waste	1,297	3.8%	2.9%	5.1%
Organic	15,627	45.3%	42.7%	48.3%
Inerts	1,628	4.7%	3.3%	7.1%
Hazard Waste	413	1.2%	0.6%	2.0%
Special	1,607	4.7%	2.9%	7.2%
TOTAL	34,479	100.0%		

2008 WASTE CHARACTERIZATION RESULTS ORO LOMA SANITARY DISTRICT

Figure 2 Oro Loma Sanitary District Single-Family Residential Composition by Major Material Group

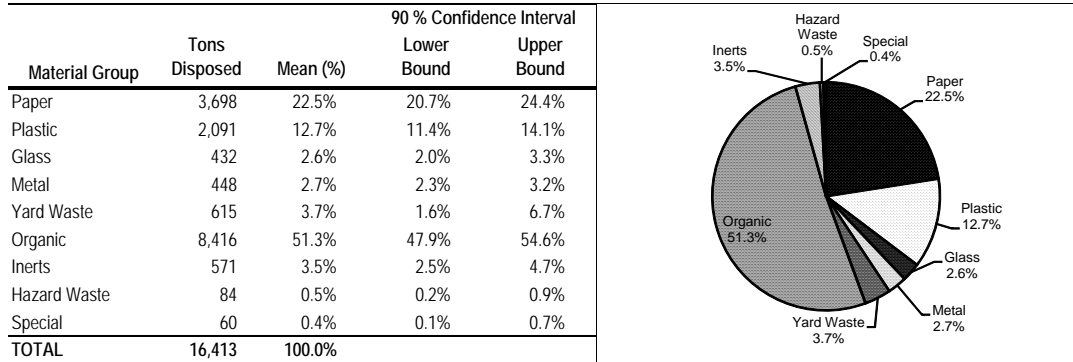


Figure 3 Oro Loma Sanitary District Multi-Family Residential Composition by Major Material Group

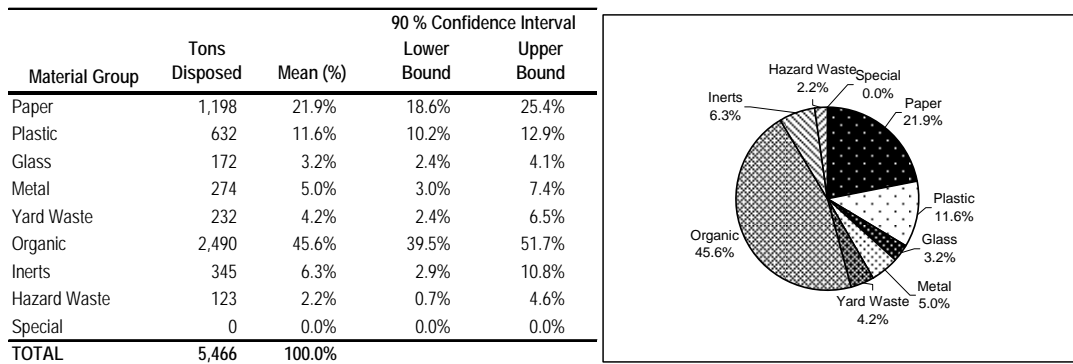


Figure 4 Oro Loma Sanitary District Commercial Composition by Major Material Group

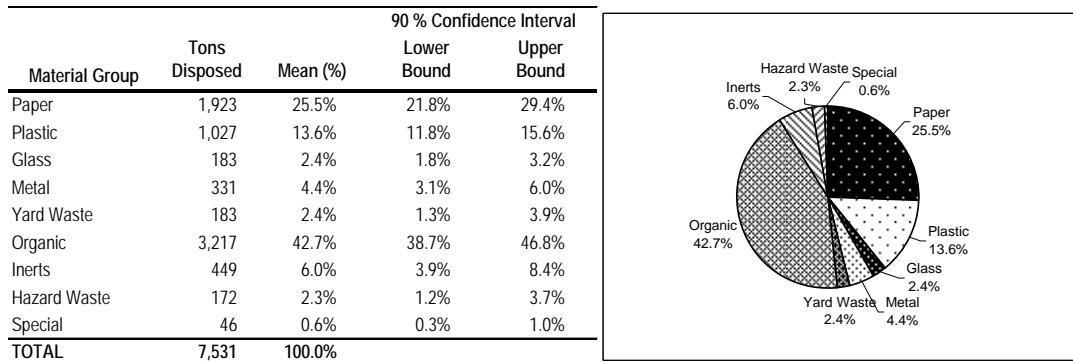


Figure 5 Oro Loma Sanitary District Roll-off Composition by Major Material Group

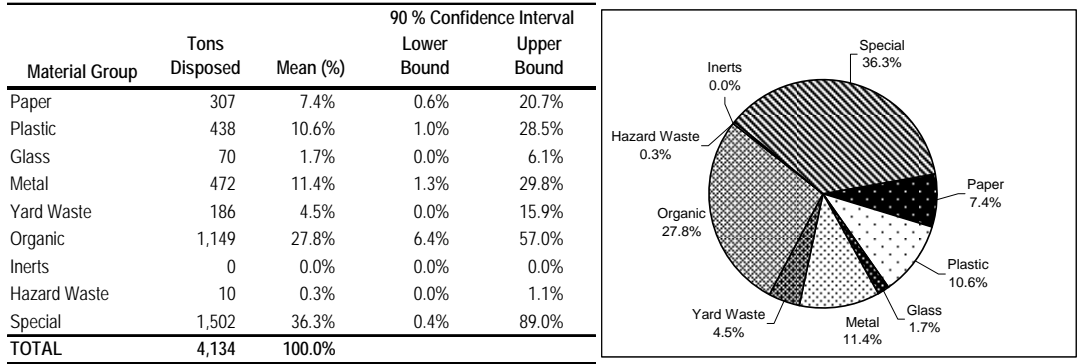
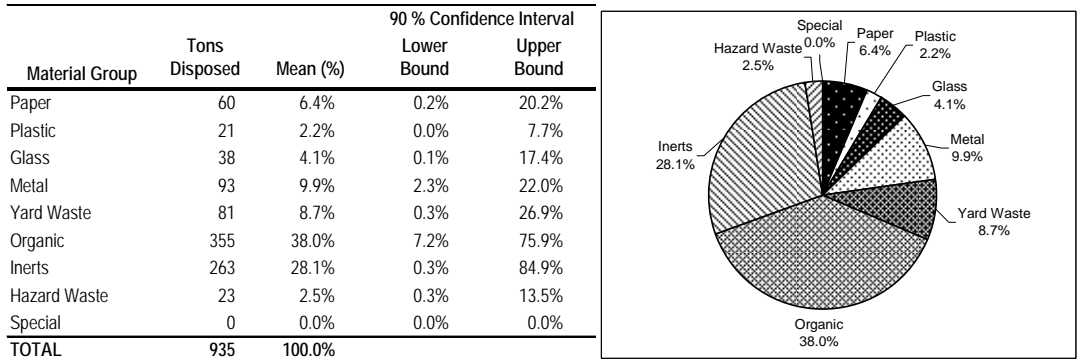


Figure 6 Oro Loma Sanitary District Self Hauler Composition by Major Material Group



**2008 WASTE CHARACTERIZATION RESULTS
ORO LOMA SANITARY DISTRICT**

Figure 7 Historic Comparison of Oro Loma Sanitary District Aggregate Disposal

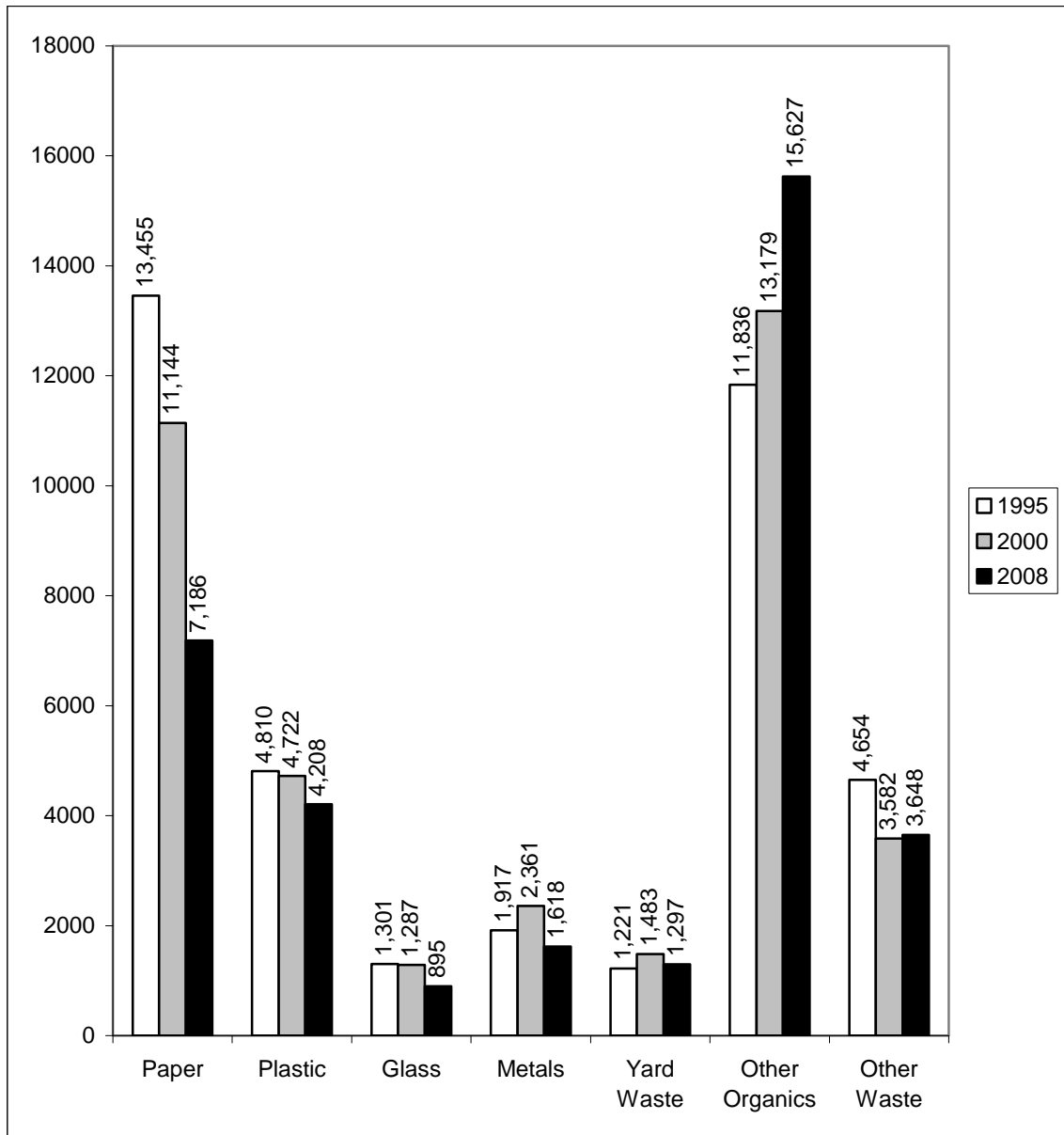
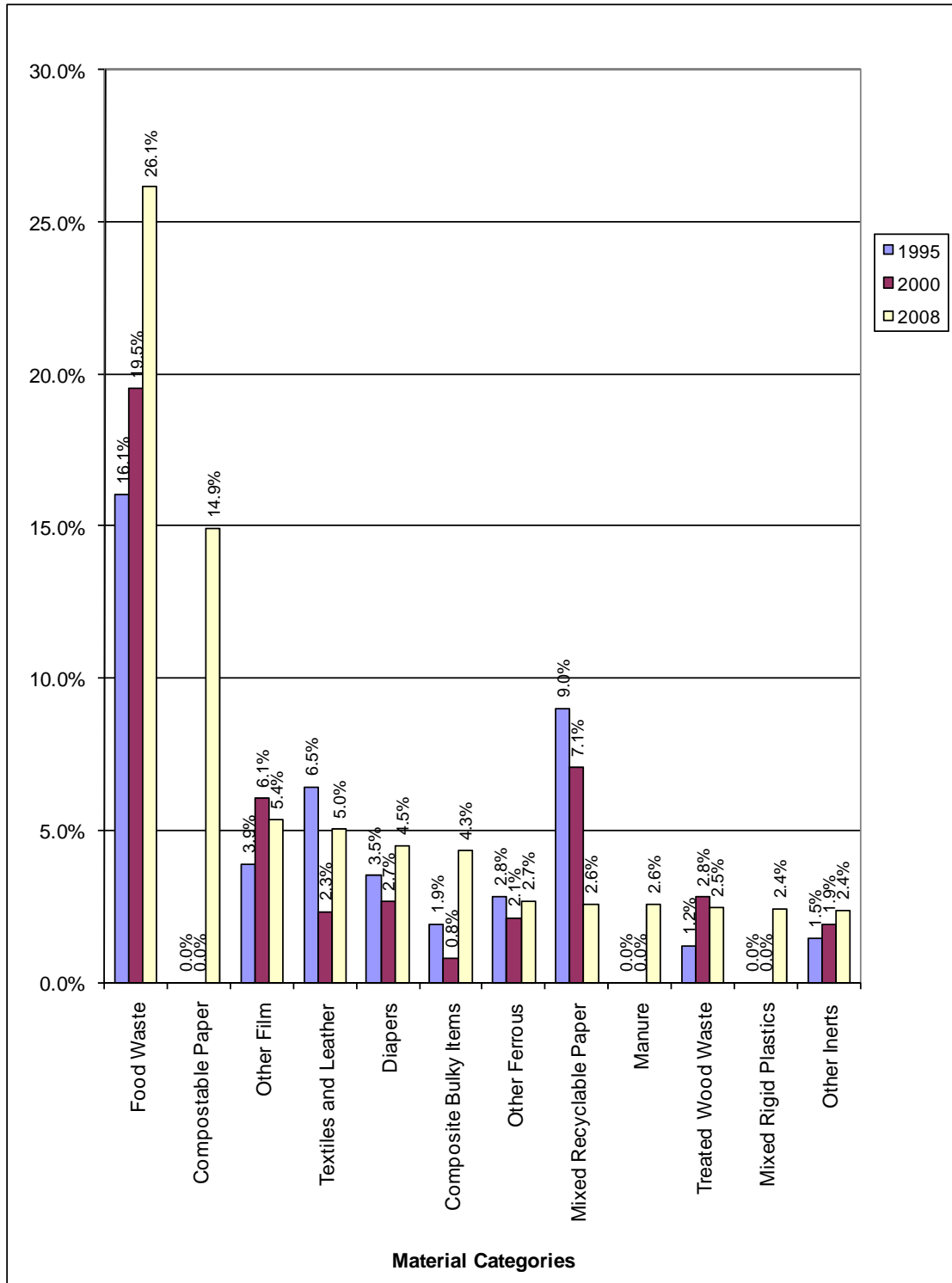


Figure 8 Oro Loma Sanitary District Top 12 Most Common Materials – Aggregate



2008 WASTE CHARACTERIZATION RESULTS
 ORO LOMA SANITARY DISTRICT

Figure 9 Oro Loma Sanitary District Top 12 Most Common Materials from 2000

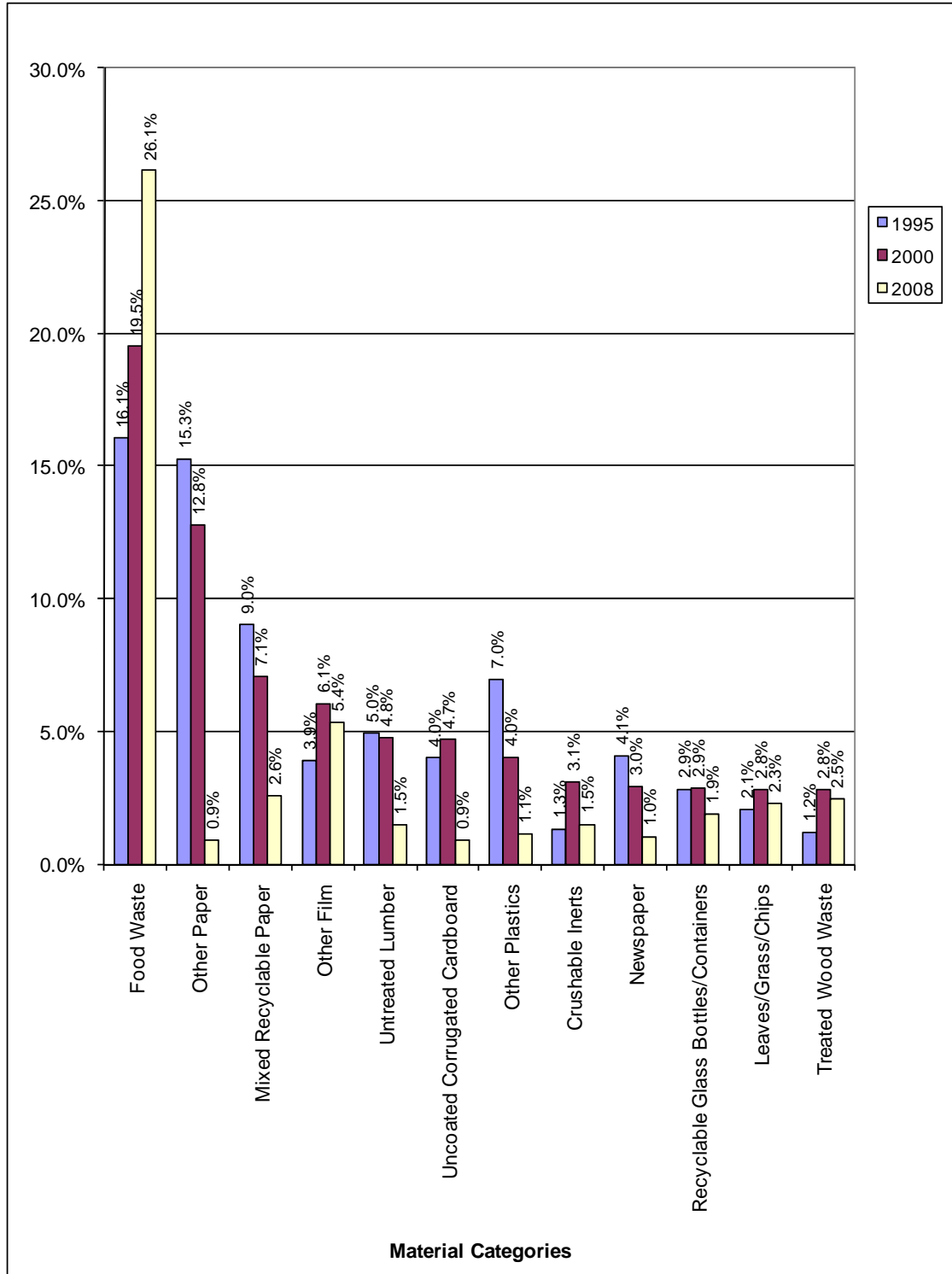


Table 3
Summary of Overall Material Proportions for Oro Loma Sanitary District

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Aggregated
Paper		22.5%	21.9%	25.5%	7.4%	6.4%	20.8%
	1 Uncoated Corrugated Cardboard	0.4%	0.6%	1.5%	2.0%	3.3%	0.9%
	2 High Grade Paper	0.4%	0.4%	0.9%	0.0%	0.0%	0.4%
	3 Newspaper	1.2%	0.8%	1.2%	0.4%	0.0%	1.0%
	4 Mixed Recyclable Paper	2.1%	4.0%	3.8%	0.6%	2.9%	2.6%
	5 Compostable Paper	17.5%	15.4%	16.9%	3.9%	0.2%	14.9%
	6 Other Paper	1.0%	0.6%	1.3%	0.6%	0.0%	0.9%
Plastics		12.7%	11.6%	13.6%	10.6%	2.2%	12.2%
	7 HDPE Bottles (#2)	0.4%	0.6%	0.9%	0.1%	0.0%	0.5%
	8 PETE Bottles (#1)	0.6%	0.5%	0.8%	0.3%	0.1%	0.6%
	9 Other Plastic Containers	1.1%	0.8%	1.0%	0.0%	0.0%	0.9%
	10 Plastic Bags	1.5%	1.8%	1.1%	0.2%	0.2%	1.2%
	11 Other Film	5.4%	3.9%	5.4%	8.2%	0.3%	5.4%
	12 Expanded Polystyrene Blocks	0.0%	0.1%	0.2%	0.0%	0.1%	0.1%
	13 Mixed Rigid Plastics	2.4%	3.0%	2.8%	1.7%	1.1%	2.4%
	14 Other Plastics	1.3%	0.9%	1.6%	0.1%	0.4%	1.1%
Glass		2.6%	3.2%	2.4%	1.7%	4.1%	2.6%
	15 Recyclable Glass Bottles/Containers	2.3%	2.4%	2.1%	0.0%	0.0%	1.9%
	16 Other Glass	0.4%	0.8%	0.4%	1.7%	4.1%	0.7%
Metals		2.7%	5.0%	4.4%	11.4%	9.9%	4.7%
	17 Aluminum Cans	0.2%	0.2%	0.2%	0.4%	0.2%	0.2%
	18 Other Non-Ferrous	0.4%	0.4%	1.3%	1.9%	1.9%	0.8%
	19 Steel Food and Beverage Cans	1.1%	0.8%	1.3%	0.2%	0.1%	1.0%
	20 Other Ferrous	1.1%	3.6%	1.5%	9.0%	7.8%	2.7%
	21 White Goods	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
Yard Waste		3.7%	4.2%	2.4%	4.5%	8.7%	3.8%
	22 Leaves/Grass/Chips	2.6%	2.7%	1.9%	1.9%	0.0%	2.3%
	23 Branches/Stumps/Prunings/Trimings	1.2%	1.6%	0.5%	2.6%	8.7%	1.5%
Organics		51.3%	45.6%	42.7%	27.8%	38.0%	45.3%
	24 Food Waste	34.5%	25.9%	23.7%	3.6%	0.0%	26.1%
	25 Tires	0.0%	0.0%	0.3%	1.2%	0.0%	0.2%
	26 Untreated Lumber	0.1%	0.6%	3.4%	2.9%	8.2%	1.5%
	27 Pallets	0.0%	0.0%	0.0%	13.0%	0.0%	1.6%
	28 Treated Wood Waste	0.4%	2.2%	4.4%	3.6%	19.6%	2.5%
	29 Textiles and Leather	4.8%	8.8%	4.9%	1.7%	3.0%	5.0%
	30 Carpet	0.0%	0.5%	0.5%	1.6%	7.2%	0.6%
	31 Diapers	6.0%	5.3%	3.7%	0.0%	0.0%	4.5%
	32 Manure	4.3%	1.4%	1.3%	0.0%	0.0%	2.6%
	33 Other Organics	1.1%	0.8%	0.6%	0.1%	0.0%	0.8%
Inerts		3.5%	6.3%	6.0%	0.0%	28.1%	4.7%
	34 Crushable Inerts	1.4%	1.2%	0.8%	0.0%	19.3%	1.5%
	35 Other Inerts	2.0%	5.1%	2.8%	0.0%	0.0%	2.4%
	36 Gypsum Board	0.1%	0.0%	2.3%	0.0%	8.8%	0.8%
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
HHW		0.5%	2.2%	2.3%	0.3%	2.5%	1.2%
	38 Paint/Adhesives	0.0%	0.5%	0.1%	0.0%	0.0%	0.1%
	39 Vehicle & Equipment Fluids	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	0.1%	0.1%	0.0%	0.0%	0.0%	0.1%
	41 Medical Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	42 Medicine	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
	43 Covered E-Waste	0.0%	0.9%	0.8%	0.0%	2.5%	0.4%
	44 Other E-Waste	0.3%	0.6%	1.2%	0.3%	0.0%	0.5%
	45 Other Hazardous Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Special		0.4%	0.0%	0.6%	36.3%	0.0%	4.7%
	46 Brown Goods	0.4%	0.0%	0.4%	0.4%	0.0%	0.3%
	47 Composite Bulky Items	0.0%	0.0%	0.2%	35.9%	0.0%	4.3%
	48 Other Special Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

2008 WASTE CHARACTERIZATION RESULTS ORO LOMA SANITARY DISTRICT

**Table 4
Summary of Overall Material Tonnages for Oro Loma Sanitary District**

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
Paper		3,698	1,198	1,923	307	60	7,186
	1 Uncoated Corrugated Cardboard	59	34	116	81	31	321
	2 High Grade Paper	58	22	68	0	0	148
	3 Newspaper	205	46	90	16	0	358
	4 Mixed Recyclable Paper	338	219	283	24	27	890
	5 Compostable Paper	2,873	843	1,270	160	2	5,148
	6 Other Paper	166	34	96	26	0	322
Plastics		2,091	632	1,027	438	21	4,208
	7 HDPE Bottles (#2)	69	34	70	5	0	179
	8 PETE Bottles (#1)	94	26	58	12	1	190
	9 Other Plastic Containers	186	46	74	0	0	306
	10 Plastic Bags	243	99	80	8	1	431
	11 Other Film	887	213	405	340	3	1,849
	12 Expanded Polystyrene Blocks	6	4	14	0	1	24
	13 Mixed Rigid Plastics	388	161	209	70	10	839
	14 Other Plastics	217	49	117	4	4	391
Glass		432	172	183	70	38	895
	15 Recyclable Glass Bottles/Containers	371	130	155	0	0	656
	16 Other Glass	61	43	28	70	38	239
Metals		448	274	331	472	93	1,618
	17 Aluminum Cans	25	11	19	15	2	71
	18 Other Non-Ferrous	67	21	97	79	18	282
	19 Steel Food and Beverage Cans	183	43	100	7	1	334
	20 Other Ferrous	173	199	111	372	73	927
	21 White Goods	0	0	4	0	0	4
Yard Waste		615	232	183	186	81	1,297
	22 Leaves/Grass/Chips	426	146	145	78	0	796
	23 Branches/Stumps/Prunings/Trimmings	189	86	38	107	81	501
Organics		8,416	2,490	3,217	1,149	355	15,627
	24 Food Waste	5,663	1,417	1,782	149	0	9,011
	25 Tires	0	0	21	49	0	70
	26 Untreated Lumber	19	34	256	122	77	507
	27 Pallets	0	0	0	537	0	537
	28 Treated Wood Waste	73	118	328	149	183	852
	29 Textiles and Leather	790	480	367	72	28	1,736
	30 Carpet	0	28	35	66	67	196
	31 Diapers	980	292	279	0	0	1,551
	32 Manure	707	78	101	0	0	886
	33 Other Organics	184	43	48	6	0	281
Inerts		571	345	449	0	263	1,628
	34 Crushable Inerts	223	64	57	0	181	524
	35 Other Inerts	329	280	214	0	0	823
	36 Gypsum Board	19	1	177	0	82	279
	37 Asphalt Roofing	0	0	1	0	0	1
HHW		84	123	172	10	23	413
	38 Paint/Adhesives	4	25	10	0	0	39
	39 Vehicle & Equipment Fluids	4	5	6	0	0	15
	40 Universal Hazardous Waste	21	7	3	0	0	31
	41 Medical Waste	2	0	1	0	0	3
	42 Medicine	5	3	1	0	0	8
	43 Covered E-Waste	0	50	61	0	23	135
	44 Other E-Waste	48	31	90	10	0	179
	45 Other Hazardous Waste	1	1	0	0	0	2
Special		60	0	46	1,502	0	1,607
	46 Brown Goods	60	0	32	18	0	110
	47 Composite Bulky Items	0	0	14	1,484	0	1,497
	48 Other Special Waste	0	0	0	0	0	0
TOTAL		16,413	5,466	7,531	4,134	935	34,479

Table 5
Oro Loma Sanitary District Aggregate Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		7,186	20.8%	19.0%	22.9%
	1 Uncoated Corrugated Cardboard	321	0.9%	0.6%	1.4%
	2 High Grade Paper	148	0.4%	0.2%	0.7%
	3 Newspaper	358	1.0%	0.8%	1.4%
	4 Mixed Recyclable Paper	890	2.6%	2.0%	3.3%
	5 Compostable Paper	5,148	14.9%	13.7%	16.4%
	6 Other Paper	322	0.9%	0.7%	1.2%
Plastics		4,208	12.2%	11.2%	13.5%
	7 HDPE Bottles (#2)	179	0.5%	0.4%	0.6%
	8 PETE Bottles (#1)	190	0.6%	0.5%	0.6%
	9 Other Plastic Containers	306	0.9%	0.7%	1.1%
	10 Plastic Bags	431	1.2%	1.0%	1.5%
	11 Other Film	1,849	5.4%	4.7%	6.5%
	12 Expanded Polystyrene Blocks	24	0.1%	0.0%	0.1%
	13 Mixed Rigid Plastics	839	2.4%	2.1%	2.8%
	14 Other Plastics	391	1.1%	0.9%	1.4%
Glass		895	2.6%	2.2%	3.3%
	15 Recyclable Glass Bottles/Containers	656	1.9%	1.6%	2.3%
	16 Other Glass	239	0.7%	0.5%	1.2%
Metals		1,618	4.7%	3.8%	6.0%
	17 Aluminum Cans	71	0.2%	0.2%	0.3%
	18 Other Non-Ferrous	282	0.8%	0.5%	1.3%
	19 Steel Food and Beverage Cans	334	1.0%	0.7%	1.3%
	20 Other Ferrous	927	2.7%	2.0%	3.9%
	21 White Goods	4	0.0%	0.0%	0.0%
Yard Waste		1,297	3.8%	2.9%	5.1%
	22 Leaves/Grass/Chips	796	2.3%	1.7%	3.2%
	23 Branches/Stumps/Prunings/Trimmings	501	1.5%	1.0%	2.3%
Organics		15,627	45.3%	42.7%	48.3%
	24 Food Waste	9,011	26.1%	23.8%	28.7%
	25 Tires	70	0.2%	0.1%	0.4%
	26 Untreated Lumber	507	1.5%	0.6%	2.7%
	27 Pallets	537	1.6%	0.9%	3.0%
	28 Treated Wood Waste	852	2.5%	1.3%	4.5%
	29 Textiles and Leather	1,736	5.0%	4.0%	6.4%
	30 Carpet	196	0.6%	0.3%	1.4%
	31 Diapers	1,551	4.5%	3.8%	5.3%
	32 Manure	886	2.6%	1.9%	3.5%
	33 Other Organics	281	0.8%	0.6%	1.1%
Inerts		1,628	4.7%	3.3%	7.1%
	34 Crushable Inerts	524	1.5%	0.8%	3.2%
	35 Other Inerts	823	2.4%	1.7%	3.3%
	36 Gypsum Board	279	0.8%	0.2%	2.0%
	37 Asphalt Roofing	1	0.0%	0.0%	0.0%
HHW		413	1.2%	0.6%	2.0%
	38 Paint/Adhesives	39	0.1%	0.0%	0.2%
	39 Vehicle & Equipment Fluids	15	0.0%	0.0%	0.1%
	40 Universal Hazardous Waste	31	0.1%	0.1%	0.1%
	41 Medical Waste	3	0.0%	0.0%	0.0%
	42 Medicine	8	0.0%	0.0%	0.0%
	43 Covered E-Waste	135	0.4%	0.1%	0.9%
	44 Other E-Waste	179	0.5%	0.2%	0.9%
	45 Other Hazardous Waste	2	0.0%	0.0%	0.0%
Special		1,607	4.7%	2.9%	7.2%
	46 Brown Goods	110	0.3%	0.2%	0.5%
	47 Composite Bulky Items	1,497	4.3%	2.6%	6.9%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		34,479	100.0%		

**2008 WASTE CHARACTERIZATION RESULTS
ORO LOMA SANITARY DISTRICT**

**Table 6
Oro Loma Sanitary District Single-Family Residential Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		3,698	22.5%	20.7%	24.4%
	1 Uncoated Corrugated Cardboard	59	0.4%	0.1%	0.7%
	2 High Grade Paper	58	0.4%	0.2%	0.6%
	3 Newspaper	205	1.2%	0.7%	2.0%
	4 Mixed Recyclable Paper	338	2.1%	1.4%	2.8%
	5 Compostable Paper	2,873	17.5%	16.0%	19.1%
	6 Other Paper	166	1.0%	0.6%	1.5%
Plastics		2,091	12.7%	11.4%	14.1%
	7 HDPE Bottles (#2)	69	0.4%	0.3%	0.6%
	8 PETE Bottles (#1)	94	0.6%	0.5%	0.7%
	9 Other Plastic Containers	186	1.1%	0.8%	1.6%
	10 Plastic Bags	243	1.5%	1.1%	2.0%
	11 Other Film	887	5.4%	4.4%	6.5%
	12 Expanded Polystyrene Blocks	6	0.0%	0.0%	0.1%
	13 Mixed Rigid Plastics	388	2.4%	1.7%	3.1%
	14 Other Plastics	217	1.3%	1.1%	1.6%
Glass		432	2.6%	2.0%	3.3%
	15 Recyclable Glass Bottles/Containers	371	2.3%	1.7%	2.9%
	16 Other Glass	61	0.4%	0.2%	0.6%
Metals		448	2.7%	2.3%	3.2%
	17 Aluminum Cans	25	0.2%	0.1%	0.2%
	18 Other Non-Ferrous	67	0.4%	0.3%	0.5%
	19 Steel Food and Beverage Cans	183	1.1%	0.9%	1.4%
	20 Other Ferrous	173	1.1%	0.6%	1.6%
	21 White Goods	0	0.0%	0.0%	0.0%
Yard Waste		615	3.7%	1.6%	6.7%
	22 Leaves/Grass/Chips	426	2.6%	1.1%	4.8%
	23 Branches/Stumps/Prunings/Trimnings	189	1.2%	0.4%	2.3%
Organics		8,416	51.3%	47.9%	54.6%
	24 Food Waste	5,663	34.5%	31.2%	37.9%
	25 Tires	0	0.0%	0.0%	0.0%
	26 Untreated Lumber	19	0.1%	0.0%	0.2%
	27 Pallets	0	0.0%	0.0%	0.0%
	28 Treated Wood Waste	73	0.4%	0.2%	0.8%
	29 Textiles and Leather	790	4.8%	3.6%	6.1%
	30 Carpet	0	0.0%	0.0%	0.0%
	31 Diapers	980	6.0%	4.5%	7.6%
	32 Manure	707	4.3%	2.2%	7.1%
	33 Other Organics	184	1.1%	0.6%	1.9%
Inerts		571	3.5%	2.5%	4.7%
	34 Crushable Inerts	223	1.4%	0.7%	2.2%
	35 Other Inerts	329	2.0%	1.2%	3.1%
	36 Gypsum Board	19	0.1%	0.0%	0.2%
	37 Asphalt Roofing	0	0.0%	0.0%	0.0%
HHW		84	0.5%	0.2%	0.9%
	38 Paint/Adhesives	4	0.0%	0.0%	0.1%
	39 Vehicle & Equipment Fluids	4	0.0%	0.0%	0.1%
	40 Universal Hazardous Waste	21	0.1%	0.1%	0.2%
	41 Medical Waste	2	0.0%	0.0%	0.0%
	42 Medicine	5	0.0%	0.0%	0.1%
	43 Covered E-Waste	0	0.0%	0.0%	0.0%
	44 Other E-Waste	48	0.3%	0.1%	0.6%
	45 Other Hazardous Waste	1	0.0%	0.0%	0.0%
Special		60	0.4%	0.1%	0.7%
	46 Brown Goods	60	0.4%	0.1%	0.7%
	47 Composite Bulky Items	0	0.0%	0.0%	0.0%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		16,413	100.0%		

Table 7
Oro Loma Sanitary District Multi-Family Residential Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		1,198	21.9%	18.6%	25.4%
	1 Uncoated Corrugated Cardboard	34	0.6%	0.2%	1.2%
	2 High Grade Paper	22	0.4%	0.1%	0.8%
	3 Newspaper	46	0.8%	0.5%	1.3%
	4 Mixed Recyclable Paper	219	4.0%	2.4%	6.0%
	5 Compostable Paper	843	15.4%	13.2%	17.7%
	6 Other Paper	34	0.6%	0.4%	0.9%
Plastics		632	11.6%	10.2%	12.9%
	7 HDPE Bottles (#2)	34	0.6%	0.4%	0.9%
	8 PETE Bottles (#1)	26	0.5%	0.3%	0.7%
	9 Other Plastic Containers	46	0.8%	0.5%	1.2%
	10 Plastic Bags	99	1.8%	1.2%	2.5%
	11 Other Film	213	3.9%	2.9%	5.1%
	12 Expanded Polystyrene Blocks	4	0.1%	0.0%	0.1%
	13 Mixed Rigid Plastics	161	3.0%	2.3%	3.7%
	14 Other Plastics	49	0.9%	0.7%	1.1%
Glass		172	3.2%	2.4%	4.1%
	15 Recyclable Glass Bottles/Containers	130	2.4%	1.8%	3.0%
	16 Other Glass	43	0.8%	0.2%	1.6%
Metals		274	5.0%	3.0%	7.4%
	17 Aluminum Cans	11	0.2%	0.1%	0.3%
	18 Other Non-Ferrous	21	0.4%	0.3%	0.5%
	19 Steel Food and Beverage Cans	43	0.8%	0.6%	1.1%
	20 Other Ferrous	199	3.6%	1.6%	6.4%
	21 White Goods	0	0.0%	0.0%	0.0%
Yard Waste		232	4.2%	2.4%	6.5%
	22 Leaves/Grass/Chips	146	2.7%	1.1%	4.8%
	23 Branches/Stumps/Prunings/Trimmings	86	1.6%	0.4%	3.4%
Organics		2,490	45.6%	39.5%	51.7%
	24 Food Waste	1,417	25.9%	21.7%	30.4%
	25 Tires	0	0.0%	0.0%	0.0%
	26 Untreated Lumber	34	0.6%	0.1%	1.4%
	27 Pallets	0	0.0%	0.0%	0.0%
	28 Treated Wood Waste	118	2.2%	0.6%	4.7%
	29 Textiles and Leather	480	8.8%	4.1%	14.9%
	30 Carpet	28	0.5%	0.1%	1.2%
	31 Diapers	292	5.3%	3.8%	7.2%
	32 Manure	78	1.4%	0.4%	3.0%
	33 Other Organics	43	0.8%	0.3%	1.4%
Inerts		345	6.3%	2.9%	10.8%
	34 Crushable Inerts	64	1.2%	0.4%	2.2%
	35 Other Inerts	280	5.1%	2.1%	9.3%
	36 Gypsum Board	1	0.0%	0.0%	0.0%
	37 Asphalt Roofing	0	0.0%	0.0%	0.0%
HHW		123	2.2%	0.7%	4.6%
	38 Paint/Adhesives	25	0.5%	0.1%	1.1%
	39 Vehicle & Equipment Fluids	5	0.1%	0.0%	0.2%
	40 Universal Hazardous Waste	7	0.1%	0.1%	0.3%
	41 Medical Waste	0	0.0%	0.0%	0.0%
	42 Medicine	3	0.1%	0.0%	0.1%
	43 Covered E-Waste	50	0.9%	0.1%	2.4%
	44 Other E-Waste	31	0.6%	0.1%	1.4%
	45 Other Hazardous Waste	1	0.0%	0.0%	0.0%
Special		0	0.0%	0.0%	0.0%
	46 Brown Goods	0	0.0%	0.0%	0.0%
	47 Composite Bulky Items	0	0.0%	0.0%	0.0%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		5,466	100.0%		

**2008 WASTE CHARACTERIZATION RESULTS
ORO LOMA SANITARY DISTRICT**

**Table 8
Oro Loma Sanitary District Commercial Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		1,923	25.5%	21.8%	29.4%
	1 Uncoated Corrugated Cardboard	116	1.5%	1.0%	2.2%
	2 High Grade Paper	68	0.9%	0.5%	1.5%
	3 Newspaper	90	1.2%	0.8%	1.7%
	4 Mixed Recyclable Paper	283	3.8%	2.8%	4.9%
	5 Compostable Paper	1,270	16.9%	14.3%	19.7%
	6 Other Paper	96	1.3%	0.9%	1.7%
Plastics		1,027	13.6%	11.8%	15.6%
	7 HDPE Bottles (#2)	70	0.9%	0.7%	1.2%
	8 PETE Bottles (#1)	58	0.8%	0.6%	0.9%
	9 Other Plastic Containers	74	1.0%	0.8%	1.2%
	10 Plastic Bags	80	1.1%	0.8%	1.4%
	11 Other Film	405	5.4%	4.3%	6.5%
	12 Expanded Polystyrene Blocks	14	0.2%	0.1%	0.3%
	13 Mixed Rigid Plastics	209	2.8%	2.2%	3.4%
	14 Other Plastics	117	1.6%	1.1%	2.0%
Glass		183	2.4%	1.8%	3.2%
	15 Recyclable Glass Bottles/Containers	155	2.1%	1.5%	2.7%
	16 Other Glass	28	0.4%	0.2%	0.6%
Metals		331	4.4%	3.1%	6.0%
	17 Aluminum Cans	19	0.2%	0.2%	0.3%
	18 Other Non-Ferrous	97	1.3%	0.7%	2.0%
	19 Steel Food and Beverage Cans	100	1.3%	0.8%	2.0%
	20 Other Ferrous	111	1.5%	0.9%	2.2%
	21 White Goods	4	0.1%	0.0%	0.1%
Yard Waste		183	2.4%	1.3%	3.9%
	22 Leaves/Grass/Chips	145	1.9%	1.0%	3.2%
	23 Branches/Stumps/Prunings/Trimming	38	0.5%	0.2%	0.9%
Organics		3,217	42.7%	38.7%	46.8%
	24 Food Waste	1,782	23.7%	19.0%	28.7%
	25 Tires	21	0.3%	0.1%	0.5%
	26 Untreated Lumber	256	3.4%	1.6%	5.9%
	27 Pallets	0	0.0%	0.0%	0.0%
	28 Treated Wood Waste	328	4.4%	2.4%	6.8%
	29 Textiles and Leather	367	4.9%	3.4%	6.6%
	30 Carpet	35	0.5%	0.2%	0.8%
	31 Diapers	279	3.7%	2.4%	5.2%
	32 Manure	101	1.3%	0.6%	2.4%
	33 Other Organics	48	0.6%	0.4%	1.0%
Inerts		449	6.0%	3.9%	8.4%
	34 Crushable Inerts	57	0.8%	0.4%	1.2%
	35 Other Inerts	214	2.8%	1.9%	4.0%
	36 Gypsum Board	177	2.3%	1.1%	4.1%
	37 Asphalt Roofing	1	0.0%	0.0%	0.0%
HHW		172	2.3%	1.2%	3.7%
	38 Paint/Adhesives	10	0.1%	0.1%	0.2%
	39 Vehicle & Equipment Fluids	6	0.1%	0.0%	0.1%
	40 Universal Hazardous Waste	3	0.0%	0.0%	0.1%
	41 Medical Waste	1	0.0%	0.0%	0.0%
	42 Medicine	1	0.0%	0.0%	0.0%
	43 Covered E-Waste	61	0.8%	0.3%	1.5%
	44 Other E-Waste	90	1.2%	0.5%	2.1%
	45 Other Hazardous Waste	0	0.0%	0.0%	0.0%
Special		46	0.6%	0.3%	1.0%
	46 Brown Goods	32	0.4%	0.2%	0.7%
	47 Composite Bulky Items	14	0.2%	0.1%	0.3%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		7,531	100.0%		

Table 9
Oro Loma Sanitary District Roll-Off Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		307	7.4%	0.6%	20.7%
	1 Uncoated Corrugated Cardboard	81	2.0%	0.0%	7.0%
	2 High Grade Paper	0	0.0%	0.0%	0.0%
	3 Newspaper	16	0.4%	0.0%	1.8%
	4 Mixed Recyclable Paper	24	0.6%	0.0%	2.5%
	5 Compostable Paper	160	3.9%	0.0%	14.1%
	6 Other Paper	26	0.6%	0.0%	2.8%
Plastics		438	10.6%	1.0%	28.5%
	7 HDPE Bottles (#2)	5	0.1%	0.0%	0.5%
	8 PETE Bottles (#1)	12	0.3%	0.0%	0.9%
	9 Other Plastic Containers	0	0.0%	0.0%	0.0%
	10 Plastic Bags	8	0.2%	0.0%	0.7%
	11 Other Film	340	8.2%	0.1%	28.1%
	12 Expanded Polystyrene Blocks	0	0.0%	0.0%	0.0%
	13 Mixed Rigid Plastics	70	1.7%	0.6%	3.3%
	14 Other Plastics	4	0.1%	0.0%	0.4%
Glass		70	1.7%	0.0%	6.1%
	15 Recyclable Glass Bottles/Containers	0	0.0%	0.0%	0.0%
	16 Other Glass	70	1.7%	0.0%	6.1%
Metals		472	11.4%	1.3%	29.8%
	17 Aluminum Cans	15	0.4%	0.0%	1.1%
	18 Other Non-Ferrous	79	1.9%	0.0%	7.2%
	19 Steel Food and Beverage Cans	7	0.2%	0.0%	0.7%
	20 Other Ferrous	372	9.0%	0.3%	27.9%
	21 White Goods	0	0.0%	0.0%	0.0%
Yard Waste		186	4.5%	0.0%	15.9%
	22 Leaves/Grass/Chips	78	1.9%	0.0%	8.4%
	23 Branches/Stumps/Prunings/Trimmings	107	2.6%	0.0%	11.4%
Organics		1,149	27.8%	6.4%	57.0%
	24 Food Waste	149	3.6%	0.1%	15.7%
	25 Tires	49	1.2%	0.0%	5.3%
	26 Untreated Lumber	122	2.9%	0.2%	8.7%
	27 Pallets	537	13.0%	0.0%	43.5%
	28 Treated Wood Waste	149	3.6%	0.2%	10.7%
	29 Textiles and Leather	72	1.7%	0.0%	6.3%
	30 Carpet	66	1.6%	0.0%	7.1%
	31 Diapers	0	0.0%	0.0%	0.0%
	32 Manure	0	0.0%	0.0%	0.0%
	33 Other Organics	6	0.1%	0.0%	0.7%
Inerts		0	0.0%	0.0%	0.0%
	34 Crushable Inerts	0	0.0%	0.0%	0.0%
	35 Other Inerts	0	0.0%	0.0%	0.0%
	36 Gypsum Board	0	0.0%	0.0%	0.0%
	37 Asphalt Roofing	0	0.0%	0.0%	0.0%
HHW		10	0.3%	0.0%	1.1%
	38 Paint/Adhesives	0	0.0%	0.0%	0.0%
	39 Vehicle & Equipment Fluids	0	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	0	0.0%	0.0%	0.0%
	41 Medical Waste	0	0.0%	0.0%	0.0%
	42 Medicine	0	0.0%	0.0%	0.0%
	43 Covered E-Waste	0	0.0%	0.0%	0.0%
	44 Other E-Waste	10	0.3%	0.0%	1.1%
	45 Other Hazardous Waste	0	0.0%	0.0%	0.0%
Special		1,502	36.3%	0.4%	89.0%
	46 Brown Goods	18	0.4%	0.0%	2.0%
	47 Composite Bulky Items	1,484	35.9%	0.4%	88.3%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		4,134	100.0%		

**2008 WASTE CHARACTERIZATION RESULTS
ORO LOMA SANITARY DISTRICT**

**Table 10
Oro Loma Sanitary District Self Haul Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		60	6.4%	0.2%	20.2%
	1 Uncoated Corrugated Cardboard	31	3.3%	0.2%	10.0%
	2 High Grade Paper	0	0.0%	0.0%	0.0%
	3 Newspaper	0	0.0%	0.0%	0.0%
	4 Mixed Recyclable Paper	27	2.9%	0.4%	15.5%
	5 Compostable Paper	2	0.2%	0.0%	1.1%
	6 Other Paper	0	0.0%	0.0%	0.0%
Plastics		21	2.2%	0.0%	7.7%
	7 HDPE Bottles (#2)	0	0.0%	0.0%	0.1%
	8 PETE Bottles (#1)	1	0.1%	0.0%	0.4%
	9 Other Plastic Containers	0	0.0%	0.0%	0.0%
	10 Plastic Bags	1	0.2%	0.0%	0.6%
	11 Other Film	3	0.3%	0.0%	1.8%
	12 Expanded Polystyrene Blocks	1	0.1%	0.0%	0.5%
	13 Mixed Rigid Plastics	10	1.1%	0.1%	6.0%
	14 Other Plastics	4	0.4%	0.0%	1.9%
Glass		38	4.1%	0.1%	17.4%
	15 Recyclable Glass Bottles/Containers	0	0.0%	0.0%	0.0%
	16 Other Glass	38	4.1%	0.1%	17.4%
Metals		93	9.9%	2.3%	22.0%
	17 Aluminum Cans	2	0.2%	0.0%	0.7%
	18 Other Non-Ferrous	18	1.9%	0.0%	7.8%
	19 Steel Food and Beverage Cans	1	0.1%	0.0%	0.7%
	20 Other Ferrous	73	7.8%	0.2%	24.8%
	21 White Goods	0	0.0%	0.0%	0.0%
Yard Waste		81	8.7%	0.3%	26.9%
	22 Leaves/Grass/Chips	0	0.0%	0.0%	0.0%
	23 Branches/Stumps/Prunings/Trimnings	81	8.7%	0.3%	26.9%
Organics		355	38.0%	7.2%	75.9%
	24 Food Waste	0	0.0%	0.0%	0.0%
	25 Tires	0	0.0%	0.0%	0.0%
	26 Untreated Lumber	77	8.2%	0.4%	24.5%
	27 Pallets	0	0.0%	0.0%	0.0%
	28 Treated Wood Waste	183	19.6%	0.1%	66.5%
	29 Textiles and Leather	28	3.0%	0.4%	15.9%
	30 Carpet	67	7.2%	0.1%	29.1%
	31 Diapers	0	0.0%	0.0%	0.0%
	32 Manure	0	0.0%	0.0%	0.0%
	33 Other Organics	0	0.0%	0.0%	0.0%
Inerts		263	28.1%	0.3%	84.9%
	34 Crushable Inerts	181	19.3%	0.3%	67.3%
	35 Other Inerts	0	0.0%	0.0%	0.0%
	36 Gypsum Board	82	8.8%	0.0%	34.0%
	37 Asphalt Roofing	0	0.0%	0.0%	0.0%
HHW		23	2.5%	0.3%	13.5%
	38 Paint/Adhesives	0	0.0%	0.0%	0.0%
	39 Vehicle & Equipment Fluids	0	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	0	0.0%	0.0%	0.0%
	41 Medical Waste	0	0.0%	0.0%	0.0%
	42 Medicine	0	0.0%	0.0%	0.0%
	43 Covered E-Waste	23	2.5%	0.3%	13.5%
	44 Other E-Waste	0	0.0%	0.0%	0.0%
	45 Other Hazardous Waste	0	0.0%	0.0%	0.0%
Special		0	0.0%	0.0%	0.0%
	46 Brown Goods	0	0.0%	0.0%	0.0%
	47 Composite Bulky Items	0	0.0%	0.0%	0.0%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		935	100.0%		

Table 11
Oro Loma Sanitary District Detailed Historic Comparison of Overall Jurisdiction-wide Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		34.3%	29.5%	20.8%	13,459	11,144	7,186
	1 Uncoated Corrugated Cardboard	4.0%	4.7%	0.9%	1,572	1,776	321
	2 High Grade Paper	1.9%	2.0%	0.4%	749	760	148
	3 Newspaper	4.1%	3.0%	1.0%	1,611	1,116	358
	4 Mixed Recyclable Paper	9.0%	7.1%	2.6%	3,539	2,668	890
	5 Compostable Paper	NA	NA	14.9%	NA	NA	5,148
	6 Other Paper	15.3%	12.8%	0.9%	5,989	4,824	322
Plastics		12.3%	12.5%	12.2%	4,809	4,722	4,208
	7 HDPE Bottles (#2)	1.0%	1.4%	0.5%	384	531	179
	8 PETE Bottles (#1)	0.4%	0.5%	0.6%	149	191	190
	9 Other Plastic Containers	NA	0.5%	0.9%	NA	181	306
	10 Plastic Bags	NA	NA	1.2%	NA	NA	431
	11 Other Film	3.9%	6.1%	5.4%	1,536	2,290	1,849
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	24
	13 Mixed Rigid Plastics	NA	NA	2.4%	NA	NA	839
	14 Other Plastics	7.0%	4.0%	1.1%	2,740	1,529	391
Glass		3.3%	3.4%	2.6%	1,301	1,287	895
	15 Recyclable Glass Bottles/Containers	2.9%	2.9%	1.9%	1,117	1,092	656
	16 Other Glass	0.5%	0.5%	0.7%	184	195	239
Metals		4.9%	6.3%	4.7%	1,920	2,361	1,618
	17 Aluminum Cans	0.3%	0.2%	0.2%	106	87	71
	18 Other Non-Ferrous	0.6%	0.6%	0.8%	219	213	282
	19 Steel Food and Beverage Cans	1.2%	1.3%	1.0%	482	496	334
	20 Other Ferrous	2.8%	2.1%	2.7%	1,113	811	927
	21 White Goods	0.0%	2.0%	0.0%	0	755	4
Yard Waste		3.1%	3.9%	3.8%	1,219	1,483	1,297
	22 Leaves/Grass/Chips	2.1%	2.8%	2.3%	819	1,069	796
	23 Branches/Stumps/Prunings/Trimnings	1.0%	1.1%	1.5%	400	414	501
Organics		33.7%	34.9%	45.3%	13,216	13,179	15,627
	24 Food Waste	16.1%	19.5%	26.1%	6,290	7,372	9,011
	25 Tires	0.0%	0.2%	0.2%	0	75	70
	26 Untreated Lumber	5.0%	4.8%	1.5%	1,940	1,813	507
	27 Pallets	NA	NA	1.6%	NA	NA	537
	28 Treated Wood Waste	1.2%	2.8%	2.5%	474	1,062	852
	29 Textiles and Leather	6.5%	2.3%	5.0%	2,528	885	1,736
	30 Carpet	NA	0.9%	0.6%	NA	328	196
	31 Diapers	3.5%	2.7%	4.5%	1,380	1,006	1,551
	32 Manure	NA	NA	2.6%	NA	NA	886
	33 Other Organics	1.5%	1.7%	0.8%	604	638	281
Inerts		2.9%	6.8%	4.7%	1,144	2,557	1,628
	34 Crushable Inerts	1.3%	3.1%	1.5%	525	1,173	524
	35 Other Inerts	1.5%	1.9%	2.4%	572	733	823
	36 Gypsum Board	0.1%	1.5%	0.8%	35	561	279
	37 Asphalt Roofing	0.0%	0.2%	0.0%	12	90	1
HHW		0.4%	0.5%	1.2%	141	172	413
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	39
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	15
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	31
	41 Medical Waste	NA	NA	0.0%	NA	NA	3
	42 Medicine	NA	NA	0.0%	NA	NA	8
	43 Covered E-Waste	NA	NA	0.4%	NA	NA	135
	44 Other E-Waste	NA	NA	0.5%	NA	NA	179
	45 Other Hazardous Waste	0.4%	0.5%	0.0%	141	172	2
Special		5.1%	2.3%	4.7%	1,987	853	1,607
	46 Brown Goods	3.1%	1.5%	0.3%	1,231	552	110
	47 Composite Bulky Items	1.9%	0.8%	4.3%	756	301	1,497
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	39,193	37,758	34,479

**2008 WASTE CHARACTERIZATION RESULTS
ORO LOMA SANITARY DISTRICT**

**Table 12
Oro Loma Sanitary District Detailed Historic Comparison of Single-Family Residential
Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		35.3%	35.1%	22.5%	4,510	5,278	3,698
	1 Uncoated Corrugated Cardboard	3.0%	4.0%	0.4%	380	596	59
	2 High Grade Paper	1.6%	1.9%	0.4%	200	288	58
	3 Newspaper	5.3%	4.5%	1.2%	678	674	205
	4 Mixed Recyclable Paper	9.7%	9.9%	2.1%	1,243	1,486	338
	5 Compostable Paper	NA	NA	17.5%	NA	NA	2,873
	6 Other Paper	15.7%	14.9%	1.0%	2,008	2,235	166
Plastics		11.3%	13.5%	12.7%	1,437	2,028	2,091
	7 HDPE Bottles (#2)	1.6%	2.5%	0.4%	199	382	69
	8 PETE Bottles (#1)	0.5%	0.7%	0.6%	57	104	94
	9 Other Plastic Containers	NA	0.3%	1.1%	NA	45	186
	10 Plastic Bags	NA	NA	1.5%	NA	NA	243
	11 Other Film	5.1%	6.5%	5.4%	647	976	887
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	6
	13 Mixed Rigid Plastics	NA	NA	2.4%	NA	NA	388
	14 Other Plastics	4.2%	3.5%	1.3%	534	521	217
Glass		4.3%	5.8%	2.6%	550	872	432
	15 Recyclable Glass Bottles/Containers	3.9%	5.0%	2.3%	497	752	371
	16 Other Glass	0.4%	0.8%	0.4%	54	120	61
Metals		3.8%	2.7%	2.7%	490	404	448
	17 Aluminum Cans	0.3%	0.4%	0.2%	37	54	25
	18 Other Non-Ferrous	0.7%	0.5%	0.4%	86	70	67
	19 Steel Food and Beverage Cans	1.6%	1.4%	1.1%	202	207	183
	20 Other Ferrous	1.3%	0.5%	1.1%	166	74	173
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		2.2%	2.3%	3.7%	285	346	615
	22 Leaves/Grass/Chips	1.8%	2.0%	2.6%	230	303	426
	23 Branches/Stumps/Prunings/Trimmings	0.4%	0.3%	1.2%	55	43	189
Organics		39.5%	34.5%	51.3%	5,045	5,183	8,416
	24 Food Waste	28.2%	23.6%	34.5%	3,595	3,544	5,663
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	0.6%	0.3%	0.1%	80	50	19
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	1.2%	0.2%	0.4%	147	25	73
	29 Textiles and Leather	3.8%	3.4%	4.8%	488	504	790
	30 Carpet	NA	0.2%	0.0%	NA	30	0
	31 Diapers	5.0%	4.3%	6.0%	632	650	980
	32 Manure	NA	NA	4.3%	NA	NA	707
	33 Other Organics	0.8%	2.5%	1.1%	103	379	184
Inerts		3.1%	4.4%	3.5%	394	663	571
	34 Crushable Inerts	0.5%	2.4%	1.4%	63	353	223
	35 Other Inerts	2.6%	1.9%	2.0%	328	289	329
	36 Gypsum Board	0.0%	0.0%	0.1%	0	0	19
	37 Asphalt Roofing	0.0%	0.1%	0.0%	4	20	0
HHW		0.4%	0.5%	0.5%	52	78	84
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	4
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	4
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	21
	41 Medical Waste	NA	NA	0.0%	NA	NA	2
	42 Medicine	NA	NA	0.0%	NA	NA	5
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.3%	NA	NA	48
	45 Other Hazardous Waste	0.4%	0.5%	0.0%	52	78	1
Special		0.0%	1.2%	0.4%	0	182	60
	46 Brown Goods	0.0%	1.2%	0.4%	0	182	60
	47 Composite Bulky Items	0.0%	0.0%	0.0%	0	0	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	12,766	15,033	16,413

Table 13
Oro Loma Sanitary District Detailed Historic Comparison of Multi-Family Residential Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		34.0%	41.7%	21.9%	1,386	1,869	1,198
	1 Uncoated Corrugated Cardboard	3.8%	3.6%	0.6%	156	162	34
	2 High Grade Paper	2.2%	5.4%	0.4%	91	241	22
	3 Newspaper	8.0%	4.1%	0.8%	325	183	46
	4 Mixed Recyclable Paper	9.0%	9.5%	4.0%	365	428	219
	5 Compostable Paper	NA	NA	15.4%	NA	NA	843
	6 Other Paper	11.0%	19.1%	0.6%	448	856	34
Plastics		10.0%	12.5%	11.6%	409	559	632
	7 HDPE Bottles (#2)	1.0%	0.9%	0.6%	41	41	34
	8 PETE Bottles (#1)	0.6%	0.9%	0.5%	26	40	26
	9 Other Plastic Containers	NA	0.9%	0.8%	NA	40	46
	10 Plastic Bags	NA	NA	1.8%	NA	NA	99
	11 Other Film	3.2%	6.5%	3.9%	132	290	213
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	4
	13 Mixed Rigid Plastics	NA	NA	3.0%	NA	NA	161
	14 Other Plastics	5.2%	3.3%	0.9%	210	148	49
Glass		5.6%	3.1%	3.2%	229	141	172
	15 Recyclable Glass Bottles/Containers	5.4%	2.7%	2.4%	222	123	130
	16 Other Glass	0.2%	0.4%	0.8%	7	18	43
Metals		4.5%	2.7%	5.0%	184	123	274
	17 Aluminum Cans	0.3%	0.3%	0.2%	11	12	11
	18 Other Non-Ferrous	0.3%	0.8%	0.4%	14	36	21
	19 Steel Food and Beverage Cans	1.4%	1.1%	0.8%	57	51	43
	20 Other Ferrous	2.5%	0.5%	3.6%	101	24	199
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		8.4%	0.8%	4.2%	343	37	232
	22 Leaves/Grass/Chips	4.9%	0.7%	2.7%	202	33	146
	23 Branches/Stumps/Prunings/Trimings	3.5%	0.1%	1.6%	142	4	86
Organics		29.9%	33.4%	45.6%	1,218	1,498	2,490
	24 Food Waste	16.4%	20.8%	25.9%	671	932	1,417
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	2.9%	0.2%	0.6%	120	10	34
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	2.4%	0.4%	2.2%	96	19	118
	29 Textiles and Leather	4.0%	2.3%	8.8%	161	104	480
	30 Carpet	NA	3.4%	0.5%	NA	151	28
	31 Diapers	3.9%	3.8%	5.3%	159	172	292
	32 Manure	NA	NA	1.4%	NA	NA	78
	33 Other Organics	0.3%	2.4%	0.8%	12	109	43
Inerts		3.0%	2.3%	6.3%	120	105	345
	34 Crushable Inerts	1.5%	0.2%	1.2%	60	10	64
	35 Other Inerts	0.7%	0.8%	5.1%	30	37	280
	36 Gypsum Board	0.5%	1.3%	0.0%	22	58	1
	37 Asphalt Roofing	0.2%	0.0%	0.0%	9	0	0
HHW		0.3%	0.3%	2.2%	14	15	123
	38 Paint/Adhesives	NA	NA	0.5%	NA	NA	25
	39 Vehicle & Equipment Fluids	NA	NA	0.1%	NA	NA	5
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	7
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.1%	NA	NA	3
	43 Covered E-Waste	NA	NA	0.9%	NA	NA	50
	44 Other E-Waste	NA	NA	0.6%	NA	NA	31
	45 Other Hazardous Waste	0.3%	0.3%	0.0%	14	15	1
Special		4.4%	3.0%	0.0%	178	136	0
	46 Brown Goods	4.4%	0.6%	0.0%	178	28	0
	47 Composite Bulky Items	0.0%	2.4%	0.0%	0	108	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	4,081	4,484	5,466

**2008 WASTE CHARACTERIZATION RESULTS
ORO LOMA SANITARY DISTRICT**

**Table 14
Oro Loma Sanitary District Detailed Historic Comparison of Commercial Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		37.2%	32.0%	25.5%	3,377	2,763	1,923
	1 Uncoated Corrugated Cardboard	5.9%	6.7%	1.5%	533	576	116
	2 High Grade Paper	3.0%	2.6%	0.9%	272	222	68
	3 Newspaper	5.0%	2.6%	1.2%	453	225	90
	4 Mixed Recyclable Paper	8.0%	7.7%	3.8%	729	663	283
	5 Compostable Paper	NA	NA	16.9%	NA	NA	1,270
	6 Other Paper	15.3%	12.5%	1.3%	1,389	1,077	96
Plastics		10.9%	13.3%	13.6%	993	1,152	1,027
	7 HDPE Bottles (#2)	0.7%	1.1%	0.9%	64	97	70
	8 PETE Bottles (#1)	0.4%	0.4%	0.8%	34	36	58
	9 Other Plastic Containers	NA	0.5%	1.0%	NA	47	74
	10 Plastic Bags	NA	NA	1.1%	NA	NA	80
	11 Other Film	4.2%	7.5%	5.4%	379	645	405
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	14
	13 Mixed Rigid Plastics	NA	NA	2.8%	NA	NA	209
	14 Other Plastics	5.7%	3.8%	1.6%	517	326	117
Glass		4.0%	2.6%	2.4%	359	229	183
	15 Recyclable Glass Bottles/Containers	3.5%	2.2%	2.1%	319	189	155
	16 Other Glass	0.4%	0.5%	0.4%	40	40	28
Metals		5.6%	4.9%	4.4%	512	420	331
	17 Aluminum Cans	0.4%	0.2%	0.2%	37	18	19
	18 Other Non-Ferrous	0.7%	0.4%	1.3%	61	37	97
	19 Steel Food and Beverage Cans	0.9%	0.6%	1.3%	77	55	100
	20 Other Ferrous	3.7%	3.2%	1.5%	336	275	111
	21 White Goods	0.0%	0.4%	0.1%	0	35	4
Yard Waste		4.4%	3.9%	2.4%	402	341	183
	22 Leaves/Grass/Chips	2.9%	1.9%	1.9%	264	167	145
	23 Branches/Stumps/Prunings/Trimmings	1.5%	2.0%	0.5%	137	174	38
Organics		30.4%	34.5%	42.7%	2,762	2,980	3,217
	24 Food Waste	12.9%	20.0%	23.7%	1,170	1,732	1,782
	25 Tires	0.0%	0.0%	0.3%	0	0	21
	26 Untreated Lumber	6.3%	3.4%	3.4%	571	293	256
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	1.6%	4.4%	4.4%	144	381	328
	29 Textiles and Leather	4.1%	2.0%	4.9%	375	176	367
	30 Carpet	NA	1.7%	0.5%	NA	147	35
	31 Diapers	2.8%	2.1%	3.7%	254	180	279
	32 Manure	NA	NA	1.3%	NA	NA	101
	33 Other Organics	2.7%	0.8%	0.6%	249	71	48
Inerts		3.0%	5.7%	6.0%	275	491	449
	34 Crushable Inerts	1.9%	2.4%	0.8%	171	211	57
	35 Other Inerts	1.0%	2.7%	2.8%	89	230	214
	36 Gypsum Board	0.2%	0.3%	2.3%	15	29	177
	37 Asphalt Roofing	0.0%	0.2%	0.0%	0	21	1
HHW		0.4%	0.4%	2.3%	35	36	172
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	10
	39 Vehicle & Equipment Fluids	NA	NA	0.1%	NA	NA	6
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	3
	41 Medical Waste	NA	NA	0.0%	NA	NA	1
	42 Medicine	NA	NA	0.0%	NA	NA	1
	43 Covered E-Waste	NA	NA	0.8%	NA	NA	61
	44 Other E-Waste	NA	NA	1.2%	NA	NA	90
	45 Other Hazardous Waste	0.4%	0.4%	0.0%	35	36	0
Special		4.1%	2.7%	0.6%	369	232	46
	46 Brown Goods	2.6%	2.3%	0.4%	236	196	32
	47 Composite Bulky Items	1.5%	0.4%	0.2%	133	37	14
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	9,087	8,645	7,531

**Table 15
Oro Loma Sanitary District Detailed Historic Comparison of Roll-Off Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		40.4%	15.8%	7.4%	3,462	952	307
	1 Uncoated Corrugated Cardboard	3.5%	3.4%	2.0%	298	203	81
	2 High Grade Paper	1.2%	0.2%	0.0%	102	9	0
	3 Newspaper	1.0%	0.5%	0.4%	84	28	16
	4 Mixed Recyclable Paper	11.1%	1.2%	0.6%	950	73	24
	5 Compostable Paper	NA	NA	3.9%	NA	NA	160
	6 Other Paper	23.7%	10.6%	0.6%	2,028	639	26
Plastics		17.8%	10.6%	10.6%	1,524	641	438
	7 HDPE Bottles (#2)	0.8%	0.1%	0.1%	66	4	5
	8 PETE Bottles (#1)	0.3%	0.1%	0.3%	27	7	12
	9 Other Plastic Containers	NA	0.4%	0.0%	NA	22	0
	10 Plastic Bags	NA	NA	0.2%	NA	NA	8
	11 Other Film	4.3%	5.9%	8.2%	367	358	340
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	0
	13 Mixed Rigid Plastics	NA	NA	1.7%	NA	NA	70
	14 Other Plastics	12.4%	4.1%	0.1%	1,064	249	4
Glass		1.5%	0.7%	1.7%	126	40	70
	15 Recyclable Glass Bottles/Containers	0.9%	0.4%	0.0%	75	23	0
	16 Other Glass	0.6%	0.3%	1.7%	51	17	70
Metals		3.6%	18.1%	11.4%	312	1,092	472
	17 Aluminum Cans	0.2%	0.1%	0.4%	17	3	15
	18 Other Non-Ferrous	0.5%	1.0%	1.9%	45	62	79
	19 Steel Food and Beverage Cans	1.7%	1.1%	0.2%	143	68	7
	20 Other Ferrous	1.2%	3.9%	9.0%	106	238	372
	21 White Goods	0.0%	11.9%	0.0%	0	720	0
Yard Waste		0.0%	3.1%	4.5%	0	186	186
	22 Leaves/Grass/Chips	0.0%	0.0%	1.9%	0	2	78
	23 Branches/Stumps/Prunings/Trimnings	0.0%	3.1%	2.6%	0	184	107
Organics		21.7%	50.1%	27.8%	1,858	3,025	1,149
	24 Food Waste	9.5%	18.2%	3.6%	815	1,098	149
	25 Tires	0.0%	1.2%	1.2%	0	70	49
	26 Untreated Lumber	0.2%	20.7%	2.9%	14	1,250	122
	27 Pallets	NA	NA	13.0%	NA	NA	537
	28 Treated Wood Waste	0.6%	7.8%	3.6%	47	472	149
	29 Textiles and Leather	5.4%	1.5%	1.7%	459	89	72
	30 Carpet	NA	0.0%	1.6%	NA	0	66
	31 Diapers	3.9%	0.0%	0.0%	331	0	0
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	2.3%	0.8%	0.1%	193	46	6
Inerts		0.6%	0.7%	0.0%	55	42	0
	34 Crushable Inerts	0.6%	0.0%	0.0%	47	0	0
	35 Other Inerts	0.1%	0.0%	0.0%	8	0	0
	36 Gypsum Board	0.0%	0.0%	0.0%	0	0	0
	37 Asphalt Roofing	0.0%	0.7%	0.0%	0	42	0
HHW		0.4%	0.3%	0.3%	31	19	10
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	0
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.3%	NA	NA	10
	45 Other Hazardous Waste	0.4%	0.3%	0.0%	31	19	0
Special		14.0%	0.6%	36.3%	1,199	37	1,502
	46 Brown Goods	6.7%	0.6%	0.4%	576	37	18
	47 Composite Bulky Items	7.3%	0.0%	35.9%	623	0	1,484
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	8,567	6,033	4,134

**2008 WASTE CHARACTERIZATION RESULTS
ORO LOMA SANITARY DISTRICT**

**Table 16
Oro Loma Sanitary District Detailed Historic Comparison of Self-Haul Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		15.3%	7.9%	6.4%	719	281	60
	1 Uncoated Corrugated Cardboard	4.3%	6.7%	3.3%	203	239	31
	2 High Grade Paper	1.8%	0.0%	0.0%	82	1	0
	3 Newspaper	1.5%	0.2%	0.0%	69	6	0
	4 Mixed Recyclable Paper	5.3%	0.5%	2.9%	249	19	27
	5 Compostable Paper	NA	NA	0.2%	NA	NA	2
	6 Other Paper	2.5%	0.5%	0.0%	115	17	0
Plastics		9.5%	9.6%	2.2%	444	341	21
	7 HDPE Bottles (#2)	0.3%	0.2%	0.0%	15	6	0
	8 PETE Bottles (#1)	0.0%	0.1%	0.1%	1	3	1
	9 Other Plastic Containers	NA	0.8%	0.0%	NA	28	0
	10 Plastic Bags	NA	NA	0.2%	NA	NA	1
	11 Other Film	0.3%	0.6%	0.3%	12	21	3
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	1
	13 Mixed Rigid Plastics	NA	NA	1.1%	NA	NA	10
	14 Other Plastics	8.9%	8.0%	0.4%	416	284	4
Glass		0.7%	0.2%	4.1%	35	6	38
	15 Recyclable Glass Bottles/Containers	0.1%	0.1%	0.0%	2	5	0
	16 Other Glass	0.7%	0.0%	4.1%	32	1	38
Metals		8.9%	9.1%	9.9%	418	323	93
	17 Aluminum Cans	0.1%	0.0%	0.2%	2	1	2
	18 Other Non-Ferrous	0.2%	0.3%	1.9%	11	9	18
	19 Steel Food and Beverage Cans	0.0%	3.2%	0.1%	0	114	1
	20 Other Ferrous	8.6%	5.6%	7.8%	404	199	73
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		4.1%	16.1%	8.7%	191	573	81
	22 Leaves/Grass/Chips	2.6%	15.8%	0.0%	124	564	0
	23 Branches/Stumps/Prunings/Trimmings	1.4%	0.3%	8.7%	68	9	81
Organics		49.7%	13.8%	38.0%	2,333	492	355
	24 Food Waste	0.9%	1.8%	0.0%	41	66	0
	25 Tires	0.0%	0.1%	0.0%	0	4	0
	26 Untreated Lumber	24.6%	5.9%	8.2%	1,155	210	77
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	0.9%	4.6%	19.6%	41	165	183
	29 Textiles and Leather	22.3%	0.3%	3.0%	1,045	11	28
	30 Carpet	NA	0.0%	7.2%	NA	0	67
	31 Diapers	0.1%	0.1%	0.0%	5	4	0
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	1.0%	0.9%	0.0%	46	32	0
Inerts		6.4%	35.3%	28.1%	302	1,256	263
	34 Crushable Inerts	3.9%	16.8%	19.3%	185	598	181
	35 Other Inerts	2.5%	5.0%	0.0%	117	177	0
	36 Gypsum Board	0.0%	13.3%	8.8%	0	474	82
	37 Asphalt Roofing	0.0%	0.2%	0.0%	0	7	0
HHW		0.2%	0.7%	2.5%	9	24	23
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	0
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	2.5%	NA	NA	23
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.2%	0.7%	0.0%	9	24	0
Special		5.1%	7.5%	0.0%	241	266	0
	46 Brown Goods	5.1%	3.1%	0.0%	241	110	0
	47 Composite Bulky Items	0.0%	4.4%	0.0%	0	156	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	4,692	3,563	935

Appendix A13

2008 WASTE CHARACTERIZATION RESULTS

CITY OF PIEDMONT

This section presents a summary of the composition and quantity of disposed waste from the City of Piedmont. The 2008 Study results presented herein are based on compositions developed using data obtained from field sample collection and sorting activities performed over four seasons during calendar year 2008. A complete description of the Study and presentation of Countywide aggregate results are included in Section 3 of the report.

Table 1 summarizes selected demographic and waste disposal characteristics for the City of Piedmont. The total amount of waste disposed in 2008 represents 0.3 percent of the Countywide waste stream, and decreased approximately 31 percent from 2000.

Table 1
City of Piedmont Waste Disposal Data

	2000	2008
Population ¹	11,625	11,100
Housing Units	3,866	3,864
Number of Business Establishments ²	233	191
Waste Disposal (tons) ³	5,411	3,745
Single Family	3,703	2,534
Multi-Family	0	0
Commercial	330	0
Roll-off	684	798
Self-Haul	695	413
Residential Disposal Rate (lbs/capita/year) ⁴	694	548
Non-residential Disposal Rate (tons/establishment/year)	6	4

¹ Source: State of California, Department of Finance, City/County Population and Housing Estimates for 2000 and Jan 2008.

² Source: California Board of Equalization. "Taxable Sales in California (Sales & Use Tax)", 1999 and 2007.

³ Data provided by StopWaste.Org staff.

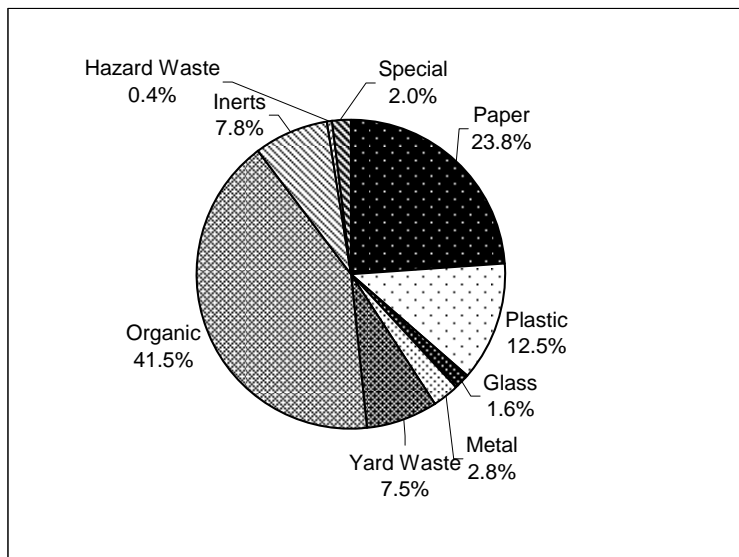
Table 2 presents the number of samples collected from each type of waste stream. Approximately 1 percent of the total number of samples collected were from this jurisdiction.

Table 2
Summary of Samples Obtained from City of Piedmont

Waste Stream	Total Samples
Single-family	16
Multi-family	0
Commercial	0
Roll-off	0
Self-haul	5
Total	21

The following tables and figures are presented for waste originating from the City of Piedmont. The introduction to Appendix B presents a summary of the information provided within each table or figure.

Figure 1 City of Piedmont 2008 Aggregate Waste Composition by Major Material Group



Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	892	23.8%	20.9%	27.1%
Plastic	470	12.5%	11.0%	14.1%
Glass	61	1.6%	1.2%	2.2%
Metal	105	2.8%	2.0%	4.2%
Yard Waste	281	7.5%	1.2%	17.7%
Organic	1,555	41.5%	35.9%	49.1%
Inerts	290	7.8%	3.6%	14.2%
Hazard Waste	15	0.4%	0.2%	1.0%
Special	76	2.0%	0.2%	6.4%
TOTAL	3,745	100.0%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF PIEDMONT**

Figure 2 City of Piedmont Single-Family Residential Composition by Major Material Group

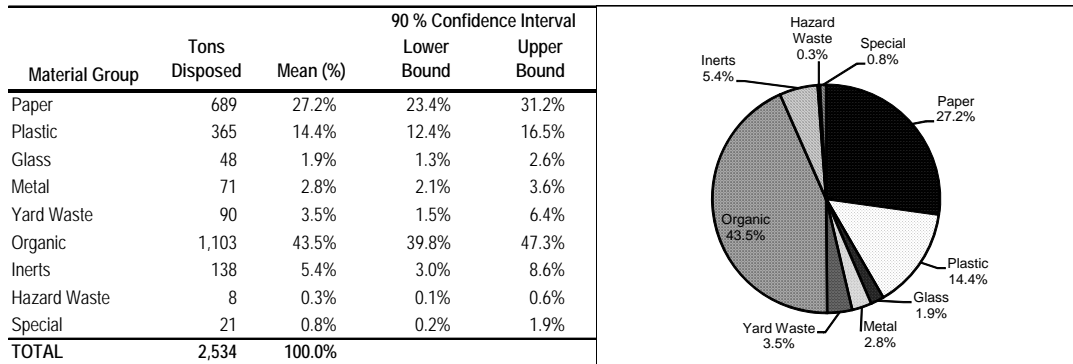


Figure 3 City of Piedmont Multi-Family Residential Composition by Major Material Group
Not applicable: no samples were collected from multi-family residential composition waste from the City of Piedmont.

Figure 4 City of Piedmont Commercial Composition by Major Material Group
Not applicable: no samples were collected from commercial composition waste from the City of Piedmont.

Figure 5 City of Piedmont Roll-off Composition by Major Material Group
Not applicable: no samples were collected from roll-off composition waste from the City of Piedmont.

Figure 6 City of Piedmont Self-Haul Waste Composition by Major Material Group

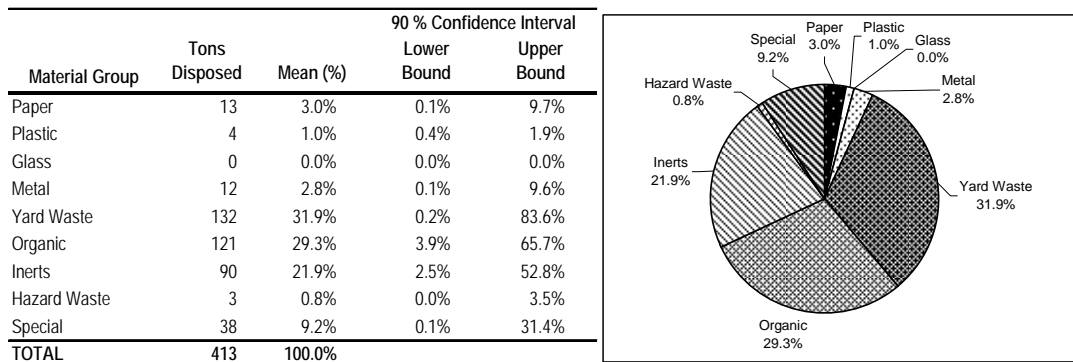
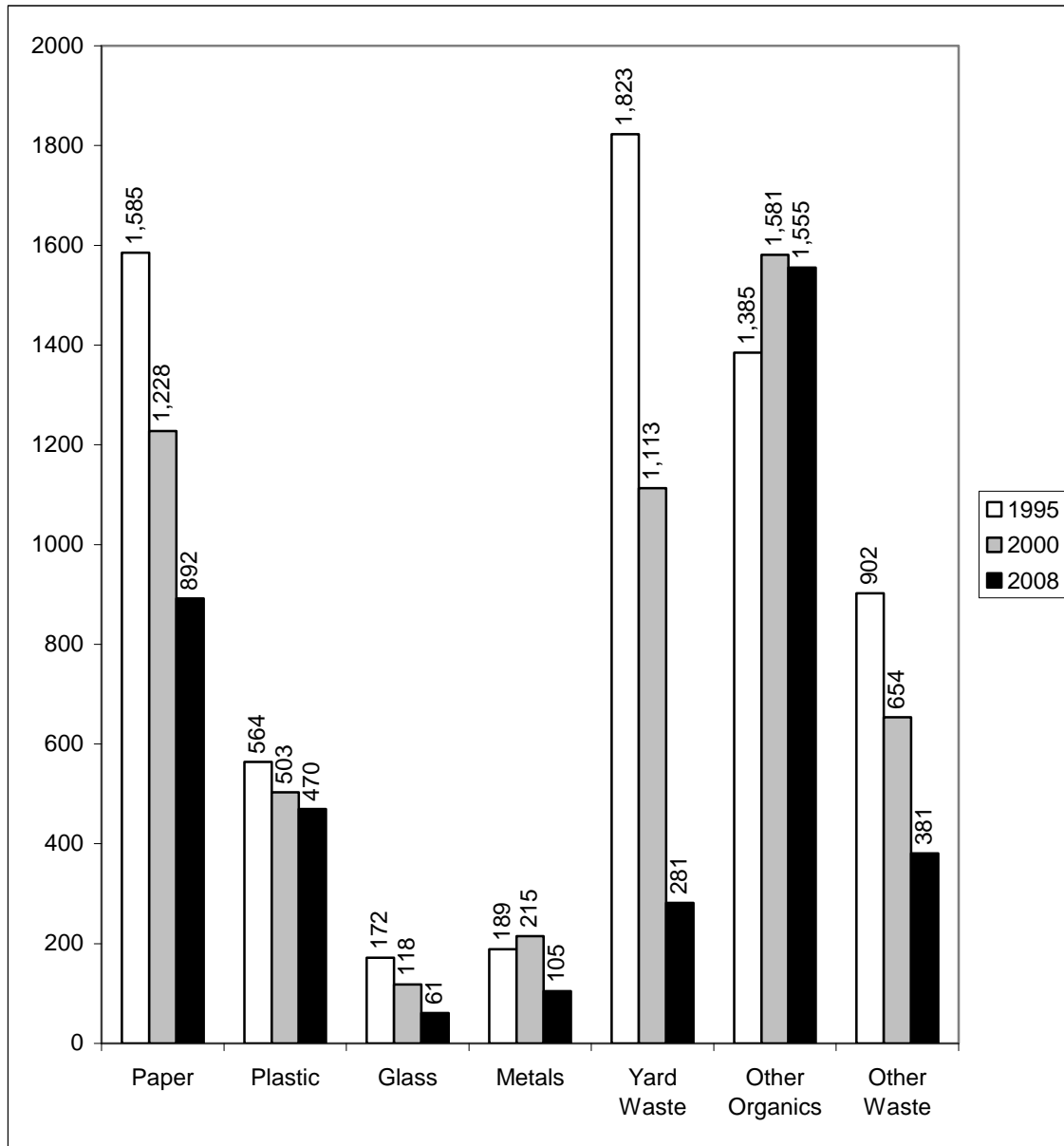


Figure 7 Historic Comparison of City of Piedmont Aggregate Disposal



2008 WASTE CHARACTERIZATION RESULTS
CITY OF PIEDMONT

Figure 8 City of Piedmont Top 12 Most Common Materials - Aggregate

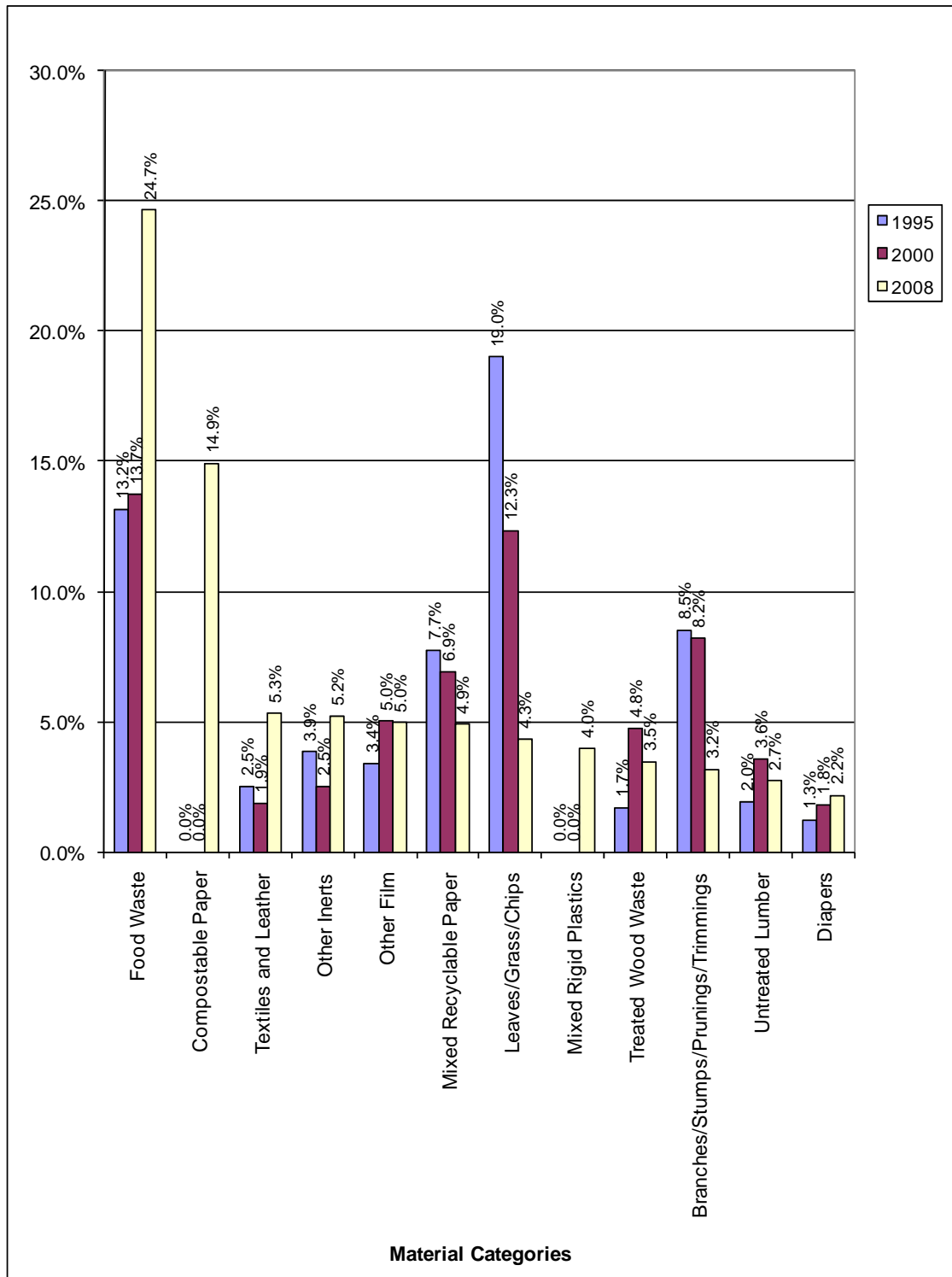
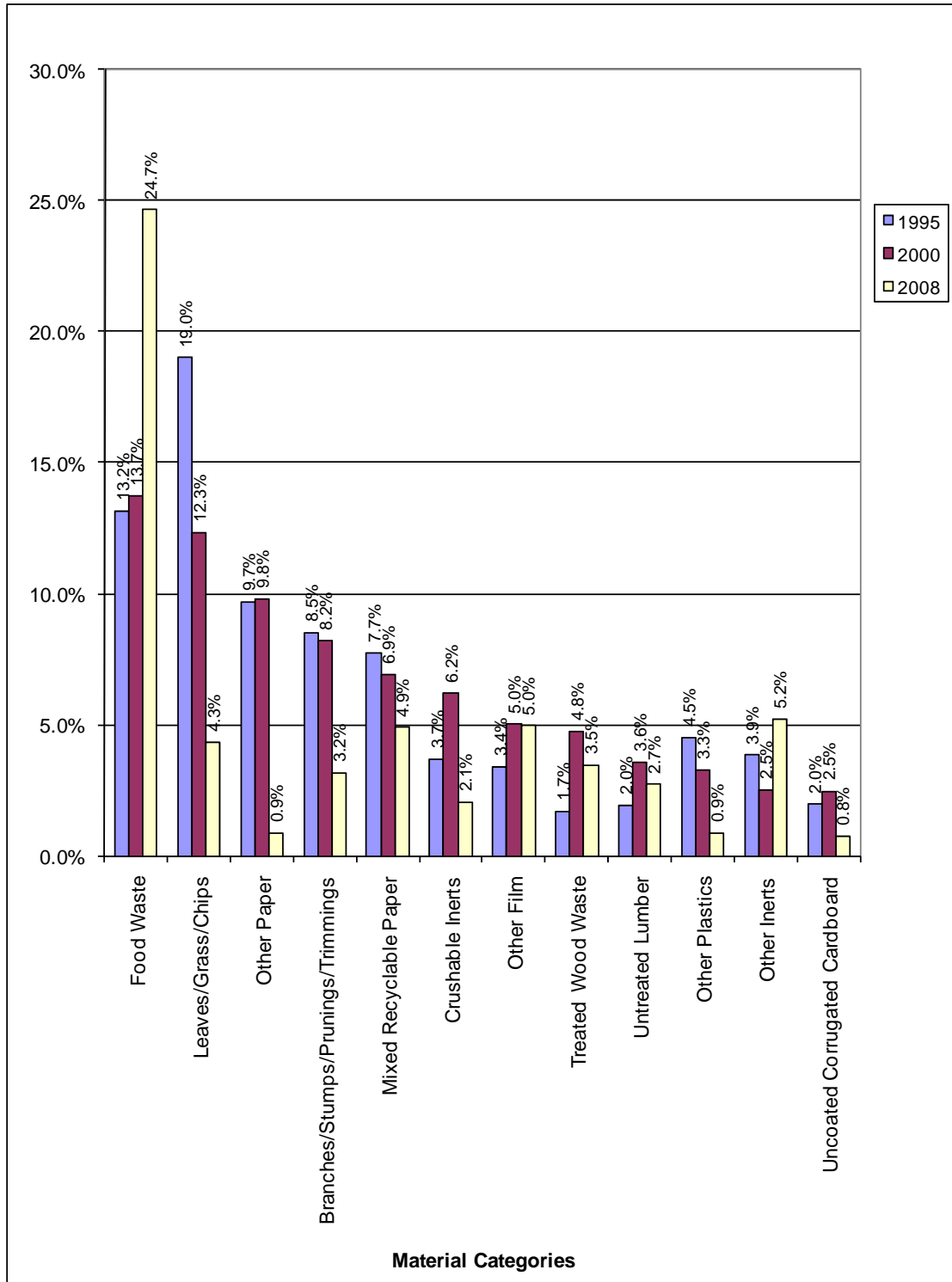


Figure 9 City of Piedmont Top 12 Most Common Materials from 2000



**2008 WASTE CHARACTERIZATION RESULTS
CITY OF PIEDMONT**

**Table 3
Summary of Overall Material Proportions for City of Piedmont**

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Aggregated
Paper		27.2%	-	-	23.8%	3.0%	23.8%
	1 Uncoated Corrugated Cardboard	0.6%	-	-	0.8%	1.9%	0.8%
	2 High Grade Paper	1.4%	-	-	1.2%	0.0%	1.2%
	3 Newspaper	1.1%	-	-	1.1%	1.2%	1.1%
	4 Mixed Recyclable Paper	5.7%	-	-	4.9%	0.0%	4.9%
	5 Compostable Paper	17.4%	-	-	14.9%	0.0%	14.9%
	6 Other Paper	1.0%	-	-	0.9%	0.0%	0.9%
Plastics		14.4%	-	-	12.5%	1.0%	12.5%
	7 HDPE Bottles (#2)	0.4%	-	-	0.3%	0.0%	0.3%
	8 PETE Bottles (#1)	0.6%	-	-	0.5%	0.0%	0.5%
	9 Other Plastic Containers	0.8%	-	-	0.7%	0.0%	0.7%
	10 Plastic Bags	1.2%	-	-	1.1%	0.0%	1.1%
	11 Other Film	5.7%	-	-	5.0%	0.5%	5.0%
	12 Expanded Polystyrene Blocks	0.1%	-	-	0.1%	0.0%	0.1%
	13 Mixed Rigid Plastics	4.5%	-	-	4.0%	0.4%	4.0%
	14 Other Plastics	1.0%	-	-	0.9%	0.0%	0.9%
Glass		1.9%	-	-	1.6%	0.0%	1.6%
	15 Recyclable Glass Bottles/Containers	1.4%	-	-	1.2%	0.0%	1.2%
	16 Other Glass	0.5%	-	-	0.5%	0.0%	0.5%
Metals		2.8%	-	-	2.8%	2.8%	2.8%
	17 Aluminum Cans	0.3%	-	-	0.2%	0.0%	0.2%
	18 Other Non-Ferrous	0.6%	-	-	0.6%	0.0%	0.6%
	19 Steel Food and Beverage Cans	0.5%	-	-	0.4%	0.0%	0.4%
	20 Other Ferrous	1.3%	-	-	1.5%	2.8%	1.5%
	21 White Goods	0.0%	-	-	0.0%	0.0%	0.0%
Yard Waste		3.5%	-	-	7.5%	31.9%	7.5%
	22 Leaves/Grass/Chips	1.7%	-	-	4.3%	20.6%	4.3%
	23 Branches/Stumps/Prunings/Trimmings	1.9%	-	-	3.2%	11.3%	3.2%
Organics		43.5%	-	-	41.5%	29.3%	41.5%
	24 Food Waste	28.7%	-	-	24.7%	0.0%	24.7%
	25 Tires	0.0%	-	-	0.0%	0.0%	0.0%
	26 Untreated Lumber	1.2%	-	-	2.7%	12.2%	2.7%
	27 Pallets	0.0%	-	-	0.0%	0.0%	0.0%
	28 Treated Wood Waste	1.7%	-	-	3.5%	14.6%	3.5%
	29 Textiles and Leather	5.9%	-	-	5.3%	1.7%	5.3%
	30 Carpet	0.1%	-	-	0.2%	0.8%	0.2%
	31 Diapers	2.5%	-	-	2.2%	0.0%	2.2%
	32 Manure	2.2%	-	-	1.9%	0.0%	1.9%
	33 Other Organics	1.3%	-	-	1.1%	0.0%	1.1%
Inerts		5.4%	-	-	7.8%	21.9%	7.8%
	34 Crushable Inerts	0.5%	-	-	2.1%	11.4%	2.1%
	35 Other Inerts	4.4%	-	-	5.2%	10.2%	5.2%
	36 Gypsum Board	0.5%	-	-	0.5%	0.3%	0.5%
	37 Asphalt Roofing	0.0%	-	-	0.0%	0.0%	0.0%
HHW		0.3%	-	-	0.4%	0.8%	0.4%
	38 Paint/Adhesives	0.0%	-	-	0.0%	0.0%	0.0%
	39 Vehicle & Equipment Fluids	0.0%	-	-	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	0.0%	-	-	0.0%	0.0%	0.0%
	41 Medical Waste	0.2%	-	-	0.2%	0.0%	0.2%
	42 Medicine	0.1%	-	-	0.1%	0.0%	0.1%
	43 Covered E-Waste	0.0%	-	-	0.1%	0.8%	0.1%
	44 Other E-Waste	0.0%	-	-	0.0%	0.0%	0.0%
	45 Other Hazardous Waste	0.0%	-	-	0.0%	0.0%	0.0%
Special		0.8%	-	-	2.0%	9.2%	2.0%
	46 Brown Goods	0.8%	-	-	0.9%	1.2%	0.9%
	47 Composite Bulky Items	0.0%	-	-	1.1%	8.0%	1.1%
	48 Other Special Waste	0.0%	-	-	0.0%	0.0%	0.0%
TOTAL		100.0%	-	-	100.0%	100.0%	100.0%

Table 4
Summary of Overall Material Tonnages for City of Piedmont

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
Paper		689	-	-	190	13	892
	1 Uncoated Corrugated Cardboard	15	-	-	6	8	29
	2 High Grade Paper	36	-	-	10	0	46
	3 Newspaper	28	-	-	9	5	42
	4 Mixed Recyclable Paper	145	-	-	39	0	184
	5 Compostable Paper	440	-	-	119	0	559
	6 Other Paper	26	-	-	7	0	33
Plastics		365	-	-	100	4	470
	7 HDPE Bottles (#2)	10	-	-	3	0	13
	8 PETE Bottles (#1)	16	-	-	4	0	20
	9 Other Plastic Containers	21	-	-	6	0	27
	10 Plastic Bags	31	-	-	9	0	40
	11 Other Film	144	-	-	40	2	186
	12 Expanded Polystyrene Blocks	2	-	-	1	0	3
	13 Mixed Rigid Plastics	115	-	-	32	2	149
	14 Other Plastics	26	-	-	7	0	33
Glass		48	-	-	13	0	61
	15 Recyclable Glass Bottles/Containers	35	-	-	9	0	44
	16 Other Glass	14	-	-	4	0	17
Metals		71	-	-	22	12	105
	17 Aluminum Cans	7	-	-	2	0	9
	18 Other Non-Ferrous	16	-	-	4	0	21
	19 Steel Food and Beverage Cans	13	-	-	4	0	17
	20 Other Ferrous	34	-	-	12	12	58
	21 White Goods	0	-	-	0	0	0
Yard Waste		90	-	-	60	132	281
	22 Leaves/Grass/Chips	42	-	-	34	85	162
	23 Branches/Stumps/Prunings/Trimmings	48	-	-	25	46	120
Organics		1,103	-	-	331	121	1,555
	24 Food Waste	727	-	-	197	0	924
	25 Tires	1	-	-	0	0	1
	26 Untreated Lumber	30	-	-	22	51	102
	27 Pallets	0	-	-	0	0	0
	28 Treated Wood Waste	42	-	-	28	60	130
	29 Textiles and Leather	150	-	-	42	7	199
	30 Carpet	2	-	-	1	4	6
	31 Diapers	64	-	-	17	0	82
	32 Manure	55	-	-	15	0	70
	33 Other Organics	32	-	-	9	0	40
Inerts		138	-	-	62	90	290
	34 Crushable Inerts	13	-	-	16	47	77
	35 Other Inerts	111	-	-	42	42	195
	36 Gypsum Board	13	-	-	4	1	18
	37 Asphalt Roofing	0	-	-	0	0	0
HHW		8	-	-	3	3	15
	38 Paint/Adhesives	0	-	-	0	0	0
	39 Vehicle & Equipment Fluids	0	-	-	0	0	0
	40 Universal Hazardous Waste	1	-	-	0	0	1
	41 Medical Waste	5	-	-	1	0	6
	42 Medicine	2	-	-	1	0	2
	43 Covered E-Waste	0	-	-	1	3	4
	44 Other E-Waste	0	-	-	0	0	0
	45 Other Hazardous Waste	1	-	-	0	0	1
Special		21	-	-	16	38	76
	46 Brown Goods	21	-	-	7	5	34
	47 Composite Bulky Items	0	-	-	9	33	42
	48 Other Special Waste	0	-	-	0	0	0
TOTAL		2,534	0	0	798	413	3,745

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF PIEDMONT**

**Table 5
City of Piedmont Aggregate Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		892	23.82%	20.93%	27.05%
	1 Uncoated Corrugated Cardboard	29	0.77%	0.38%	1.53%
	2 High Grade Paper	46	1.24%	0.56%	2.24%
	3 Newspaper	42	1.11%	0.52%	2.27%
	4 Mixed Recyclable Paper	184	4.91%	3.41%	6.71%
	5 Compostable Paper	559	14.93%	13.42%	16.51%
	6 Other Paper	33	0.87%	0.63%	1.16%
Plastics		470	12.54%	11.05%	14.14%
	7 HDPE Bottles (#2)	13	0.34%	0.23%	0.47%
	8 PETE Bottles (#1)	20	0.53%	0.40%	0.67%
	9 Other Plastic Containers	27	0.73%	0.58%	0.90%
	10 Plastic Bags	40	1.07%	0.72%	1.50%
	11 Other Film	186	4.97%	4.24%	5.77%
	12 Expanded Polystyrene Blocks	3	0.07%	0.03%	0.15%
	13 Mixed Rigid Plastics	149	3.97%	3.12%	4.95%
	14 Other Plastics	33	0.87%	0.59%	1.22%
Glass		61	1.63%	1.19%	2.16%
	15 Recyclable Glass Bottles/Containers	44	1.17%	0.86%	1.53%
	16 Other Glass	17	0.46%	0.19%	0.89%
Metals		105	2.80%	2.03%	4.24%
	17 Aluminum Cans	9	0.25%	0.15%	0.37%
	18 Other Non-Ferrous	21	0.56%	0.34%	0.83%
	19 Steel Food and Beverage Cans	17	0.44%	0.34%	0.56%
	20 Other Ferrous	58	1.55%	0.86%	2.97%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		281	7.51%	1.22%	17.69%
	22 Leaves/Grass/Chips	162	4.32%	0.27%	13.17%
	23 Branches/Stumps/Prunings/Trimnings	120	3.19%	0.88%	7.68%
Organics		1,555	41.53%	35.89%	49.10%
	24 Food Waste	924	24.67%	22.15%	27.28%
	25 Tires	1	0.03%	0.01%	0.06%
	26 Untreated Lumber	102	2.73%	0.31%	8.62%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	130	3.48%	0.80%	8.35%
	29 Textiles and Leather	199	5.31%	3.72%	7.37%
	30 Carpet	6	0.17%	0.00%	0.65%
	31 Diapers	82	2.18%	1.45%	3.09%
	32 Manure	70	1.88%	0.89%	3.29%
	33 Other Organics	40	1.08%	0.58%	1.75%
Inerts		290	7.75%	3.59%	14.17%
	34 Crushable Inerts	77	2.06%	0.01%	5.94%
	35 Other Inerts	195	5.21%	2.64%	11.00%
	36 Gypsum Board	18	0.49%	0.17%	1.06%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		15	0.39%	0.18%	0.96%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.01%
	40 Universal Hazardous Waste	1	0.04%	0.01%	0.07%
	41 Medical Waste	6	0.15%	0.05%	0.34%
	42 Medicine	2	0.07%	0.02%	0.13%
	43 Covered E-Waste	4	0.11%	0.00%	0.64%
	44 Other E-Waste	0	0.00%	0.00%	0.00%
	45 Other Hazardous Waste	1	0.02%	0.01%	0.04%
Special		76	2.02%	0.19%	6.36%
	46 Brown Goods	34	0.90%	0.37%	2.03%
	47 Composite Bulky Items	42	1.12%	0.00%	4.91%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		3,745	100.00%		

Table 6
City of Piedmont Single-Family Residential Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		689	27.21%	23.42%	31.16%
	1 Uncoated Corrugated Cardboard	15	0.59%	0.33%	0.92%
	2 High Grade Paper	36	1.44%	0.53%	2.78%
	3 Newspaper	28	1.10%	0.36%	2.23%
	4 Mixed Recyclable Paper	145	5.71%	3.70%	8.11%
	5 Compostable Paper	440	17.36%	15.35%	19.46%
	6 Other Paper	26	1.01%	0.69%	1.40%
Plastics		365	14.42%	12.43%	16.53%
	7 HDPE Bottles (#2)	10	0.39%	0.24%	0.57%
	8 PETE Bottles (#1)	16	0.61%	0.44%	0.81%
	9 Other Plastic Containers	21	0.85%	0.65%	1.07%
	10 Plastic Bags	31	1.24%	0.77%	1.82%
	11 Other Film	144	5.69%	4.73%	6.74%
	12 Expanded Polystyrene Blocks	2	0.08%	0.02%	0.17%
	13 Mixed Rigid Plastics	115	4.54%	3.42%	5.81%
	14 Other Plastics	26	1.01%	0.64%	1.48%
Glass		48	1.90%	1.31%	2.60%
	15 Recyclable Glass Bottles/Containers	35	1.36%	0.95%	1.84%
	16 Other Glass	14	0.54%	0.17%	1.10%
Metals		71	2.79%	2.06%	3.63%
	17 Aluminum Cans	7	0.29%	0.16%	0.45%
	18 Other Non-Ferrous	16	0.65%	0.36%	1.02%
	19 Steel Food and Beverage Cans	13	0.52%	0.38%	0.67%
	20 Other Ferrous	34	1.34%	0.76%	2.09%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		90	3.54%	1.51%	6.38%
	22 Leaves/Grass/Chips	42	1.66%	0.64%	3.14%
	23 Branches/Stumps/Prunings/Trimnings	48	1.88%	0.47%	4.20%
Organics		1,103	43.52%	39.77%	47.32%
	24 Food Waste	727	28.69%	25.33%	32.17%
	25 Tires	1	0.03%	0.01%	0.08%
	26 Untreated Lumber	30	1.19%	0.46%	2.25%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	42	1.67%	0.79%	2.88%
	29 Textiles and Leather	150	5.91%	3.83%	8.40%
	30 Carpet	2	0.06%	0.01%	0.15%
	31 Diapers	64	2.54%	1.56%	3.75%
	32 Manure	55	2.18%	0.87%	4.06%
	33 Other Organics	32	1.25%	0.60%	2.14%
Inerts		138	5.45%	2.96%	8.63%
	34 Crushable Inerts	13	0.53%	0.18%	1.08%
	35 Other Inerts	111	4.40%	2.18%	7.33%
	36 Gypsum Board	13	0.52%	0.11%	1.24%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		8	0.33%	0.13%	0.62%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	0	0.01%	0.00%	0.01%
	40 Universal Hazardous Waste	1	0.04%	0.01%	0.09%
	41 Medical Waste	5	0.18%	0.04%	0.43%
	42 Medicine	2	0.08%	0.02%	0.17%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	0	0.00%	0.00%	0.00%
	45 Other Hazardous Waste	1	0.02%	0.01%	0.05%
Special		21	0.85%	0.21%	1.89%
	46 Brown Goods	21	0.85%	0.21%	1.89%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		2,534	100.00%		

Table 7

City of Piedmont Multi-Family Residential Waste Composition and Disposal

Not applicable: no samples were collected from multi-family residential waste composition and disposal from the City of Piedmont.

Table 8

City of Piedmont Commercial Waste Composition and Disposal

Not applicable: no samples were collected from commercial waste composition and disposal from the City of Piedmont.

Table 9

City of Piedmont Roll-Off Waste Composition and Disposal

Not applicable: no samples were collected from roll-off waste composition and disposal from the City of Piedmont.

Table 10
City of Piedmont Self-Haul Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		13	3.04%	0.11%	9.75%
	1 Uncoated Corrugated Cardboard	8	1.86%	0.12%	5.58%
	2 High Grade Paper	0	0.00%	0.00%	0.00%
	3 Newspaper	5	1.18%	0.02%	5.27%
	4 Mixed Recyclable Paper	0	0.00%	0.00%	0.00%
	5 Compostable Paper	0	0.00%	0.00%	0.00%
	6 Other Paper	0	0.00%	0.00%	0.00%
Plastics		4	1.04%	0.43%	1.90%
	7 HDPE Bottles (#2)	0	0.00%	0.00%	0.00%
	8 PETE Bottles (#1)	0	0.00%	0.00%	0.00%
	9 Other Plastic Containers	0	0.00%	0.00%	0.00%
	10 Plastic Bags	0	0.00%	0.00%	0.00%
	11 Other Film	2	0.52%	0.07%	1.38%
	12 Expanded Polystyrene Blocks	0	0.03%	0.00%	0.15%
	13 Mixed Rigid Plastics	2	0.45%	0.00%	1.66%
	14 Other Plastics	0	0.03%	0.00%	0.14%
Glass		0	0.00%	0.00%	0.00%
	15 Recyclable Glass Bottles/Containers	0	0.00%	0.00%	0.00%
	16 Other Glass	0	0.00%	0.00%	0.00%
Metals		12	2.82%	0.05%	9.57%
	17 Aluminum Cans	0	0.00%	0.00%	0.00%
	18 Other Non-Ferrous	0	0.00%	0.00%	0.00%
	19 Steel Food and Beverage Cans	0	0.00%	0.00%	0.00%
	20 Other Ferrous	12	2.82%	0.05%	9.57%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		132	31.88%	0.22%	83.55%
	22 Leaves/Grass/Chips	85	20.62%	0.01%	66.19%
	23 Branches/Stumps/Prunings/Trimmings	46	11.25%	0.57%	32.71%
Organics		121	29.31%	3.91%	65.71%
	24 Food Waste	0	0.00%	0.00%	0.00%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	51	12.24%	0.00%	42.50%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	60	14.56%	1.08%	39.42%
	29 Textiles and Leather	7	1.66%	0.01%	6.13%
	30 Carpet	4	0.85%	0.00%	3.33%
	31 Diapers	0	0.00%	0.00%	0.00%
	32 Manure	0	0.00%	0.00%	0.00%
	33 Other Organics	0	0.00%	0.00%	0.00%
Inerts		90	21.89%	2.55%	52.80%
	34 Crushable Inerts	47	11.40%	0.87%	31.46%
	35 Other Inerts	42	10.19%	0.02%	37.98%
	36 Gypsum Board	1	0.30%	0.00%	1.34%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		3	0.79%	0.01%	3.53%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	0	0.00%	0.00%	0.00%
	41 Medical Waste	0	0.00%	0.00%	0.00%
	42 Medicine	0	0.00%	0.00%	0.00%
	43 Covered E-Waste	3	0.79%	0.01%	3.53%
	44 Other E-Waste	0	0.00%	0.00%	0.00%
	45 Other Hazardous Waste	0	0.00%	0.00%	0.00%
Special		38	9.23%	0.05%	31.40%
	46 Brown Goods	5	1.23%	0.02%	5.49%
	47 Composite Bulky Items	33	8.00%	0.04%	27.67%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		413	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF PIEDMONT**

**Table 11
City of Piedmont Detailed Historic Comparison of Overall Jurisdiction-wide Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		24.0%	22.7%	23.8%	1,585	1,228	892
	1 Uncoated Corrugated Cardboard	2.0%	2.5%	0.8%	131	134	29
	2 High Grade Paper	2.7%	1.1%	1.2%	178	61	46
	3 Newspaper	1.8%	2.3%	1.1%	122	126	42
	4 Mixed Recyclable Paper	7.7%	6.9%	4.9%	512	375	184
	5 Compostable Paper	NA	NA	14.9%	NA	NA	559
	6 Other Paper	9.7%	9.8%	0.9%	642	532	33
Plastics		8.5%	9.3%	12.5%	564	503	470
	7 HDPE Bottles (#2)	0.3%	0.3%	0.3%	22	17	13
	8 PETE Bottles (#1)	0.3%	0.4%	0.5%	17	20	20
	9 Other Plastic Containers	NA	0.3%	0.7%	NA	17	27
	10 Plastic Bags	NA	NA	1.1%	NA	NA	40
	11 Other Film	3.4%	5.0%	5.0%	226	272	186
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	3
	13 Mixed Rigid Plastics	NA	NA	4.0%	NA	NA	149
	14 Other Plastics	4.5%	3.3%	0.9%	299	177	33
Glass		2.6%	2.2%	1.6%	172	118	61
	15 Recyclable Glass Bottles/Containers	2.2%	1.9%	1.2%	142	103	44
	16 Other Glass	0.5%	0.3%	0.5%	30	16	17
Metals		2.9%	4.0%	2.8%	189	215	105
	17 Aluminum Cans	0.3%	0.2%	0.2%	22	10	9
	18 Other Non-Ferrous	0.3%	1.0%	0.6%	18	54	21
	19 Steel Food and Beverage Cans	0.7%	0.5%	0.4%	47	28	17
	20 Other Ferrous	1.6%	2.3%	1.5%	103	123	58
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		27.5%	20.6%	7.5%	1,822	1,113	281
	22 Leaves/Grass/Chips	19.0%	12.3%	4.3%	1,258	668	162
	23 Branches/Stumps/Prunings/Trimmings	8.5%	8.2%	3.2%	564	445	120
Organics		22.2%	29.2%	41.5%	1,468	1,581	1,555
	24 Food Waste	13.2%	13.7%	24.7%	873	742	924
	25 Tires	0.0%	1.2%	0.0%	1	66	1
	26 Untreated Lumber	2.0%	3.6%	2.7%	129	195	102
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	1.7%	4.8%	3.5%	113	258	130
	29 Textiles and Leather	2.5%	1.9%	5.3%	167	101	199
	30 Carpet	NA	0.2%	0.2%	NA	12	6
	31 Diapers	1.3%	1.8%	2.2%	83	98	82
	32 Manure	NA	NA	1.9%	NA	NA	70
	33 Other Organics	1.6%	2.0%	1.1%	103	108	40
Inerts		9.7%	10.3%	7.8%	640	559	290
	34 Crushable Inerts	3.7%	6.2%	2.1%	245	337	77
	35 Other Inerts	3.9%	2.5%	5.2%	255	138	195
	36 Gypsum Board	2.1%	1.0%	0.5%	136	55	18
	37 Asphalt Roofing	0.1%	0.6%	0.0%	4	30	0
HHW		0.6%	0.3%	0.4%	36	17	15
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	1
	41 Medical Waste	NA	NA	0.2%	NA	NA	6
	42 Medicine	NA	NA	0.1%	NA	NA	2
	43 Covered E-Waste	NA	NA	0.1%	NA	NA	4
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.6%	0.3%	0.0%	36	17	1
Special		2.2%	1.4%	2.0%	143	78	76
	46 Brown Goods	1.5%	0.7%	0.9%	102	35	34
	47 Composite Bulky Items	0.6%	0.8%	1.1%	41	43	42
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	6,620	5,411	3,745

Table 12
City of Piedmont Detailed Historic Comparison of Single-Family Residential Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		25.2%	30.1%	27.2%	1,001	1,116	689
	1 Uncoated Corrugated Cardboard	2.1%	3.1%	0.6%	82	116	15
	2 High Grade Paper	2.4%	1.5%	1.4%	95	56	36
	3 Newspaper	2.4%	3.1%	1.1%	94	115	28
	4 Mixed Recyclable Paper	7.9%	9.2%	5.7%	312	342	145
	5 Compostable Paper	NA	NA	17.4%	NA	NA	440
	6 Other Paper	10.5%	13.1%	1.0%	419	487	26
Plastics		9.3%	10.9%	14.4%	368	402	365
	7 HDPE Bottles (#2)	0.5%	0.4%	0.4%	19	14	10
	8 PETE Bottles (#1)	0.2%	0.5%	0.6%	7	17	16
	9 Other Plastic Containers	NA	0.3%	0.8%	NA	13	21
	10 Plastic Bags	NA	NA	1.2%	NA	NA	31
	11 Other Film	4.2%	6.6%	5.7%	165	246	144
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	2
	13 Mixed Rigid Plastics	NA	NA	4.5%	NA	NA	115
	14 Other Plastics	4.5%	3.0%	1.0%	178	112	26
Glass		2.3%	2.7%	1.9%	92	101	48
	15 Recyclable Glass Bottles/Containers	2.0%	2.5%	1.4%	78	93	35
	16 Other Glass	0.3%	0.2%	0.5%	14	9	14
Metals		2.5%	2.1%	2.8%	100	76	71
	17 Aluminum Cans	0.2%	0.2%	0.3%	8	8	7
	18 Other Non-Ferrous	0.3%	0.6%	0.6%	14	22	16
	19 Steel Food and Beverage Cans	0.8%	0.7%	0.5%	33	25	13
	20 Other Ferrous	1.2%	0.6%	1.3%	46	21	34
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		33.3%	20.9%	3.5%	1,325	772	90
	22 Leaves/Grass/Chips	22.5%	13.1%	1.7%	894	485	42
	23 Branches/Stumps/Prunings/Trimnings	10.8%	7.8%	1.9%	430	287	48
Organics		25.3%	29.1%	43.5%	1,006	1,078	1,103
	24 Food Waste	17.7%	18.4%	28.7%	702	683	727
	25 Tires	0.0%	1.7%	0.0%	0	62	1
	26 Untreated Lumber	1.1%	1.3%	1.2%	43	50	30
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	0.4%	0.7%	1.7%	14	25	42
	29 Textiles and Leather	2.8%	2.3%	5.9%	110	84	150
	30 Carpet	NA	0.2%	0.1%	NA	9	2
	31 Diapers	2.0%	2.4%	2.5%	81	89	64
	32 Manure	NA	NA	2.2%	NA	NA	55
	33 Other Organics	1.4%	2.1%	1.3%	56	77	32
Inerts		1.2%	3.1%	5.4%	46	116	138
	34 Crushable Inerts	0.3%	0.4%	0.5%	12	16	13
	35 Other Inerts	0.8%	2.5%	4.4%	31	91	111
	36 Gypsum Board	0.0%	0.0%	0.5%	0	0	13
	37 Asphalt Roofing	0.1%	0.2%	0.0%	4	9	0
HHW		0.5%	0.4%	0.3%	20	14	8
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	1
	41 Medical Waste	NA	NA	0.2%	NA	NA	5
	42 Medicine	NA	NA	0.1%	NA	NA	2
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.5%	0.4%	0.0%	20	14	1
Special		0.4%	0.7%	0.8%	17	27	21
	46 Brown Goods	0.3%	0.7%	0.8%	12	27	21
	47 Composite Bulky Items	0.1%	0.0%	0.0%	6	0	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	3,975	3,703	2,534

Table 13

City of Piedmont Detailed Historic Comparison of Multi-Family Residential Waste

Not applicable: no samples were collected from multi-family residential waste from the City of Piedmont.

Table 14

City of Piedmont Detailed Historic Comparison of Commercial Waste

Not applicable: no samples were collected from commercial waste from the City of Piedmont.

Table 15

City of Piedmont Detailed Historic Comparison of Roll-Off Waste

Not applicable: no samples were collected from roll-off waste from the City of Piedmont.

Table 16
City of Piedmont Detailed Historic Comparison of Self-Haul Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		13.3%	4.5%	3.0%	114	31	13
	1 Uncoated Corrugated Cardboard	2.5%	0.8%	1.9%	21	6	8
	2 High Grade Paper	4.4%	0.2%	0.0%	38	1	0
	3 Newspaper	0.4%	0.4%	1.2%	3	3	5
	4 Mixed Recyclable Paper	4.6%	1.5%	0.0%	39	11	0
	5 Compostable Paper	NA	NA	0.0%	NA	NA	0
6 Other Paper	1.4%	1.5%	0.0%	12	11	0	
Plastics		4.5%	8.8%	1.0%	38	61	4
	7 HDPE Bottles (#2)	0.0%	0.2%	0.0%	0	1	0
	8 PETE Bottles (#1)	0.0%	0.1%	0.0%	0	1	0
	9 Other Plastic Containers	NA	0.4%	0.0%	NA	3	0
	10 Plastic Bags	NA	NA	0.0%	NA	NA	0
	11 Other Film	0.4%	1.3%	0.5%	4	9	2
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	0
	13 Mixed Rigid Plastics	NA	NA	0.4%	NA	NA	2
14 Other Plastics	4.0%	6.7%	0.0%	34	47	0	
Glass		1.4%	1.2%	0.0%	12	8	0
	15 Recyclable Glass Bottles/Containers	1.3%	0.3%	0.0%	11	2	0
16 Other Glass	0.1%	0.9%	0.0%	0	6	0	
Metals		3.5%	13.5%	2.8%	30	94	12
	17 Aluminum Cans	0.1%	0.1%	0.0%	1	1	0
	18 Other Non-Ferrous	0.3%	3.8%	0.0%	3	27	0
	19 Steel Food and Beverage Cans	0.7%	0.2%	0.0%	6	1	0
	20 Other Ferrous	2.4%	9.4%	2.8%	20	65	12
21 White Goods	0.0%	0.0%	0.0%	0	0	0	
Yard Waste		54.8%	6.5%	31.9%	471	45	132
	22 Leaves/Grass/Chips	42.4%	0.8%	20.6%	364	6	85
23 Branches/Stumps/Prunings/Trimings	12.4%	5.6%	11.3%	107	39	46	
Organics		17.0%	24.7%	29.3%	146	171	121
	24 Food Waste	2.7%	2.1%	0.0%	23	14	0
	25 Tires	0.1%	0.0%	0.0%	1	0	0
	26 Untreated Lumber	5.7%	7.2%	12.2%	49	50	51
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	1.3%	9.5%	14.6%	11	66	60
	29 Textiles and Leather	5.7%	1.6%	1.7%	49	11	7
	30 Carpet	NA	0.4%	0.8%	NA	3	4
	31 Diapers	0.2%	0.4%	0.0%	2	3	0
	32 Manure	NA	NA	0.0%	NA	NA	0
33 Other Organics	1.3%	3.4%	0.0%	11	24	0	
Inerts		0.3%	34.2%	21.9%	2	238	90
	34 Crushable Inerts	0.0%	24.2%	11.4%	0	168	47
	35 Other Inerts	0.0%	5.6%	10.2%	0	39	42
	36 Gypsum Board	0.2%	2.9%	0.3%	2	20	1
37 Asphalt Roofing	0.0%	1.5%	0.0%	0	10	0	
HHW		1.4%	0.0%	0.8%	12	0	3
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	0
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.8%	NA	NA	3
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	1.4%	0.0%	0.0%	12	0	0
Special		3.9%	6.7%	9.2%	34	47	38
	46 Brown Goods	2.3%	1.0%	1.2%	20	7	5
	47 Composite Bulky Items	1.6%	5.8%	8.0%	14	40	33
48 Other Special Waste	NA	NA	0.0%	NA	NA	0	
TOTAL		100.0%	100.0%	100.0%	859	695	413

Appendix A14

2008 WASTE CHARACTERIZATION RESULTS

CITY OF PLEASANTON

This section presents a summary of the composition and quantity of disposed waste from the City of Pleasanton. The 2008 Study results presented herein are based on compositions developed using data obtained from field sample collection and sorting activities performed over four seasons during calendar year 2008. A complete description of the Study and presentation of Countywide aggregate results are included in Section 3 of the report.

Table 1 summarizes selected demographic and waste disposal characteristics for the City of Pleasanton. The total amount of waste disposed in 2008 represents 7.7 percent of the Countywide waste stream, and decreased approximately 27 percent from 2000.

Table 1
City of Pleasanton Waste Disposal Data

	2000	2008
Population ¹	65,930	69,388
Housing Units	23,678	25,822
Number of Business Establishments ²	2,750	3,017
Waste Disposal (tons) ³	125,205	91,937
Single Family	24,203	20,283
Multi-Family	3,595	1,236
Commercial	16,059	11,124
Roll-off	61,089	41,436
Self-Haul	20,260	17,858
Residential Disposal Rate (lbs/capita/year) ⁴	1,241	1,278
Non-residential Disposal Rate (tons/establishment/year)	31	16

¹ Source: State of California, Department of Finance, City/County Population and Housing Estimates for 2000 and Jan 2008.

² Source: California Board of Equalization. "Taxable Sales in California (Sales & Use Tax)", 1999 and 2007.

³ Data provided by StopWaste.Org staff.

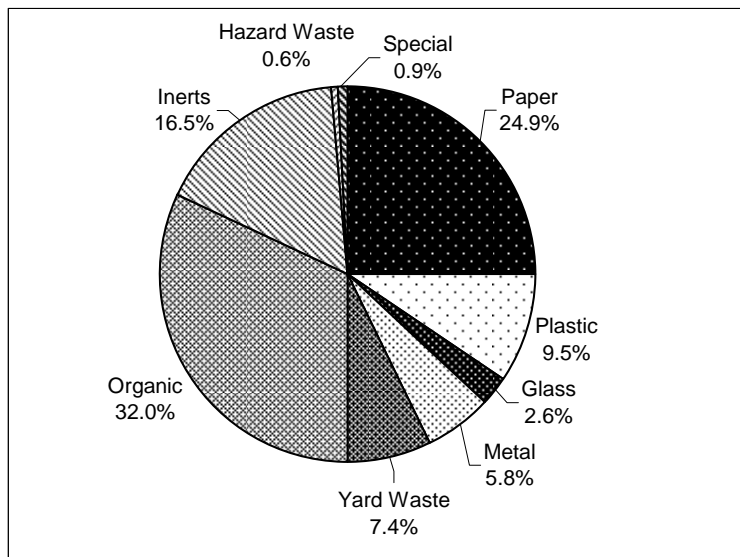
Table 2 presents the number of samples collected from each type of waste stream. Approximately 7 percent of the total number of samples collected were from this jurisdiction.

Table 2
Summary of Samples Obtained from City of Pleasanton

Waste Stream	Total Samples
Single-family	21
Multi-family	13
Commercial	38
Roll-off	15
Self-haul	80
Total	167

The following tables and figures are presented for waste originating from the City of Pleasanton. The introduction to Appendix B presents a summary of the information provided within each table or figure.

Figure 1 City of Pleasanton 2008 Aggregate Waste Composition by Major Material Group



Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	22,858	24.9%	25.6%	27.5%
Plastic	8,692	9.5%	10.1%	10.2%
Glass	2,398	2.6%	2.9%	3.5%
Metal	5,300	5.8%	6.0%	6.9%
Yard Waste	6,770	7.4%	7.6%	10.2%
Organic	29,380	32.0%	32.3%	36.2%
Inerts	15,146	16.5%	16.0%	21.1%
Hazard Waste	572	0.6%	0.8%	0.9%
Special	821	0.9%	1.1%	1.5%
TOTAL	91,937	100.0%		

2008 WASTE CHARACTERIZATION RESULTS CITY OF PLEASANTON

Figure 2 City of Pleasanton Single-Family Residential Composition by Major Material Group

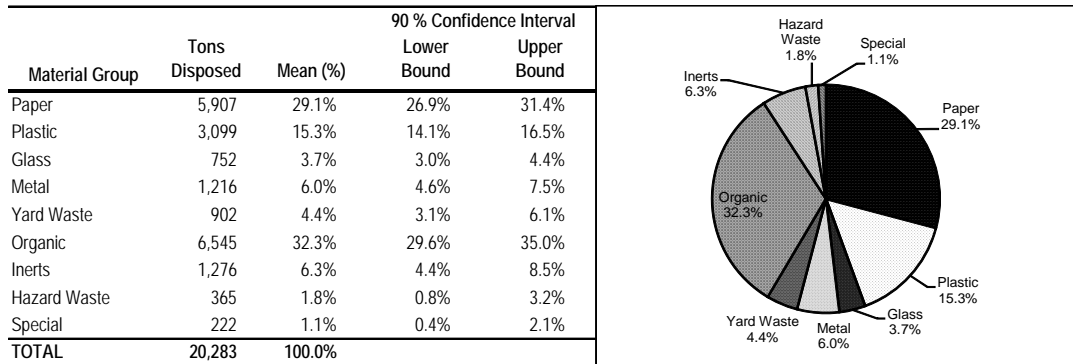


Figure 3 City of Pleasanton Multi-Family Residential Composition by Major Material Group

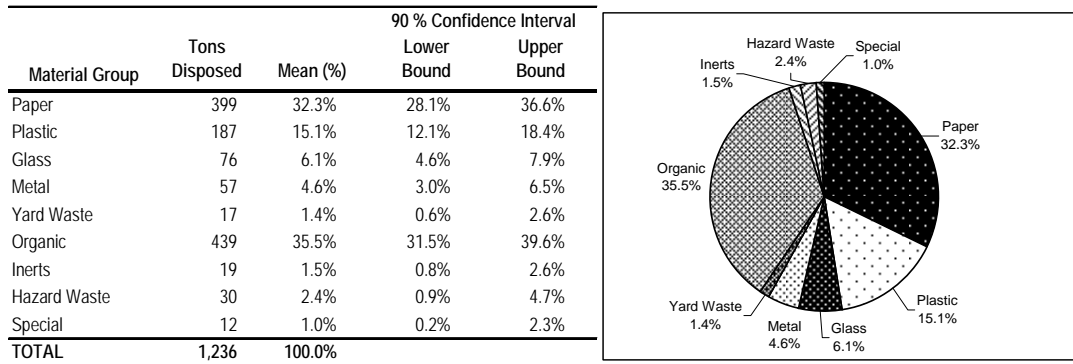


Figure 4 City of Pleasanton Commercial Composition by Major Material Group

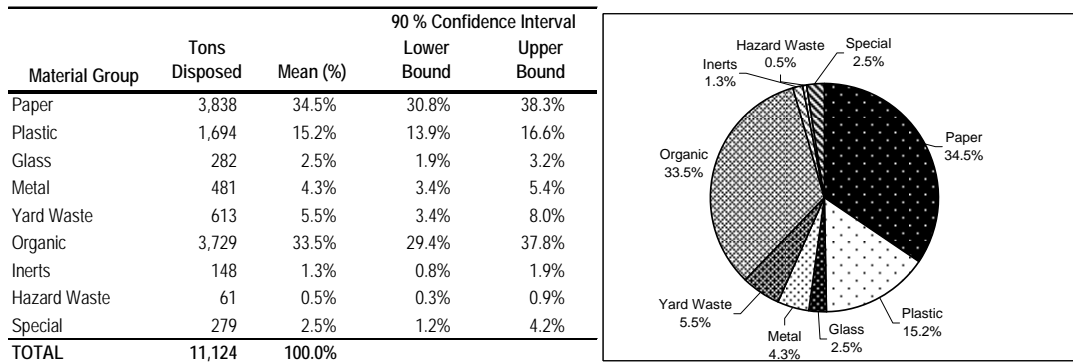


Figure 5 City of Pleasanton Roll-Off Waste Composition by Major Material Group

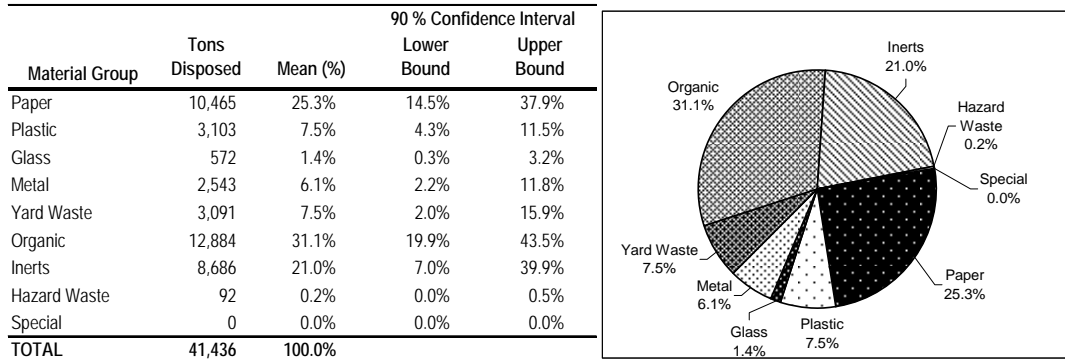
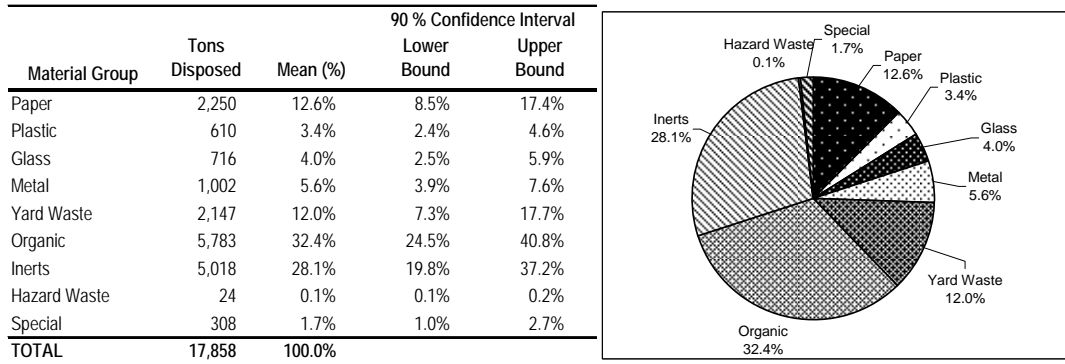


Figure 6 City of Pleasanton Self-Haul Waste Composition by Major Material Group



2008 WASTE CHARACTERIZATION RESULTS
CITY OF PLEASANTON

Figure 7 Historic Comparison of City of Pleasanton Aggregate Disposal

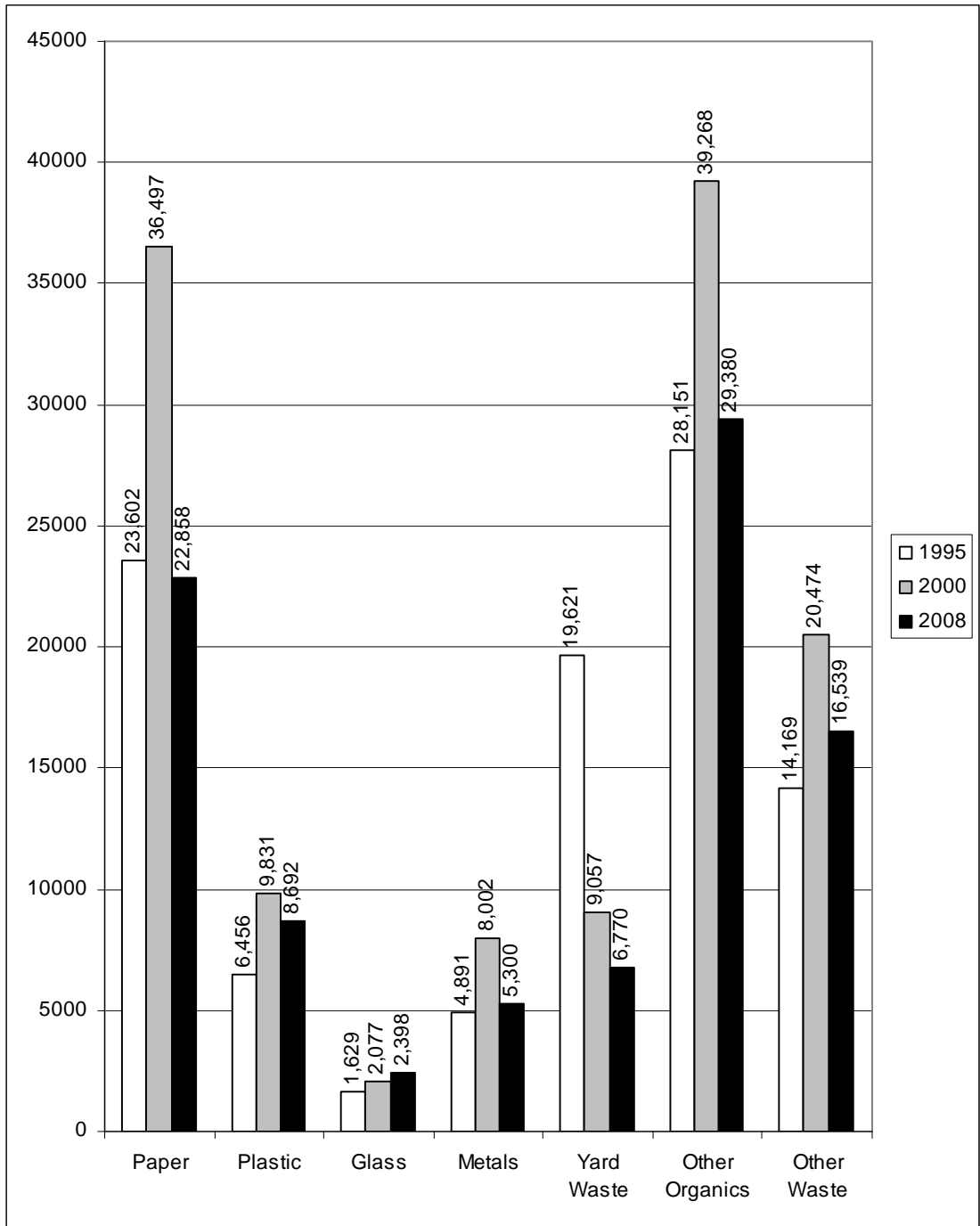
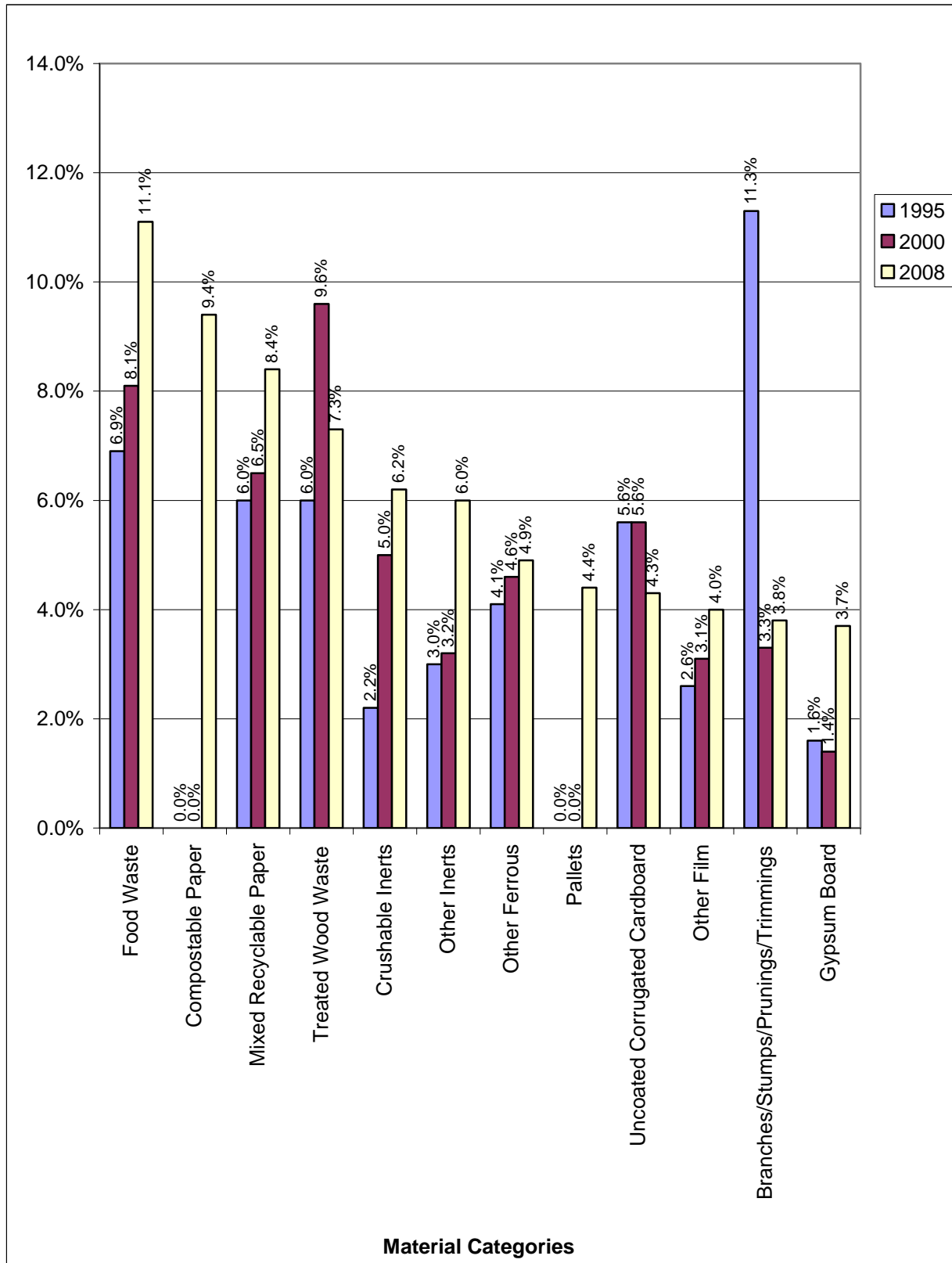


Figure 8 City of Pleasanton Top 12 Most Common Materials - Aggregate



2008 WASTE CHARACTERIZATION RESULTS
CITY OF PLEASANTON

Figure 9 City of Pleasanton Top 12 Most Common Materials from 2000

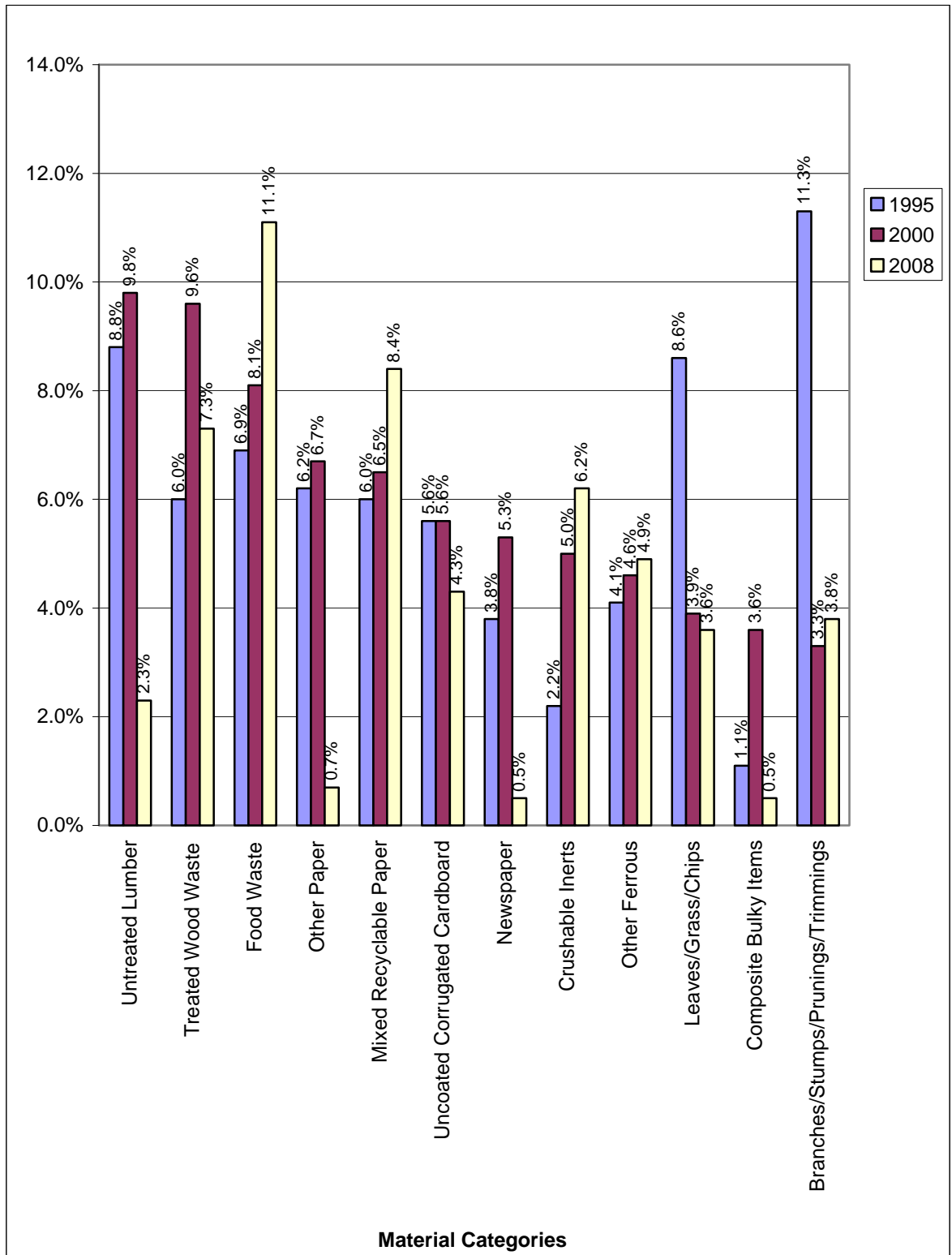


Table 3
Summary of Overall Material Proportions for City of Pleasanton

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Aggregated
Paper		29.1%	32.3%	34.5%	25.3%	12.6%	24.9%
	1 Uncoated Corrugated Cardboard	0.6%	2.3%	2.4%	6.3%	5.3%	4.3%
	2 High Grade Paper	0.3%	1.2%	2.2%	2.1%	1.1%	1.5%
	3 Newspaper	0.9%	4.7%	1.2%	0.0%	0.5%	0.5%
	4 Mixed Recyclable Paper	4.4%	9.1%	7.0%	12.3%	5.0%	8.4%
	5 Compostable Paper	21.9%	14.6%	20.5%	4.0%	0.6%	9.4%
	6 Other Paper	1.0%	0.4%	1.2%	0.6%	0.2%	0.7%
Plastics		15.3%	15.1%	15.2%	7.5%	3.4%	9.5%
	7 HDPE Bottles (#2)	0.6%	0.9%	0.8%	0.1%	0.0%	0.3%
	8 PETE Bottles (#1)	1.0%	1.5%	0.7%	0.2%	0.1%	0.4%
	9 Other Plastic Containers	1.2%	1.2%	1.1%	0.1%	0.0%	0.5%
	10 Plastic Bags	1.7%	1.0%	1.2%	0.2%	0.1%	0.7%
	11 Other Film	5.3%	3.7%	5.5%	4.3%	1.2%	4.0%
	12 Expanded Polystyrene Blocks	0.1%	0.0%	0.3%	0.1%	0.0%	0.1%
	13 Mixed Rigid Plastics	3.4%	6.3%	3.9%	1.6%	1.7%	2.3%
	14 Other Plastics	1.9%	0.6%	1.8%	0.9%	0.3%	1.1%
Glass		3.7%	6.1%	2.5%	1.4%	4.0%	2.6%
	15 Recyclable Glass Bottles/Containers	3.0%	5.9%	2.0%	1.4%	0.7%	1.7%
	16 Other Glass	0.7%	0.3%	0.6%	0.0%	3.3%	0.9%
Metals		6.0%	4.6%	4.3%	6.1%	5.6%	5.8%
	17 Aluminum Cans	0.3%	0.5%	0.2%	0.2%	0.1%	0.2%
	18 Other Non-Ferrous	0.4%	0.7%	0.8%	0.0%	0.2%	0.2%
	19 Steel Food and Beverage Cans	1.4%	0.9%	0.6%	0.0%	0.1%	0.4%
	20 Other Ferrous	3.9%	2.5%	2.7%	6.0%	5.2%	4.9%
	21 White Goods	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
Yard Waste		4.4%	1.4%	5.5%	7.5%	12.0%	7.4%
	22 Leaves/Grass/Chips	3.2%	0.4%	2.6%	2.9%	6.7%	3.6%
	23 Branches/Stumps/Prunings/Trimings	1.3%	1.0%	2.9%	4.6%	5.4%	3.8%
Organics		32.3%	35.5%	33.5%	31.1%	32.4%	32.0%
	24 Food Waste	19.9%	21.5%	19.6%	8.3%	1.6%	11.1%
	25 Tires	0.0%	0.0%	0.5%	0.2%	0.0%	0.1%
	26 Untreated Lumber	0.6%	0.0%	1.1%	2.0%	6.7%	2.5%
	27 Pallets	0.0%	0.0%	1.7%	9.1%	0.5%	4.4%
	28 Treated Wood Waste	1.0%	1.5%	2.9%	8.3%	15.3%	7.3%
	29 Textiles and Leather	4.3%	4.4%	2.9%	1.8%	1.9%	2.6%
	30 Carpet	0.5%	2.5%	2.6%	0.2%	5.6%	1.7%
	31 Diapers	3.8%	3.4%	1.2%	0.2%	0.0%	1.1%
	32 Manure	1.4%	1.3%	0.4%	0.0%	0.2%	0.4%
	33 Other Organics	0.9%	0.9%	0.6%	0.9%	0.5%	0.8%
Inerts		6.3%	1.5%	1.3%	21.0%	28.1%	16.5%
	34 Crushable Inerts	1.8%	0.9%	0.3%	7.7%	12.0%	6.2%
	35 Other Inerts	4.4%	0.6%	0.7%	6.9%	9.7%	6.0%
	36 Gypsum Board	0.1%	0.0%	0.3%	6.5%	3.7%	3.7%
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0.0%	2.7%	0.5%
HHW		1.8%	2.4%	0.5%	0.2%	0.1%	0.6%
	38 Paint/Adhesives	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	39 Vehicle & Equipment Fluids	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
	41 Medical Waste	0.0%	0.0%	0.2%	0.1%	0.0%	0.1%
	42 Medicine	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%
	43 Covered E-Waste	0.7%	0.0%	0.0%	0.1%	0.1%	0.2%
	44 Other E-Waste	0.9%	1.5%	0.2%	0.0%	0.0%	0.2%
	45 Other Hazardous Waste	0.1%	0.5%	0.0%	0.0%	0.0%	0.0%
Special		1.1%	1.0%	2.5%	0.0%	1.7%	0.9%
	46 Brown Goods	0.6%	1.0%	1.7%	0.0%	0.1%	0.4%
	47 Composite Bulky Items	0.5%	0.0%	0.8%	0.0%	1.6%	0.5%
	48 Other Special Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF PLEASANTON**

**Table 4
Summary of Overall Material Tonnages for City of Pleasanton**

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
Paper		5,907	399	3,838	10,465	2,250	22,858
	1 Uncoated Corrugated Cardboard	119	29	265	2,616	943	3,972
	2 High Grade Paper	62	15	250	850	203	1,381
	3 Newspaper	176	58	133	0	83	451
	4 Mixed Recyclable Paper	897	112	776	5,092	891	7,768
	5 Compostable Paper	4,442	180	2,275	1,666	99	8,663
	6 Other Paper	211	5	138	239	30	624
Plastics		3,099	187	1,694	3,103	610	8,692
	7 HDPE Bottles (#2)	131	11	84	61	6	293
	8 PETE Bottles (#1)	203	18	82	80	10	392
	9 Other Plastic Containers	252	15	118	25	7	417
	10 Plastic Bags	344	12	136	92	20	604
	11 Other Film	1,075	45	612	1,778	210	3,721
	12 Expanded Polystyrene Blocks	12	0	29	52	6	100
	13 Mixed Rigid Plastics	688	77	438	643	301	2,147
	14 Other Plastics	394	8	196	372	50	1,019
Glass		752	76	282	572	716	2,398
	15 Recyclable Glass Bottles/Containers	614	72	220	572	124	1,603
	16 Other Glass	138	3	62	0	592	795
Metals		1,216	57	481	2,543	1,002	5,300
	17 Aluminum Cans	64	6	27	68	10	175
	18 Other Non-Ferrous	77	9	85	0	32	203
	19 Steel Food and Beverage Cans	283	11	72	0	12	378
	20 Other Ferrous	792	31	296	2,476	926	4,521
	21 White Goods	0	0	0	0	23	23
Yard Waste		902	17	613	3,091	2,147	6,770
	22 Leaves/Grass/Chips	642	5	292	1,193	1,188	3,320
	23 Branches/Stumps/Prunings/Trimnings	260	13	321	1,898	959	3,450
Organics		6,545	439	3,729	12,884	5,783	29,380
	24 Food Waste	4,032	265	2,185	3,458	294	10,234
	25 Tires	0	1	51	68	0	120
	26 Untreated Lumber	122	0	125	836	1,198	2,282
	27 Pallets	0	0	185	3,762	89	4,036
	28 Treated Wood Waste	199	19	317	3,432	2,739	6,706
	29 Textiles and Leather	867	54	322	758	347	2,348
	30 Carpet	111	31	294	91	995	1,521
	31 Diapers	762	42	138	94	5	1,042
	32 Manure	278	16	46	0	29	369
	33 Other Organics	174	11	65	385	86	721
Inerts		1,276	19	148	8,686	5,018	15,146
	34 Crushable Inerts	366	11	37	3,172	2,145	5,731
	35 Other Inerts	893	8	80	2,841	1,734	5,555
	36 Gypsum Board	13	0	31	2,673	656	3,373
	37 Asphalt Roofing	4	0	0	0	483	487
HHW		365	30	61	92	24	572
	38 Paint/Adhesives	1	0	5	0	0	6
	39 Vehicle & Equipment Fluids	5	0	1	0	0	7
	40 Universal Hazardous Waste	23	1	4	0	0	28
	41 Medical Waste	4	0	27	55	0	87
	42 Medicine	6	4	1	0	0	12
	43 Covered E-Waste	134	0	0	37	24	195
	44 Other E-Waste	178	18	20	0	0	216
	45 Other Hazardous Waste	13	6	3	0	0	23
Special		222	12	279	0	308	821
	46 Brown Goods	128	12	193	0	14	348
	47 Composite Bulky Items	93	0	85	0	294	473
	48 Other Special Waste	0	0	0	0	0	0
TOTAL		20,283	1,236	11,124	41,436	17,858	91,937

Table 5
City of Pleasanton Aggregate Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		22,858	24.9%	25.6%	27.5%
	1 Uncoated Corrugated Cardboard	3,972	4.3%	4.2%	5.4%
	2 High Grade Paper	1,381	1.5%	1.5%	1.9%
	3 Newspaper	451	0.5%	0.6%	0.8%
	4 Mixed Recyclable Paper	7,768	8.4%	8.4%	9.9%
	5 Compostable Paper	8,663	9.4%	10.5%	10.2%
	6 Other Paper	624	0.7%	0.7%	0.8%
Plastics		8,692	9.5%	10.1%	10.2%
	7 HDPE Bottles (#2)	293	0.3%	0.4%	0.4%
	8 PETE Bottles (#1)	392	0.4%	0.5%	0.5%
	9 Other Plastic Containers	417	0.5%	0.5%	0.5%
	10 Plastic Bags	604	0.7%	0.8%	0.8%
	11 Other Film	3,721	4.0%	4.2%	4.5%
	12 Expanded Polystyrene Blocks	100	0.1%	0.1%	0.1%
	13 Mixed Rigid Plastics	2,147	2.3%	2.5%	2.9%
	14 Other Plastics	1,019	1.1%	1.2%	1.3%
Glass		2,398	2.6%	2.9%	3.5%
	15 Recyclable Glass Bottles/Containers	1,603	1.7%	1.9%	2.1%
	16 Other Glass	795	0.9%	1.0%	1.7%
Metals		5,300	5.8%	6.0%	6.9%
	17 Aluminum Cans	175	0.2%	0.2%	0.2%
	18 Other Non-Ferrous	203	0.2%	0.3%	0.3%
	19 Steel Food and Beverage Cans	378	0.4%	0.5%	0.5%
	20 Other Ferrous	4,521	4.9%	5.0%	6.0%
	21 White Goods	23	0.0%	0.0%	0.1%
Yard Waste		6,770	7.4%	7.6%	10.2%
	22 Leaves/Grass/Chips	3,320	3.6%	3.9%	5.3%
	23 Branches/Stumps/Prunings/Trimings	3,450	3.8%	3.9%	5.4%
Organics		29,380	32.0%	32.3%	36.2%
	24 Food Waste	10,234	11.1%	12.2%	12.6%
	25 Tires	120	0.1%	0.2%	0.2%
	26 Untreated Lumber	2,282	2.5%	2.6%	3.9%
	27 Pallets	4,036	4.4%	4.2%	5.1%
	28 Treated Wood Waste	6,706	7.3%	7.2%	10.1%
	29 Textiles and Leather	2,348	2.6%	2.8%	3.1%
	30 Carpet	1,521	1.7%	1.9%	3.2%
	31 Diapers	1,042	1.1%	1.4%	1.4%
	32 Manure	369	0.4%	0.5%	0.6%
	33 Other Organics	721	0.8%	0.8%	1.0%
Inerts		15,146	16.5%	16.0%	21.1%
	34 Crushable Inerts	5,731	6.2%	6.3%	8.9%
	35 Other Inerts	5,555	6.0%	6.3%	8.4%
	36 Gypsum Board	3,373	3.7%	3.6%	4.7%
	37 Asphalt Roofing	487	0.5%	0.7%	1.3%
HHW		572	0.6%	0.8%	0.9%
	38 Paint/Adhesives	6	0.0%	0.0%	0.0%
	39 Vehicle & Equipment Fluids	7	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	28	0.0%	0.0%	0.0%
	41 Medical Waste	87	0.1%	0.1%	0.1%
	42 Medicine	12	0.0%	0.0%	0.0%
	43 Covered E-Waste	195	0.2%	0.3%	0.3%
	44 Other E-Waste	216	0.2%	0.4%	0.4%
	45 Other Hazardous Waste	23	0.0%	0.0%	0.1%
Special		821	0.9%	1.1%	1.5%
	46 Brown Goods	348	0.4%	0.5%	0.7%
	47 Composite Bulky Items	473	0.5%	0.6%	1.0%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		91,937	100.0%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF PLEASANTON**

**Table 6
City of Pleasanton Single-Family Residential Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		5,907	29.1%	26.9%	31.4%
	1 Uncoated Corrugated Cardboard	119	0.6%	0.4%	0.8%
	2 High Grade Paper	62	0.3%	0.2%	0.5%
	3 Newspaper	176	0.9%	0.5%	1.3%
	4 Mixed Recyclable Paper	897	4.4%	3.5%	5.5%
	5 Compostable Paper	4,442	21.9%	20.1%	23.8%
	6 Other Paper	211	1.0%	0.8%	1.3%
Plastics		3,099	15.3%	14.1%	16.5%
	7 HDPE Bottles (#2)	131	0.6%	0.5%	0.8%
	8 PETE Bottles (#1)	203	1.0%	0.9%	1.1%
	9 Other Plastic Containers	252	1.2%	0.9%	1.6%
	10 Plastic Bags	344	1.7%	1.2%	2.3%
	11 Other Film	1,075	5.3%	4.1%	6.7%
	12 Expanded Polystyrene Blocks	12	0.1%	0.0%	0.1%
	13 Mixed Rigid Plastics	688	3.4%	2.6%	4.3%
	14 Other Plastics	394	1.9%	1.3%	2.7%
Glass		752	3.7%	3.0%	4.4%
	15 Recyclable Glass Bottles/Containers	614	3.0%	2.3%	3.8%
	16 Other Glass	138	0.7%	0.3%	1.2%
Metals		1,216	6.0%	4.6%	7.5%
	17 Aluminum Cans	64	0.3%	0.3%	0.4%
	18 Other Non-Ferrous	77	0.4%	0.3%	0.4%
	19 Steel Food and Beverage Cans	283	1.4%	1.2%	1.7%
	20 Other Ferrous	792	3.9%	2.6%	5.5%
	21 White Goods	0	0.0%	0.0%	0.0%
Yard Waste		902	4.4%	3.1%	6.1%
	22 Leaves/Grass/Chips	642	3.2%	1.9%	4.7%
	23 Branches/Stumps/Prunings/Trimnings	260	1.3%	0.6%	2.3%
Organics		6,545	32.3%	29.6%	35.0%
	24 Food Waste	4,032	19.9%	17.9%	21.9%
	25 Tires	0	0.0%	0.0%	0.0%
	26 Untreated Lumber	122	0.6%	0.2%	1.1%
	27 Pallets	0	0.0%	0.0%	0.0%
	28 Treated Wood Waste	199	1.0%	0.6%	1.5%
	29 Textiles and Leather	867	4.3%	3.2%	5.5%
	30 Carpet	111	0.5%	0.2%	1.1%
	31 Diapers	762	3.8%	2.7%	5.0%
	32 Manure	278	1.4%	0.7%	2.3%
	33 Other Organics	174	0.9%	0.5%	1.4%
Inerts		1,276	6.3%	4.4%	8.5%
	34 Crushable Inerts	366	1.8%	0.9%	3.0%
	35 Other Inerts	893	4.4%	2.5%	6.7%
	36 Gypsum Board	13	0.1%	0.0%	0.1%
	37 Asphalt Roofing	4	0.0%	0.0%	0.0%
HHW		365	1.8%	0.8%	3.2%
	38 Paint/Adhesives	1	0.0%	0.0%	0.0%
	39 Vehicle & Equipment Fluids	5	0.0%	0.0%	0.1%
	40 Universal Hazardous Waste	23	0.1%	0.1%	0.2%
	41 Medical Waste	4	0.0%	0.0%	0.0%
	42 Medicine	6	0.0%	0.0%	0.1%
	43 Covered E-Waste	134	0.7%	0.2%	1.5%
	44 Other E-Waste	178	0.9%	0.3%	1.8%
	45 Other Hazardous Waste	13	0.1%	0.0%	0.1%
Special		222	1.1%	0.4%	2.1%
	46 Brown Goods	128	0.6%	0.2%	1.3%
	47 Composite Bulky Items	93	0.5%	0.1%	1.0%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		20,283	100.0%		

Table 7
City of Pleasanton Multi-Family Residential Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		399	32.28%	28.12%	36.60%
	1 Uncoated Corrugated Cardboard	29	2.33%	1.18%	3.85%
	2 High Grade Paper	15	1.21%	0.60%	2.03%
	3 Newspaper	58	4.71%	1.96%	8.55%
	4 Mixed Recyclable Paper	112	9.09%	5.67%	13.22%
	5 Compostable Paper	180	14.58%	11.09%	18.46%
	6 Other Paper	5	0.37%	0.24%	0.52%
Plastics		187	15.09%	12.09%	18.35%
	7 HDPE Bottles (#2)	11	0.90%	0.68%	1.15%
	8 PETE Bottles (#1)	18	1.46%	1.09%	1.89%
	9 Other Plastic Containers	15	1.19%	0.77%	1.71%
	10 Plastic Bags	12	0.98%	0.64%	1.38%
	11 Other Film	45	3.67%	2.51%	5.04%
	12 Expanded Polystyrene Blocks	0	0.00%	0.00%	0.01%
	13 Mixed Rigid Plastics	77	6.25%	3.46%	9.80%
	14 Other Plastics	8	0.63%	0.48%	0.81%
Glass		76	6.12%	4.56%	7.89%
	15 Recyclable Glass Bottles/Containers	72	5.85%	4.30%	7.62%
	16 Other Glass	3	0.27%	0.07%	0.59%
Metals		57	4.62%	3.03%	6.53%
	17 Aluminum Cans	6	0.47%	0.30%	0.67%
	18 Other Non-Ferrous	9	0.71%	0.35%	1.20%
	19 Steel Food and Beverage Cans	11	0.92%	0.59%	1.31%
	20 Other Ferrous	31	2.53%	1.04%	4.65%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		17	1.41%	0.56%	2.64%
	22 Leaves/Grass/Chips	5	0.36%	0.17%	0.64%
	23 Branches/Stumps/Prunings/Trimnings	13	1.05%	0.24%	2.42%
Organics		439	35.49%	31.52%	39.57%
	24 Food Waste	265	21.45%	16.67%	26.66%
	25 Tires	1	0.05%	0.01%	0.13%
	26 Untreated Lumber	0	0.03%	0.01%	0.08%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	19	1.54%	0.49%	3.17%
	29 Textiles and Leather	54	4.37%	2.47%	6.79%
	30 Carpet	31	2.48%	0.55%	5.74%
	31 Diapers	42	3.39%	1.92%	5.26%
	32 Manure	16	1.27%	0.34%	2.77%
	33 Other Organics	11	0.91%	0.45%	1.53%
Inerts		19	1.55%	0.77%	2.59%
	34 Crushable Inerts	11	0.90%	0.33%	1.74%
	35 Other Inerts	8	0.65%	0.23%	1.27%
	36 Gypsum Board	0	0.00%	0.00%	0.00%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		30	2.44%	0.92%	4.68%
	38 Paint/Adhesives	0	0.02%	0.00%	0.06%
	39 Vehicle & Equipment Fluids	0	0.01%	0.00%	0.03%
	40 Universal Hazardous Waste	1	0.05%	0.02%	0.09%
	41 Medical Waste	0	0.00%	0.00%	0.01%
	42 Medicine	4	0.36%	0.08%	0.85%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	18	1.47%	0.34%	3.39%
	45 Other Hazardous Waste	6	0.52%	0.13%	1.16%
Special		12	0.99%	0.24%	2.25%
	46 Brown Goods	12	0.99%	0.24%	2.25%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		1,236	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF PLEASANTON**

**Table 8
City of Pleasanton Commercial Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		3,838	34.50%	30.83%	38.27%
	1 Uncoated Corrugated Cardboard	265	2.38%	1.76%	3.09%
	2 High Grade Paper	250	2.25%	1.55%	3.07%
	3 Newspaper	133	1.20%	0.85%	1.62%
	4 Mixed Recyclable Paper	776	6.98%	5.44%	8.70%
	5 Compostable Paper	2,275	20.45%	17.98%	23.04%
	6 Other Paper	138	1.24%	0.82%	1.74%
Plastics		1,694	15.23%	13.86%	16.65%
	7 HDPE Bottles (#2)	84	0.75%	0.53%	1.01%
	8 PETE Bottles (#1)	82	0.74%	0.60%	0.89%
	9 Other Plastic Containers	118	1.06%	0.81%	1.33%
	10 Plastic Bags	136	1.22%	0.83%	1.68%
	11 Other Film	612	5.50%	4.53%	6.57%
	12 Expanded Polystyrene Blocks	29	0.26%	0.14%	0.44%
	13 Mixed Rigid Plastics	438	3.94%	3.16%	4.80%
	14 Other Plastics	196	1.76%	1.25%	2.36%
Glass		282	2.53%	1.91%	3.24%
	15 Recyclable Glass Bottles/Containers	220	1.98%	1.46%	2.57%
	16 Other Glass	62	0.56%	0.29%	0.91%
Metals		481	4.32%	3.38%	5.38%
	17 Aluminum Cans	27	0.24%	0.19%	0.31%
	18 Other Non-Ferrous	85	0.77%	0.47%	1.14%
	19 Steel Food and Beverage Cans	72	0.65%	0.45%	0.87%
	20 Other Ferrous	296	2.66%	1.83%	3.65%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		613	5.51%	3.44%	8.03%
	22 Leaves/Grass/Chips	292	2.63%	1.53%	4.01%
	23 Branches/Stumps/Prunings/Trimnings	321	2.88%	1.41%	4.86%
Organics		3,729	33.52%	29.36%	37.82%
	24 Food Waste	2,185	19.64%	15.67%	23.94%
	25 Tires	51	0.46%	0.19%	0.85%
	26 Untreated Lumber	125	1.13%	0.59%	1.84%
	27 Pallets	185	1.67%	0.75%	2.94%
	28 Treated Wood Waste	317	2.85%	1.58%	4.48%
	29 Textiles and Leather	322	2.90%	1.96%	4.01%
	30 Carpet	294	2.64%	1.33%	4.38%
	31 Diapers	138	1.24%	0.75%	1.85%
	32 Manure	46	0.42%	0.19%	0.73%
	33 Other Organics	65	0.58%	0.36%	0.85%
Inerts		148	1.33%	0.84%	1.92%
	34 Crushable Inerts	37	0.33%	0.16%	0.55%
	35 Other Inerts	80	0.72%	0.46%	1.04%
	36 Gypsum Board	31	0.28%	0.13%	0.49%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		61	0.55%	0.31%	0.86%
	38 Paint/Adhesives	5	0.04%	0.02%	0.07%
	39 Vehicle & Equipment Fluids	1	0.01%	0.00%	0.02%
	40 Universal Hazardous Waste	4	0.04%	0.02%	0.06%
	41 Medical Waste	27	0.25%	0.11%	0.44%
	42 Medicine	1	0.01%	0.00%	0.02%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	20	0.18%	0.08%	0.31%
	45 Other Hazardous Waste	3	0.03%	0.01%	0.05%
Special		279	2.50%	1.22%	4.24%
	46 Brown Goods	193	1.74%	0.76%	3.10%
	47 Composite Bulky Items	85	0.77%	0.35%	1.35%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		11,124	100.00%		

Table 9
City of Pleasanton Roll-Off Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		10,465	25.3%	14.5%	37.9%
	1 Uncoated Corrugated Cardboard	2,616	6.3%	3.2%	10.3%
	2 High Grade Paper	850	2.1%	0.5%	4.6%
	3 Newspaper	0	0.0%	0.0%	0.0%
	4 Mixed Recyclable Paper	5,092	12.3%	4.7%	22.8%
	5 Compostable Paper	1,666	4.0%	1.9%	6.9%
	6 Other Paper	239	0.6%	0.1%	1.3%
Plastics		3,103	7.5%	4.3%	11.5%
	7 HDPE Bottles (#2)	61	0.1%	0.0%	0.3%
	8 PETE Bottles (#1)	80	0.2%	0.1%	0.4%
	9 Other Plastic Containers	25	0.1%	0.0%	0.2%
	10 Plastic Bags	92	0.2%	0.1%	0.5%
	11 Other Film	1,778	4.3%	2.0%	7.4%
	12 Expanded Polystyrene Blocks	52	0.1%	0.0%	0.3%
	13 Mixed Rigid Plastics	643	1.6%	0.9%	2.4%
	14 Other Plastics	372	0.9%	0.3%	1.7%
Glass		572	1.4%	0.3%	3.2%
	15 Recyclable Glass Bottles/Containers	572	1.4%	0.3%	3.2%
	16 Other Glass	0	0.0%	0.0%	0.0%
Metals		2,543	6.1%	2.2%	11.8%
	17 Aluminum Cans	68	0.2%	0.1%	0.3%
	18 Other Non-Ferrous	0	0.0%	0.0%	0.0%
	19 Steel Food and Beverage Cans	0	0.0%	0.0%	0.0%
	20 Other Ferrous	2,476	6.0%	2.1%	11.7%
	21 White Goods	0	0.0%	0.0%	0.0%
Yard Waste		3,091	7.5%	2.0%	15.9%
	22 Leaves/Grass/Chips	1,193	2.9%	0.7%	6.4%
	23 Branches/Stumps/Prunings/Trimmings	1,898	4.6%	1.0%	10.6%
Organics		12,884	31.1%	19.9%	43.5%
	24 Food Waste	3,458	8.3%	1.5%	19.9%
	25 Tires	68	0.2%	0.0%	0.4%
	26 Untreated Lumber	836	2.0%	0.5%	4.4%
	27 Pallets	3,762	9.1%	3.4%	17.1%
	28 Treated Wood Waste	3,432	8.3%	2.5%	17.1%
	29 Textiles and Leather	758	1.8%	0.7%	3.6%
	30 Carpet	91	0.2%	0.0%	0.5%
	31 Diapers	94	0.2%	0.0%	0.6%
	32 Manure	0	0.0%	0.0%	0.0%
	33 Other Organics	385	0.9%	0.2%	2.1%
Inerts		8,686	21.0%	7.0%	39.9%
	34 Crushable Inerts	3,172	7.7%	2.2%	16.1%
	35 Other Inerts	2,841	6.9%	1.5%	15.7%
	36 Gypsum Board	2,673	6.5%	2.0%	13.3%
	37 Asphalt Roofing	0	0.0%	0.0%	0.0%
HHW		92	0.2%	0.0%	0.5%
	38 Paint/Adhesives	0	0.0%	0.0%	0.0%
	39 Vehicle & Equipment Fluids	0	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	0	0.0%	0.0%	0.0%
	41 Medical Waste	55	0.1%	0.0%	0.3%
	42 Medicine	0	0.0%	0.0%	0.0%
	43 Covered E-Waste	37	0.1%	0.0%	0.2%
	44 Other E-Waste	0	0.0%	0.0%	0.0%
	45 Other Hazardous Waste	0	0.0%	0.0%	0.0%
Special		0	0.0%	0.0%	0.0%
	46 Brown Goods	0	0.0%	0.0%	0.0%
	47 Composite Bulky Items	0	0.0%	0.0%	0.0%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		41,436	100.0%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF PLEASANTON**

**Table 10
City of Pleasanton Self Haul Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		2,250	12.6%	8.5%	17.4%
	1 Uncoated Corrugated Cardboard	943	5.3%	3.5%	7.4%
	2 High Grade Paper	203	1.1%	0.6%	1.8%
	3 Newspaper	83	0.5%	0.3%	0.7%
	4 Mixed Recyclable Paper	891	5.0%	3.1%	7.2%
	5 Compostable Paper	99	0.6%	0.4%	0.8%
	6 Other Paper	30	0.2%	0.1%	0.3%
Plastics		610	3.4%	2.4%	4.6%
	7 HDPE Bottles (#2)	6	0.0%	0.0%	0.0%
	8 PETE Bottles (#1)	10	0.1%	0.0%	0.1%
	9 Other Plastic Containers	7	0.0%	0.0%	0.1%
	10 Plastic Bags	20	0.1%	0.1%	0.2%
	11 Other Film	210	1.2%	0.8%	1.6%
	12 Expanded Polystyrene Blocks	6	0.0%	0.0%	0.1%
	13 Mixed Rigid Plastics	301	1.7%	1.0%	2.5%
	14 Other Plastics	50	0.3%	0.2%	0.4%
Glass		716	4.0%	2.5%	5.9%
	15 Recyclable Glass Bottles/Containers	124	0.7%	0.4%	1.1%
	16 Other Glass	592	3.3%	2.0%	5.0%
Metals		1,002	5.6%	3.9%	7.6%
	17 Aluminum Cans	10	0.1%	0.0%	0.1%
	18 Other Non-Ferrous	32	0.2%	0.1%	0.3%
	19 Steel Food and Beverage Cans	12	0.1%	0.0%	0.1%
	20 Other Ferrous	926	5.2%	3.5%	7.2%
	21 White Goods	23	0.1%	0.1%	0.2%
Yard Waste		2,147	12.0%	7.3%	17.7%
	22 Leaves/Grass/Chips	1,188	6.7%	3.9%	10.1%
	23 Branches/Stumps/Prunings/Trimnings	959	5.4%	2.9%	8.5%
Organics		5,783	32.4%	24.5%	40.8%
	24 Food Waste	294	1.6%	0.9%	2.6%
	25 Tires	0	0.0%	0.0%	0.0%
	26 Untreated Lumber	1,198	6.7%	4.3%	9.6%
	27 Pallets	89	0.5%	0.3%	0.8%
	28 Treated Wood Waste	2,739	15.3%	10.5%	20.9%
	29 Textiles and Leather	347	1.9%	1.3%	2.8%
	30 Carpet	995	5.6%	3.1%	8.7%
	31 Diapers	5	0.0%	0.0%	0.0%
	32 Manure	29	0.2%	0.1%	0.3%
	33 Other Organics	86	0.5%	0.3%	0.7%
Inerts		5,018	28.1%	19.8%	37.2%
	34 Crushable Inerts	2,145	12.0%	7.6%	17.3%
	35 Other Inerts	1,734	9.7%	5.9%	14.4%
	36 Gypsum Board	656	3.7%	2.3%	5.4%
	37 Asphalt Roofing	483	2.7%	1.5%	4.3%
HHW		24	0.1%	0.1%	0.2%
	38 Paint/Adhesives	0	0.0%	0.0%	0.0%
	39 Vehicle & Equipment Fluids	0	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	0	0.0%	0.0%	0.0%
	41 Medical Waste	0	0.0%	0.0%	0.0%
	42 Medicine	0	0.0%	0.0%	0.0%
	43 Covered E-Waste	24	0.1%	0.1%	0.2%
	44 Other E-Waste	0	0.0%	0.0%	0.0%
	45 Other Hazardous Waste	0	0.0%	0.0%	0.0%
Special		308	1.7%	1.0%	2.7%
	46 Brown Goods	14	0.1%	0.0%	0.1%
	47 Composite Bulky Items	294	1.6%	0.9%	2.5%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		17,858	100.0%		

Table 11
City of Pleasanton Detailed Historic Comparison of Overall Jurisdiction-wide Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		24.0%	29.1%	24.9%	23,596	36,497	22,858
	1 Uncoated Corrugated Cardboard	5.6%	8.2%	4.3%	5,527	10,229	3,972
	2 High Grade Paper	2.3%	2.5%	1.5%	2,296	3,069	1,381
	3 Newspaper	3.8%	5.3%	0.5%	3,783	6,593	451
	4 Mixed Recyclable Paper	6.0%	6.5%	8.4%	5,921	8,180	7,768
	5 Compostable Paper	NA	NA	9.4%	NA	NA	8,663
	6 Other Paper	6.2%	6.7%	0.7%	6,069	8,426	624
Plastics		6.6%	7.9%	9.5%	6,463	9,831	8,692
	7 HDPE Bottles (#2)	0.5%	0.9%	0.3%	443	1,113	293
	8 PETE Bottles (#1)	0.2%	0.5%	0.4%	217	601	392
	9 Other Plastic Containers	NA	0.4%	0.5%	NA	551	417
	10 Plastic Bags	NA	NA	0.7%	NA	NA	604
	11 Other Film	2.6%	3.1%	4.0%	2,532	3,928	3,721
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	100
	13 Mixed Rigid Plastics	NA	NA	2.3%	NA	NA	2,147
	14 Other Plastics	3.3%	2.9%	1.1%	3,271	3,637	1,019
Glass		1.7%	1.7%	2.6%	1,635	2,077	2,398
	15 Recyclable Glass Bottles/Containers	1.1%	1.3%	1.7%	1,123	1,657	1,603
	16 Other Glass	0.5%	0.3%	0.9%	512	420	795
Metals		5.0%	6.4%	5.8%	4,896	8,002	5,300
	17 Aluminum Cans	0.2%	0.2%	0.2%	158	239	175
	18 Other Non-Ferrous	0.3%	0.7%	0.2%	296	936	203
	19 Steel Food and Beverage Cans	0.4%	0.6%	0.4%	433	734	378
	20 Other Ferrous	4.1%	4.6%	4.9%	4,010	5,718	4,521
	21 White Goods	0.0%	0.3%	0.0%	0	375	23
Yard Waste		19.9%	7.2%	7.4%	19,625	9,057	6,770
	22 Leaves/Grass/Chips	8.6%	3.9%	3.6%	8,512	4,933	3,320
	23 Branches/Stumps/Prunings/Trimings	11.3%	3.3%	3.8%	11,113	4,124	3,450
Organics		29.5%	31.4%	32.0%	29,034	39,268	29,380
	24 Food Waste	6.9%	8.1%	11.1%	6,828	10,177	10,234
	25 Tires	0.0%	0.1%	0.1%	0	77	120
	26 Untreated Lumber	8.8%	9.8%	2.5%	8,660	12,211	2,282
	27 Pallets	NA	NA	4.4%	NA	NA	4,036
	28 Treated Wood Waste	6.0%	9.6%	7.3%	5,872	11,965	6,706
	29 Textiles and Leather	5.2%	1.0%	2.6%	5,153	1,192	2,348
	30 Carpet	NA	0.1%	1.7%	NA	165	1,521
	31 Diapers	0.9%	1.0%	1.1%	887	1,194	1,042
	32 Manure	NA	NA	0.4%	NA	NA	369
	33 Other Organics	1.7%	1.8%	0.8%	1,635	2,285	721
Inerts		10.4%	12.3%	16.5%	10,266	15,457	15,146
	34 Crushable Inerts	2.2%	5.0%	6.2%	2,158	6,253	5,731
	35 Other Inerts	3.0%	3.2%	6.0%	2,985	4,010	5,555
	36 Gypsum Board	1.6%	1.4%	3.7%	1,537	1,758	3,373
	37 Asphalt Roofing	3.6%	2.7%	0.5%	3,586	3,435	487
HHW		0.3%	0.1%	0.6%	315	166	572
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	6
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	7
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	28
	41 Medical Waste	NA	NA	0.1%	NA	NA	87
	42 Medicine	NA	NA	0.0%	NA	NA	12
	43 Covered E-Waste	NA	NA	0.2%	NA	NA	195
	44 Other E-Waste	NA	NA	0.2%	NA	NA	216
	45 Other Hazardous Waste	0.3%	0.1%	0.0%	315	166	23
Special		2.7%	3.9%	0.9%	2,690	4,851	821
	46 Brown Goods	1.6%	0.3%	0.4%	1,596	350	348
	47 Composite Bulky Items	1.1%	3.6%	0.5%	1,094	4,501	473
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	98,521	125,205	91,937

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF PLEASANTON**

**Table 12
City of Pleasanton Detailed Historic Comparison of Single-Family Residential Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		37.5%	50.5%	29.1%	7,129	12,211	5,907
	1 Uncoated Corrugated Cardboard	3.4%	4.7%	0.6%	643	1,130	119
	2 High Grade Paper	2.9%	2.0%	0.3%	543	494	62
	3 Newspaper	10.7%	19.9%	0.9%	2,029	4,819	176
	4 Mixed Recyclable Paper	9.2%	14.5%	4.4%	1,751	3,509	897
	5 Compostable Paper	NA	NA	21.9%	NA	NA	4,442
	6 Other Paper	11.4%	9.3%	1.0%	2,163	2,259	211
Plastics		9.9%	9.2%	15.3%	1,883	2,225	3,099
	7 HDPE Bottles (#2)	0.9%	1.3%	0.6%	175	308	131
	8 PETE Bottles (#1)	0.5%	1.2%	1.0%	95	284	203
	9 Other Plastic Containers	NA	0.7%	1.2%	NA	162	252
	10 Plastic Bags	NA	NA	1.7%	NA	NA	344
	11 Other Film	4.4%	3.5%	5.3%	836	856	1,075
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	12
	13 Mixed Rigid Plastics	NA	NA	3.4%	NA	NA	688
	14 Other Plastics	4.1%	2.5%	1.9%	777	615	394
Glass		2.4%	4.1%	3.7%	453	984	752
	15 Recyclable Glass Bottles/Containers	2.2%	3.7%	3.0%	419	892	614
	16 Other Glass	0.2%	0.4%	0.7%	34	92	138
Metals		4.5%	3.2%	6.0%	853	763	1,216
	17 Aluminum Cans	0.3%	0.5%	0.3%	51	111	64
	18 Other Non-Ferrous	0.2%	0.3%	0.4%	40	74	77
	19 Steel Food and Beverage Cans	1.1%	1.4%	1.4%	200	328	283
	20 Other Ferrous	3.0%	1.0%	3.9%	562	250	792
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		14.6%	6.3%	4.4%	2,777	1,530	902
	22 Leaves/Grass/Chips	11.5%	5.1%	3.2%	2,197	1,225	642
	23 Branches/Stumps/Prunings/Trimmings	3.1%	1.3%	1.3%	581	306	260
Organics		24.3%	22.3%	32.3%	4,622	5,391	6,545
	24 Food Waste	13.8%	11.9%	19.9%	2,635	2,871	4,032
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	1.0%	0.8%	0.6%	190	197	122
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	0.5%	0.9%	1.0%	91	222	199
	29 Textiles and Leather	4.7%	1.8%	4.3%	887	428	867
	30 Carpet	NA	0.1%	0.5%	NA	15	111
	31 Diapers	3.0%	2.7%	3.8%	571	660	762
	32 Manure	NA	NA	1.4%	NA	NA	278
	33 Other Organics	1.3%	4.1%	0.9%	247	997	174
Inerts		5.4%	3.2%	6.3%	1,022	780	1,276
	34 Crushable Inerts	1.0%	0.8%	1.8%	190	186	366
	35 Other Inerts	4.4%	1.6%	4.4%	832	379	893
	36 Gypsum Board	0.0%	0.0%	0.1%	0	9	13
	37 Asphalt Roofing	0.0%	0.9%	0.0%	0	207	4
HHW		0.6%	0.1%	1.8%	105	25	365
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	1
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	5
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	23
	41 Medical Waste	NA	NA	0.0%	NA	NA	4
	42 Medicine	NA	NA	0.0%	NA	NA	6
	43 Covered E-Waste	NA	NA	0.7%	NA	NA	134
	44 Other E-Waste	NA	NA	0.9%	NA	NA	178
	45 Other Hazardous Waste	0.6%	0.1%	0.1%	105	25	13
Special		1.0%	1.2%	1.1%	194	294	222
	46 Brown Goods	1.0%	0.2%	0.6%	194	59	128
	47 Composite Bulky Items	0.0%	1.0%	0.5%	0	235	93
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	19,037	24,203	20,283

Table 13
City of Pleasanton Detailed Historic Comparison of Multi-Family Residential Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		47.7%	33.2%	32.3%	2,207	1,193	399
	1 Uncoated Corrugated Cardboard	6.7%	3.2%	2.3%	311	115	29
	2 High Grade Paper	3.7%	1.5%	1.2%	169	55	15
	3 Newspaper	14.4%	13.2%	4.7%	667	475	58
	4 Mixed Recyclable Paper	13.0%	7.6%	9.1%	603	275	112
	5 Compostable Paper	NA	NA	14.6%	NA	NA	180
	6 Other Paper	9.9%	7.6%	0.4%	457	273	5
Plastics		9.2%	8.5%	15.1%	424	305	187
	7 HDPE Bottles (#2)	1.0%	0.8%	0.9%	44	31	11
	8 PETE Bottles (#1)	0.5%	0.8%	1.5%	25	28	18
	9 Other Plastic Containers	NA	0.3%	1.2%	NA	12	15
	10 Plastic Bags	NA	NA	1.0%	NA	NA	12
	11 Other Film	3.1%	3.5%	3.7%	144	127	45
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	0
	13 Mixed Rigid Plastics	NA	NA	6.3%	NA	NA	77
	14 Other Plastics	4.6%	3.0%	0.6%	211	106	8
Glass		4.6%	6.0%	6.1%	214	216	76
	15 Recyclable Glass Bottles/Containers	4.3%	5.7%	5.9%	199	204	72
	16 Other Glass	0.3%	0.3%	0.3%	15	12	3
Metals		5.8%	10.2%	4.6%	267	368	57
	17 Aluminum Cans	0.8%	0.5%	0.5%	35	18	6
	18 Other Non-Ferrous	1.4%	0.2%	0.7%	66	8	9
	19 Steel Food and Beverage Cans	1.4%	1.8%	0.9%	64	64	11
	20 Other Ferrous	2.2%	7.7%	2.5%	102	278	31
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		7.3%	5.7%	1.4%	337	204	17
	22 Leaves/Grass/Chips	6.0%	3.8%	0.4%	278	135	5
	23 Branches/Stumps/Prunings/Trimmings	1.3%	1.9%	1.0%	59	70	13
Organics		20.7%	31.3%	35.5%	960	1,127	439
	24 Food Waste	14.4%	13.7%	21.5%	665	493	265
	25 Tires	0.0%	0.0%	0.0%	0	0	1
	26 Untreated Lumber	0.6%	3.0%	0.0%	28	108	0
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	0.7%	10.2%	1.5%	31	365	19
	29 Textiles and Leather	2.4%	0.9%	4.4%	111	31	54
	30 Carpet	NA	0.1%	2.5%	NA	2	31
	31 Diapers	2.2%	1.4%	3.4%	103	52	42
	32 Manure	NA	NA	1.3%	NA	NA	16
	33 Other Organics	0.5%	2.1%	0.9%	23	76	11
Inerts		3.7%	3.6%	1.5%	169	128	19
	34 Crushable Inerts	0.6%	3.0%	0.9%	26	107	11
	35 Other Inerts	2.1%	0.6%	0.6%	97	21	8
	36 Gypsum Board	0.0%	0.0%	0.0%	0	0	0
	37 Asphalt Roofing	1.0%	0.0%	0.0%	46	0	0
HHW		1.1%	0.1%	2.4%	49	4	30
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	1
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.4%	NA	NA	4
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	1.5%	NA	NA	18
	45 Other Hazardous Waste	1.1%	0.1%	0.5%	49	4	6
Special		0.1%	1.4%	1.0%	4	50	12
	46 Brown Goods	0.1%	1.4%	1.0%	4	50	12
	47 Composite Bulky Items	0.0%	0.0%	0.0%	0	0	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	4,631	3,595	1,236

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF PLEASANTON**

**Table 14
City of Pleasanton Detailed Historic Comparison of Commercial Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		44.0%	42.2%	34.5%	5,863	6,781	3,838
	1 Uncoated Corrugated Cardboard	9.8%	10.9%	2.4%	1,311	1,753	265
	2 High Grade Paper	7.6%	6.4%	2.2%	1,014	1,034	250
	3 Newspaper	4.7%	5.0%	1.2%	621	810	133
	4 Mixed Recyclable Paper	9.1%	9.5%	7.0%	1,216	1,524	776
	5 Compostable Paper	NA	NA	20.5%	NA	NA	2,275
	6 Other Paper	12.8%	10.3%	1.2%	1,701	1,660	138
Plastics		9.9%	14.4%	15.2%	1,322	2,310	1,694
	7 HDPE Bottles (#2)	0.9%	1.9%	0.8%	123	311	84
	8 PETE Bottles (#1)	0.2%	0.7%	0.7%	27	110	82
	9 Other Plastic Containers	NA	1.2%	1.1%	NA	200	118
	10 Plastic Bags	NA	NA	1.2%	NA	NA	136
	11 Other Film	4.4%	4.9%	5.5%	582	793	612
	12 Expanded Polystyrene Blocks	NA	NA	0.3%	NA	NA	29
	13 Mixed Rigid Plastics	NA	NA	3.9%	NA	NA	438
	14 Other Plastics	4.4%	5.6%	1.8%	590	897	196
Glass		2.7%	3.0%	2.5%	358	486	282
	15 Recyclable Glass Bottles/Containers	2.0%	2.7%	2.0%	262	436	220
	16 Other Glass	0.7%	0.3%	0.6%	96	50	62
Metals		7.8%	5.4%	4.3%	1,041	874	481
	17 Aluminum Cans	0.3%	0.4%	0.2%	36	57	27
	18 Other Non-Ferrous	0.4%	1.1%	0.8%	48	176	85
	19 Steel Food and Beverage Cans	1.0%	0.9%	0.6%	137	143	72
	20 Other Ferrous	6.2%	3.0%	2.7%	819	485	296
	21 White Goods	0.0%	0.1%	0.0%	0	13	0
Yard Waste		5.9%	3.7%	5.5%	782	589	613
	22 Leaves/Grass/Chips	3.9%	2.3%	2.6%	518	363	292
	23 Branches/Stumps/Prunings/Trimmings	2.0%	1.4%	2.9%	264	226	321
Organics		24.0%	24.3%	33.5%	3,194	3,903	3,729
	24 Food Waste	11.6%	13.3%	19.6%	1,543	2,138	2,185
	25 Tires	0.0%	0.5%	0.5%	0	77	51
	26 Untreated Lumber	4.5%	0.9%	1.1%	604	147	125
	27 Pallets	NA	NA	1.7%	NA	NA	185
	28 Treated Wood Waste	1.4%	3.9%	2.9%	181	629	317
	29 Textiles and Leather	2.7%	1.5%	2.9%	361	240	322
	30 Carpet	NA	0.2%	2.6%	NA	26	294
	31 Diapers	0.8%	2.1%	1.2%	108	340	138
	32 Manure	NA	NA	0.4%	NA	NA	46
	33 Other Organics	3.0%	1.9%	0.6%	397	305	65
Inerts		3.6%	4.9%	1.3%	474	788	148
	34 Crushable Inerts	0.7%	3.9%	0.3%	89	624	37
	35 Other Inerts	2.0%	0.9%	0.7%	261	137	80
	36 Gypsum Board	0.4%	0.2%	0.3%	57	28	31
	37 Asphalt Roofing	0.5%	0.0%	0.0%	67	0	0
HHW		0.5%	0.3%	0.5%	63	54	61
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	5
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	1
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	4
	41 Medical Waste	NA	NA	0.2%	NA	NA	27
	42 Medicine	NA	NA	0.0%	NA	NA	1
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.2%	NA	NA	20
	45 Other Hazardous Waste	0.5%	0.3%	0.0%	63	54	3
Special		1.7%	1.7%	2.5%	224	272	279
	46 Brown Goods	1.2%	0.9%	1.7%	155	140	193
	47 Composite Bulky Items	0.5%	0.8%	0.8%	69	132	85
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	13,323	16,059	11,124

Table 15
City of Pleasanton Detailed Historic Comparison of Roll-Off Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		18.0%	25.3%	25.3%	5,629	15,448	10,465
	1 Uncoated Corrugated Cardboard	7.6%	10.8%	6.3%	2,378	6,613	2,616
	2 High Grade Paper	1.2%	2.4%	2.1%	379	1,463	850
	3 Newspaper	0.4%	0.7%	0.0%	125	440	0
	4 Mixed Recyclable Paper	4.6%	4.5%	12.3%	1,453	2,728	5,092
	5 Compostable Paper	NA	NA	4.0%	NA	NA	1,666
	6 Other Paper	4.1%	6.9%	0.6%	1,294	4,204	239
Plastics		5.4%	7.0%	7.5%	1,704	4,297	3,103
	7 HDPE Bottles (#2)	0.1%	0.7%	0.1%	38	433	61
	8 PETE Bottles (#1)	0.2%	0.3%	0.2%	56	177	80
	9 Other Plastic Containers	NA	0.2%	0.1%	NA	120	25
	10 Plastic Bags	NA	NA	0.2%	NA	NA	92
	11 Other Film	2.7%	3.5%	4.3%	858	2,117	1,778
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	52
	13 Mixed Rigid Plastics	NA	NA	1.6%	NA	NA	643
	14 Other Plastics	2.4%	2.4%	0.9%	752	1,451	372
Glass		0.1%	0.4%	1.4%	38	269	572
	15 Recyclable Glass Bottles/Containers	0.0%	0.2%	1.4%	13	119	572
	16 Other Glass	0.1%	0.2%	0.0%	25	150	0
Metals		3.5%	6.5%	6.1%	1,109	3,967	2,543
	17 Aluminum Cans	0.1%	0.1%	0.2%	28	50	68
	18 Other Non-Ferrous	0.1%	0.7%	0.0%	25	425	0
	19 Steel Food and Beverage Cans	0.0%	0.3%	0.0%	9	199	0
	20 Other Ferrous	3.3%	5.4%	6.0%	1,046	3,294	2,476
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		8.9%	1.0%	7.5%	2,779	606	3,091
	22 Leaves/Grass/Chips	5.2%	0.3%	2.9%	1,623	197	1,193
	23 Branches/Stumps/Prunings/Trimmings	3.7%	0.7%	4.6%	1,156	409	1,898
Organics		46.2%	39.2%	31.1%	14,456	23,955	12,884
	24 Food Waste	4.4%	7.7%	8.3%	1,372	4,674	3,458
	25 Tires	0.0%	0.0%	0.2%	0	0	68
	26 Untreated Lumber	22.0%	16.2%	2.0%	6,901	9,891	836
	27 Pallets	NA	NA	9.1%	NA	NA	3,762
	28 Treated Wood Waste	10.0%	14.0%	8.3%	3,133	8,578	3,432
	29 Textiles and Leather	7.0%	0.4%	1.8%	2,199	242	758
	30 Carpet	NA	0.0%	0.2%	NA	0	91
	31 Diapers	0.0%	0.2%	0.2%	6	142	94
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	2.7%	0.7%	0.9%	846	430	385
Inerts		16.8%	15.3%	21.0%	5,256	9,345	8,686
	34 Crushable Inerts	3.4%	6.1%	7.7%	1,065	3,719	3,172
	35 Other Inerts	3.8%	2.5%	6.9%	1,203	1,522	2,841
	36 Gypsum Board	2.9%	1.5%	6.5%	912	894	2,673
	37 Asphalt Roofing	6.6%	5.3%	0.0%	2,077	3,210	0
HHW		0.0%	0.0%	0.2%	3	20	92
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	0
	41 Medical Waste	NA	NA	0.1%	NA	NA	55
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.1%	NA	NA	37
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.0%	0.0%	0.0%	3	20	0
Special		1.1%	5.2%	0.0%	348	3,182	0
	46 Brown Goods	1.1%	0.0%	0.0%	348	3	0
	47 Composite Bulky Items	0.0%	5.2%	0.0%	0	3,179	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	31,325	61,089	41,436

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF PLEASANTON**

**Table 16
City of Pleasanton Detailed Historic Comparison of Self-Haul Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		9.2%	4.3%	12.6%	2,770	864	2,250
	1 Uncoated Corrugated Cardboard	2.9%	3.1%	5.3%	879	619	943
	2 High Grade Paper	0.6%	0.1%	1.1%	193	22	203
	3 Newspaper	1.1%	0.2%	0.5%	344	49	83
	4 Mixed Recyclable Paper	3.0%	0.7%	5.0%	903	144	891
	5 Compostable Paper	NA	NA	0.6%	NA	NA	99
	6 Other Paper	1.5%	0.1%	0.2%	450	30	30
Plastics		3.7%	3.4%	3.4%	1,118	695	610
	7 HDPE Bottles (#2)	0.2%	0.2%	0.0%	57	31	6
	8 PETE Bottles (#1)	0.0%	0.0%	0.1%	12	1	10
	9 Other Plastic Containers	NA	0.3%	0.0%	NA	58	7
	10 Plastic Bags	NA	NA	0.1%	NA	NA	20
	11 Other Film	0.4%	0.2%	1.2%	112	36	210
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	6
	13 Mixed Rigid Plastics	NA	NA	1.7%	NA	NA	301
	14 Other Plastics	3.1%	2.8%	0.3%	936	568	50
Glass		1.9%	0.6%	4.0%	571	122	716
	15 Recyclable Glass Bottles/Containers	0.8%	0.0%	0.7%	227	6	124
	16 Other Glass	1.1%	0.6%	3.3%	344	116	592
Metals		5.4%	10.0%	5.6%	1,619	2,030	1,002
	17 Aluminum Cans	0.0%	0.0%	0.1%	3	3	10
	18 Other Non-Ferrous	0.4%	1.2%	0.2%	118	253	32
	19 Steel Food and Beverage Cans	0.1%	0.0%	0.1%	24	1	12
	20 Other Ferrous	4.9%	7.0%	5.2%	1,474	1,412	926
	21 White Goods	0.0%	1.8%	0.1%	0	362	23
Yard Waste		42.9%	30.2%	12.0%	12,946	6,128	2,147
	22 Leaves/Grass/Chips	12.9%	14.9%	6.7%	3,896	3,013	1,188
	23 Branches/Stumps/Prunings/Trimmings	30.0%	15.4%	5.4%	9,049	3,115	959
Organics		19.2%	24.1%	32.4%	5,802	4,892	5,783
	24 Food Waste	2.0%	0.0%	1.6%	616	0	294
	25 Tires	0.0%	0.0%	0.0%	3	0	0
	26 Untreated Lumber	3.1%	9.2%	6.7%	933	1,869	1,198
	27 Pallets	NA	NA	0.5%	NA	NA	89
	28 Treated Wood Waste	8.1%	10.7%	15.3%	2,438	2,172	2,739
	29 Textiles and Leather	5.3%	1.2%	1.9%	1,598	251	347
	30 Carpet	NA	0.6%	5.6%	NA	122	995
	31 Diapers	0.3%	0.0%	0.0%	94	0	5
	32 Manure	NA	NA	0.2%	NA	NA	29
	33 Other Organics	0.4%	2.4%	0.5%	121	478	86
Inerts		11.1%	21.8%	28.1%	3,350	4,414	5,018
	34 Crushable Inerts	2.6%	8.0%	12.0%	785	1,617	2,145
	35 Other Inerts	2.0%	9.6%	9.7%	595	1,951	1,734
	36 Gypsum Board	1.9%	4.1%	3.7%	571	828	656
	37 Asphalt Roofing	4.6%	0.1%	2.7%	1,398	17	483
HHW		0.3%	0.3%	0.1%	100	64	24
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	0
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.1%	NA	NA	24
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.3%	0.3%	0.0%	100	64	0
Special		6.4%	5.2%	1.7%	1,930	1,053	308
	46 Brown Goods	3.0%	0.5%	0.1%	900	98	14
	47 Composite Bulky Items	3.4%	4.7%	1.6%	1,030	955	294
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	30,205	20,260	17,858

Appendix A15

2008 WASTE CHARACTERIZATION RESULTS

CITY OF SAN LEANDRO

This section presents a summary of the composition and quantity of disposed waste from the City of San Leandro. The 2008 Study results presented herein are based on compositions developed using data obtained from field sample collection and sorting activities performed over four seasons during calendar year 2008. A complete description of the Study and presentation of Countywide aggregate results are included in Section 3 of the report.

Table 1 summarizes selected demographic and waste disposal characteristics for the City of San Leandro. The total amount of waste disposed in 2008 represents 7.4 percent of the Countywide waste stream, and decreased approximately 31 percent from 2000.

Table 1
City of San Leandro Waste Disposal Data

	2000	2008
Population ¹	76,736	81,851
Housing Units	31,272	31,904
Number of Business Establishments ²	1,855	2,551
Waste Disposal (tons) ³	126,406	87,660
Single Family	22,833	17,854
Multi-Family	11,425	8,603
Commercial	23,656	15,080
Roll-off	37,548	22,074
Self-Haul	30,945	24,049
Residential Disposal Rate (lbs/capita/year) ⁴	1,241	913
Non-residential Disposal Rate (tons/establishment/year)	42	12

¹ Source: State of California, Department of Finance, City/County Population and Housing Estimates for 2000 and Jan 2008.

² Source: California Board of Equalization. "Taxable Sales in California (Sales & Use Tax)", 1999 and 2007.

³ Data provided by StopWaste.Org staff.

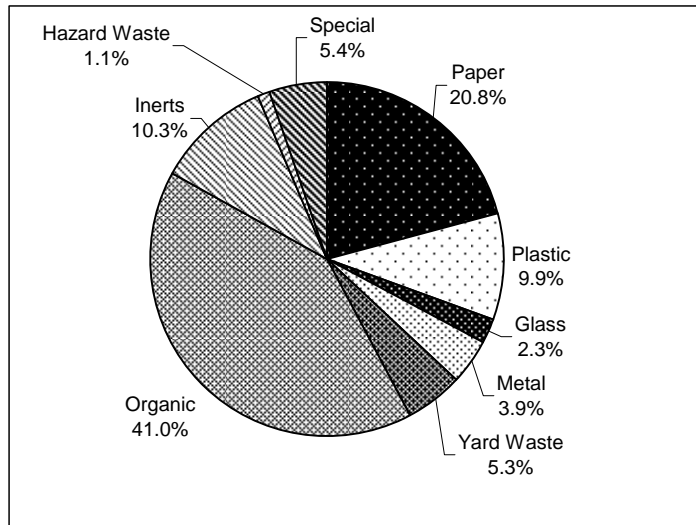
Table 2 presents the number of samples collected from each type of waste stream. Approximately 8 percent of the total number of samples collected were from this jurisdiction.

Table 2
Summary of Samples Obtained from City of San Leandro

Waste Stream	Total Samples
Single-family	22
Multi-family	12
Commercial	38
Roll-off	42
Self-haul	74
Total	188

The following tables and figures are presented for waste originating from the City of San Leandro. The introduction to Appendix B presents a summary of the information provided within each table or figure.

Figure 1 City of San Leandro 2008 Aggregate Waste Composition by Major Material Group



Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	18,212	20.8%	18.8%	23.0%
Plastic	8,652	9.9%	8.9%	11.0%
Glass	1,981	2.3%	1.8%	2.8%
Metal	3,453	3.9%	3.2%	4.8%
Yard Waste	4,686	5.3%	3.8%	7.3%
Organic	35,932	41.0%	37.3%	44.8%
Inerts	9,061	10.3%	7.5%	13.6%
Hazard Waste	965	1.1%	0.9%	1.4%
Special	4,717	5.4%	3.6%	7.6%
TOTAL	87,660	100.0%		

2008 WASTE CHARACTERIZATION RESULTS CITY OF SAN LEANDRO

Figure 2 City of San Leandro Single-Family Residential Composition by Major Material Group

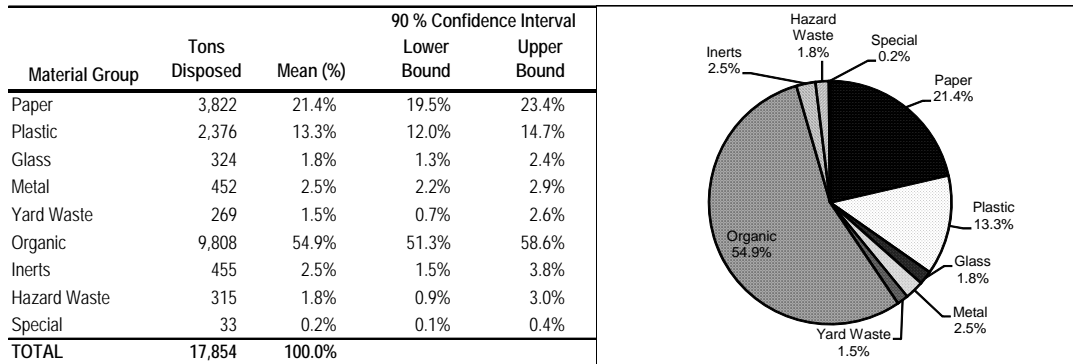


Figure 3 City of San Leandro Multi-Family Residential Composition by Major Material Group

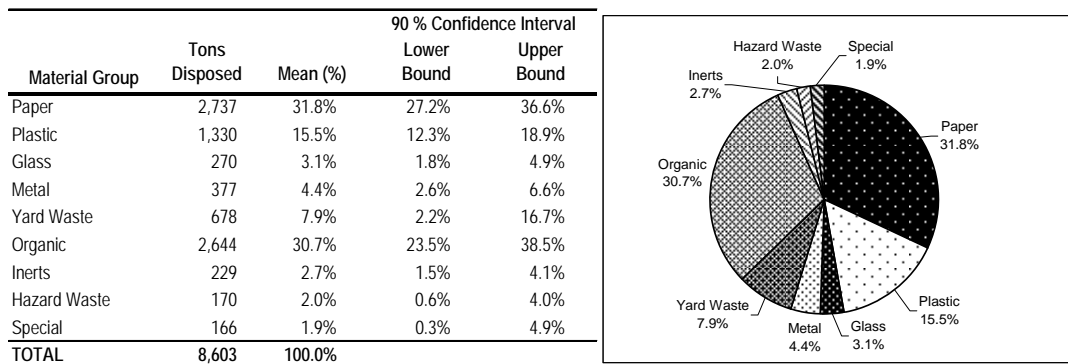


Figure 4 City of San Leandro Commercial Composition by Major Material Group

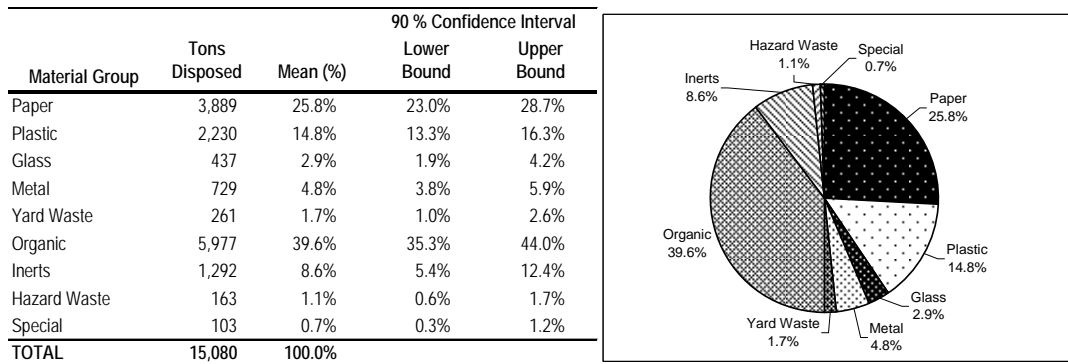


Figure 5 City of San Leandro Roll-Off Waste Composition by Major Material Group

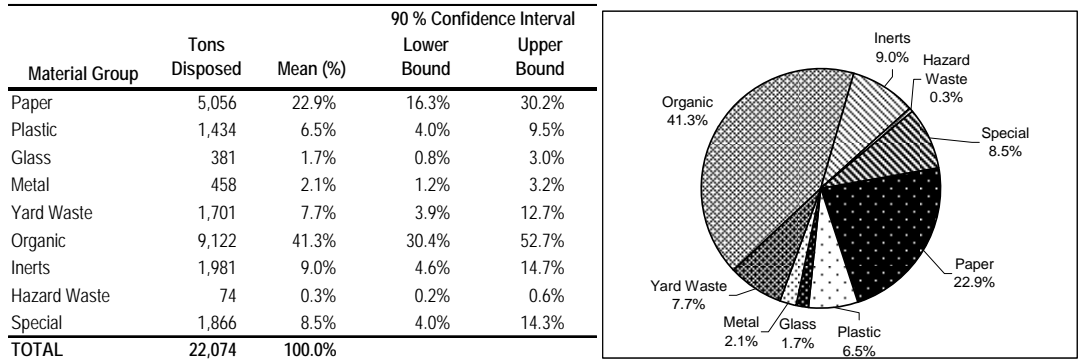
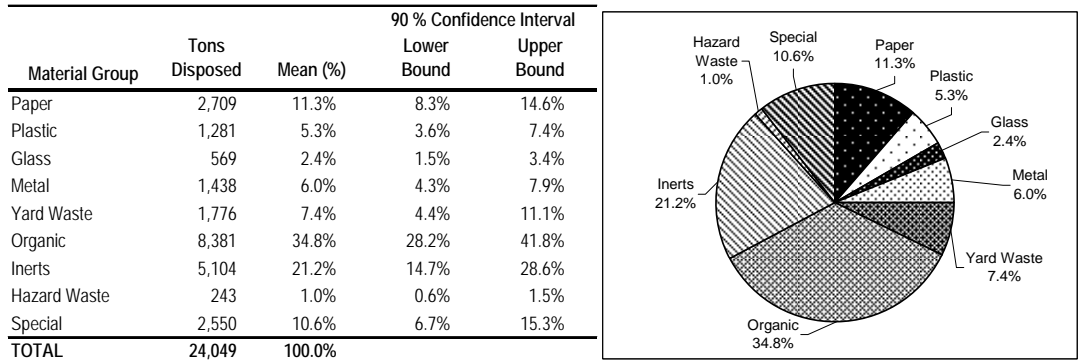


Figure 6 City of San Leandro Self-Haul Waste Composition by Major Material Group



2008 WASTE CHARACTERIZATION RESULTS
CITY OF SAN LEANDRO

Figure 7 Historic Comparison of City of San Leandro Aggregate Disposal

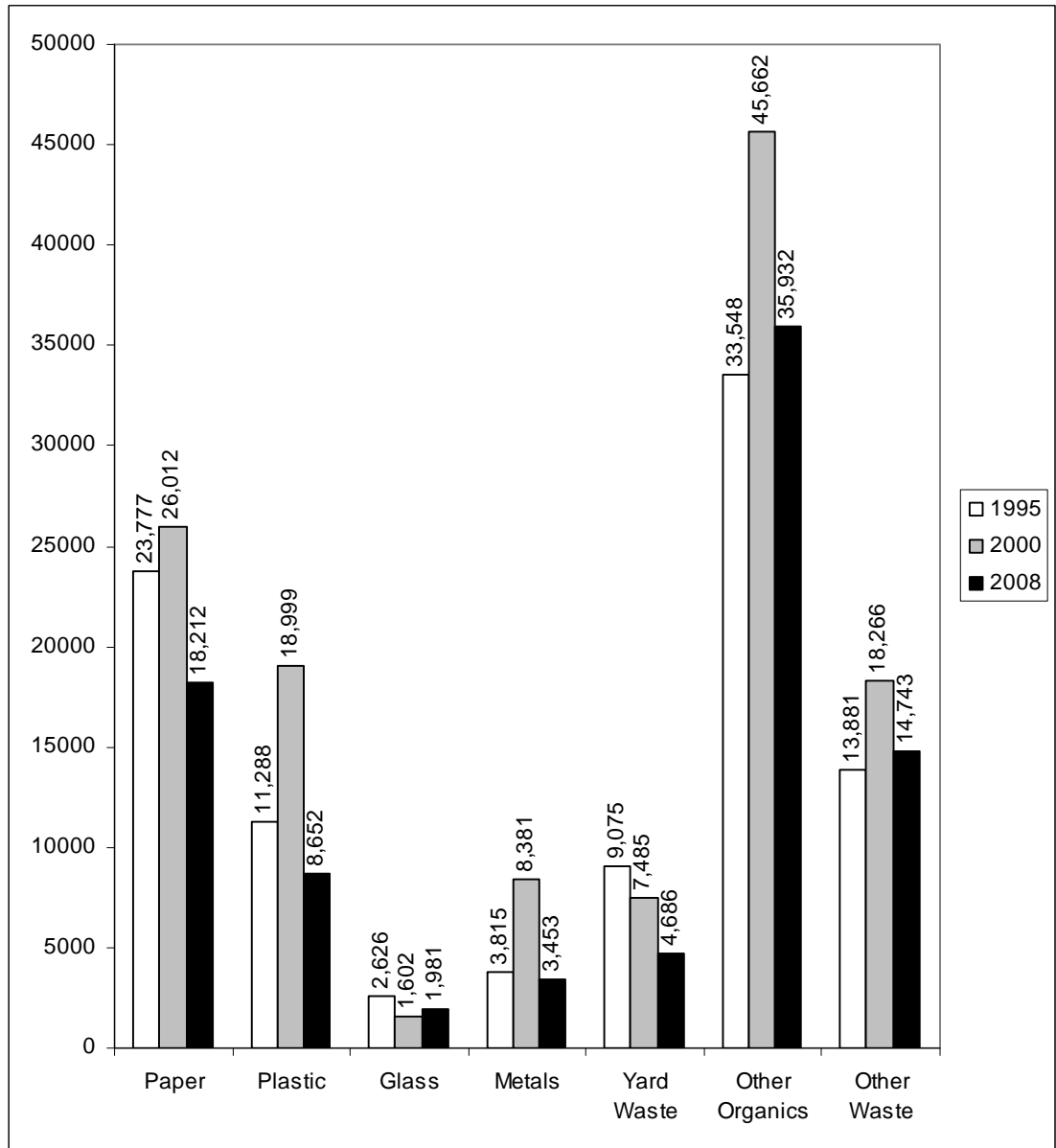
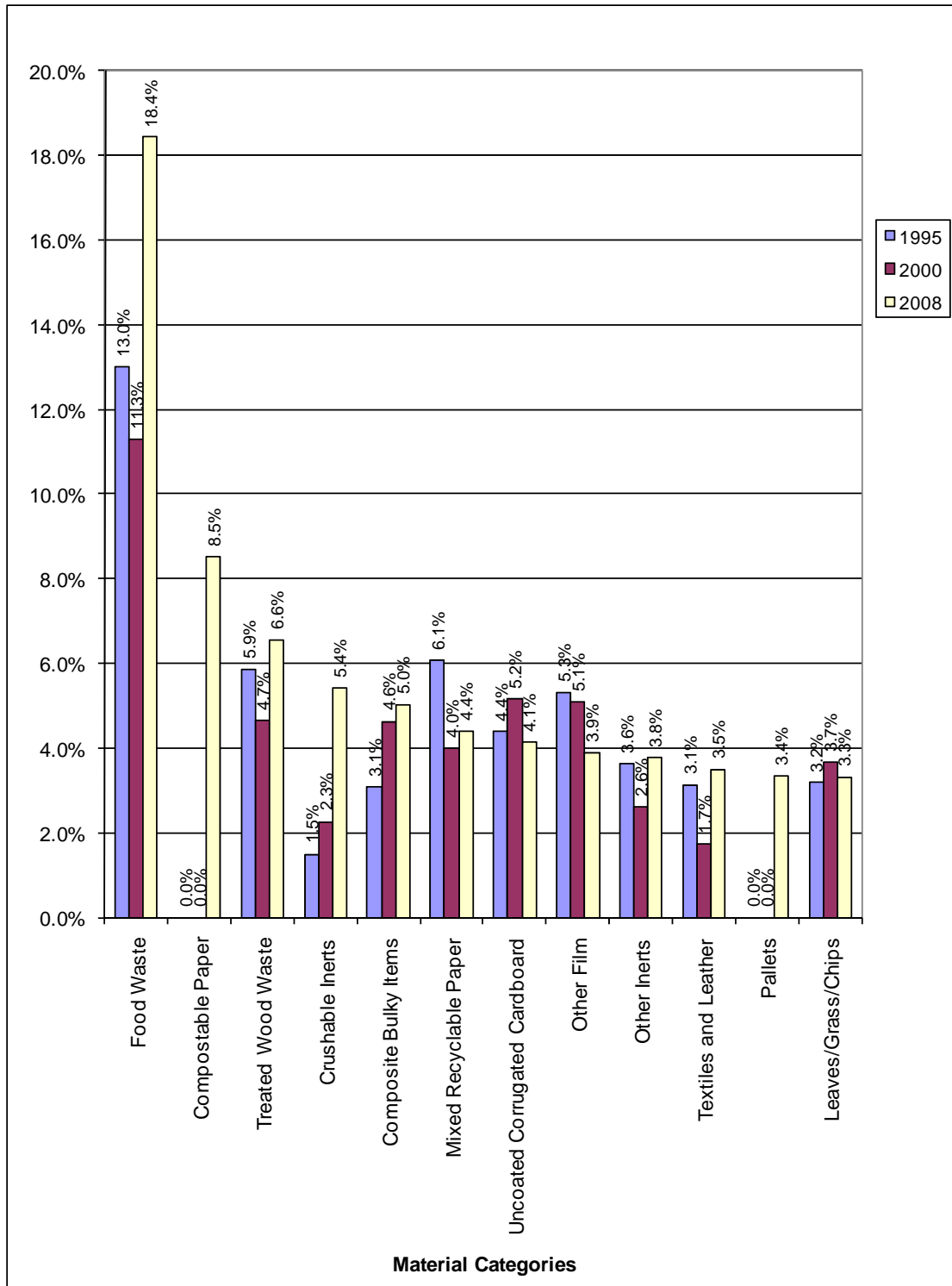


Figure 8 City of San Leandro Top 12 Most Common Materials - Aggregate



2008 WASTE CHARACTERIZATION RESULTS
CITY OF SAN LEANDRO

Figure 9 City of San Leandro Top 12 Most Common Materials from 2000

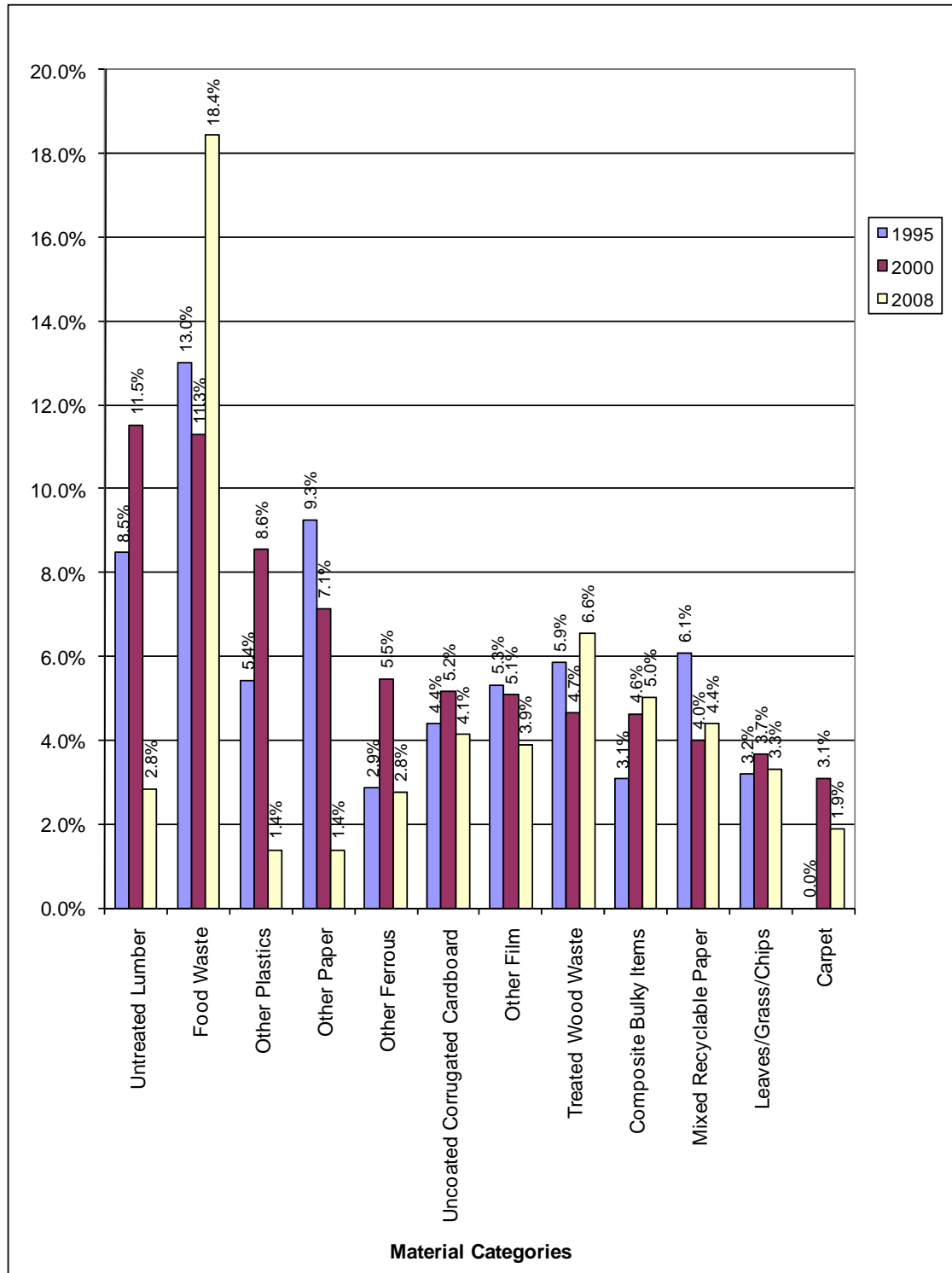


Table 3
Summary of Overall Material Proportions for City of San Leandro

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Aggregated
Paper		21.4%	31.8%	25.8%	22.9%	11.3%	20.8%
	1 Uncoated Corrugated Cardboard	0.3%	3.1%	3.0%	7.4%	5.1%	4.1%
	2 High Grade Paper	0.1%	1.3%	0.9%	4.2%	0.8%	1.6%
	3 Newspaper	0.6%	1.6%	0.7%	0.8%	0.5%	0.7%
	4 Mixed Recyclable Paper	1.5%	6.8%	4.1%	6.7%	3.8%	4.4%
	5 Compostable Paper	18.4%	17.1%	16.0%	1.1%	0.2%	8.5%
	6 Other Paper	0.6%	1.9%	1.0%	2.7%	0.8%	1.4%
Plastics		13.3%	15.5%	14.8%	6.5%	5.3%	9.9%
	7 HDPE Bottles (#2)	0.5%	0.7%	0.5%	0.0%	0.0%	0.3%
	8 PETE Bottles (#1)	0.6%	0.8%	0.7%	0.1%	0.1%	0.4%
	9 Other Plastic Containers	0.8%	0.8%	0.5%	0.0%	0.0%	0.4%
	10 Plastic Bags	2.5%	1.2%	0.8%	0.1%	0.1%	0.8%
	11 Other Film	5.1%	5.3%	6.5%	3.1%	1.6%	3.9%
	12 Expanded Polystyrene Blocks	0.2%	0.3%	0.2%	0.4%	1.1%	0.5%
	13 Mixed Rigid Plastics	2.5%	3.9%	3.4%	2.0%	1.2%	2.3%
	14 Other Plastics	1.2%	2.4%	2.2%	0.7%	1.4%	1.4%
Glass		1.8%	3.1%	2.9%	1.7%	2.4%	2.3%
	15 Recyclable Glass Bottles/Containers	1.6%	1.9%	1.2%	0.7%	0.6%	1.1%
	16 Other Glass	0.2%	1.2%	1.7%	1.0%	1.7%	1.2%
Metals		2.5%	4.4%	4.8%	2.1%	6.0%	3.9%
	17 Aluminum Cans	0.2%	0.3%	0.3%	0.1%	0.1%	0.2%
	18 Other Non-Ferrous	0.4%	0.3%	0.5%	0.4%	0.4%	0.4%
	19 Steel Food and Beverage Cans	1.1%	0.7%	0.7%	0.1%	0.0%	0.5%
	20 Other Ferrous	0.6%	3.1%	3.4%	1.4%	5.1%	2.8%
	21 White Goods	0.2%	0.1%	0.1%	0.0%	0.4%	0.2%
Yard Waste		1.5%	7.9%	1.7%	7.7%	7.4%	5.3%
	22 Leaves/Grass/Chips	0.9%	7.9%	1.0%	5.9%	2.5%	3.3%
	23 Branches/Stumps/Prunings/Trimmings	0.6%	0.0%	0.7%	1.8%	4.9%	2.0%
Organics		54.9%	30.7%	39.6%	41.3%	34.8%	41.0%
	24 Food Waste	37.5%	18.3%	23.3%	17.0%	2.5%	18.4%
	25 Tires	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	26 Untreated Lumber	0.2%	1.5%	4.2%	1.9%	5.3%	2.8%
	27 Pallets	0.0%	1.2%	1.3%	10.7%	1.2%	3.4%
	28 Treated Wood Waste	0.5%	1.8%	3.8%	6.7%	14.4%	6.6%
	29 Textiles and Leather	3.6%	3.5%	2.5%	2.5%	5.0%	3.5%
	30 Carpet	0.0%	0.3%	0.9%	2.0%	4.4%	1.9%
	31 Diapers	8.3%	3.1%	1.6%	0.0%	0.1%	2.3%
	32 Manure	3.4%	0.8%	0.8%	0.1%	0.0%	0.9%
	33 Other Organics	1.3%	0.3%	1.2%	0.5%	2.0%	1.2%
Inerts		2.5%	2.7%	8.6%	9.0%	21.2%	10.3%
	34 Crushable Inerts	0.8%	1.3%	6.1%	4.0%	11.2%	5.4%
	35 Other Inerts	1.7%	1.3%	2.2%	4.2%	6.8%	3.8%
	36 Gypsum Board	0.0%	0.1%	0.2%	0.5%	2.1%	0.7%
	37 Asphalt Roofing	0.0%	0.0%	0.1%	0.3%	1.2%	0.4%
HHW		1.8%	2.0%	1.1%	0.3%	1.0%	1.1%
	38 Paint/Adhesives	0.2%	0.0%	0.1%	0.0%	0.3%	0.1%
	39 Vehicle & Equipment Fluids	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	0.1%	0.0%	0.1%	0.0%	0.1%	0.1%
	41 Medical Waste	0.0%	0.9%	0.0%	0.0%	0.0%	0.1%
	42 Medicine	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
	43 Covered E-Waste	0.0%	0.4%	0.0%	0.1%	0.1%	0.1%
	44 Other E-Waste	1.1%	0.4%	0.7%	0.1%	0.3%	0.5%
	45 Other Hazardous Waste	0.1%	0.2%	0.2%	0.2%	0.2%	0.2%
Special		0.2%	1.9%	0.7%	8.5%	10.6%	5.4%
	46 Brown Goods	0.2%	0.4%	0.2%	0.1%	0.8%	0.4%
	47 Composite Bulky Items	0.0%	1.5%	0.5%	8.3%	9.8%	5.0%
	48 Other Special Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF SAN LEANDRO**

**Table 4
Summary of Overall Material Tonnages for City of San Leandro**

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
Paper		3,822	2,737	3,889	5,056	2,709	18,212
	1 Uncoated Corrugated Cardboard	48	267	454	1,633	1,222	3,625
	2 High Grade Paper	17	109	140	935	190	1,391
	3 Newspaper	98	139	109	170	120	636
	4 Mixed Recyclable Paper	265	587	616	1,474	919	3,860
	5 Compostable Paper	3,282	1,471	2,415	248	59	7,474
	6 Other Paper	111	164	156	597	198	1,226
Plastics		2,376	1,330	2,230	1,434	1,281	8,652
	7 HDPE Bottles (#2)	82	63	76	7	5	234
	8 PETE Bottles (#1)	108	68	104	28	14	322
	9 Other Plastic Containers	144	71	80	11	2	307
	10 Plastic Bags	440	101	125	22	13	700
	11 Other Film	907	457	986	687	381	3,419
	12 Expanded Polystyrene Blocks	31	26	25	89	253	424
	13 Mixed Rigid Plastics	450	339	507	440	284	2,020
	14 Other Plastics	214	205	327	150	329	1,226
Glass		324	270	437	381	569	1,981
	15 Recyclable Glass Bottles/Containers	283	167	179	159	154	943
	16 Other Glass	41	103	257	221	415	1,038
Metals		452	377	729	458	1,438	3,453
	17 Aluminum Cans	40	22	38	23	18	141
	18 Other Non-Ferrous	63	22	69	93	96	343
	19 Steel Food and Beverage Cans	203	57	105	28	7	399
	20 Other Ferrous	114	268	507	314	1,229	2,431
	21 White Goods	32	9	11	0	88	140
Yard Waste		269	678	261	1,701	1,776	4,686
	22 Leaves/Grass/Chips	166	677	156	1,307	603	2,908
	23 Branches/Stumps/Prunings/Trimmings	103	1	106	395	1,173	1,778
Organics		9,808	2,644	5,977	9,122	8,381	35,932
	24 Food Waste	6,704	1,573	3,514	3,747	607	16,145
	25 Tires	0	0	0	10	0	10
	26 Untreated Lumber	40	132	639	417	1,267	2,494
	27 Pallets	0	99	192	2,366	279	2,937
	28 Treated Wood Waste	88	157	578	1,470	3,458	5,751
	29 Textiles and Leather	644	298	382	543	1,204	3,071
	30 Carpet	0	25	131	432	1,058	1,646
	31 Diapers	1,487	270	237	0	24	2,018
	32 Manure	615	69	115	26	0	825
	33 Other Organics	231	23	187	111	483	1,035
Inerts		455	229	1,292	1,981	5,104	9,061
	34 Crushable Inerts	139	108	922	887	2,697	4,753
	35 Other Inerts	312	116	334	917	1,632	3,310
	36 Gypsum Board	4	5	27	113	497	645
	37 Asphalt Roofing	0	0	9	65	279	353
HHW		315	170	163	74	243	965
	38 Paint/Adhesives	31	0	9	0	84	124
	39 Vehicle & Equipment Fluids	36	0	0	0	0	36
	40 Universal Hazardous Waste	18	2	11	0	29	60
	41 Medical Waste	8	79	5	0	0	93
	42 Medicine	14	0	1	0	2	17
	43 Covered E-Waste	0	36	0	19	15	71
	44 Other E-Waste	192	34	109	19	65	419
	45 Other Hazardous Waste	16	18	27	36	48	146
Special		33	166	103	1,866	2,550	4,717
	46 Brown Goods	33	38	31	25	184	311
	47 Composite Bulky Items	0	128	72	1,841	2,365	4,406
	48 Other Special Waste	0	0	0	0	0	0
TOTAL		17,854	8,603	15,080	22,074	24,049	87,660

Table 5
City of San Leandro Aggregate Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		18,212	20.8%	18.8%	23.0%
	1 Uncoated Corrugated Cardboard	3,625	4.1%	3.3%	5.1%
	2 High Grade Paper	1,391	1.6%	1.1%	2.3%
	3 Newspaper	636	0.7%	0.6%	0.9%
	4 Mixed Recyclable Paper	3,860	4.4%	3.5%	5.6%
	5 Compostable Paper	7,474	8.5%	7.9%	9.2%
	6 Other Paper	1,226	1.4%	1.1%	1.9%
Plastics		8,652	9.9%	8.9%	11.0%
	7 HDPE Bottles (#2)	234	0.3%	0.2%	0.3%
	8 PETE Bottles (#1)	322	0.4%	0.3%	0.4%
	9 Other Plastic Containers	307	0.4%	0.3%	0.4%
	10 Plastic Bags	700	0.8%	0.7%	0.9%
	11 Other Film	3,419	3.9%	3.5%	4.4%
	12 Expanded Polystyrene Blocks	424	0.5%	0.3%	0.7%
	13 Mixed Rigid Plastics	2,020	2.3%	2.0%	2.7%
	14 Other Plastics	1,226	1.4%	1.2%	1.7%
Glass		1,981	2.3%	1.8%	2.8%
	15 Recyclable Glass Bottles/Containers	943	1.1%	0.9%	1.3%
	16 Other Glass	1,038	1.2%	0.8%	1.6%
Metals		3,453	3.9%	3.2%	4.8%
	17 Aluminum Cans	141	0.2%	0.1%	0.2%
	18 Other Non-Ferrous	343	0.4%	0.3%	0.5%
	19 Steel Food and Beverage Cans	399	0.5%	0.4%	0.5%
	20 Other Ferrous	2,431	2.8%	2.1%	3.6%
	21 White Goods	140	0.2%	0.1%	0.2%
Yard Waste		4,686	5.3%	3.8%	7.3%
	22 Leaves/Grass/Chips	2,908	3.3%	2.4%	4.5%
	23 Branches/Stumps/Prunings/Trimmings	1,778	2.0%	1.2%	3.1%
Organics		35,932	41.0%	37.3%	44.8%
	24 Food Waste	16,145	18.4%	16.2%	21.1%
	25 Tires	10	0.0%	0.0%	0.0%
	26 Untreated Lumber	2,494	2.8%	2.0%	3.8%
	27 Pallets	2,937	3.4%	2.2%	4.8%
	28 Treated Wood Waste	5,751	6.6%	4.7%	8.8%
	29 Textiles and Leather	3,071	3.5%	2.7%	4.4%
	30 Carpet	1,646	1.9%	1.1%	2.9%
	31 Diapers	2,018	2.3%	2.0%	2.6%
	32 Manure	825	0.9%	0.8%	1.2%
	33 Other Organics	1,035	1.2%	0.8%	1.6%
Inerts		9,061	10.3%	7.5%	13.6%
	34 Crushable Inerts	4,753	5.4%	3.7%	7.5%
	35 Other Inerts	3,310	3.8%	2.6%	5.3%
	36 Gypsum Board	645	0.7%	0.4%	1.1%
	37 Asphalt Roofing	353	0.4%	0.2%	0.7%
HHW		965	1.1%	0.9%	1.4%
	38 Paint/Adhesives	124	0.1%	0.1%	0.2%
	39 Vehicle & Equipment Fluids	36	0.0%	0.0%	0.1%
	40 Universal Hazardous Waste	60	0.1%	0.0%	0.1%
	41 Medical Waste	93	0.1%	0.1%	0.2%
	42 Medicine	17	0.0%	0.0%	0.0%
	43 Covered E-Waste	71	0.1%	0.1%	0.1%
	44 Other E-Waste	419	0.5%	0.4%	0.7%
	45 Other Hazardous Waste	146	0.2%	0.1%	0.2%
Special		4,717	5.4%	3.6%	7.6%
	46 Brown Goods	311	0.4%	0.2%	0.5%
	47 Composite Bulky Items	4,406	5.0%	3.3%	7.2%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		87,660	100.0%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF SAN LEANDRO**

**Table 6
City of San Leandro Single-Family Residential Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		3,822	21.4%	19.5%	23.4%
	1 Uncoated Corrugated Cardboard	48	0.3%	0.1%	0.5%
	2 High Grade Paper	17	0.1%	0.0%	0.2%
	3 Newspaper	98	0.6%	0.3%	0.9%
	4 Mixed Recyclable Paper	265	1.5%	1.0%	2.1%
	5 Compostable Paper	3,282	18.4%	16.6%	20.3%
	6 Other Paper	111	0.6%	0.5%	0.8%
Plastics		2,376	13.3%	12.0%	14.7%
	7 HDPE Bottles (#2)	82	0.5%	0.3%	0.6%
	8 PETE Bottles (#1)	108	0.6%	0.5%	0.7%
	9 Other Plastic Containers	144	0.8%	0.7%	1.0%
	10 Plastic Bags	440	2.5%	1.8%	3.2%
	11 Other Film	907	5.1%	4.1%	6.1%
	12 Expanded Polystyrene Blocks	31	0.2%	0.1%	0.3%
	13 Mixed Rigid Plastics	450	2.5%	1.9%	3.2%
	14 Other Plastics	214	1.2%	1.0%	1.4%
Glass		324	1.8%	1.3%	2.4%
	15 Recyclable Glass Bottles/Containers	283	1.6%	1.1%	2.2%
	16 Other Glass	41	0.2%	0.1%	0.4%
Metals		452	2.5%	2.2%	2.9%
	17 Aluminum Cans	40	0.2%	0.2%	0.3%
	18 Other Non-Ferrous	63	0.4%	0.3%	0.5%
	19 Steel Food and Beverage Cans	203	1.1%	0.9%	1.4%
	20 Other Ferrous	114	0.6%	0.4%	0.9%
	21 White Goods	32	0.2%	0.1%	0.4%
Yard Waste		269	1.5%	0.7%	2.6%
	22 Leaves/Grass/Chips	166	0.9%	0.3%	1.8%
	23 Branches/Stumps/Prunings/Trimings	103	0.6%	0.2%	1.1%
Organics		9,808	54.9%	51.3%	58.6%
	24 Food Waste	6,704	37.5%	34.0%	41.2%
	25 Tires	0	0.0%	0.0%	0.0%
	26 Untreated Lumber	40	0.2%	0.1%	0.5%
	27 Pallets	0	0.0%	0.0%	0.0%
	28 Treated Wood Waste	88	0.5%	0.2%	0.9%
	29 Textiles and Leather	644	3.6%	2.8%	4.5%
	30 Carpet	0	0.0%	0.0%	0.0%
	31 Diapers	1,487	8.3%	6.4%	10.4%
	32 Manure	615	3.4%	2.2%	5.0%
	33 Other Organics	231	1.3%	0.6%	2.3%
Inerts		455	2.5%	1.5%	3.8%
	34 Crushable Inerts	139	0.8%	0.3%	1.4%
	35 Other Inerts	312	1.7%	1.0%	2.6%
	36 Gypsum Board	4	0.0%	0.0%	0.0%
	37 Asphalt Roofing	0	0.0%	0.0%	0.0%
HHW		315	1.8%	0.9%	3.0%
	38 Paint/Adhesives	31	0.2%	0.1%	0.4%
	39 Vehicle & Equipment Fluids	36	0.2%	0.1%	0.4%
	40 Universal Hazardous Waste	18	0.1%	0.0%	0.2%
	41 Medical Waste	8	0.0%	0.0%	0.1%
	42 Medicine	14	0.1%	0.0%	0.2%
	43 Covered E-Waste	0	0.0%	0.0%	0.0%
	44 Other E-Waste	192	1.1%	0.4%	2.2%
	45 Other Hazardous Waste	16	0.1%	0.0%	0.2%
Special		33	0.2%	0.1%	0.4%
	46 Brown Goods	33	0.2%	0.1%	0.4%
	47 Composite Bulky Items	0	0.0%	0.0%	0.0%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		17,854	100.0%		

Table 7
City of San Leandro Multi-Family Residential Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		2,737	31.8%	27.2%	36.6%
	1 Uncoated Corrugated Cardboard	267	3.1%	1.4%	5.4%
	2 High Grade Paper	109	1.3%	0.5%	2.5%
	3 Newspaper	139	1.6%	0.8%	2.6%
	4 Mixed Recyclable Paper	587	6.8%	3.3%	11.4%
	5 Compostable Paper	1,471	17.1%	13.0%	21.6%
	6 Other Paper	164	1.9%	0.9%	3.3%
Plastics		1,330	15.5%	12.3%	18.9%
	7 HDPE Bottles (#2)	63	0.7%	0.4%	1.1%
	8 PETE Bottles (#1)	68	0.8%	0.5%	1.2%
	9 Other Plastic Containers	71	0.8%	0.4%	1.3%
	10 Plastic Bags	101	1.2%	0.5%	2.2%
	11 Other Film	457	5.3%	4.0%	6.8%
	12 Expanded Polystyrene Blocks	26	0.3%	0.1%	0.7%
	13 Mixed Rigid Plastics	339	3.9%	2.6%	5.6%
	14 Other Plastics	205	2.4%	1.2%	4.0%
Glass		270	3.1%	1.8%	4.9%
	15 Recyclable Glass Bottles/Containers	167	1.9%	1.0%	3.2%
	16 Other Glass	103	1.2%	0.3%	2.6%
Metals		377	4.4%	2.6%	6.6%
	17 Aluminum Cans	22	0.3%	0.1%	0.4%
	18 Other Non-Ferrous	22	0.3%	0.2%	0.4%
	19 Steel Food and Beverage Cans	57	0.7%	0.3%	1.1%
	20 Other Ferrous	268	3.1%	1.2%	5.9%
	21 White Goods	9	0.1%	0.0%	0.3%
Yard Waste		678	7.9%	2.2%	16.7%
	22 Leaves/Grass/Chips	677	7.9%	2.1%	16.8%
	23 Branches/Stumps/Prunings/Trimnings	1	0.0%	0.0%	0.0%
Organics		2,644	30.7%	23.5%	38.5%
	24 Food Waste	1,573	18.3%	12.6%	24.8%
	25 Tires	0	0.0%	0.0%	0.0%
	26 Untreated Lumber	132	1.5%	0.5%	3.2%
	27 Pallets	99	1.2%	0.1%	3.1%
	28 Treated Wood Waste	157	1.8%	0.6%	3.6%
	29 Textiles and Leather	298	3.5%	1.8%	5.7%
	30 Carpet	25	0.3%	0.0%	0.8%
	31 Diapers	270	3.1%	1.2%	5.9%
	32 Manure	69	0.8%	0.1%	2.0%
	33 Other Organics	23	0.3%	0.1%	0.6%
Inerts		229	2.7%	1.5%	4.1%
	34 Crushable Inerts	108	1.3%	0.3%	2.8%
	35 Other Inerts	116	1.3%	0.7%	2.2%
	36 Gypsum Board	5	0.1%	0.0%	0.2%
	37 Asphalt Roofing	0	0.0%	0.0%	0.0%
HHW		170	2.0%	0.6%	4.0%
	38 Paint/Adhesives	0	0.0%	0.0%	0.0%
	39 Vehicle & Equipment Fluids	0	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	2	0.0%	0.0%	0.1%
	41 Medical Waste	79	0.9%	0.1%	2.4%
	42 Medicine	0	0.0%	0.0%	0.0%
	43 Covered E-Waste	36	0.4%	0.1%	1.1%
	44 Other E-Waste	34	0.4%	0.1%	1.0%
	45 Other Hazardous Waste	18	0.2%	0.0%	0.5%
Special		166	1.9%	0.3%	4.9%
	46 Brown Goods	38	0.4%	0.1%	1.2%
	47 Composite Bulky Items	128	1.5%	0.2%	4.0%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		8,603	100.0%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF SAN LEANDRO**

**Table 8
City of San Leandro Commercial Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		3,889	25.8%	23.0%	28.7%
	1 Uncoated Corrugated Cardboard	454	3.0%	2.1%	4.2%
	2 High Grade Paper	140	0.9%	0.6%	1.4%
	3 Newspaper	109	0.7%	0.5%	1.0%
	4 Mixed Recyclable Paper	616	4.1%	2.7%	5.7%
	5 Compostable Paper	2,415	16.0%	13.5%	18.7%
	6 Other Paper	156	1.0%	0.7%	1.4%
Plastics		2,230	14.8%	13.3%	16.3%
	7 HDPE Bottles (#2)	76	0.5%	0.4%	0.7%
	8 PETE Bottles (#1)	104	0.7%	0.5%	0.9%
	9 Other Plastic Containers	80	0.5%	0.4%	0.7%
	10 Plastic Bags	125	0.8%	0.6%	1.1%
	11 Other Film	986	6.5%	5.5%	7.7%
	12 Expanded Polystyrene Blocks	25	0.2%	0.1%	0.3%
	13 Mixed Rigid Plastics	507	3.4%	2.6%	4.2%
	14 Other Plastics	327	2.2%	1.5%	2.9%
Glass		437	2.9%	1.9%	4.2%
	15 Recyclable Glass Bottles/Containers	179	1.2%	0.8%	1.7%
	16 Other Glass	257	1.7%	0.9%	2.8%
Metals		729	4.8%	3.8%	5.9%
	17 Aluminum Cans	38	0.3%	0.2%	0.3%
	18 Other Non-Ferrous	69	0.5%	0.3%	0.6%
	19 Steel Food and Beverage Cans	105	0.7%	0.5%	1.0%
	20 Other Ferrous	507	3.4%	2.3%	4.6%
	21 White Goods	11	0.1%	0.0%	0.1%
Yard Waste		261	1.7%	1.0%	2.6%
	22 Leaves/Grass/Chips	156	1.0%	0.6%	1.7%
	23 Branches/Stumps/Prunings/Trimnings	106	0.7%	0.4%	1.2%
Organics		5,977	39.6%	35.3%	44.0%
	24 Food Waste	3,514	23.3%	18.1%	28.9%
	25 Tires	0	0.0%	0.0%	0.0%
	26 Untreated Lumber	639	4.2%	2.4%	6.5%
	27 Pallets	192	1.3%	0.6%	2.3%
	28 Treated Wood Waste	578	3.8%	2.2%	5.9%
	29 Textiles and Leather	382	2.5%	1.8%	3.4%
	30 Carpet	131	0.9%	0.4%	1.6%
	31 Diapers	237	1.6%	0.9%	2.4%
	32 Manure	115	0.8%	0.4%	1.3%
	33 Other Organics	187	1.2%	0.6%	2.0%
Inerts		1,292	8.6%	5.4%	12.4%
	34 Crushable Inerts	922	6.1%	3.4%	9.6%
	35 Other Inerts	334	2.2%	1.2%	3.5%
	36 Gypsum Board	27	0.2%	0.1%	0.3%
	37 Asphalt Roofing	9	0.1%	0.0%	0.1%
HHW		163	1.1%	0.6%	1.7%
	38 Paint/Adhesives	9	0.1%	0.0%	0.1%
	39 Vehicle & Equipment Fluids	0	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	11	0.1%	0.0%	0.1%
	41 Medical Waste	5	0.0%	0.0%	0.1%
	42 Medicine	1	0.0%	0.0%	0.0%
	43 Covered E-Waste	0	0.0%	0.0%	0.0%
	44 Other E-Waste	109	0.7%	0.3%	1.3%
	45 Other Hazardous Waste	27	0.2%	0.1%	0.3%
Special		103	0.7%	0.3%	1.2%
	46 Brown Goods	31	0.2%	0.1%	0.4%
	47 Composite Bulky Items	72	0.5%	0.2%	0.9%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		15,080	100.0%		

Table 9
City of San Leandro Roll-Off Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		5,056	22.9%	16.3%	30.2%
	1 Uncoated Corrugated Cardboard	1,633	7.4%	5.1%	10.1%
	2 High Grade Paper	935	4.2%	2.0%	7.2%
	3 Newspaper	170	0.8%	0.4%	1.3%
	4 Mixed Recyclable Paper	1,474	6.7%	3.6%	10.7%
	5 Compostable Paper	248	1.1%	0.6%	1.7%
	6 Other Paper	597	2.7%	1.3%	4.5%
Plastics		1,434	6.5%	4.0%	9.5%
	7 HDPE Bottles (#2)	7	0.0%	0.0%	0.1%
	8 PETE Bottles (#1)	28	0.1%	0.1%	0.2%
	9 Other Plastic Containers	11	0.0%	0.0%	0.1%
	10 Plastic Bags	22	0.1%	0.1%	0.2%
	11 Other Film	687	3.1%	1.9%	4.6%
	12 Expanded Polystyrene Blocks	89	0.4%	0.2%	0.7%
	13 Mixed Rigid Plastics	440	2.0%	1.0%	3.3%
	14 Other Plastics	150	0.7%	0.4%	1.1%
Glass		381	1.7%	0.8%	3.0%
	15 Recyclable Glass Bottles/Containers	159	0.7%	0.3%	1.3%
	16 Other Glass	221	1.0%	0.4%	1.8%
Metals		458	2.1%	1.2%	3.2%
	17 Aluminum Cans	23	0.1%	0.1%	0.2%
	18 Other Non-Ferrous	93	0.4%	0.2%	0.7%
	19 Steel Food and Beverage Cans	28	0.1%	0.1%	0.2%
	20 Other Ferrous	314	1.4%	0.8%	2.3%
	21 White Goods	0	0.0%	0.0%	0.0%
Yard Waste		1,701	7.7%	3.9%	12.7%
	22 Leaves/Grass/Chips	1,307	5.9%	2.8%	10.1%
	23 Branches/Stumps/Prunings/Trimings	395	1.8%	0.8%	3.1%
Organics		9,122	41.3%	30.4%	52.7%
	24 Food Waste	3,747	17.0%	8.5%	27.6%
	25 Tires	10	0.0%	0.0%	0.1%
	26 Untreated Lumber	417	1.9%	1.0%	3.0%
	27 Pallets	2,366	10.7%	5.8%	17.0%
	28 Treated Wood Waste	1,470	6.7%	3.0%	11.7%
	29 Textiles and Leather	543	2.5%	1.3%	4.0%
	30 Carpet	432	2.0%	0.8%	3.6%
	31 Diapers	0	0.0%	0.0%	0.0%
	32 Manure	26	0.1%	0.1%	0.2%
	33 Other Organics	111	0.5%	0.2%	0.9%
Inerts		1,981	9.0%	4.6%	14.7%
	34 Crushable Inerts	887	4.0%	1.8%	7.0%
	35 Other Inerts	917	4.2%	2.0%	7.0%
	36 Gypsum Board	113	0.5%	0.2%	0.9%
	37 Asphalt Roofing	65	0.3%	0.1%	0.5%
HHW		74	0.3%	0.2%	0.6%
	38 Paint/Adhesives	0	0.0%	0.0%	0.0%
	39 Vehicle & Equipment Fluids	0	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	0	0.0%	0.0%	0.0%
	41 Medical Waste	0	0.0%	0.0%	0.0%
	42 Medicine	0	0.0%	0.0%	0.0%
	43 Covered E-Waste	19	0.1%	0.0%	0.2%
	44 Other E-Waste	19	0.1%	0.0%	0.2%
	45 Other Hazardous Waste	36	0.2%	0.1%	0.3%
Special		1,866	8.5%	4.0%	14.3%
	46 Brown Goods	25	0.1%	0.1%	0.2%
	47 Composite Bulky Items	1,841	8.3%	4.0%	14.2%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		22,074	100.0%		

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF SAN LEANDRO**

**Table 10
San Leandro Self Haul Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		2,709	11.3%	8.3%	14.6%
	1 Uncoated Corrugated Cardboard	1,222	5.1%	3.5%	6.9%
	2 High Grade Paper	190	0.8%	0.4%	1.2%
	3 Newspaper	120	0.5%	0.3%	0.8%
	4 Mixed Recyclable Paper	919	3.8%	2.5%	5.5%
	5 Compostable Paper	59	0.2%	0.2%	0.3%
	6 Other Paper	198	0.8%	0.5%	1.3%
Plastics		1,281	5.3%	3.6%	7.4%
	7 HDPE Bottles (#2)	5	0.0%	0.0%	0.0%
	8 PETE Bottles (#1)	14	0.1%	0.0%	0.1%
	9 Other Plastic Containers	2	0.0%	0.0%	0.0%
	10 Plastic Bags	13	0.1%	0.0%	0.1%
	11 Other Film	381	1.6%	1.0%	2.2%
	12 Expanded Polystyrene Blocks	253	1.1%	0.6%	1.6%
	13 Mixed Rigid Plastics	284	1.2%	0.8%	1.6%
	14 Other Plastics	329	1.4%	0.9%	1.9%
Glass		569	2.4%	1.5%	3.4%
	15 Recyclable Glass Bottles/Containers	154	0.6%	0.4%	1.0%
	16 Other Glass	415	1.7%	1.1%	2.5%
Metals		1,438	6.0%	4.3%	7.9%
	17 Aluminum Cans	18	0.1%	0.0%	0.1%
	18 Other Non-Ferrous	96	0.4%	0.2%	0.6%
	19 Steel Food and Beverage Cans	7	0.0%	0.0%	0.0%
	20 Other Ferrous	1,229	5.1%	3.6%	6.9%
	21 White Goods	88	0.4%	0.2%	0.6%
Yard Waste		1,776	7.4%	4.4%	11.1%
	22 Leaves/Grass/Chips	603	2.5%	1.4%	4.0%
	23 Branches/Stumps/Prunings/Trimmings	1,173	4.9%	2.8%	7.5%
Organics		8,381	34.8%	28.2%	41.8%
	24 Food Waste	607	2.5%	1.5%	3.9%
	25 Tires	0	0.0%	0.0%	0.0%
	26 Untreated Lumber	1,267	5.3%	3.5%	7.3%
	27 Pallets	279	1.2%	0.6%	1.8%
	28 Treated Wood Waste	3,458	14.4%	10.1%	19.2%
	29 Textiles and Leather	1,204	5.0%	3.2%	7.1%
	30 Carpet	1,058	4.4%	2.5%	6.8%
	31 Diapers	24	0.1%	0.1%	0.2%
	32 Manure	0	0.0%	0.0%	0.0%
	33 Other Organics	483	2.0%	1.2%	3.1%
Inerts		5,104	21.2%	14.7%	28.6%
	34 Crushable Inerts	2,697	11.2%	7.2%	16.0%
	35 Other Inerts	1,632	6.8%	4.0%	10.2%
	36 Gypsum Board	497	2.1%	1.3%	3.1%
	37 Asphalt Roofing	279	1.2%	0.6%	1.9%
HHW		243	1.0%	0.6%	1.5%
	38 Paint/Adhesives	84	0.3%	0.2%	0.6%
	39 Vehicle & Equipment Fluids	0	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	29	0.1%	0.1%	0.2%
	41 Medical Waste	0	0.0%	0.0%	0.0%
	42 Medicine	2	0.0%	0.0%	0.0%
	43 Covered E-Waste	15	0.1%	0.0%	0.1%
	44 Other E-Waste	65	0.3%	0.2%	0.4%
	45 Other Hazardous Waste	48	0.2%	0.1%	0.3%
Special		2,550	10.6%	6.7%	15.3%
	46 Brown Goods	184	0.8%	0.5%	1.2%
	47 Composite Bulky Items	2,365	9.8%	6.0%	14.4%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		24,049	100.0%		

Table 11
City of San Leandro Detailed Historic Comparison of Overall Jurisdiction-wide Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		24.3%	20.6%	20.8%	23,777	26,012	18,212
	1 Uncoated Corrugated Cardboard	4.4%	5.2%	4.1%	4,303	6,523	3,625
	2 High Grade Paper	2.2%	2.3%	1.6%	2,186	2,920	1,391
	3 Newspaper	2.3%	2.0%	0.7%	2,244	2,484	636
	4 Mixed Recyclable Paper	6.1%	4.0%	4.4%	5,959	5,062	3,860
	5 Compostable Paper	NA	NA	8.5%	NA	NA	7,474
	6 Other Paper	9.3%	7.1%	1.4%	9,086	9,022	1,226
Plastics		11.5%	15.0%	9.9%	11,291	18,999	8,652
	7 HDPE Bottles (#2)	0.6%	0.6%	0.3%	559	766	234
	8 PETE Bottles (#1)	0.2%	0.4%	0.4%	176	472	322
	9 Other Plastic Containers	NA	0.4%	0.4%	NA	507	307
	10 Plastic Bags	NA	NA	0.8%	NA	NA	700
	11 Other Film	5.3%	5.1%	3.9%	5,224	6,437	3,419
	12 Expanded Polystyrene Blocks	NA	NA	0.5%	NA	NA	424
	13 Mixed Rigid Plastics	NA	NA	2.3%	NA	NA	2,020
	14 Other Plastics	5.4%	8.6%	1.4%	5,332	10,817	1,226
Glass		2.7%	1.3%	2.3%	2,627	1,602	1,981
	15 Recyclable Glass Bottles/Containers	1.9%	0.9%	1.1%	1,813	1,184	943
	16 Other Glass	0.8%	0.3%	1.2%	813	418	1,038
Metals		3.9%	6.6%	3.9%	3,813	8,381	3,453
	17 Aluminum Cans	0.2%	0.2%	0.2%	147	248	141
	18 Other Non-Ferrous	0.2%	0.4%	0.4%	235	527	343
	19 Steel Food and Beverage Cans	0.6%	0.4%	0.5%	617	497	399
	20 Other Ferrous	2.9%	5.5%	2.8%	2,813	6,927	2,431
	21 White Goods	0.0%	0.1%	0.2%	0	182	140
Yard Waste		9.3%	5.9%	5.3%	9,076	7,485	4,686
	22 Leaves/Grass/Chips	3.2%	3.7%	3.3%	3,127	4,638	2,908
	23 Branches/Stumps/Prunings/Trimmings	6.1%	2.3%	2.0%	5,949	2,847	1,778
Organics		35.7%	36.1%	41.0%	35,029	45,662	35,932
	24 Food Waste	13.0%	11.3%	18.4%	12,751	14,274	16,145
	25 Tires	0.5%	0.0%	0.0%	441	38	10
	26 Untreated Lumber	8.5%	11.5%	2.8%	8,301	14,565	2,494
	27 Pallets	NA	NA	3.4%	NA	NA	2,937
	28 Treated Wood Waste	5.9%	4.7%	6.6%	5,753	5,880	5,751
	29 Textiles and Leather	3.1%	1.7%	3.5%	3,078	2,192	3,071
	30 Carpet	NA	3.1%	1.9%	NA	3,907	1,646
	31 Diapers	1.5%	1.6%	2.3%	1,480	2,025	2,018
	32 Manure	NA	NA	0.9%	NA	NA	825
	33 Other Organics	3.3%	2.2%	1.2%	3,225	2,782	1,035
Inerts		7.4%	8.0%	10.3%	7,272	10,125	9,061
	34 Crushable Inerts	1.5%	2.3%	5.4%	1,480	2,877	4,753
	35 Other Inerts	3.6%	2.6%	3.8%	3,568	3,310	3,310
	36 Gypsum Board	1.1%	1.2%	0.7%	1,117	1,489	645
	37 Asphalt Roofing	1.1%	1.9%	0.4%	1,108	2,450	353
HHW		0.2%	0.7%	1.1%	216	825	965
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	124
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	36
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	60
	41 Medical Waste	NA	NA	0.1%	NA	NA	93
	42 Medicine	NA	NA	0.0%	NA	NA	17
	43 Covered E-Waste	NA	NA	0.1%	NA	NA	71
	44 Other E-Waste	NA	NA	0.5%	NA	NA	419
	45 Other Hazardous Waste	0.2%	0.7%	0.2%	216	825	146
Special		5.0%	5.8%	5.4%	4,901	7,316	4,717
	46 Brown Goods	1.9%	1.1%	0.4%	1,882	1,451	311
	47 Composite Bulky Items	3.1%	4.6%	5.0%	3,019	5,865	4,406
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	98,010	126,406	87,660

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF SAN LEANDRO**

**Table 12
City of San Leandro Detailed Historic Comparison of Single-Family Residential Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		30.7%	25.9%	21.4%	5,395	5,922	3,822
	1 Uncoated Corrugated Cardboard	2.4%	1.5%	0.3%	413	340	48
	2 High Grade Paper	1.5%	1.5%	0.1%	255	333	17
	3 Newspaper	4.3%	3.4%	0.6%	761	785	98
	4 Mixed Recyclable Paper	6.3%	5.6%	1.5%	1,110	1,268	265
	5 Compostable Paper	NA	NA	18.4%	NA	NA	3,282
	6 Other Paper	16.2%	14.0%	0.6%	2,856	3,196	111
Plastics		11.4%	12.8%	13.3%	2,001	2,927	2,376
	7 HDPE Bottles (#2)	1.0%	1.0%	0.5%	176	231	82
	8 PETE Bottles (#1)	0.5%	0.7%	0.6%	83	165	108
	9 Other Plastic Containers	NA	0.2%	0.8%	NA	43	144
	10 Plastic Bags	NA	NA	2.5%	NA	NA	440
	11 Other Film	5.1%	7.5%	5.1%	900	1,702	907
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	31
	13 Mixed Rigid Plastics	NA	NA	2.5%	NA	NA	450
	14 Other Plastics	4.8%	3.4%	1.2%	842	785	214
Glass		4.5%	1.8%	1.8%	793	419	324
	15 Recyclable Glass Bottles/Containers	4.2%	1.7%	1.6%	746	377	283
	16 Other Glass	0.3%	0.2%	0.2%	47	42	41
Metals		3.7%	2.6%	2.5%	645	584	452
	17 Aluminum Cans	0.3%	0.3%	0.2%	55	69	40
	18 Other Non-Ferrous	0.8%	0.6%	0.4%	141	144	63
	19 Steel Food and Beverage Cans	1.6%	1.0%	1.1%	281	223	203
	20 Other Ferrous	1.0%	0.6%	0.6%	169	148	114
	21 White Goods	0.0%	0.0%	0.2%	0	0	32
Yard Waste		9.1%	2.3%	1.5%	1,591	521	269
	22 Leaves/Grass/Chips	5.3%	1.9%	0.9%	928	431	166
	23 Branches/Stumps/Prunings/Trimmings	3.8%	0.4%	0.6%	663	90	103
Organics		36.5%	50.9%	54.9%	6,417	11,616	9,808
	24 Food Waste	25.0%	35.5%	37.5%	4,402	8,100	6,704
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	1.4%	0.3%	0.2%	243	69	40
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	0.8%	0.6%	0.5%	142	142	88
	29 Textiles and Leather	3.4%	3.0%	3.6%	593	686	644
	30 Carpet	NA	1.6%	0.0%	NA	370	0
	31 Diapers	5.0%	4.8%	8.3%	885	1,097	1,487
	32 Manure	NA	NA	3.4%	NA	NA	615
	33 Other Organics	0.9%	5.0%	1.3%	153	1,152	231
Inerts		3.3%	0.9%	2.5%	586	207	455
	34 Crushable Inerts	0.6%	0.3%	0.8%	97	72	139
	35 Other Inerts	2.8%	0.3%	1.7%	484	75	312
	36 Gypsum Board	0.0%	0.3%	0.0%	5	60	4
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	0	0
HHW		0.5%	1.3%	1.8%	86	294	315
	38 Paint/Adhesives	NA	NA	0.2%	NA	NA	31
	39 Vehicle & Equipment Fluids	NA	NA	0.2%	NA	NA	36
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	18
	41 Medical Waste	NA	NA	0.0%	NA	NA	8
	42 Medicine	NA	NA	0.1%	NA	NA	14
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	1.1%	NA	NA	192
	45 Other Hazardous Waste	0.5%	1.3%	0.1%	86	294	16
Special		0.4%	1.5%	0.2%	76	343	33
	46 Brown Goods	0.4%	0.6%	0.2%	76	137	33
	47 Composite Bulky Items	0.0%	0.9%	0.0%	0	206	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	17,585	22,833	17,854

Table 13
City of San Leandro Detailed Historic Comparison of Multi-Family Residential Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		29.4%	29.6%	31.8%	1,873	3,380	2,737
	1 Uncoated Corrugated Cardboard	2.0%	3.0%	3.1%	128	338	267
	2 High Grade Paper	1.7%	2.3%	1.3%	105	260	109
	3 Newspaper	7.8%	4.3%	1.6%	495	491	139
	4 Mixed Recyclable Paper	7.7%	5.0%	6.8%	490	574	587
	5 Compostable Paper	NA	NA	17.1%	NA	NA	1,471
	6 Other Paper	10.3%	15.0%	1.9%	654	1,716	164
Plastics		8.1%	13.7%	15.5%	514	1,569	1,330
	7 HDPE Bottles (#2)	1.1%	0.6%	0.7%	70	68	63
	8 PETE Bottles (#1)	0.7%	0.7%	0.8%	46	79	68
	9 Other Plastic Containers	NA	0.1%	0.8%	NA	17	71
	10 Plastic Bags	NA	NA	1.2%	NA	NA	101
	11 Other Film	3.0%	8.4%	5.3%	194	959	457
	12 Expanded Polystyrene Blocks	NA	NA	0.3%	NA	NA	26
	13 Mixed Rigid Plastics	NA	NA	3.9%	NA	NA	339
	14 Other Plastics	3.2%	3.9%	2.4%	204	446	205
Glass		6.8%	4.0%	3.1%	433	459	270
	15 Recyclable Glass Bottles/Containers	6.3%	3.9%	1.9%	399	441	167
	16 Other Glass	0.5%	0.2%	1.2%	34	18	103
Metals		4.0%	5.2%	4.4%	256	598	377
	17 Aluminum Cans	0.6%	0.5%	0.3%	36	57	22
	18 Other Non-Ferrous	0.3%	0.5%	0.3%	18	55	22
	19 Steel Food and Beverage Cans	1.7%	1.5%	0.7%	108	167	57
	20 Other Ferrous	1.5%	2.5%	3.1%	95	288	268
	21 White Goods	0.0%	0.3%	0.1%	0	31	9
Yard Waste		8.2%	4.4%	7.9%	524	502	678
	22 Leaves/Grass/Chips	6.0%	3.1%	7.9%	385	350	677
	23 Branches/Stumps/Prunings/Trimmings	2.2%	1.3%	0.0%	139	152	1
Organics		38.9%	36.6%	30.7%	2,482	4,183	2,644
	24 Food Waste	28.5%	23.0%	18.3%	1,819	2,624	1,573
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	1.0%	1.3%	1.5%	61	154	132
	27 Pallets	NA	NA	1.2%	NA	NA	99
	28 Treated Wood Waste	0.3%	0.0%	1.8%	20	3	157
	29 Textiles and Leather	3.1%	4.4%	3.5%	198	504	298
	30 Carpet	NA	0.0%	0.3%	NA	0	25
	31 Diapers	5.5%	4.3%	3.1%	348	487	270
	32 Manure	NA	NA	0.8%	NA	NA	69
	33 Other Organics	0.6%	3.6%	0.3%	36	412	23
Inerts		2.3%	2.7%	2.7%	149	310	229
	34 Crushable Inerts	1.3%	1.0%	1.3%	84	111	108
	35 Other Inerts	1.0%	1.7%	1.3%	65	199	116
	36 Gypsum Board	0.0%	0.0%	0.1%	0	0	5
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	0	0
HHW		0.2%	2.7%	2.0%	10	305	170
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	2
	41 Medical Waste	NA	NA	0.9%	NA	NA	79
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.4%	NA	NA	36
	44 Other E-Waste	NA	NA	0.4%	NA	NA	34
	45 Other Hazardous Waste	0.2%	2.7%	0.2%	10	305	18
Special		2.1%	1.0%	1.9%	136	120	166
	46 Brown Goods	2.1%	1.0%	0.4%	136	120	38
	47 Composite Bulky Items	0.0%	0.0%	1.5%	0	0	128
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	6,378	11,425	8,603

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF SAN LEANDRO**

**Table 14
City of San Leandro Detailed Historic Comparison of Commercial Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		39.0%	42.5%	25.8%	5,030	10,059	3,889
	1 Uncoated Corrugated Cardboard	6.7%	13.8%	3.0%	858	3,259	454
	2 High Grade Paper	3.8%	5.1%	0.9%	495	1,204	140
	3 Newspaper	4.5%	4.1%	0.7%	573	967	109
	4 Mixed Recyclable Paper	8.8%	6.4%	4.1%	1,139	1,515	616
	5 Compostable Paper	NA	NA	16.0%	NA	NA	2,415
	6 Other Paper	15.3%	13.2%	1.0%	1,965	3,113	156
Plastics		11.5%	14.2%	14.8%	1,482	3,367	2,230
	7 HDPE Bottles (#2)	0.9%	0.6%	0.5%	113	131	76
	8 PETE Bottles (#1)	0.2%	0.5%	0.7%	28	123	104
	9 Other Plastic Containers	NA	0.1%	0.5%	NA	31	80
	10 Plastic Bags	NA	NA	0.8%	NA	NA	125
	11 Other Film	4.5%	6.5%	6.5%	575	1,537	986
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	25
	13 Mixed Rigid Plastics	NA	NA	3.4%	NA	NA	507
	14 Other Plastics	5.9%	6.5%	2.2%	765	1,546	327
Glass		4.0%	1.8%	2.9%	514	433	437
	15 Recyclable Glass Bottles/Containers	2.6%	1.2%	1.2%	339	274	179
	16 Other Glass	1.4%	0.7%	1.7%	175	159	257
Metals		5.0%	4.7%	4.8%	643	1,102	729
	17 Aluminum Cans	0.3%	0.2%	0.3%	32	55	38
	18 Other Non-Ferrous	0.4%	0.4%	0.5%	45	90	69
	19 Steel Food and Beverage Cans	1.1%	0.4%	0.7%	140	98	105
	20 Other Ferrous	3.3%	3.2%	3.4%	425	753	507
	21 White Goods	0.0%	0.4%	0.1%	0	105	11
Yard Waste		5.5%	2.2%	1.7%	705	531	261
	22 Leaves/Grass/Chips	4.0%	2.1%	1.0%	510	507	156
	23 Branches/Stumps/Prunings/Trimmings	1.5%	0.1%	0.7%	195	24	106
Organics		28.4%	28.4%	39.6%	3,653	6,720	5,977
	24 Food Waste	15.9%	10.3%	23.3%	2,045	2,429	3,514
	25 Tires	0.3%	0.0%	0.0%	39	0	0
	26 Untreated Lumber	3.9%	9.1%	4.2%	508	2,145	639
	27 Pallets	NA	NA	1.3%	NA	NA	192
	28 Treated Wood Waste	2.4%	2.3%	3.8%	303	540	578
	29 Textiles and Leather	3.1%	2.4%	2.5%	403	572	382
	30 Carpet	NA	1.3%	0.9%	NA	316	131
	31 Diapers	1.3%	1.8%	1.6%	161	437	237
	32 Manure	NA	NA	0.8%	NA	NA	115
	33 Other Organics	1.5%	1.2%	1.2%	195	282	187
Inerts		4.0%	4.0%	8.6%	513	952	1,292
	34 Crushable Inerts	2.6%	0.5%	6.1%	335	116	922
	35 Other Inerts	1.2%	2.7%	2.2%	149	642	334
	36 Gypsum Board	0.2%	0.6%	0.2%	28	140	27
	37 Asphalt Roofing	0.0%	0.2%	0.1%	0	54	9
HHW		0.5%	0.6%	1.1%	58	136	163
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	9
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	11
	41 Medical Waste	NA	NA	0.0%	NA	NA	5
	42 Medicine	NA	NA	0.0%	NA	NA	1
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.7%	NA	NA	109
	45 Other Hazardous Waste	0.5%	0.6%	0.2%	58	136	27
Special		2.3%	1.5%	0.7%	290	357	103
	46 Brown Goods	1.5%	1.3%	0.2%	193	297	31
	47 Composite Bulky Items	0.8%	0.3%	0.5%	97	60	72
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	12,884	23,656	15,080

Table 15
City of San Leandro Detailed Historic Comparison of Roll-Off Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		29.3%	12.7%	22.9%	8,296	4,761	5,056
	1 Uncoated Corrugated Cardboard	8.4%	4.3%	7.4%	2,368	1,608	1,633
	2 High Grade Paper	3.2%	2.9%	4.2%	891	1,092	935
	3 Newspaper	0.3%	0.5%	0.8%	74	183	170
	4 Mixed Recyclable Paper	8.1%	2.7%	6.7%	2,283	1,029	1,474
	5 Compostable Paper	NA	NA	1.1%	NA	NA	248
	6 Other Paper	9.5%	2.3%	2.7%	2,680	848	597
Plastics		22.7%	24.9%	6.5%	6,409	9,335	1,434
	7 HDPE Bottles (#2)	0.3%	0.6%	0.0%	74	240	7
	8 PETE Bottles (#1)	0.1%	0.2%	0.1%	14	73	28
	9 Other Plastic Containers	NA	1.1%	0.0%	NA	402	11
	10 Plastic Bags	NA	NA	0.1%	NA	NA	22
	11 Other Film	11.9%	5.6%	3.1%	3,353	2,086	687
	12 Expanded Polystyrene Blocks	NA	NA	0.4%	NA	NA	89
	13 Mixed Rigid Plastics	NA	NA	2.0%	NA	NA	440
	14 Other Plastics	10.5%	17.4%	0.7%	2,968	6,536	150
Glass		0.7%	0.6%	1.7%	201	214	381
	15 Recyclable Glass Bottles/Containers	0.7%	0.2%	0.7%	201	77	159
	16 Other Glass	0.0%	0.4%	1.0%	0	137	221
Metals		3.4%	13.6%	2.1%	948	5,106	458
	17 Aluminum Cans	0.1%	0.1%	0.1%	23	56	23
	18 Other Non-Ferrous	0.0%	0.5%	0.4%	6	174	93
	19 Steel Food and Beverage Cans	0.2%	0.0%	0.1%	68	8	28
	20 Other Ferrous	3.0%	12.9%	1.4%	852	4,851	314
	21 White Goods	0.0%	0.0%	0.0%	0	17	0
Yard Waste		3.3%	0.3%	7.7%	945	95	1,701
	22 Leaves/Grass/Chips	0.2%	0.2%	5.9%	59	61	1,307
	23 Branches/Stumps/Prunings/Trimnings	3.1%	0.1%	1.8%	886	34	395
Organics		36.9%	33.7%	41.3%	10,447	12,640	9,122
	24 Food Waste	12.1%	2.9%	17.0%	3,429	1,090	3,747
	25 Tires	0.1%	0.1%	0.0%	20	34	10
	26 Untreated Lumber	10.6%	24.1%	1.9%	3,002	9,031	417
	27 Pallets	NA	NA	10.7%	NA	NA	2,366
	28 Treated Wood Waste	7.3%	5.1%	6.7%	2,054	1,912	1,470
	29 Textiles and Leather	0.2%	0.7%	2.5%	57	248	543
	30 Carpet	NA	0.1%	2.0%	NA	51	432
	31 Diapers	0.1%	0.0%	0.0%	28	0	0
	32 Manure	NA	NA	0.1%	NA	NA	26
	33 Other Organics	6.6%	0.7%	0.5%	1,856	274	111
Inerts		3.4%	7.8%	9.0%	951	2,928	1,981
	34 Crushable Inerts	1.4%	3.3%	4.0%	396	1,241	887
	35 Other Inerts	2.0%	3.8%	4.2%	555	1,429	917
	36 Gypsum Board	0.0%	0.7%	0.5%	0	258	113
	37 Asphalt Roofing	0.0%	0.0%	0.3%	0	0	65
HHW		0.1%	0.0%	0.3%	17	3	74
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	0
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.1%	NA	NA	19
	44 Other E-Waste	NA	NA	0.1%	NA	NA	19
	45 Other Hazardous Waste	0.1%	0.0%	0.2%	17	3	36
Special		0.3%	6.6%	8.5%	79	2,466	1,866
	46 Brown Goods	0.3%	0.5%	0.1%	79	188	25
	47 Composite Bulky Items	0.0%	6.1%	8.3%	0	2,278	1,841
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	28,295	37,548	22,074

**2008 WASTE CHARACTERIZATION RESULTS
CITY OF SAN LEANDRO**

**Table 16
City of San Leandro Detailed Historic Comparison of Self-Haul Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		9.7%	6.1%	11.3%	3,182	1,890	2,709
	1 Uncoated Corrugated Cardboard	1.6%	3.2%	5.1%	532	978	1,222
	2 High Grade Paper	1.3%	0.1%	0.8%	437	31	190
	3 Newspaper	1.0%	0.2%	0.5%	339	57	120
	4 Mixed Recyclable Paper	2.9%	2.2%	3.8%	940	675	919
	5 Compostable Paper	NA	NA	0.2%	NA	NA	59
	6 Other Paper	2.8%	0.5%	0.8%	933	149	198
Plastics		2.7%	5.8%	5.3%	878	1,800	1,281
	7 HDPE Bottles (#2)	0.4%	0.3%	0.0%	131	97	5
	8 PETE Bottles (#1)	0.0%	0.1%	0.1%	3	32	14
	9 Other Plastic Containers	NA	0.0%	0.0%	NA	14	2
	10 Plastic Bags	NA	NA	0.1%	NA	NA	13
	11 Other Film	0.6%	0.5%	1.6%	197	154	381
	12 Expanded Polystyrene Blocks	NA	NA	1.1%	NA	NA	253
	13 Mixed Rigid Plastics	NA	NA	1.2%	NA	NA	284
	14 Other Plastics	1.7%	4.9%	1.4%	546	1,504	329
Glass		2.1%	0.3%	2.4%	684	78	569
	15 Recyclable Glass Bottles/Containers	0.4%	0.0%	0.6%	128	14	154
	16 Other Glass	1.7%	0.2%	1.7%	555	63	415
Metals		4.0%	3.2%	6.0%	1,325	992	1,438
	17 Aluminum Cans	0.0%	0.0%	0.1%	3	11	18
	18 Other Non-Ferrous	0.1%	0.2%	0.4%	26	64	96
	19 Steel Food and Beverage Cans	0.1%	0.0%	0.0%	20	0	7
	20 Other Ferrous	3.9%	2.9%	5.1%	1,275	887	1,229
	21 White Goods	0.0%	0.1%	0.4%	0	30	88
Yard Waste		16.2%	18.9%	7.4%	5,311	5,836	1,776
	22 Leaves/Grass/Chips	3.8%	10.6%	2.5%	1,242	3,288	603
	23 Branches/Stumps/Prunings/Trimnings	12.4%	8.2%	4.9%	4,069	2,548	1,173
Organics		36.6%	33.9%	34.8%	12,033	10,502	8,381
	24 Food Waste	3.2%	0.1%	2.5%	1,058	30	607
	25 Tires	1.2%	0.0%	0.0%	381	4	0
	26 Untreated Lumber	13.7%	10.2%	5.3%	4,486	3,167	1,267
	27 Pallets	NA	NA	1.2%	NA	NA	279
	28 Treated Wood Waste	9.8%	10.6%	14.4%	3,234	3,283	3,458
	29 Textiles and Leather	5.6%	0.6%	5.0%	1,824	180	1,204
	30 Carpet	NA	10.2%	4.4%	NA	3,171	1,058
	31 Diapers	0.2%	0.0%	0.1%	59	4	24
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	3.0%	2.1%	2.0%	989	664	483
Inerts		15.5%	18.5%	21.2%	5,081	5,728	5,104
	34 Crushable Inerts	1.7%	4.3%	11.2%	572	1,338	2,697
	35 Other Inerts	7.1%	3.1%	6.8%	2,317	964	1,632
	36 Gypsum Board	3.3%	3.3%	2.1%	1,088	1,030	497
	37 Asphalt Roofing	3.4%	7.7%	1.2%	1,104	2,396	279
HHW		0.1%	0.3%	1.0%	46	88	243
	38 Paint/Adhesives	NA	NA	0.3%	NA	NA	84
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	29
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	2
	43 Covered E-Waste	NA	NA	0.1%	NA	NA	15
	44 Other E-Waste	NA	NA	0.3%	NA	NA	65
	45 Other Hazardous Waste	0.1%	0.3%	0.2%	46	88	48
Special		13.2%	13.0%	10.6%	4,322	4,031	2,550
	46 Brown Goods	4.3%	2.3%	0.8%	1,400	710	184
	47 Composite Bulky Items	8.9%	10.7%	9.8%	2,922	3,321	2,365
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	32,868	30,945	24,049

Appendix A16

2008 WASTE CHARACTERIZATION RESULTS

UNION CITY

This section presents a summary of the composition and quantity of disposed waste from Union City. The 2008 Study results presented herein are based on compositions developed using data obtained from field sample collection and sorting activities performed over four seasons during calendar year 2008. A complete description of the Study and presentation of Countywide aggregate results are included in Section 3 of the report.

Table 1 summarizes selected demographic and waste disposal characteristics for the Union City. The total amount of waste disposed in 2008 represents 4 percent of the Countywide waste stream, and decreased approximately 13 percent from 2000.

**Table 1
Union City Waste Disposal Data**

	2000	2008
Population ¹	67,240	73,402
Housing Units	19,042	20,483
Number of Business Establishments ²	1,075	1,213
Waste Disposal (tons) ³	55,281	47,826
Single Family	14,275	11,257
Multi-Family	1,785	4,538
Commercial	13,749	9,825
Roll-off	21,043	13,380
Self-Haul	4,429	8,827
Residential Disposal Rate (lbs/capita/year) ⁴	584	657
Non-residential Disposal Rate (tons/establishment/year)	33	19

¹ Source: State of California, Department of Finance, City/County Population and Housing Estimates for 2000 and Jan 2008.

² Source: California Board of Equalization. "Taxable Sales in California (Sales & Use Tax)", 1999 and 2007.

³ Data provided by StopWaste.Org staff.

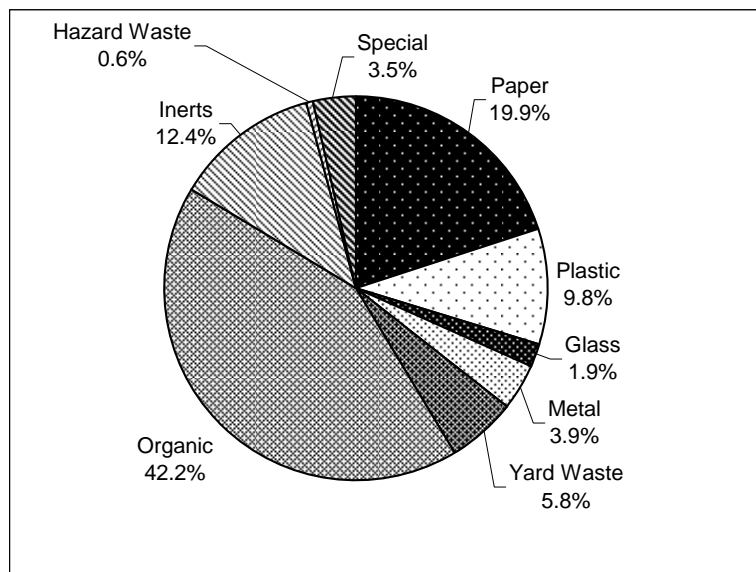
Table 2 presents the number of samples collected from each type of waste stream. Approximately 5 percent of the total number of samples collected were from this jurisdiction.

Table 2
Summary of Samples Obtained from Union City

Waste Stream	Total Samples
Single-family	20
Multi-family	14
Commercial	36
Roll-off	35
Self-haul	17
Total	122

The following tables and figures are presented for waste originating from Union City. The introduction to Appendix B presents a summary of the information provided within each table or figure.

Figure 1 Union City 2008 Aggregate Waste Composition by Major Material Group



Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	9,517	19.9%	17.5%	22.7%
Plastic	4,687	9.8%	8.9%	10.8%
Glass	891	1.9%	1.5%	2.3%
Metal	1,880	3.9%	3.0%	5.0%
Yard Waste	2,786	5.8%	4.2%	8.2%
Organic	20,186	42.2%	37.9%	46.8%
Inerts	5,917	12.4%	8.7%	17.0%
Hazard Waste	272	0.6%	0.4%	0.8%
Special	1,690	3.5%	2.0%	5.8%
TOTAL	47,826	100.0%		

2008 WASTE CHARACTERIZATION RESULTS UNION CITY

Figure 2 Union City Single-Family Residential Composition by Major Material Group

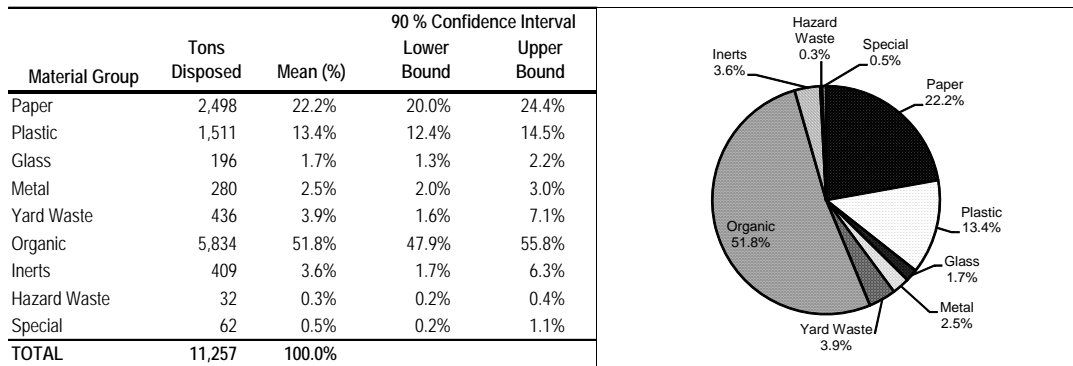


Figure 3 Union City Multi-Family Residential Composition by Major Material Group

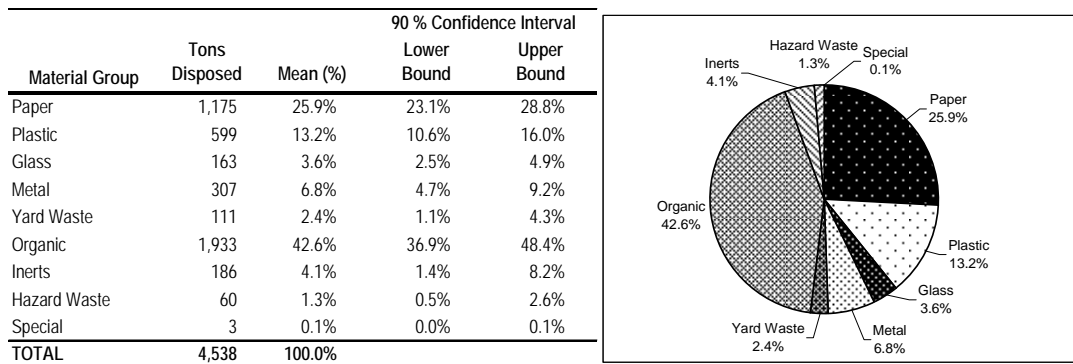


Figure 4 Union City Commercial Composition by Major Material Group

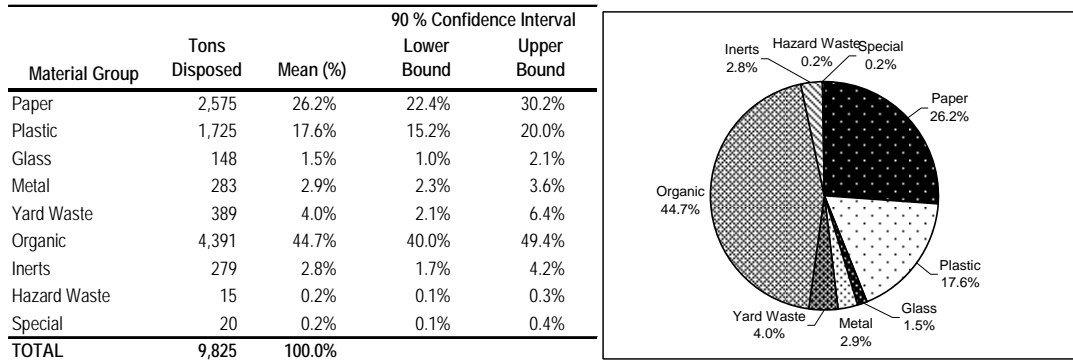


Figure 5 Union City Roll-Off Waste Composition by Major Material Group

Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	2,728	20.4%	13.0%	28.9%
Plastic	605	4.5%	3.1%	6.2%
Glass	188	1.4%	0.6%	2.5%
Metal	869	6.5%	3.6%	10.2%
Yard Waste	1,105	8.3%	3.9%	14.0%
Organic	4,603	34.4%	23.1%	46.6%
Inerts	2,942	22.0%	11.5%	34.8%
Hazard Waste	37	0.3%	0.1%	0.5%
Special	303	2.3%	1.0%	4.0%
TOTAL	13,380	100.0%		

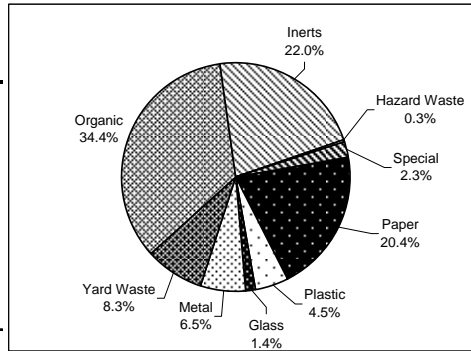
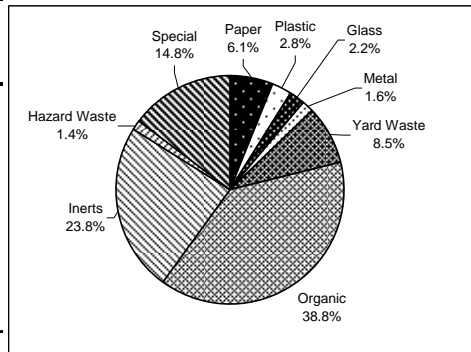


Figure 6 Union City Self-Haul Waste Composition by Major Material Group

Material Group	Tons Disposed	Mean (%)	90 % Confidence Interval	
			Lower Bound	Upper Bound
Paper	541	6.1%	2.3%	11.6%
Plastic	247	2.8%	1.3%	4.9%
Glass	195	2.2%	0.7%	4.4%
Metal	141	1.6%	0.7%	3.0%
Yard Waste	746	8.5%	1.7%	19.6%
Organic	3,425	38.8%	20.7%	58.6%
Inerts	2,100	23.8%	7.8%	45.0%
Hazard Waste	128	1.4%	0.4%	3.1%
Special	1,302	14.8%	3.6%	31.6%
TOTAL	8,827	100.0%		



2008 WASTE CHARACTERIZATION RESULTS
UNION CITY

Figure 7 Historic Comparison of Union City Aggregate Disposal

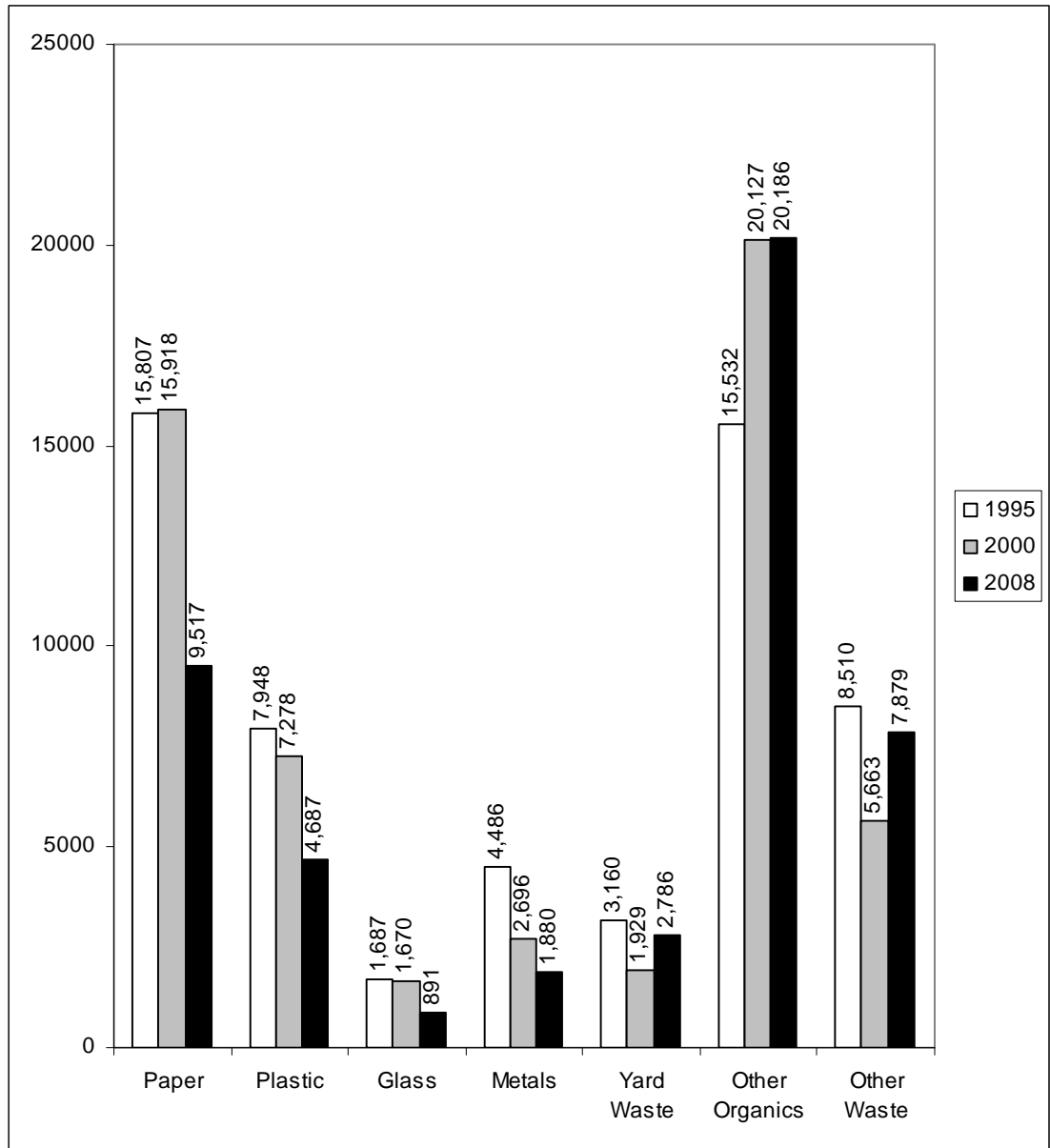
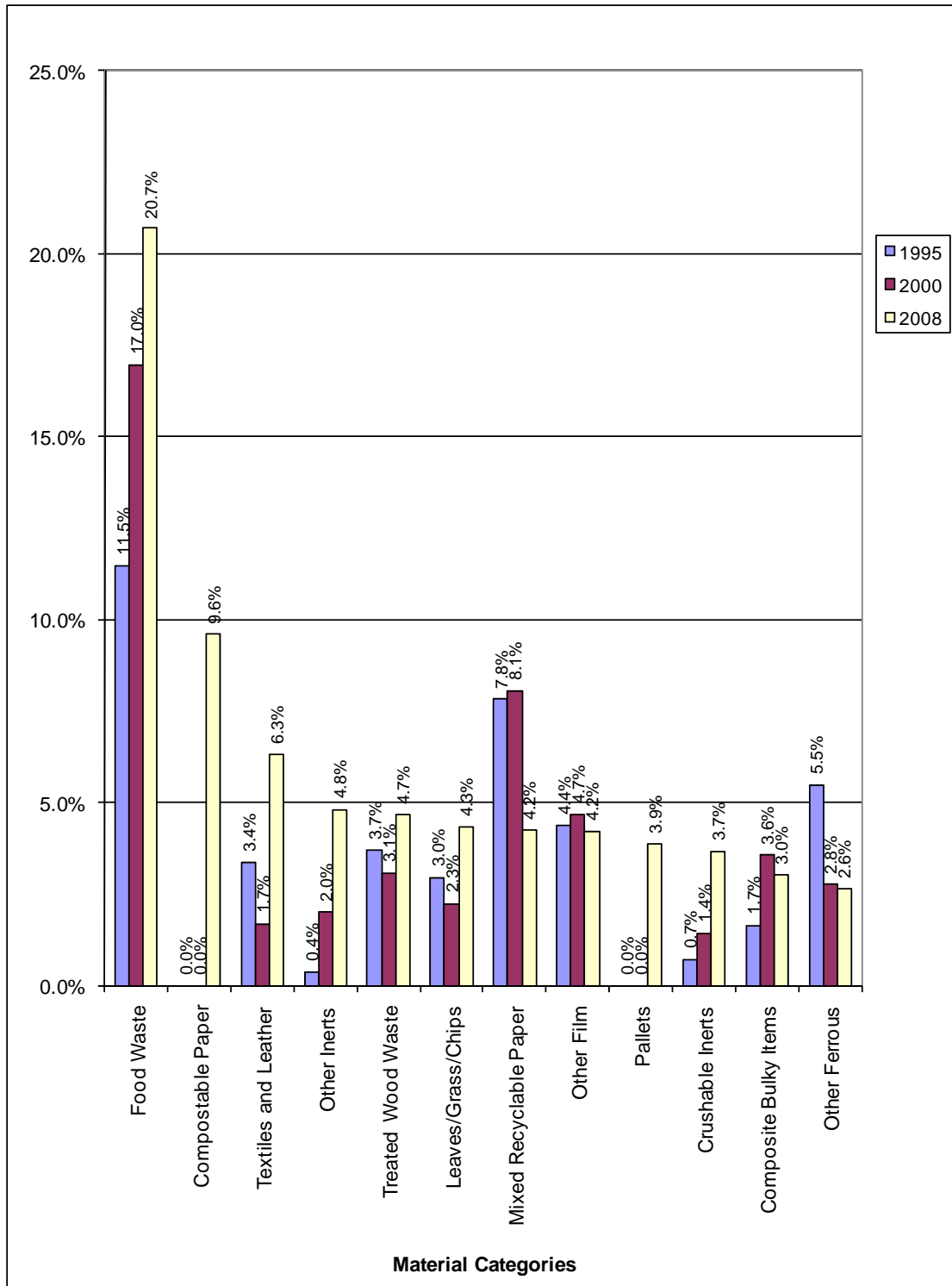


Figure 8 Union City Top 12 Most Common Materials - Aggregate



2008 WASTE CHARACTERIZATION RESULTS
UNION CITY

Figure 9 Union City Top 12 Most Common Materials from 2000

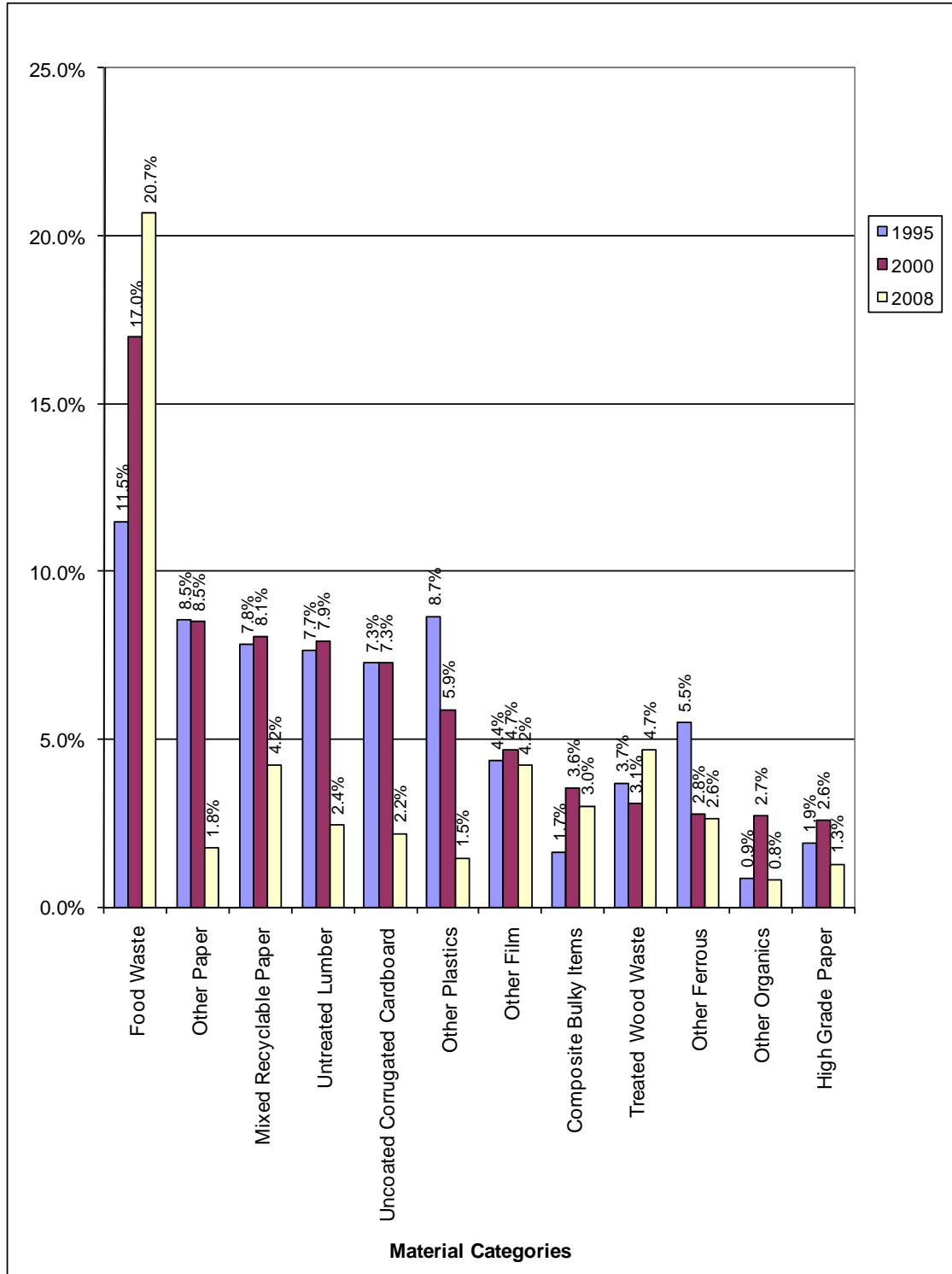


Table 3
Summary of Overall Material Proportions for Union City

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Aggregated
Paper		22.2%	25.9%	26.2%	20.4%	6.1%	19.9%
	1 Uncoated Corrugated Cardboard	0.1%	1.5%	2.2%	5.0%	0.9%	2.2%
	2 High Grade Paper	0.3%	0.5%	0.7%	3.0%	1.1%	1.3%
	3 Newspaper	0.5%	2.3%	0.5%	1.3%	0.0%	0.8%
	4 Mixed Recyclable Paper	2.3%	6.2%	3.6%	7.3%	1.8%	4.2%
	5 Compostable Paper	18.1%	14.7%	17.4%	1.0%	0.4%	9.6%
	6 Other Paper	0.9%	0.7%	1.7%	2.8%	1.9%	1.8%
Plastics		13.4%	13.2%	17.6%	4.5%	2.8%	9.8%
	7 HDPE Bottles (#2)	0.5%	1.1%	0.8%	0.0%	0.0%	0.4%
	8 PETE Bottles (#1)	0.7%	1.0%	0.4%	0.1%	0.0%	0.4%
	9 Other Plastic Containers	0.9%	0.8%	0.8%	0.0%	0.0%	0.5%
	10 Plastic Bags	2.4%	1.4%	1.0%	0.1%	0.0%	0.9%
	11 Other Film	4.4%	4.0%	9.4%	2.0%	1.5%	4.2%
	12 Expanded Polystyrene Blocks	0.1%	0.0%	0.0%	0.2%	0.0%	0.1%
	13 Mixed Rigid Plastics	3.0%	3.5%	3.0%	0.5%	0.3%	1.9%
	14 Other Plastics	1.4%	1.2%	2.0%	1.6%	0.9%	1.5%
Glass		1.7%	3.6%	1.5%	1.4%	2.2%	1.9%
	15 Recyclable Glass Bottles/Containers	1.5%	3.4%	1.4%	1.0%	0.5%	1.3%
	16 Other Glass	0.3%	0.2%	0.1%	0.4%	1.7%	0.5%
Metals		2.5%	6.8%	2.9%	6.5%	1.6%	3.9%
	17 Aluminum Cans	0.3%	0.9%	0.2%	0.1%	0.0%	0.2%
	18 Other Non-Ferrous	0.4%	2.0%	0.4%	0.1%	0.0%	0.4%
	19 Steel Food and Beverage Cans	1.0%	0.9%	0.9%	0.0%	0.0%	0.5%
	20 Other Ferrous	0.8%	3.0%	1.5%	5.7%	1.6%	2.6%
	21 White Goods	0.0%	0.0%	0.0%	0.6%	0.0%	0.2%
Yard Waste		3.9%	2.4%	4.0%	8.3%	8.5%	5.8%
	22 Leaves/Grass/Chips	2.6%	2.2%	3.4%	6.0%	6.2%	4.3%
	23 Branches/Stumps/Prunings/Trimmings	1.3%	0.3%	0.6%	2.2%	2.3%	1.5%
Organics		51.8%	42.6%	44.7%	34.4%	38.8%	42.2%
	24 Food Waste	38.4%	27.3%	30.2%	7.5%	4.1%	20.7%
	25 Tires	0.0%	0.9%	0.3%	0.0%	0.0%	0.1%
	26 Untreated Lumber	0.4%	0.5%	3.6%	5.2%	0.6%	2.4%
	27 Pallets	0.0%	0.0%	0.7%	10.9%	3.7%	3.9%
	28 Treated Wood Waste	0.6%	2.1%	3.8%	2.3%	15.7%	4.7%
	29 Textiles and Leather	3.1%	5.1%	3.6%	7.5%	12.3%	6.3%
	30 Carpet	1.3%	0.0%	1.1%	0.3%	0.4%	0.7%
	31 Diapers	5.8%	4.9%	1.1%	0.0%	0.1%	2.1%
	32 Manure	1.3%	1.6%	0.0%	0.0%	0.0%	0.5%
	33 Other Organics	0.8%	0.2%	0.3%	0.7%	1.8%	0.8%
Inerts		3.6%	4.1%	2.8%	22.0%	23.8%	12.4%
	34 Crushable Inerts	0.8%	3.1%	0.8%	2.4%	12.8%	3.7%
	35 Other Inerts	2.8%	1.0%	2.0%	10.0%	4.6%	4.8%
	36 Gypsum Board	0.0%	0.0%	0.0%	2.8%	5.7%	1.8%
	37 Asphalt Roofing	0.0%	0.0%	0.0%	6.8%	0.7%	2.0%
HHW		0.3%	1.3%	0.2%	0.3%	1.4%	0.6%
	38 Paint/Adhesives	0.0%	0.1%	0.0%	0.0%	0.5%	0.1%
	39 Vehicle & Equipment Fluids	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	0.1%	0.2%	0.0%	0.3%	0.4%	0.2%
	41 Medical Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	42 Medicine	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
	43 Covered E-Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	44 Other E-Waste	0.0%	0.6%	0.0%	0.0%	0.0%	0.1%
	45 Other Hazardous Waste	0.0%	0.4%	0.0%	0.0%	0.6%	0.2%
Special		0.5%	0.1%	0.2%	2.3%	14.8%	3.5%
	46 Brown Goods	0.5%	0.1%	0.2%	0.3%	1.3%	0.5%
	47 Composite Bulky Items	0.0%	0.0%	0.0%	1.9%	13.5%	3.0%
	48 Other Special Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TOTAL		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

2008 WASTE CHARACTERIZATION RESULTS UNION CITY

**Table 4
Summary of Overall Material Tonnages for Union City**

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
Paper		2,498	1,175	2,575	2,728	541	9,517
	1 Uncoated Corrugated Cardboard	16	67	219	667	82	1,051
	2 High Grade Paper	31	23	70	398	94	616
	3 Newspaper	54	103	53	180	0	389
	4 Mixed Recyclable Paper	264	282	350	970	160	2,027
	5 Compostable Paper	2,033	669	1,714	139	37	4,591
	6 Other Paper	99	30	169	375	169	843
Plastics		1,511	599	1,725	605	247	4,687
	7 HDPE Bottles (#2)	60	50	78	7	1	196
	8 PETE Bottles (#1)	79	45	41	7	3	175
	9 Other Plastic Containers	98	38	80	5	0	221
	10 Plastic Bags	269	65	100	10	3	447
	11 Other Film	501	183	925	274	133	2,016
	12 Expanded Polystyrene Blocks	12	2	3	30	2	48
	13 Mixed Rigid Plastics	338	161	299	61	27	886
	14 Other Plastics	155	56	200	211	77	698
Glass		196	163	148	188	195	891
	15 Recyclable Glass Bottles/Containers	167	152	136	134	43	632
	16 Other Glass	29	11	12	54	153	259
Metals		280	307	283	869	141	1,880
	17 Aluminum Cans	29	39	15	7	2	92
	18 Other Non-Ferrous	48	93	39	18	0	197
	19 Steel Food and Beverage Cans	112	41	86	4	0	244
	20 Other Ferrous	90	134	143	757	139	1,264
	21 White Goods	0	0	0	83	0	83
Yard Waste		436	111	389	1,105	746	2,786
	22 Leaves/Grass/Chips	291	98	333	809	546	2,076
	23 Branches/Stumps/Prunings/Trimmings	145	13	56	296	200	710
Organics		5,834	1,933	4,391	4,603	3,425	20,186
	24 Food Waste	4,318	1,240	2,964	1,004	364	9,891
	25 Tires	0	40	28	0	0	68
	26 Untreated Lumber	42	23	356	692	52	1,166
	27 Pallets	5	0	69	1,452	328	1,855
	28 Treated Wood Waste	73	94	372	308	1,389	2,235
	29 Textiles and Leather	347	232	353	1,007	1,086	3,025
	30 Carpet	151	0	106	42	32	330
	31 Diapers	658	220	110	0	13	1,001
	32 Manure	152	73	2	0	0	226
	33 Other Organics	88	10	30	98	161	387
Inerts		409	186	279	2,942	2,100	5,917
	34 Crushable Inerts	92	142	80	322	1,126	1,762
	35 Other Inerts	318	44	197	1,343	405	2,307
	36 Gypsum Board	0	0	2	368	507	877
	37 Asphalt Roofing	0	0	0	910	61	971
HHW		32	60	15	37	128	272
	38 Paint/Adhesives	0	3	0	0	41	44
	39 Vehicle & Equipment Fluids	4	0	0	0	0	4
	40 Universal Hazardous Waste	11	8	2	37	33	91
	41 Medical Waste	2	0	4	0	0	7
	42 Medicine	14	3	1	0	0	19
	43 Covered E-Waste	0	0	0	0	0	0
	44 Other E-Waste	0	29	5	0	0	34
	45 Other Hazardous Waste	1	16	3	0	54	74
Special		62	3	20	303	1,302	1,690
	46 Brown Goods	62	3	20	46	113	244
	47 Composite Bulky Items	0	0	0	257	1,189	1,446
	48 Other Special Waste	0	0	0	0	0	0
TOTAL		11,257	4,538	9,825	13,380	8,827	47,826

Table 5
Union City Aggregate Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		9,517	19.90%	17.47%	22.69%
	1 Uncoated Corrugated Cardboard	1,051	2.20%	1.60%	2.93%
	2 High Grade Paper	616	1.29%	0.81%	1.96%
	3 Newspaper	389	0.81%	0.57%	1.15%
	4 Mixed Recyclable Paper	2,027	4.24%	3.18%	5.59%
	5 Compostable Paper	4,591	9.60%	8.75%	10.51%
	6 Other Paper	843	1.76%	1.20%	2.58%
Plastics		4,687	9.80%	8.93%	10.77%
	7 HDPE Bottles (#2)	196	0.41%	0.34%	0.49%
	8 PETE Bottles (#1)	175	0.37%	0.31%	0.43%
	9 Other Plastic Containers	221	0.46%	0.40%	0.54%
	10 Plastic Bags	447	0.93%	0.80%	1.09%
	11 Other Film	2,016	4.21%	3.61%	4.91%
	12 Expanded Polystyrene Blocks	48	0.10%	0.06%	0.15%
	13 Mixed Rigid Plastics	886	1.85%	1.59%	2.15%
	14 Other Plastics	698	1.46%	1.19%	1.79%
Glass		891	1.86%	1.51%	2.35%
	15 Recyclable Glass Bottles/Containers	632	1.32%	1.06%	1.66%
	16 Other Glass	259	0.54%	0.36%	0.83%
Metals		1,880	3.93%	3.05%	5.05%
	17 Aluminum Cans	92	0.19%	0.13%	0.28%
	18 Other Non-Ferrous	197	0.41%	0.27%	0.61%
	19 Steel Food and Beverage Cans	244	0.51%	0.42%	0.62%
	20 Other Ferrous	1,264	2.64%	1.85%	3.67%
	21 White Goods	83	0.17%	0.07%	0.32%
Yard Waste		2,786	5.83%	4.18%	8.19%
	22 Leaves/Grass/Chips	2,076	4.34%	3.10%	6.17%
	23 Branches/Stumps/Prunings/Trimnings	710	1.48%	1.01%	2.20%
Organics		20,186	42.21%	37.93%	46.82%
	24 Food Waste	9,891	20.68%	18.47%	23.38%
	25 Tires	68	0.14%	0.05%	0.30%
	26 Untreated Lumber	1,166	2.44%	1.59%	3.55%
	27 Pallets	1,855	3.88%	2.33%	5.91%
	28 Treated Wood Waste	2,235	4.67%	3.14%	6.80%
	29 Textiles and Leather	3,025	6.33%	4.61%	8.75%
	30 Carpet	330	0.69%	0.45%	1.04%
	31 Diapers	1,001	2.09%	1.72%	2.54%
	32 Manure	226	0.47%	0.30%	0.72%
	33 Other Organics	387	0.81%	0.58%	1.19%
Inerts		5,917	12.37%	8.71%	16.97%
	34 Crushable Inerts	1,762	3.68%	2.33%	5.75%
	35 Other Inerts	2,307	4.82%	3.17%	7.07%
	36 Gypsum Board	877	1.83%	1.05%	3.14%
	37 Asphalt Roofing	971	2.03%	0.82%	3.78%
HHW		272	0.57%	0.39%	0.84%
	38 Paint/Adhesives	44	0.09%	0.04%	0.18%
	39 Vehicle & Equipment Fluids	4	0.01%	0.00%	0.02%
	40 Universal Hazardous Waste	91	0.19%	0.13%	0.29%
	41 Medical Waste	7	0.01%	0.01%	0.03%
	42 Medicine	19	0.04%	0.03%	0.06%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	34	0.07%	0.01%	0.17%
	45 Other Hazardous Waste	74	0.15%	0.08%	0.28%
Special		1,690	3.53%	2.02%	5.82%
	46 Brown Goods	244	0.51%	0.35%	0.78%
	47 Composite Bulky Items	1,446	3.02%	1.59%	5.26%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		47,826	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
UNION CITY**

**Table 6
Union City Single-Family Residential Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		2,498	22.19%	20.04%	24.41%
	1 Uncoated Corrugated Cardboard	16	0.14%	0.06%	0.27%
	2 High Grade Paper	31	0.27%	0.12%	0.48%
	3 Newspaper	54	0.48%	0.25%	0.79%
	4 Mixed Recyclable Paper	264	2.35%	1.58%	3.27%
	5 Compostable Paper	2,033	18.06%	16.34%	19.85%
	6 Other Paper	99	0.88%	0.68%	1.10%
Plastics		1,511	13.42%	12.35%	14.53%
	7 HDPE Bottles (#2)	60	0.53%	0.34%	0.78%
	8 PETE Bottles (#1)	79	0.70%	0.52%	0.90%
	9 Other Plastic Containers	98	0.87%	0.70%	1.06%
	10 Plastic Bags	269	2.39%	1.92%	2.90%
	11 Other Film	501	4.45%	3.86%	5.08%
	12 Expanded Polystyrene Blocks	12	0.10%	0.04%	0.19%
	13 Mixed Rigid Plastics	338	3.00%	2.41%	3.64%
	14 Other Plastics	155	1.37%	1.03%	1.77%
Glass		196	1.74%	1.32%	2.23%
	15 Recyclable Glass Bottles/Containers	167	1.49%	0.97%	2.11%
	16 Other Glass	29	0.26%	0.12%	0.45%
Metals		280	2.48%	2.02%	3.00%
	17 Aluminum Cans	29	0.26%	0.17%	0.38%
	18 Other Non-Ferrous	48	0.42%	0.34%	0.52%
	19 Steel Food and Beverage Cans	112	1.00%	0.77%	1.25%
	20 Other Ferrous	90	0.80%	0.54%	1.12%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		436	3.87%	1.60%	7.07%
	22 Leaves/Grass/Chips	291	2.58%	1.04%	4.78%
	23 Branches/Stumps/Prunings/Trimnings	145	1.29%	0.35%	2.79%
Organics		5,834	51.83%	47.87%	55.77%
	24 Food Waste	4,318	38.36%	34.49%	42.30%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	42	0.38%	0.10%	0.84%
	27 Pallets	5	0.04%	0.01%	0.10%
	28 Treated Wood Waste	73	0.65%	0.30%	1.12%
	29 Textiles and Leather	347	3.09%	2.22%	4.08%
	30 Carpet	151	1.34%	0.41%	2.78%
	31 Diapers	658	5.84%	3.94%	8.09%
	32 Manure	152	1.35%	0.59%	2.40%
	33 Other Organics	88	0.78%	0.45%	1.21%
Inerts		409	3.64%	1.71%	6.25%
	34 Crushable Inerts	92	0.81%	0.36%	1.44%
	35 Other Inerts	318	2.82%	1.22%	5.07%
	36 Gypsum Board	0	0.00%	0.00%	0.00%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		32	0.28%	0.16%	0.45%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	4	0.04%	0.01%	0.08%
	40 Universal Hazardous Waste	11	0.10%	0.05%	0.16%
	41 Medical Waste	2	0.02%	0.01%	0.04%
	42 Medicine	14	0.13%	0.05%	0.25%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	0	0.00%	0.00%	0.00%
	45 Other Hazardous Waste	1	0.01%	0.00%	0.02%
Special		62	0.55%	0.17%	1.14%
	46 Brown Goods	62	0.55%	0.17%	1.14%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		11,257	100.00%		

Table 7
Union City Multi-Family Residential Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		1,175	25.88%	23.08%	28.79%
	1 Uncoated Corrugated Cardboard	67	1.49%	1.00%	2.07%
	2 High Grade Paper	23	0.52%	0.24%	0.90%
	3 Newspaper	103	2.26%	1.24%	3.57%
	4 Mixed Recyclable Paper	282	6.22%	4.63%	8.03%
	5 Compostable Paper	669	14.74%	12.48%	17.14%
	6 Other Paper	30	0.67%	0.46%	0.92%
Plastics		599	13.21%	10.65%	16.01%
	7 HDPE Bottles (#2)	50	1.09%	0.82%	1.40%
	8 PETE Bottles (#1)	45	1.00%	0.68%	1.38%
	9 Other Plastic Containers	38	0.83%	0.63%	1.06%
	10 Plastic Bags	65	1.43%	0.97%	1.97%
	11 Other Film	183	4.04%	2.83%	5.46%
	12 Expanded Polystyrene Blocks	2	0.04%	0.01%	0.08%
	13 Mixed Rigid Plastics	161	3.55%	2.61%	4.63%
	14 Other Plastics	56	1.23%	0.78%	1.79%
Glass		163	3.60%	2.47%	4.93%
	15 Recyclable Glass Bottles/Containers	152	3.35%	2.24%	4.68%
	16 Other Glass	11	0.25%	0.14%	0.39%
Metals		307	6.77%	4.67%	9.21%
	17 Aluminum Cans	39	0.86%	0.31%	1.68%
	18 Other Non-Ferrous	93	2.04%	0.80%	3.83%
	19 Steel Food and Beverage Cans	41	0.91%	0.67%	1.18%
	20 Other Ferrous	134	2.96%	1.28%	5.30%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		111	2.44%	1.11%	4.27%
	22 Leaves/Grass/Chips	98	2.15%	0.87%	3.99%
	23 Branches/Stumps/Prunings/Trimnings	13	0.29%	0.07%	0.67%
Organics		1,933	42.60%	36.90%	48.39%
	24 Food Waste	1,240	27.34%	21.94%	33.09%
	25 Tires	40	0.88%	0.14%	2.23%
	26 Untreated Lumber	23	0.51%	0.12%	1.18%
	27 Pallets	0	0.00%	0.00%	0.00%
	28 Treated Wood Waste	94	2.07%	0.96%	3.61%
	29 Textiles and Leather	232	5.11%	3.14%	7.52%
	30 Carpet	0	0.00%	0.00%	0.00%
	31 Diapers	220	4.86%	3.25%	6.77%
	32 Manure	73	1.60%	0.49%	3.34%
	33 Other Organics	10	0.23%	0.10%	0.41%
Inerts		186	4.11%	1.40%	8.16%
	34 Crushable Inerts	142	3.14%	0.56%	7.69%
	35 Other Inerts	44	0.96%	0.47%	1.62%
	36 Gypsum Board	0	0.00%	0.00%	0.00%
	37 Asphalt Roofing	0	0.01%	0.00%	0.03%
HHW		60	1.33%	0.47%	2.63%
	38 Paint/Adhesives	3	0.07%	0.01%	0.19%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.01%
	40 Universal Hazardous Waste	8	0.17%	0.04%	0.39%
	41 Medical Waste	0	0.00%	0.00%	0.01%
	42 Medicine	3	0.08%	0.02%	0.16%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	29	0.65%	0.13%	1.56%
	45 Other Hazardous Waste	16	0.36%	0.06%	0.91%
Special		3	0.06%	0.01%	0.14%
	46 Brown Goods	3	0.06%	0.01%	0.14%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		4,538	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
UNION CITY**

**Table 8
Union City Commercial Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		2,575	26.21%	22.39%	30.22%
	1 Uncoated Corrugated Cardboard	219	2.23%	1.39%	3.25%
	2 High Grade Paper	70	0.71%	0.41%	1.11%
	3 Newspaper	53	0.54%	0.29%	0.87%
	4 Mixed Recyclable Paper	350	3.57%	2.33%	5.06%
	5 Compostable Paper	1,714	17.44%	14.80%	20.24%
	6 Other Paper	169	1.72%	1.00%	2.65%
Plastics		1,725	17.56%	15.22%	20.03%
	7 HDPE Bottles (#2)	78	0.80%	0.59%	1.03%
	8 PETE Bottles (#1)	41	0.42%	0.31%	0.54%
	9 Other Plastic Containers	80	0.81%	0.62%	1.03%
	10 Plastic Bags	100	1.02%	0.69%	1.41%
	11 Other Film	925	9.41%	7.59%	11.40%
	12 Expanded Polystyrene Blocks	3	0.03%	0.02%	0.05%
	13 Mixed Rigid Plastics	299	3.04%	2.30%	3.88%
	14 Other Plastics	200	2.04%	1.53%	2.61%
Glass		148	1.50%	1.00%	2.11%
	15 Recyclable Glass Bottles/Containers	136	1.38%	0.90%	1.97%
	16 Other Glass	12	0.12%	0.06%	0.20%
Metals		283	2.88%	2.26%	3.57%
	17 Aluminum Cans	15	0.15%	0.11%	0.20%
	18 Other Non-Ferrous	39	0.40%	0.26%	0.56%
	19 Steel Food and Beverage Cans	86	0.88%	0.60%	1.21%
	20 Other Ferrous	143	1.45%	0.86%	2.20%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		389	3.96%	2.10%	6.37%
	22 Leaves/Grass/Chips	333	3.39%	1.76%	5.52%
	23 Branches/Stumps/Prunings/Trimings	56	0.57%	0.24%	1.05%
Organics		4,391	44.69%	39.98%	49.44%
	24 Food Waste	2,964	30.17%	24.91%	35.70%
	25 Tires	28	0.29%	0.11%	0.54%
	26 Untreated Lumber	356	3.63%	1.83%	6.01%
	27 Pallets	69	0.71%	0.29%	1.30%
	28 Treated Wood Waste	372	3.79%	1.81%	6.46%
	29 Textiles and Leather	353	3.59%	2.22%	5.28%
	30 Carpet	106	1.08%	0.46%	1.94%
	31 Diapers	110	1.12%	0.64%	1.74%
	32 Manure	2	0.02%	0.01%	0.03%
	33 Other Organics	30	0.30%	0.17%	0.47%
Inerts		279	2.84%	1.71%	4.24%
	34 Crushable Inerts	80	0.81%	0.39%	1.39%
	35 Other Inerts	197	2.01%	1.14%	3.11%
	36 Gypsum Board	2	0.02%	0.01%	0.04%
	37 Asphalt Roofing	0	0.00%	0.00%	0.00%
HHW		15	0.16%	0.08%	0.26%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	2	0.02%	0.01%	0.04%
	41 Medical Waste	4	0.04%	0.02%	0.08%
	42 Medicine	1	0.01%	0.01%	0.02%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	5	0.05%	0.02%	0.09%
	45 Other Hazardous Waste	3	0.03%	0.01%	0.05%
Special		20	0.21%	0.08%	0.39%
	46 Brown Goods	20	0.21%	0.08%	0.39%
	47 Composite Bulky Items	0	0.00%	0.00%	0.00%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		9,825	100.00%		

Table 9
Union City Roll-Off Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		2,728	20.39%	13.04%	28.90%
	1 Uncoated Corrugated Cardboard	667	4.98%	3.08%	7.31%
	2 High Grade Paper	398	2.97%	1.35%	5.21%
	3 Newspaper	180	1.34%	0.61%	2.36%
	4 Mixed Recyclable Paper	970	7.25%	3.84%	11.63%
	5 Compostable Paper	139	1.04%	0.56%	1.66%
	6 Other Paper	375	2.80%	1.09%	5.29%
Plastics		605	4.52%	3.08%	6.22%
	7 HDPE Bottles (#2)	7	0.05%	0.02%	0.09%
	8 PETE Bottles (#1)	7	0.05%	0.03%	0.09%
	9 Other Plastic Containers	5	0.04%	0.02%	0.08%
	10 Plastic Bags	10	0.08%	0.04%	0.14%
	11 Other Film	274	2.05%	1.24%	3.04%
	12 Expanded Polystyrene Blocks	30	0.22%	0.10%	0.40%
	13 Mixed Rigid Plastics	61	0.46%	0.28%	0.68%
	14 Other Plastics	211	1.57%	0.87%	2.47%
Glass		188	1.41%	0.63%	2.49%
	15 Recyclable Glass Bottles/Containers	134	1.00%	0.42%	1.82%
	16 Other Glass	54	0.41%	0.16%	0.76%
Metals		869	6.49%	3.55%	10.23%
	17 Aluminum Cans	7	0.05%	0.02%	0.09%
	18 Other Non-Ferrous	18	0.13%	0.06%	0.24%
	19 Steel Food and Beverage Cans	4	0.03%	0.01%	0.06%
	20 Other Ferrous	757	5.66%	3.01%	9.07%
	21 White Goods	83	0.62%	0.25%	1.15%
Yard Waste		1,105	8.26%	3.90%	14.04%
	22 Leaves/Grass/Chips	809	6.05%	2.89%	10.26%
	23 Branches/Stumps/Prunings/Trimmings	296	2.21%	0.90%	4.07%
Organics		4,603	34.41%	23.14%	46.64%
	24 Food Waste	1,004	7.51%	2.87%	14.09%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	692	5.17%	2.78%	8.25%
	27 Pallets	1,452	10.86%	5.52%	17.71%
	28 Treated Wood Waste	308	2.30%	1.14%	3.84%
	29 Textiles and Leather	1,007	7.53%	3.27%	13.34%
	30 Carpet	42	0.31%	0.13%	0.58%
	31 Diapers	0	0.00%	0.00%	0.00%
	32 Manure	0	0.00%	0.00%	0.00%
	33 Other Organics	98	0.74%	0.32%	1.32%
Inerts		2,942	21.99%	11.49%	34.75%
	34 Crushable Inerts	322	2.41%	0.95%	4.51%
	35 Other Inerts	1,343	10.04%	4.50%	17.46%
	36 Gypsum Board	368	2.75%	1.12%	5.07%
	37 Asphalt Roofing	910	6.80%	2.49%	13.02%
HHW		37	0.27%	0.11%	0.52%
	38 Paint/Adhesives	0	0.00%	0.00%	0.00%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	37	0.27%	0.11%	0.52%
	41 Medical Waste	0	0.00%	0.00%	0.00%
	42 Medicine	0	0.00%	0.00%	0.00%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	0	0.00%	0.00%	0.00%
	45 Other Hazardous Waste	0	0.00%	0.00%	0.00%
Special		303	2.26%	1.00%	4.01%
	46 Brown Goods	46	0.34%	0.15%	0.63%
	47 Composite Bulky Items	257	1.92%	0.79%	3.53%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		13,380	100.00%		

**2008 WASTE CHARACTERIZATION RESULTS
UNION CITY**

**Table 10
Union City Self Haul Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		541	6.13%	2.34%	11.57%
	1 Uncoated Corrugated Cardboard	82	0.92%	0.30%	1.88%
	2 High Grade Paper	94	1.06%	0.22%	2.52%
	3 Newspaper	0	0.00%	0.00%	0.00%
	4 Mixed Recyclable Paper	160	1.81%	0.54%	3.82%
	5 Compostable Paper	37	0.42%	0.12%	0.89%
	6 Other Paper	169	1.92%	0.42%	4.45%
Plastics		247	2.80%	1.28%	4.88%
	7 HDPE Bottles (#2)	1	0.01%	0.00%	0.03%
	8 PETE Bottles (#1)	3	0.04%	0.01%	0.08%
	9 Other Plastic Containers	0	0.00%	0.00%	0.00%
	10 Plastic Bags	3	0.04%	0.01%	0.08%
	11 Other Film	133	1.51%	0.51%	3.01%
	12 Expanded Polystyrene Blocks	2	0.02%	0.01%	0.05%
	13 Mixed Rigid Plastics	27	0.31%	0.10%	0.64%
	14 Other Plastics	77	0.87%	0.29%	1.75%
Glass		195	2.21%	0.74%	4.45%
	15 Recyclable Glass Bottles/Containers	43	0.48%	0.14%	1.05%
	16 Other Glass	153	1.73%	0.46%	3.80%
Metals		141	1.60%	0.65%	2.97%
	17 Aluminum Cans	2	0.02%	0.01%	0.06%
	18 Other Non-Ferrous	0	0.00%	0.00%	0.00%
	19 Steel Food and Beverage Cans	0	0.00%	0.00%	0.00%
	20 Other Ferrous	139	1.58%	0.60%	3.00%
	21 White Goods	0	0.00%	0.00%	0.00%
Yard Waste		746	8.46%	1.71%	19.62%
	22 Leaves/Grass/Chips	546	6.19%	1.04%	15.22%
	23 Branches/Stumps/Prunings/Trimmings	200	2.27%	0.49%	5.29%
Organics		3,425	38.80%	20.75%	58.62%
	24 Food Waste	364	4.13%	0.79%	9.91%
	25 Tires	0	0.00%	0.00%	0.00%
	26 Untreated Lumber	52	0.59%	0.17%	1.25%
	27 Pallets	328	3.72%	0.82%	8.59%
	28 Treated Wood Waste	1,389	15.73%	5.33%	30.28%
	29 Textiles and Leather	1,086	12.30%	3.62%	25.14%
	30 Carpet	32	0.36%	0.09%	0.82%
	31 Diapers	13	0.15%	0.03%	0.35%
	32 Manure	0	0.00%	0.00%	0.00%
	33 Other Organics	161	1.82%	0.37%	4.36%
Inerts		2,100	23.79%	7.85%	44.98%
	34 Crushable Inerts	1,126	12.76%	3.28%	27.18%
	35 Other Inerts	405	4.59%	1.23%	9.94%
	36 Gypsum Board	507	5.75%	0.91%	14.35%
	37 Asphalt Roofing	61	0.69%	0.14%	1.63%
HHW		128	1.45%	0.40%	3.13%
	38 Paint/Adhesives	41	0.46%	0.10%	1.09%
	39 Vehicle & Equipment Fluids	0	0.00%	0.00%	0.00%
	40 Universal Hazardous Waste	33	0.38%	0.08%	0.89%
	41 Medical Waste	0	0.00%	0.00%	0.00%
	42 Medicine	0	0.00%	0.00%	0.00%
	43 Covered E-Waste	0	0.00%	0.00%	0.00%
	44 Other E-Waste	0	0.00%	0.00%	0.00%
	45 Other Hazardous Waste	54	0.61%	0.13%	1.45%
Special		1,302	14.76%	3.61%	31.64%
	46 Brown Goods	113	1.28%	0.26%	3.05%
	47 Composite Bulky Items	1,189	13.48%	2.92%	30.05%
	48 Other Special Waste	0	0.00%	0.00%	0.00%
TOTAL		8,827	100.00%		

Table 11
Union City Detailed Historic Comparison of Overall Jurisdiction-wide Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		27.4%	28.8%	19.9%	15,654	15,918	9,517
	1 Uncoated Corrugated Cardboard	7.3%	7.3%	2.2%	4,153	4,027	1,051
	2 High Grade Paper	1.9%	2.6%	1.3%	1,085	1,435	616
	3 Newspaper	1.9%	2.4%	0.8%	1,063	1,303	389
	4 Mixed Recyclable Paper	7.8%	8.1%	4.2%	4,473	4,456	2,027
	5 Compostable Paper	NA	NA	9.6%	NA	NA	4,591
	6 Other Paper	8.5%	8.5%	1.8%	4,879	4,697	843
Plastics		13.8%	13.2%	9.8%	7,873	7,278	4,687
	7 HDPE Bottles (#2)	0.5%	1.7%	0.4%	291	923	196
	8 PETE Bottles (#1)	0.2%	0.7%	0.4%	126	392	175
	9 Other Plastic Containers	NA	0.2%	0.5%	NA	111	221
	10 Plastic Bags	NA	NA	0.9%	NA	NA	447
	11 Other Film	4.4%	4.7%	4.2%	2,502	2,594	2,016
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	48
	13 Mixed Rigid Plastics	NA	NA	1.9%	NA	NA	886
	14 Other Plastics	8.7%	5.9%	1.5%	4,953	3,259	698
Glass		2.9%	3.0%	1.9%	1,680	1,670	891
	15 Recyclable Glass Bottles/Containers	1.8%	1.2%	1.3%	1,034	648	632
	16 Other Glass	1.1%	1.8%	0.5%	646	1,022	259
Metals		7.8%	4.9%	3.9%	4,479	2,696	1,880
	17 Aluminum Cans	0.3%	0.2%	0.2%	166	118	92
	18 Other Non-Ferrous	0.5%	0.7%	0.4%	280	373	197
	19 Steel Food and Beverage Cans	0.6%	1.1%	0.5%	366	608	244
	20 Other Ferrous	5.5%	2.8%	2.6%	3,136	1,530	1,264
	21 White Goods	0.9%	0.1%	0.2%	531	67	83
Yard Waste		5.7%	3.5%	5.8%	3,256	1,929	2,786
	22 Leaves/Grass/Chips	3.0%	2.3%	4.3%	1,691	1,246	2,076
	23 Branches/Stumps/Prunings/Trimmings	2.7%	1.2%	1.5%	1,565	683	710
Organics		29.3%	36.4%	42.2%	16,739	20,127	20,186
	24 Food Waste	11.5%	17.0%	20.7%	6,559	9,378	9,891
	25 Tires	0.1%	0.1%	0.1%	46	36	68
	26 Untreated Lumber	7.7%	7.9%	2.4%	4,376	4,386	1,166
	27 Pallets	NA	NA	3.9%	NA	NA	1,855
	28 Treated Wood Waste	3.7%	3.1%	4.7%	2,114	1,704	2,235
	29 Textiles and Leather	3.4%	1.7%	6.3%	1,925	932	3,025
	30 Carpet	NA	1.9%	0.7%	NA	1,048	330
	31 Diapers	2.2%	2.1%	2.1%	1,228	1,141	1,001
	32 Manure	NA	NA	0.5%	NA	NA	226
	33 Other Organics	0.9%	2.7%	0.8%	491	1,501	387
Inerts		9.4%	4.5%	12.4%	5,376	2,473	5,917
	34 Crushable Inerts	0.7%	1.4%	3.7%	411	794	1,762
	35 Other Inerts	0.4%	2.0%	4.8%	217	1,110	2,307
	36 Gypsum Board	2.3%	0.5%	1.8%	1,325	302	877
	37 Asphalt Roofing	6.0%	0.5%	2.0%	3,422	268	971
HHW		0.3%	0.2%	0.6%	166	135	272
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	44
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	4
	40 Universal Hazardous Waste	NA	NA	0.2%	NA	NA	91
	41 Medical Waste	NA	NA	0.0%	NA	NA	7
	42 Medicine	NA	NA	0.0%	NA	NA	19
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.1%	NA	NA	34
	45 Other Hazardous Waste	0.3%	0.2%	0.2%	166	135	74
Special		3.3%	5.5%	3.5%	1,885	3,055	1,690
	46 Brown Goods	1.6%	2.0%	0.5%	937	1,082	244
	47 Composite Bulky Items	1.7%	3.6%	3.0%	948	1,973	1,446
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	57,131	55,281	47,826

**2008 WASTE CHARACTERIZATION RESULTS
UNION CITY**

**Table 12
Union City Detailed Historic Comparison of Single-Family Residential Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		34.7%	32.8%	22.2%	4,378	4,685	2,498
	1 Uncoated Corrugated Cardboard	3.1%	1.2%	0.1%	390	167	16
	2 High Grade Paper	2.2%	3.1%	0.3%	283	439	31
	3 Newspaper	3.4%	3.2%	0.5%	427	461	54
	4 Mixed Recyclable Paper	9.4%	10.1%	2.3%	1,190	1,443	264
	5 Compostable Paper	NA	NA	18.1%	NA	NA	2,033
	6 Other Paper	16.5%	15.2%	0.9%	2,087	2,175	99
Plastics		11.7%	12.9%	13.4%	1,475	1,835	1,511
	7 HDPE Bottles (#2)	1.2%	0.7%	0.5%	147	94	60
	8 PETE Bottles (#1)	0.6%	0.7%	0.7%	77	103	79
	9 Other Plastic Containers	NA	0.3%	0.9%	NA	46	98
	10 Plastic Bags	NA	NA	2.4%	NA	NA	269
	11 Other Film	5.4%	7.2%	4.4%	676	1,023	501
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	12
	13 Mixed Rigid Plastics	NA	NA	3.0%	NA	NA	338
	14 Other Plastics	4.6%	4.0%	1.4%	575	569	155
Glass		4.7%	1.8%	1.7%	595	260	196
	15 Recyclable Glass Bottles/Containers	4.1%	1.7%	1.5%	519	239	167
	16 Other Glass	0.6%	0.2%	0.3%	76	22	29
Metals		4.4%	4.5%	2.5%	551	642	280
	17 Aluminum Cans	0.4%	0.2%	0.3%	51	27	29
	18 Other Non-Ferrous	0.6%	0.7%	0.4%	71	104	48
	19 Steel Food and Beverage Cans	1.8%	2.6%	1.0%	231	373	112
	20 Other Ferrous	1.6%	1.0%	0.8%	198	138	90
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		5.4%	2.2%	3.9%	686	309	436
	22 Leaves/Grass/Chips	2.3%	0.9%	2.6%	294	129	291
	23 Branches/Stumps/Prunings/Trimmings	3.1%	1.3%	1.3%	392	181	145
Organics		36.8%	41.6%	51.8%	4,652	5,941	5,834
	24 Food Waste	24.5%	28.4%	38.4%	3,094	4,055	4,318
	25 Tires	0.0%	0.0%	0.0%	0	0	0
	26 Untreated Lumber	0.4%	0.6%	0.4%	56	87	42
	27 Pallets	NA	NA	0.0%	NA	NA	5
	28 Treated Wood Waste	0.2%	0.4%	0.6%	30	61	73
	29 Textiles and Leather	3.4%	1.5%	3.1%	431	214	347
	30 Carpet	NA	1.4%	1.3%	NA	206	151
	31 Diapers	7.0%	6.6%	5.8%	886	946	658
	32 Manure	NA	NA	1.3%	NA	NA	152
	33 Other Organics	1.2%	2.6%	0.8%	155	373	88
Inerts		0.9%	2.3%	3.6%	119	331	409
	34 Crushable Inerts	0.3%	0.4%	0.8%	37	61	92
	35 Other Inerts	0.7%	1.9%	2.8%	82	270	318
	36 Gypsum Board	0.0%	0.0%	0.0%	0	0	0
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	0	0
HHW		0.4%	0.2%	0.3%	53	28	32
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	4
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	11
	41 Medical Waste	NA	NA	0.0%	NA	NA	2
	42 Medicine	NA	NA	0.1%	NA	NA	14
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.4%	0.2%	0.0%	53	28	1
Special		1.0%	1.7%	0.5%	129	244	62
	46 Brown Goods	0.3%	1.7%	0.5%	35	244	62
	47 Composite Bulky Items	0.7%	0.0%	0.0%	93	0	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	12,635	14,275	11,257

Table 13
Union City Detailed Historic Comparison of Multi-Family Residential Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		37.1%	24.7%	25.9%	1,147	440	1,175
	1 Uncoated Corrugated Cardboard	5.0%	6.4%	1.5%	155	113	67
	2 High Grade Paper	2.4%	1.7%	0.5%	74	30	23
	3 Newspaper	7.6%	3.2%	2.3%	235	57	103
	4 Mixed Recyclable Paper	9.1%	4.1%	6.2%	282	73	282
	5 Compostable Paper	NA	NA	14.7%	NA	NA	669
	6 Other Paper	13.0%	9.3%	0.7%	401	167	30
Plastics		10.1%	11.6%	13.2%	312	207	599
	7 HDPE Bottles (#2)	0.6%	1.0%	1.1%	19	18	50
	8 PETE Bottles (#1)	0.3%	0.8%	1.0%	10	14	45
	9 Other Plastic Containers	NA	0.3%	0.8%	NA	5	38
	10 Plastic Bags	NA	NA	1.4%	NA	NA	65
	11 Other Film	3.7%	5.1%	4.0%	113	90	183
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	2
	13 Mixed Rigid Plastics	NA	NA	3.5%	NA	NA	161
	14 Other Plastics	5.5%	4.4%	1.2%	171	79	56
Glass		4.7%	3.2%	3.6%	144	57	163
	15 Recyclable Glass Bottles/Containers	4.0%	3.1%	3.4%	125	56	152
	16 Other Glass	0.6%	0.1%	0.2%	19	1	11
Metals		7.5%	6.0%	6.8%	233	106	307
	17 Aluminum Cans	0.4%	0.4%	0.9%	13	7	39
	18 Other Non-Ferrous	0.3%	1.0%	2.0%	10	18	93
	19 Steel Food and Beverage Cans	1.4%	0.7%	0.9%	44	13	41
	20 Other Ferrous	2.3%	3.8%	3.0%	72	69	134
	21 White Goods	3.0%	0.0%	0.0%	94	0	0
Yard Waste		7.4%	1.3%	2.4%	229	22	111
	22 Leaves/Grass/Chips	5.9%	1.0%	2.2%	181	19	98
	23 Branches/Stumps/Prunings/Trimnings	1.5%	0.2%	0.3%	48	4	13
Organics		30.9%	42.6%	42.6%	955	760	1,933
	24 Food Waste	16.4%	18.1%	27.3%	505	324	1,240
	25 Tires	0.0%	0.0%	0.9%	0	0	40
	26 Untreated Lumber	1.2%	5.9%	0.5%	38	106	23
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	0.0%	14.3%	2.1%	0	256	94
	29 Textiles and Leather	8.3%	1.9%	5.1%	256	34	232
	30 Carpet	NA	0.0%	0.0%	NA	1	0
	31 Diapers	4.4%	1.0%	4.9%	137	17	220
	32 Manure	NA	NA	1.6%	NA	NA	73
	33 Other Organics	0.6%	1.3%	0.2%	19	23	10
Inerts		0.6%	2.9%	4.1%	18	53	186
	34 Crushable Inerts	0.4%	0.3%	3.1%	11	5	142
	35 Other Inerts	0.2%	0.4%	1.0%	7	7	44
	36 Gypsum Board	0.0%	2.3%	0.0%	0	41	0
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	0	0
HHW		0.1%	1.9%	1.3%	2	34	60
	38 Paint/Adhesives	NA	NA	0.1%	NA	NA	3
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.2%	NA	NA	8
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.1%	NA	NA	3
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.6%	NA	NA	29
	45 Other Hazardous Waste	0.1%	1.9%	0.4%	2	34	16
Special		1.6%	5.9%	0.1%	50	105	3
	46 Brown Goods	1.6%	3.8%	0.1%	50	67	3
	47 Composite Bulky Items	0.0%	2.1%	0.0%	0	38	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	3,090	1,785	4,538

**2008 WASTE CHARACTERIZATION RESULTS
UNION CITY**

**Table 14
Union City Detailed Historic Comparison of Commercial Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		32.6%	28.5%	26.2%	2,857	3,917	2,575
	1 Uncoated Corrugated Cardboard	5.0%	6.6%	2.2%	442	903	219
	2 High Grade Paper	5.4%	3.7%	0.7%	476	514	70
	3 Newspaper	3.3%	2.0%	0.5%	290	275	53
	4 Mixed Recyclable Paper	7.4%	6.7%	3.6%	650	915	350
	5 Compostable Paper	NA	NA	17.4%	NA	NA	1,714
	6 Other Paper	11.4%	9.5%	1.7%	1,000	1,311	169
Plastics		17.4%	10.5%	17.6%	1,523	1,441	1,725
	7 HDPE Bottles (#2)	1.2%	1.4%	0.8%	103	188	78
	8 PETE Bottles (#1)	0.4%	0.6%	0.4%	33	81	41
	9 Other Plastic Containers	NA	0.2%	0.8%	NA	28	80
	10 Plastic Bags	NA	NA	1.0%	NA	NA	100
	11 Other Film	5.7%	5.0%	9.4%	499	682	925
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	3
	13 Mixed Rigid Plastics	NA	NA	3.0%	NA	NA	299
	14 Other Plastics	10.1%	3.4%	2.0%	887	463	200
Glass		2.7%	2.4%	1.5%	237	333	148
	15 Recyclable Glass Bottles/Containers	2.3%	2.1%	1.4%	198	288	136
	16 Other Glass	0.5%	0.3%	0.1%	39	45	12
Metals		8.2%	3.8%	2.9%	720	528	283
	17 Aluminum Cans	0.5%	0.3%	0.2%	40	41	15
	18 Other Non-Ferrous	0.7%	0.6%	0.4%	64	87	39
	19 Steel Food and Beverage Cans	0.6%	0.8%	0.9%	54	111	86
	20 Other Ferrous	5.0%	1.9%	1.5%	434	264	143
	21 White Goods	1.5%	0.2%	0.0%	127	25	0
Yard Waste		6.1%	6.3%	4.0%	531	865	389
	22 Leaves/Grass/Chips	2.8%	3.8%	3.4%	241	528	333
	23 Branches/Stumps/Prunings/Trimmings	3.3%	2.4%	0.6%	290	336	56
Organics		27.3%	37.4%	44.7%	2,392	5,142	4,391
	24 Food Waste	16.8%	23.8%	30.2%	1,471	3,268	2,964
	25 Tires	0.4%	0.2%	0.3%	32	24	28
	26 Untreated Lumber	3.8%	4.4%	3.6%	329	601	356
	27 Pallets	NA	NA	0.7%	NA	NA	69
	28 Treated Wood Waste	0.6%	1.9%	3.8%	51	266	372
	29 Textiles and Leather	3.4%	2.9%	3.6%	297	404	353
	30 Carpet	NA	1.6%	1.1%	NA	225	106
	31 Diapers	0.8%	1.1%	1.1%	69	153	110
	32 Manure	NA	NA	0.0%	NA	NA	2
	33 Other Organics	1.6%	1.5%	0.3%	144	202	30
Inerts		2.4%	2.5%	2.8%	213	347	279
	34 Crushable Inerts	1.4%	0.7%	0.8%	119	102	80
	35 Other Inerts	0.2%	1.1%	2.0%	15	145	197
	36 Gypsum Board	0.9%	0.7%	0.0%	79	100	2
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	0	0
HHW		0.3%	0.4%	0.2%	30	58	15
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	2
	41 Medical Waste	NA	NA	0.0%	NA	NA	4
	42 Medicine	NA	NA	0.0%	NA	NA	1
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	5
	45 Other Hazardous Waste	0.3%	0.4%	0.0%	30	58	3
Special		2.9%	8.1%	0.2%	255	1,120	20
	46 Brown Goods	1.4%	4.4%	0.2%	124	607	20
	47 Composite Bulky Items	1.5%	3.7%	0.0%	131	513	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	8,760	13,749	9,825

Table 15
Union City Detailed Historic Comparison of Roll-Off Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		26.5%	29.9%	20.4%	5,933	6,298	2,728
	1 Uncoated Corrugated Cardboard	12.3%	11.4%	5.0%	2,740	2,392	667
	2 High Grade Paper	0.6%	2.1%	3.0%	125	445	398
	3 Newspaper	0.2%	2.4%	1.3%	43	499	180
	4 Mixed Recyclable Paper	7.7%	9.2%	7.3%	1,731	1,943	970
	5 Compostable Paper	NA	NA	1.0%	NA	NA	139
	6 Other Paper	5.8%	4.8%	2.8%	1,293	1,019	375
Plastics		17.3%	17.0%	4.5%	3,868	3,575	605
	7 HDPE Bottles (#2)	0.1%	2.9%	0.0%	16	611	7
	8 PETE Bottles (#1)	0.0%	0.9%	0.1%	2	192	7
	9 Other Plastic Containers	NA	0.1%	0.0%	NA	29	5
	10 Plastic Bags	NA	NA	0.1%	NA	NA	10
	11 Other Film	5.4%	3.6%	2.0%	1,212	754	274
	12 Expanded Polystyrene Blocks	NA	NA	0.2%	NA	NA	30
	13 Mixed Rigid Plastics	NA	NA	0.5%	NA	NA	61
	14 Other Plastics	11.8%	9.5%	1.6%	2,637	1,989	211
Glass		2.0%	4.8%	1.4%	443	1,002	188
	15 Recyclable Glass Bottles/Containers	0.6%	0.3%	1.0%	123	57	134
	16 Other Glass	1.4%	4.5%	0.4%	320	945	54
Metals		10.0%	5.6%	6.5%	2,246	1,171	869
	17 Aluminum Cans	0.3%	0.2%	0.1%	58	40	7
	18 Other Non-Ferrous	0.5%	0.7%	0.1%	112	155	18
	19 Steel Food and Beverage Cans	0.0%	0.5%	0.0%	7	109	4
	20 Other Ferrous	7.8%	3.9%	5.7%	1,749	826	757
	21 White Goods	1.4%	0.2%	0.6%	320	42	83
Yard Waste		1.1%	2.2%	8.3%	248	456	1,105
	22 Leaves/Grass/Chips	0.1%	1.7%	6.0%	27	355	809
	23 Branches/Stumps/Prunings/Trimmings	1.0%	0.5%	2.2%	221	101	296
Organics		27.0%	31.6%	34.4%	6,047	6,654	4,603
	24 Food Waste	6.1%	8.2%	7.5%	1,367	1,725	1,004
	25 Tires	0.0%	0.1%	0.0%	0	13	0
	26 Untreated Lumber	12.7%	14.3%	5.2%	2,839	3,005	692
	27 Pallets	NA	NA	10.9%	NA	NA	1,452
	28 Treated Wood Waste	6.9%	2.7%	2.3%	1,546	576	308
	29 Textiles and Leather	0.9%	0.7%	7.5%	199	138	1,007
	30 Carpet	NA	2.0%	0.3%	NA	419	42
	31 Diapers	0.1%	0.1%	0.0%	27	11	0
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	0.3%	3.6%	0.7%	69	768	98
Inerts		13.2%	2.3%	22.0%	2,962	491	2,942
	34 Crushable Inerts	1.0%	0.7%	2.4%	219	148	322
	35 Other Inerts	0.1%	0.9%	10.0%	16	181	1,343
	36 Gypsum Board	0.5%	0.0%	2.8%	107	1	368
	37 Asphalt Roofing	11.7%	0.8%	6.8%	2,620	161	910
HHW		0.1%	0.1%	0.3%	29	16	37
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.3%	NA	NA	37
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.1%	0.1%	0.0%	29	16	0
Special		2.6%	6.6%	2.3%	591	1,379	303
	46 Brown Goods	1.6%	0.3%	0.3%	356	53	46
	47 Composite Bulky Items	1.1%	6.3%	1.9%	235	1,326	257
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	22,370	21,043	13,380

**2008 WASTE CHARACTERIZATION RESULTS
UNION CITY**

**Table 16
Union City Detailed Historic Comparison of Self-Haul Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		14.5%	13.0%	6.1%	1,489	578	541
	1 Uncoated Corrugated Cardboard	4.5%	10.2%	0.9%	459	452	82
	2 High Grade Paper	1.3%	0.2%	1.1%	134	8	94
	3 Newspaper	0.8%	0.2%	0.0%	82	11	0
	4 Mixed Recyclable Paper	6.2%	1.9%	1.8%	637	82	160
	5 Compostable Paper	NA	NA	0.4%	NA	NA	37
	6 Other Paper	1.7%	0.6%	1.9%	177	25	169
Plastics		7.5%	5.0%	2.8%	768	221	247
	7 HDPE Bottles (#2)	0.1%	0.3%	0.0%	11	11	1
	8 PETE Bottles (#1)	0.1%	0.0%	0.0%	6	2	3
	9 Other Plastic Containers	NA	0.0%	0.0%	NA	2	0
	10 Plastic Bags	NA	NA	0.0%	NA	NA	3
	11 Other Film	0.5%	1.0%	1.5%	48	45	133
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	2
	13 Mixed Rigid Plastics	NA	NA	0.3%	NA	NA	27
	14 Other Plastics	6.8%	3.6%	0.9%	702	160	77
Glass		2.6%	0.4%	2.2%	270	17	195
	15 Recyclable Glass Bottles/Containers	0.8%	0.2%	0.5%	84	8	43
	16 Other Glass	1.8%	0.2%	1.7%	186	9	153
Metals		7.2%	5.6%	1.6%	738	248	141
	17 Aluminum Cans	0.0%	0.1%	0.0%	4	3	2
	18 Other Non-Ferrous	0.3%	0.2%	0.0%	28	9	0
	19 Steel Food and Beverage Cans	0.4%	0.1%	0.0%	36	3	0
	20 Other Ferrous	6.5%	5.3%	1.6%	670	234	139
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		14.3%	6.2%	8.5%	1,467	277	746
	22 Leaves/Grass/Chips	8.6%	4.9%	6.2%	886	216	546
	23 Branches/Stumps/Prunings/Trimmings	5.7%	1.4%	2.3%	582	61	200
Organics		26.5%	36.8%	38.8%	2,723	1,629	3,425
	24 Food Waste	2.2%	0.2%	4.1%	228	7	364
	25 Tires	0.1%	0.0%	0.0%	12	0	0
	26 Untreated Lumber	10.5%	13.3%	0.6%	1,081	588	52
	27 Pallets	NA	NA	3.7%	NA	NA	328
	28 Treated Wood Waste	4.6%	12.3%	15.7%	477	545	1,389
	29 Textiles and Leather	6.9%	3.2%	12.3%	706	142	1,086
	30 Carpet	NA	4.5%	0.4%	NA	197	32
	31 Diapers	1.2%	0.3%	0.1%	120	14	13
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	1.0%	3.1%	1.8%	99	136	161
Inerts		19.1%	28.3%	23.8%	1,962	1,252	2,100
	34 Crushable Inerts	0.3%	10.8%	12.8%	31	477	1,126
	35 Other Inerts	0.9%	11.5%	4.6%	92	507	405
	36 Gypsum Board	10.2%	3.6%	5.7%	1,052	159	507
	37 Asphalt Roofing	7.7%	2.4%	0.7%	786	107	61
HHW		0.5%	0.0%	1.4%	49	0	128
	38 Paint/Adhesives	NA	NA	0.5%	NA	NA	41
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.4%	NA	NA	33
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.5%	0.0%	0.6%	49	0	54
Special		7.9%	4.7%	14.8%	811	207	1,302
	46 Brown Goods	3.4%	2.5%	1.3%	353	111	113
	47 Composite Bulky Items	4.5%	2.2%	13.5%	457	96	1,189
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	10,276	4,429	8,827

Appendix A17

2008 WASTE CHARACTERIZATION RESULTS UNINCORPORATED ALAMEDA COUNTY

This section presents a summary of the composition and quantity of disposed waste from Unincorporated Alameda County. The 2008 Study results presented herein are based on compositions developed using data obtained from field sample collection and sorting activities performed over four seasons during calendar year 2008. A complete description of the Study and presentation of Countywide aggregate results are included in Section 3 of the report.

Table 1 summarizes selected demographic and waste disposal characteristics for the Unincorporated Alameda County. The total amount of waste disposed in 2008 represents 0.9 percent of the Countywide waste stream, and decreased approximately 8 percent from 2000.

**Table 1
Unincorporated Alameda County Waste Disposal Data**

	2000	2008
Population ¹	17,531	15,491
Housing Units	3,954	5,594
Number of Business Establishments ²	170	265
Waste Disposal (tons) ³	10,993	10,114
Single Family	1,460	125
Multi-Family	0	0
Commercial	355	1,077
Roll-off	1,141	1,213
Self-Haul	8,037	7,700
Residential Disposal Rate (lbs/capita/year) ⁴	475	876
Non-residential Disposal Rate (tons/establishment/year)	41	13

¹ Source: State of California, Department of Finance, City/County Population and Housing Estimates for 2000 and Jan 2008.

² Source: California Board of Equalization. "Taxable Sales in California (Sales & Use Tax)", 1999 and 2007.

³ Data provided by StopWaste.Org staff.

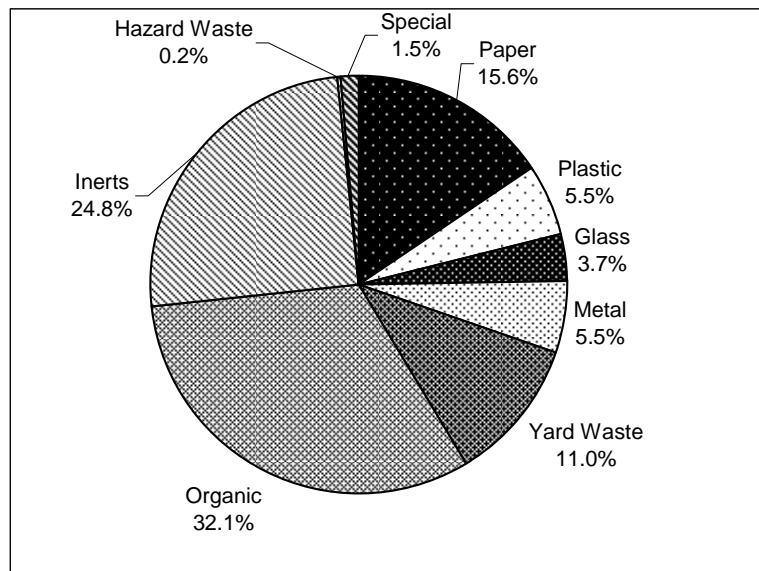
Table 2 presents the number of samples collected from each type of waste stream. Approximately 1 percent of the total number of samples collected were from this jurisdiction.

Table 2
Summary of Samples Obtained from Unincorporated Alameda County

Waste Stream	Total Samples
Single-family	5
Multi-family	0
Commercial	9
Roll-off	0
Self-haul	0
Total	14

The following tables and figures are presented for waste originating from Unincorporated Alameda County. The introduction to Appendix B presents a summary of the information provided within each table or figure.

Figure 1 Unincorporated Alameda County 2008 Aggregate Waste Composition by Major Material Group



Material Group	Tons Disposed	Mean (%)
Paper	1,578	15.6%
Plastic	561	5.5%
Glass	375	3.7%
Metal	556	5.5%
Yard Waste	1,110	11.0%
Organic	3,250	32.1%
Inerts	2,512	24.8%
Hazard Waste	19	0.2%
Special	154	1.5%
TOTAL	10,115	100.0%

2008 WASTE CHARACTERIZATION RESULTS UNINCORPORATED ALAMEDA COUNTY

Figure 2 Unincorporated Alameda County Single-Family Residential Composition by Major Material Group

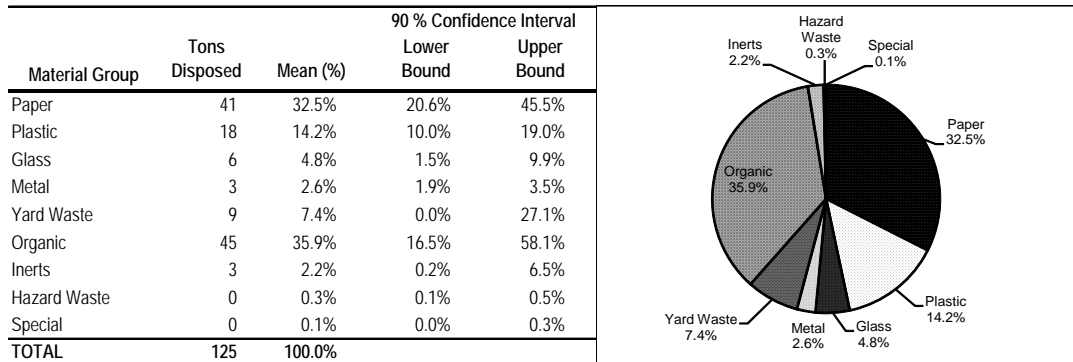


Figure 3 Unincorporated Alameda County Multi-Family Residential Composition by Major Material Group

Not applicable: no samples were collected from multi-family residential composition waste from Unincorporated Alameda County.

Figure 4 Unincorporated Alameda Commercial Composition by Major Material Group

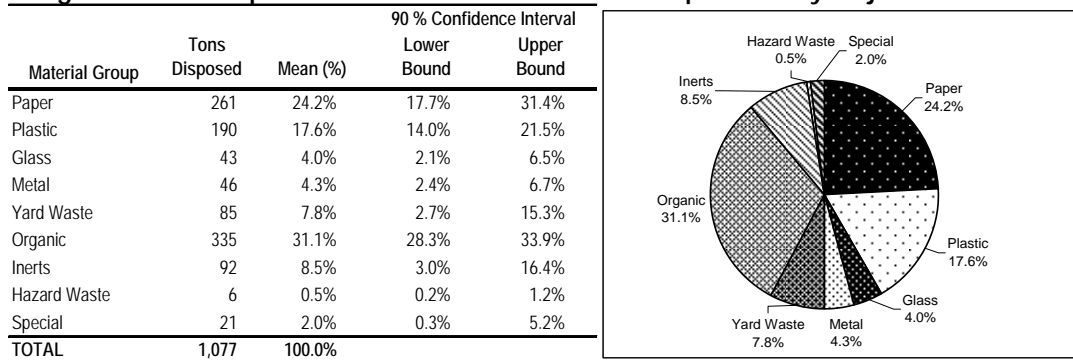


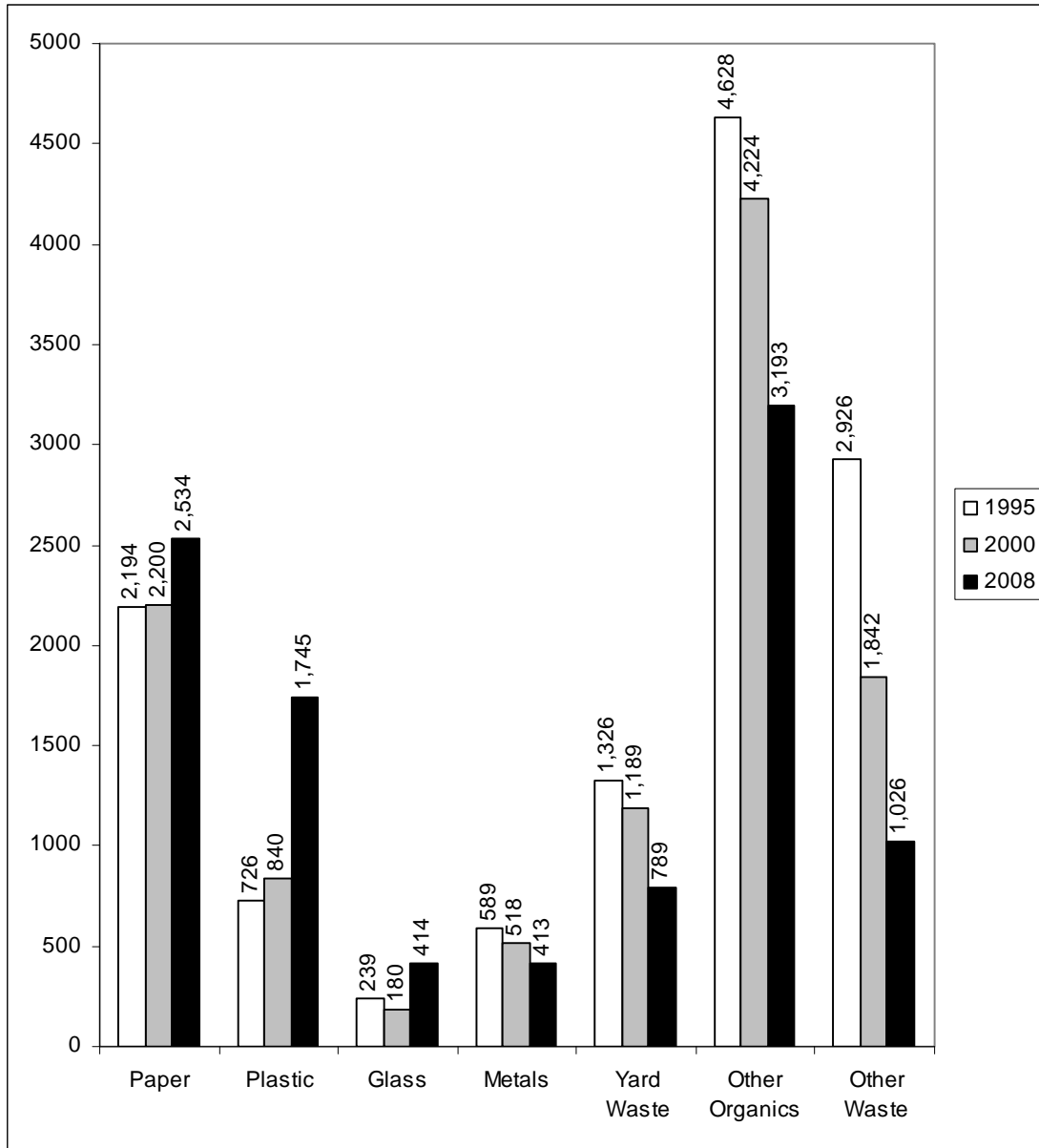
Figure 5 Unincorporated Alameda County Roll-off Composition by Major Material Group

Not applicable: Pleasanton Roll-off composition was used for Unincorporated Alameda County Roll-off.

Figure 6 Unincorporated Alameda County Self Hauler Composition by Major Material Group

Not applicable: Pleasanton Self-Haul composition was used for Unincorporated Alameda County Self-Haul.

Figure 7 Historic Comparison of Unincorporated Alameda County Aggregate Disposal



2008 WASTE CHARACTERIZATION RESULTS
UNINCORPORATED ALAMEDA COUNTY

Figure 8 Unincorporated Alameda County Top 12 Most Common Materials - Aggregate

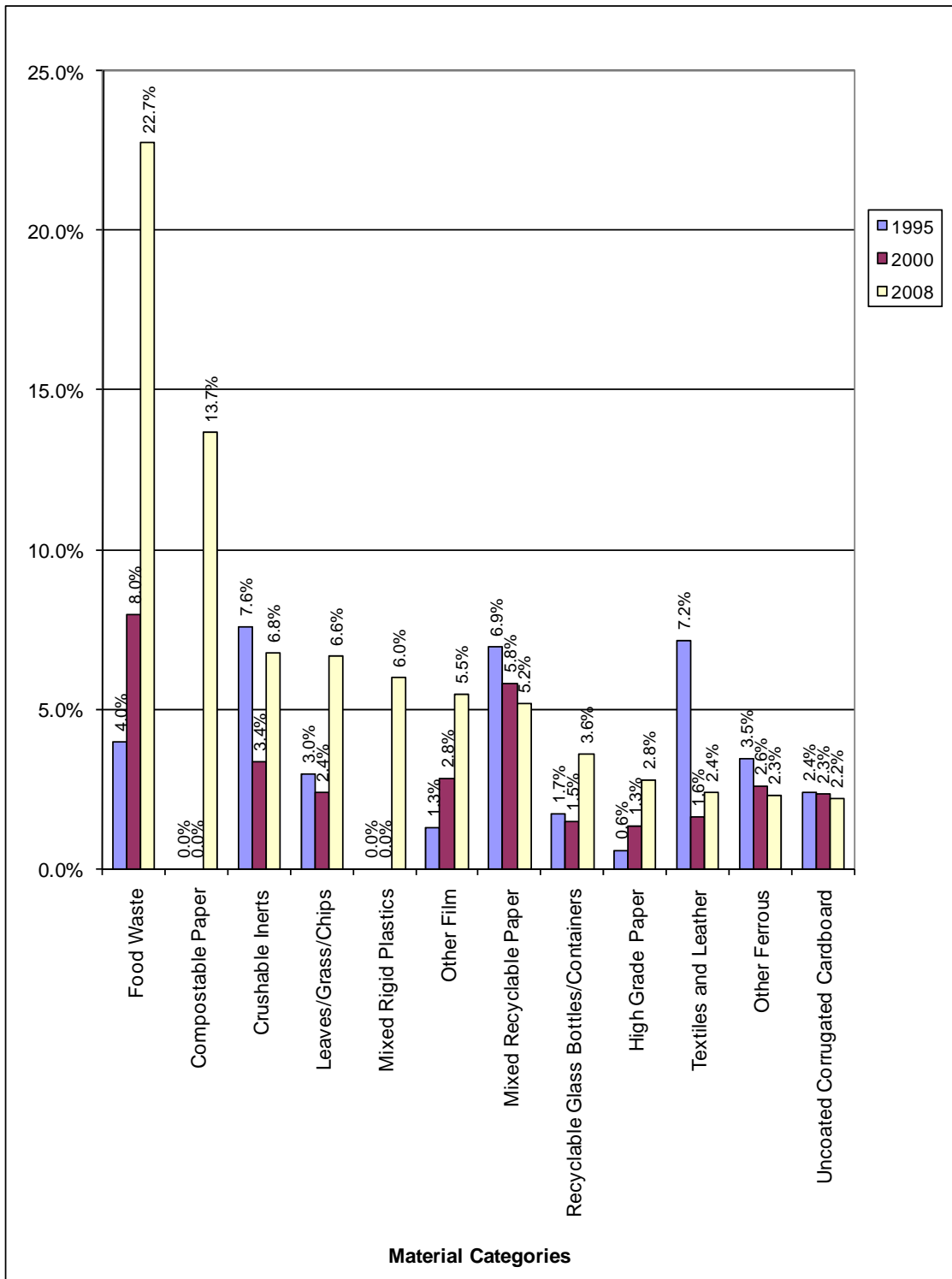
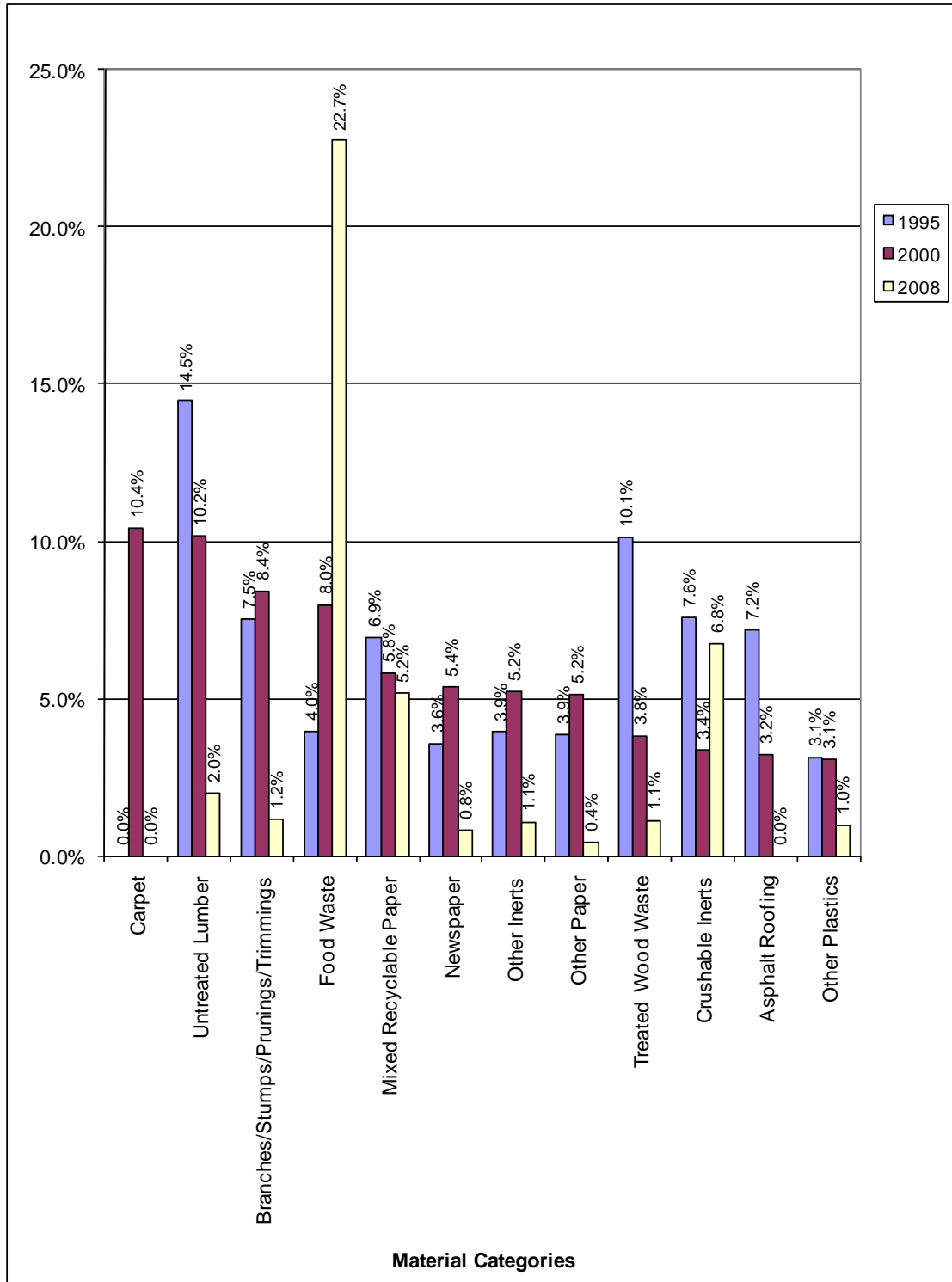


Figure 9 Unincorporated Alameda County Top 12 Most Common Materials from 2000



**2008 WASTE CHARACTERIZATION RESULTS
UNINCORPORATED ALAMEDA COUNTY**

**Table 3
Summary of Overall Material Proportions for Unincorporated Alameda County**

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Aggregated
Paper		32.5%	-	24.2%	25.3%	12.6%	15.6%
	1 Uncoated Corrugated Cardboard	0.5%	-	2.4%	6.3%	5.3%	5.0%
	2 High Grade Paper	0.7%	-	3.0%	2.1%	1.1%	1.4%
	3 Newspaper	2.2%	-	0.7%	0.0%	0.5%	0.5%
	4 Mixed Recyclable Paper	9.0%	-	4.7%	12.3%	5.0%	5.9%
	5 Compostable Paper	19.5%	-	13.0%	4.0%	0.6%	2.5%
	6 Other Paper	0.5%	-	0.4%	0.6%	0.2%	0.2%
Plastics		14.2%	-	17.6%	7.5%	3.4%	5.5%
	7 HDPE Bottles (#2)	0.9%	-	1.0%	0.1%	0.0%	0.2%
	8 PETE Bottles (#1)	0.8%	-	1.0%	0.2%	0.1%	0.2%
	9 Other Plastic Containers	1.0%	-	0.8%	0.1%	0.0%	0.1%
	10 Plastic Bags	1.3%	-	2.2%	0.2%	0.1%	0.4%
	11 Other Film	5.8%	-	5.4%	4.3%	1.2%	2.1%
	12 Expanded Polystyrene Blocks	0.0%	-	0.0%	0.1%	0.0%	0.0%
	13 Mixed Rigid Plastics	3.6%	-	6.2%	1.6%	1.7%	2.2%
	14 Other Plastics	0.7%	-	1.0%	0.9%	0.3%	0.4%
Glass		4.8%	-	4.0%	1.4%	4.0%	3.7%
	15 Recyclable Glass Bottles/Containers	4.2%	-	3.5%	1.4%	0.7%	1.1%
	16 Other Glass	0.6%	-	0.5%	0.0%	3.3%	2.6%
Metals		2.6%	-	4.3%	6.1%	5.6%	5.5%
	17 Aluminum Cans	0.4%	-	0.5%	0.2%	0.1%	0.1%
	18 Other Non-Ferrous	0.4%	-	0.4%	0.0%	0.2%	0.2%
	19 Steel Food and Beverage Cans	1.6%	-	0.8%	0.0%	0.1%	0.2%
	20 Other Ferrous	0.3%	-	2.6%	6.0%	5.2%	4.9%
	21 White Goods	0.0%	-	0.0%	0.0%	0.1%	0.1%
Yard Waste		7.4%	-	7.8%	7.5%	12.0%	11.0%
	22 Leaves/Grass/Chips	5.7%	-	6.8%	2.9%	6.7%	6.2%
	23 Branches/Stumps/Prunings/Trimmings	1.7%	-	1.1%	4.6%	5.4%	4.8%
Organics		35.9%	-	31.1%	31.1%	32.4%	32.1%
	24 Food Waste	26.7%	-	22.3%	8.3%	1.6%	5.0%
	25 Tires	0.0%	-	0.9%	0.2%	0.0%	0.1%
	26 Untreated Lumber	0.0%	-	2.2%	2.0%	6.7%	5.6%
	27 Pallets	0.0%	-	0.7%	9.1%	0.5%	1.5%
	28 Treated Wood Waste	0.5%	-	1.2%	8.3%	15.3%	12.8%
	29 Textiles and Leather	3.0%	-	2.3%	1.8%	1.9%	2.0%
	30 Carpet	0.0%	-	0.0%	0.2%	5.6%	4.3%
	31 Diapers	4.8%	-	0.6%	0.2%	0.0%	0.2%
	32 Manure	0.2%	-	0.3%	0.0%	0.2%	0.2%
	33 Other Organics	0.6%	-	0.6%	0.9%	0.5%	0.6%
Inerts		2.2%	-	8.5%	21.0%	28.1%	24.8%
	34 Crushable Inerts	1.7%	-	7.4%	7.7%	12.0%	10.9%
	35 Other Inerts	0.5%	-	1.1%	6.9%	9.7%	8.3%
	36 Gypsum Board	0.0%	-	0.0%	6.5%	3.7%	3.6%
	37 Asphalt Roofing	0.0%	-	0.0%	0.0%	2.7%	2.1%
HHW		0.3%	-	0.5%	0.2%	0.1%	0.2%
	38 Paint/Adhesives	0.0%	-	0.3%	0.0%	0.0%	0.0%
	39 Vehicle & Equipment Fluids	0.0%	-	0.0%	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	0.1%	-	0.1%	0.0%	0.0%	0.0%
	41 Medical Waste	0.0%	-	0.0%	0.1%	0.0%	0.0%
	42 Medicine	0.1%	-	0.0%	0.0%	0.0%	0.0%
	43 Covered E-Waste	0.0%	-	0.0%	0.1%	0.1%	0.1%
	44 Other E-Waste	0.0%	-	0.0%	0.0%	0.0%	0.0%
	45 Other Hazardous Waste	0.0%	-	0.0%	0.0%	0.0%	0.0%
Special		0.1%	-	2.0%	0.0%	1.7%	1.5%
	46 Brown Goods	0.1%	-	0.3%	0.0%	0.1%	0.1%
	47 Composite Bulky Items	0.0%	-	1.7%	0.0%	1.6%	1.4%
	48 Other Special Waste	0.0%	-	0.0%	0.0%	0.0%	0.0%
TOTAL		100.0%	-	100.0%	100.0%	100.0%	100.0%

Table 4
Summary of Overall Material Tonnages for Unincorporated Alameda County

Material Group	Material	Single-Family Residential	Multi-Family Residential	Commercial	Roll-off	Self Hauler	Total
Paper		41	-	261	306	970	1,578
	1 Uncoated Corrugated Cardboard	1	-	26	77	407	510
	2 High Grade Paper	1	-	33	25	88	146
	3 Newspaper	3	-	7	0	36	46
	4 Mixed Recyclable Paper	11	-	51	149	384	595
	5 Compostable Paper	24	-	140	49	43	256
	6 Other Paper	1	-	5	7	13	25
Plastics		18	-	190	91	263	561
	7 HDPE Bottles (#2)	1	-	10	2	2	16
	8 PETE Bottles (#1)	1	-	10	2	4	18
	9 Other Plastic Containers	1	-	9	1	3	14
	10 Plastic Bags	2	-	24	3	9	36
	11 Other Film	7	-	58	52	91	208
	12 Expanded Polystyrene Blocks	0	-	0	2	3	4
	13 Mixed Rigid Plastics	5	-	67	19	130	220
	14 Other Plastics	1	-	11	11	22	44
Glass		6	-	43	17	309	375
	15 Recyclable Glass Bottles/Containers	5	-	38	17	54	113
	16 Other Glass	1	-	5	0	255	261
Metals		3	-	46	74	432	556
	17 Aluminum Cans	1	-	5	2	4	12
	18 Other Non-Ferrous	1	-	4	0	14	19
	19 Steel Food and Beverage Cans	2	-	8	0	5	15
	20 Other Ferrous	0	-	27	72	399	500
	21 White Goods	0	-	0	0	10	10
Yard Waste		9	-	85	90	926	1,110
	22 Leaves/Grass/Chips	7	-	73	35	512	627
	23 Branches/Stumps/Prunings/Trimmings	2	-	12	56	413	483
Organics		45	-	335	377	2,493	3,250
	24 Food Waste	33	-	240	101	127	501
	25 Tires	0	-	10	2	0	12
	26 Untreated Lumber	0	-	24	24	517	565
	27 Pallets	0	-	7	110	38	156
	28 Treated Wood Waste	1	-	13	100	1,181	1,295
	29 Textiles and Leather	4	-	25	22	150	201
	30 Carpet	0	-	0	3	429	432
	31 Diapers	6	-	7	3	2	18
	32 Manure	0	-	3	0	12	16
	33 Other Organics	1	-	7	11	37	56
Inerts		3	-	92	254	2,164	2,512
	34 Crushable Inerts	2	-	79	93	925	1,099
	35 Other Inerts	1	-	12	83	748	844
	36 Gypsum Board	0	-	0	78	283	361
	37 Asphalt Roofing	0	-	0	0	208	208
HHW		0	-	6	3	10	19
	38 Paint/Adhesives	0	-	4	0	0	4
	39 Vehicle & Equipment Fluids	0	-	0	0	0	0
	40 Universal Hazardous Waste	0	-	1	0	0	2
	41 Medical Waste	0	-	0	2	0	2
	42 Medicine	0	-	0	0	0	0
	43 Covered E-Waste	0	-	0	1	10	11
	44 Other E-Waste	0	-	0	0	0	0
	45 Other Hazardous Waste	0	-	0	0	0	0
Special		0	-	21	0	133	154
	46 Brown Goods	0	-	3	0	6	9
	47 Composite Bulky Items	0	-	18	0	127	145
	48 Other Special Waste	0	-	0	0	0	0
TOTAL		125	0	1,077	1,213	7,700	10,115

**2008 WASTE CHARACTERIZATION RESULTS
UNINCORPORATED ALAMEDA COUNTY**

**Table 5
Unincorporated Alameda County Aggregate Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)
Paper		1,578	15.6%
	1 Uncoated Corrugated Cardboard	510	5.0%
	2 High Grade Paper	146	1.4%
	3 Newspaper	46	0.5%
	4 Mixed Recyclable Paper	595	5.9%
	5 Compostable Paper	256	2.5%
	6 Other Paper	25	0.2%
Plastics		561	5.5%
	7 HDPE Bottles (#2)	16	0.2%
	8 PETE Bottles (#1)	18	0.2%
	9 Other Plastic Containers	14	0.1%
	10 Plastic Bags	36	0.4%
	11 Other Film	208	2.1%
	12 Expanded Polystyrene Blocks	4	0.0%
	13 Mixed Rigid Plastics	220	2.2%
	14 Other Plastics	44	0.4%
Glass		375	3.7%
	15 Recyclable Glass Bottles/Containers	113	1.1%
	16 Other Glass	261	2.6%
Metals		556	5.5%
	17 Aluminum Cans	12	0.1%
	18 Other Non-Ferrous	19	0.2%
	19 Steel Food and Beverage Cans	15	0.2%
	20 Other Ferrous	500	4.9%
	21 White Goods	10	0.1%
Yard Waste		1,110	11.0%
	22 Leaves/Grass/Chips	627	6.2%
	23 Branches/Stumps/Prunings/Trimmings	483	4.8%
Organics		3,250	32.1%
	24 Food Waste	501	5.0%
	25 Tires	12	0.1%
	26 Untreated Lumber	565	5.6%
	27 Pallets	156	1.5%
	28 Treated Wood Waste	1,295	12.8%
	29 Textiles and Leather	201	2.0%
	30 Carpet	432	4.3%
	31 Diapers	18	0.2%
	32 Manure	16	0.2%
	33 Other Organics	56	0.6%
Inerts		2,512	24.8%
	34 Crushable Inerts	1,099	10.9%
	35 Other Inerts	844	8.3%
	36 Gypsum Board	361	3.6%
	37 Asphalt Roofing	208	2.1%
HHW		19	0.2%
	38 Paint/Adhesives	4	0.0%
	39 Vehicle & Equipment Fluids	0	0.0%
	40 Universal Hazardous Waste	2	0.0%
	41 Medical Waste	2	0.0%
	42 Medicine	0	0.0%
	43 Covered E-Waste	11	0.1%
	44 Other E-Waste	0	0.0%
	45 Other Hazardous Waste	0	0.0%
Special		154	1.5%
	46 Brown Goods	9	0.1%
	47 Composite Bulky Items	145	1.4%
	48 Other Special Waste	0	0.0%
TOTAL		10,115	100.0%

**Table 6
Unincorporated Alameda County Single-Family Residential Waste Composition and Disposal**

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		41	32.5%	20.6%	45.5%
	1 Uncoated Corrugated Cardboard	1	0.5%	0.1%	1.3%
	2 High Grade Paper	1	0.7%	0.1%	2.0%
	3 Newspaper	3	2.2%	0.7%	4.6%
	4 Mixed Recyclable Paper	11	9.0%	2.4%	19.2%
	5 Compostable Paper	24	19.5%	13.7%	26.0%
	6 Other Paper	1	0.5%	0.3%	0.9%
Plastics		18	14.2%	10.0%	19.0%
	7 HDPE Bottles (#2)	1	0.9%	0.6%	1.2%
	8 PETE Bottles (#1)	1	0.8%	0.4%	1.3%
	9 Other Plastic Containers	1	1.0%	0.5%	1.8%
	10 Plastic Bags	2	1.3%	0.5%	2.6%
	11 Other Film	7	5.8%	3.2%	9.1%
	12 Expanded Polystyrene Blocks	0	0.0%	0.0%	0.0%
	13 Mixed Rigid Plastics	5	3.6%	1.7%	6.2%
	14 Other Plastics	1	0.7%	0.3%	1.3%
Glass		6	4.8%	1.5%	9.9%
	15 Recyclable Glass Bottles/Containers	5	4.2%	0.5%	11.3%
	16 Other Glass	1	0.6%	0.0%	2.1%
Metals		3	2.6%	1.9%	3.5%
	17 Aluminum Cans	1	0.4%	0.3%	0.5%
	18 Other Non-Ferrous	1	0.4%	0.2%	0.7%
	19 Steel Food and Beverage Cans	2	1.6%	1.0%	2.3%
	20 Other Ferrous	0	0.3%	0.1%	0.5%
	21 White Goods	0	0.0%	0.0%	0.0%
Yard Waste		9	7.4%	0.0%	27.1%
	22 Leaves/Grass/Chips	7	5.7%	0.0%	20.8%
	23 Branches/Stumps/Prunings/Trimmings	2	1.7%	0.0%	7.2%
Organics		45	35.9%	16.5%	58.1%
	24 Food Waste	33	26.7%	13.0%	43.1%
	25 Tires	0	0.0%	0.0%	0.0%
	26 Untreated Lumber	0	0.0%	0.0%	0.1%
	27 Pallets	0	0.0%	0.0%	0.0%
	28 Treated Wood Waste	1	0.5%	0.0%	1.6%
	29 Textiles and Leather	4	3.0%	1.3%	5.5%
	30 Carpet	0	0.0%	0.0%	0.0%
	31 Diapers	6	4.8%	1.0%	11.3%
	32 Manure	0	0.2%	0.0%	0.8%
	33 Other Organics	1	0.6%	0.1%	1.5%
Inerts		3	2.2%	0.2%	6.5%
	34 Crushable Inerts	2	1.7%	0.0%	6.6%
	35 Other Inerts	1	0.5%	0.1%	1.3%
	36 Gypsum Board	0	0.0%	0.0%	0.0%
	37 Asphalt Roofing	0	0.0%	0.0%	0.0%
HHW		0	0.3%	0.1%	0.5%
	38 Paint/Adhesives	0	0.0%	0.0%	0.0%
	39 Vehicle & Equipment Fluids	0	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	0	0.1%	0.0%	0.5%
	41 Medical Waste	0	0.0%	0.0%	0.1%
	42 Medicine	0	0.1%	0.0%	0.3%
	43 Covered E-Waste	0	0.0%	0.0%	0.0%
	44 Other E-Waste	0	0.0%	0.0%	0.0%
	45 Other Hazardous Waste	0	0.0%	0.0%	0.1%
Special		0	0.1%	0.0%	0.3%
	46 Brown Goods	0	0.1%	0.0%	0.3%
	47 Composite Bulky Items	0	0.0%	0.0%	0.0%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		125	100.0%		

2008 WASTE CHARACTERIZATION RESULTS
UNINCORPORATED ALAMEDA COUNTY

Table 7
Unincorporated Alameda County Multi-Family Residential Waste Composition and
Disposal

Not applicable: no samples were collected from residential waste composition and disposal from Unincorporated Alameda County.

Table 8
Unincorporated Alameda County Commercial Waste Composition and Disposal

Material Group	Material	Tons Disposed	Mean (%)	90 % Confidence Interval	
				Lower Bound	Upper Bound
Paper		261	24.2%	17.7%	31.4%
	1 Uncoated Corrugated Cardboard	26	2.4%	0.9%	4.7%
	2 High Grade Paper	33	3.0%	1.1%	5.7%
	3 Newspaper	7	0.7%	0.2%	1.5%
	4 Mixed Recyclable Paper	51	4.7%	2.6%	7.3%
	5 Compostable Paper	140	13.0%	9.0%	17.5%
	6 Other Paper	5	0.4%	0.2%	0.7%
Plastics		190	17.6%	14.0%	21.5%
	7 HDPE Bottles (#2)	10	1.0%	0.4%	1.7%
	8 PETE Bottles (#1)	10	1.0%	0.5%	1.6%
	9 Other Plastic Containers	9	0.8%	0.4%	1.3%
	10 Plastic Bags	24	2.2%	0.4%	5.2%
	11 Other Film	58	5.4%	3.2%	8.1%
	12 Expanded Polystyrene Blocks	0	0.0%	0.0%	0.0%
	13 Mixed Rigid Plastics	67	6.2%	4.2%	8.7%
	14 Other Plastics	11	1.0%	0.6%	1.6%
Glass		43	4.0%	2.1%	6.5%
	15 Recyclable Glass Bottles/Containers	38	3.5%	1.5%	6.2%
	16 Other Glass	5	0.5%	0.1%	1.3%
Metals		46	4.3%	2.4%	6.7%
	17 Aluminum Cans	5	0.5%	0.3%	0.9%
	18 Other Non-Ferrous	4	0.4%	0.1%	0.9%
	19 Steel Food and Beverage Cans	8	0.8%	0.3%	1.5%
	20 Other Ferrous	27	2.6%	1.0%	4.8%
	21 White Goods	0	0.0%	0.0%	0.0%
Yard Waste		85	7.8%	2.7%	15.3%
	22 Leaves/Grass/Chips	73	6.8%	2.3%	13.3%
	23 Branches/Stumps/Prunings/Trimnings	12	1.1%	0.1%	3.4%
Organics		335	31.1%	28.3%	33.9%
	24 Food Waste	240	22.3%	14.9%	30.7%
	25 Tires	10	0.9%	0.0%	2.8%
	26 Untreated Lumber	24	2.2%	0.1%	6.7%
	27 Pallets	7	0.7%	0.0%	2.1%
	28 Treated Wood Waste	13	1.2%	0.2%	2.8%
	29 Textiles and Leather	25	2.3%	0.9%	4.5%
	30 Carpet	0	0.0%	0.0%	0.0%
	31 Diapers	7	0.6%	0.2%	1.3%
	32 Manure	3	0.3%	0.0%	0.9%
	33 Other Organics	7	0.6%	0.2%	1.4%
Inerts		92	8.5%	3.0%	16.4%
	34 Crushable Inerts	79	7.4%	1.7%	16.5%
	35 Other Inerts	12	1.1%	0.6%	1.8%
	36 Gypsum Board	0	0.0%	0.0%	0.0%
	37 Asphalt Roofing	0	0.0%	0.0%	0.0%
HHW		6	0.5%	0.2%	1.2%
	38 Paint/Adhesives	4	0.3%	0.0%	0.9%
	39 Vehicle & Equipment Fluids	0	0.0%	0.0%	0.1%
	40 Universal Hazardous Waste	1	0.1%	0.0%	0.4%
	41 Medical Waste	0	0.0%	0.0%	0.0%
	42 Medicine	0	0.0%	0.0%	0.0%
	43 Covered E-Waste	0	0.0%	0.0%	0.0%
	44 Other E-Waste	0	0.0%	0.0%	0.1%
	45 Other Hazardous Waste	0	0.0%	0.0%	0.0%
Special		21	2.0%	0.3%	5.2%
	46 Brown Goods	3	0.3%	0.0%	0.8%
	47 Composite Bulky Items	18	1.7%	0.2%	4.8%
	48 Other Special Waste	0	0.0%	0.0%	0.0%
TOTAL		1,077	100.0%		

**2008 WASTE CHARACTERIZATION RESULTS
UNINCORPORATED ALAMEDA COUNTY**

Table 9

Unincorporated Alameda County Roll-Off Waste Composition and Disposal

Not applicable: no samples were collected from roll-off waste composition and disposal from Unincorporated Alameda County.

Table 10

Unincorporated Alameda County Self Haul Waste Composition and Disposal

Not applicable: no samples were collected from self-haul waste composition and disposal from Unincorporated Alameda County.

Table 11
Unincorporated Alameda County Detailed Historic Comparison of Overall Jurisdiction-wide Waste

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		17.4%	20.0%	15.6%	2,193	2,200	1,578
	1 Uncoated Corrugated Cardboard	2.4%	2.3%	5.0%	303	256	510
	2 High Grade Paper	0.6%	1.3%	1.4%	75	146	146
	3 Newspaper	3.6%	5.4%	0.5%	453	590	46
	4 Mixed Recyclable Paper	6.9%	5.8%	5.9%	876	641	595
	5 Compostable Paper	NA	NA	2.5%	NA	NA	256
	6 Other Paper	3.9%	5.2%	0.2%	486	567	25
Plastics		5.7%	7.6%	5.5%	725	840	561
	7 HDPE Bottles (#2)	1.2%	0.6%	0.2%	148	64	16
	8 PETE Bottles (#1)	0.1%	0.7%	0.2%	18	80	18
	9 Other Plastic Containers	NA	0.4%	0.1%	NA	48	14
	10 Plastic Bags	NA	NA	0.4%	NA	NA	36
	11 Other Film	1.3%	2.8%	2.1%	163	311	208
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	4
	13 Mixed Rigid Plastics	NA	NA	2.2%	NA	NA	220
	14 Other Plastics	3.1%	3.1%	0.4%	397	337	44
Glass		1.9%	1.6%	3.7%	240	180	375
	15 Recyclable Glass Bottles/Containers	1.7%	1.5%	1.1%	217	163	113
	16 Other Glass	0.2%	0.2%	2.6%	23	17	261
Metals		4.7%	4.7%	5.5%	590	518	556
	17 Aluminum Cans	0.6%	0.2%	0.1%	75	25	12
	18 Other Non-Ferrous	0.1%	0.7%	0.2%	15	78	19
	19 Steel Food and Beverage Cans	0.5%	0.5%	0.2%	64	58	15
	20 Other Ferrous	3.5%	2.6%	4.9%	436	285	500
	21 White Goods	0.0%	0.6%	0.1%	0	71	10
Yard Waste		10.5%	10.8%	11.0%	1,326	1,189	1,110
	22 Leaves/Grass/Chips	3.0%	2.4%	6.2%	376	262	627
	23 Branches/Stumps/Prunings/Trimmings	7.5%	8.4%	4.8%	950	927	483
Organics		37.3%	38.4%	32.1%	4,715	4,224	3,250
	24 Food Waste	4.0%	8.0%	5.0%	501	877	501
	25 Tires	0.1%	1.2%	0.1%	9	134	12
	26 Untreated Lumber	14.5%	10.2%	5.6%	1,826	1,116	565
	27 Pallets	NA	NA	1.5%	NA	NA	156
	28 Treated Wood Waste	10.1%	3.8%	12.8%	1,278	420	1,295
	29 Textiles and Leather	7.2%	1.6%	2.0%	903	177	201
	30 Carpet	NA	10.4%	4.3%	NA	1,146	432
	31 Diapers	0.7%	1.5%	0.2%	87	161	18
	32 Manure	NA	NA	0.2%	NA	NA	16
	33 Other Organics	0.9%	1.7%	0.6%	111	192	56
Inerts		18.7%	13.1%	24.8%	2,365	1,440	2,512
	34 Crushable Inerts	7.6%	3.4%	10.9%	957	369	1,099
	35 Other Inerts	3.9%	5.2%	8.3%	498	575	844
	36 Gypsum Board	0.0%	1.3%	3.6%	5	142	361
	37 Asphalt Roofing	7.2%	3.2%	2.1%	905	354	208
HHW		1.0%	0.3%	0.2%	125	28	19
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	4
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	2
	41 Medical Waste	NA	NA	0.0%	NA	NA	2
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.1%	NA	NA	11
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	1.0%	0.3%	0.0%	125	28	0
Special		2.8%	3.4%	1.5%	347	374	154
	46 Brown Goods	1.9%	0.9%	0.1%	234	96	9
	47 Composite Bulky Items	0.9%	2.5%	1.4%	114	278	145
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	12,628	10,993	10,115

**2008 WASTE CHARACTERIZATION RESULTS
UNINCORPORATED ALAMEDA COUNTY**

**Table 12
Unincorporated Alameda County Detailed Historic Comparison of Single-Family Residential Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		42.4%	32.1%	32.5%	969	469	41
	1 Uncoated Corrugated Cardboard	4.7%	3.3%	0.5%	108	48	1
	2 High Grade Paper	2.0%	2.3%	0.7%	45	34	1
	3 Newspaper	12.5%	8.3%	2.2%	284	122	3
	4 Mixed Recyclable Paper	10.8%	9.6%	9.0%	248	140	11
	5 Compostable Paper	NA	NA	19.5%	NA	NA	24
	6 Other Paper	12.4%	8.6%	0.5%	284	125	1
Plastics		10.4%	9.7%	14.2%	237	142	18
	7 HDPE Bottles (#2)	1.3%	0.9%	0.9%	29	14	1
	8 PETE Bottles (#1)	0.6%	0.8%	0.8%	15	11	1
	9 Other Plastic Containers	NA	0.8%	1.0%	NA	12	1
	10 Plastic Bags	NA	NA	1.3%	NA	NA	2
	11 Other Film	4.3%	4.3%	5.8%	98	62	7
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	0
	13 Mixed Rigid Plastics	NA	NA	3.6%	NA	NA	5
	14 Other Plastics	4.2%	2.9%	0.7%	95	42	1
Glass		5.7%	5.2%	4.8%	131	76	6
	15 Recyclable Glass Bottles/Containers	5.7%	4.9%	4.2%	129	72	5
	16 Other Glass	0.1%	0.2%	0.6%	2	4	1
Metals		4.2%	4.3%	2.6%	96	62	3
	17 Aluminum Cans	0.5%	0.5%	0.4%	10	7	1
	18 Other Non-Ferrous	0.2%	1.0%	0.4%	5	14	1
	19 Steel Food and Beverage Cans	2.0%	1.5%	1.6%	45	23	2
	20 Other Ferrous	1.6%	1.3%	0.3%	36	19	0
	21 White Goods	0.0%	0.0%	0.0%	0	0	0
Yard Waste		11.1%	13.4%	7.4%	254	196	9
	22 Leaves/Grass/Chips	9.3%	7.2%	5.7%	212	106	7
	23 Branches/Stumps/Prunings/Trimmings	1.8%	6.2%	1.7%	42	90	2
Organics		21.8%	29.9%	35.9%	497	436	45
	24 Food Waste	11.3%	13.2%	26.7%	257	192	33
	25 Tires	0.0%	7.1%	0.0%	0	103	0
	26 Untreated Lumber	2.2%	0.8%	0.0%	50	12	0
	27 Pallets	NA	NA	0.0%	NA	NA	0
	28 Treated Wood Waste	1.2%	0.4%	0.5%	27	5	1
	29 Textiles and Leather	3.9%	1.7%	3.0%	90	25	4
	30 Carpet	NA	0.0%	0.0%	NA	0	0
	31 Diapers	2.3%	2.7%	4.8%	52	39	6
	32 Manure	NA	NA	0.2%	NA	NA	0
	33 Other Organics	0.9%	4.1%	0.6%	21	60	1
Inerts		2.0%	3.0%	2.2%	45	44	3
	34 Crushable Inerts	1.1%	1.3%	1.7%	25	18	2
	35 Other Inerts	0.8%	1.7%	0.5%	18	25	1
	36 Gypsum Board	0.1%	0.0%	0.0%	2	0	0
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0	0	0
HHW		0.3%	0.2%	0.3%	7	3	0
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	0
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.1%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.3%	0.2%	0.0%	7	3	0
Special		2.1%	2.2%	0.1%	47	32	0
	46 Brown Goods	1.1%	1.0%	0.1%	24	14	0
	47 Composite Bulky Items	1.0%	1.2%	0.0%	23	18	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	2,284	1,460	125

Table 13
Unincorporated Alameda County Detailed Historic Comparison of Multi-Family
Residential Waste

Not applicable: no samples were collected from multi-family residential waste from Unincorporated Alameda County.

**2008 WASTE CHARACTERIZATION RESULTS
UNINCORPORATED ALAMEDA COUNTY**

**Table 14
Unincorporated Alameda County Detailed Historic Comparison of Commercial Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		36.7%	25.7%	24.2%	127	91	261
	1 Uncoated Corrugated Cardboard	9.2%	11.2%	2.4%	32	40	26
	2 High Grade Paper	2.5%	2.3%	3.0%	9	8	33
	3 Newspaper	6.7%	1.3%	0.7%	23	5	7
	4 Mixed Recyclable Paper	6.5%	4.8%	4.7%	22	17	51
	5 Compostable Paper	NA	NA	13.0%	NA	NA	140
	6 Other Paper	11.8%	6.1%	0.4%	41	22	5
Plastics		11.1%	8.3%	17.6%	38	29	190
	7 HDPE Bottles (#2)	0.7%	0.7%	1.0%	2	3	10
	8 PETE Bottles (#1)	0.2%	0.4%	1.0%	1	1	10
	9 Other Plastic Containers	NA	0.3%	0.8%	NA	1	9
	10 Plastic Bags	NA	NA	2.2%	NA	NA	24
	11 Other Film	3.9%	2.2%	5.4%	13	8	58
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	0
	13 Mixed Rigid Plastics	NA	NA	6.2%	NA	NA	67
	14 Other Plastics	6.4%	4.7%	1.0%	22	17	11
Glass		4.7%	2.2%	4.0%	16	8	43
	15 Recyclable Glass Bottles/Containers	4.6%	2.1%	3.5%	16	8	38
	16 Other Glass	0.1%	0.0%	0.5%	0	0	5
Metals		8.5%	12.7%	4.3%	29	45	46
	17 Aluminum Cans	0.5%	0.2%	0.5%	2	1	5
	18 Other Non-Ferrous	0.3%	2.6%	0.4%	1	9	4
	19 Steel Food and Beverage Cans	1.3%	0.3%	0.8%	4	1	8
	20 Other Ferrous	6.5%	4.8%	2.6%	22	17	27
	21 White Goods	0.0%	4.9%	0.0%	0	17	0
Yard Waste		5.2%	3.1%	7.8%	18	11	85
	22 Leaves/Grass/Chips	3.7%	1.7%	6.8%	13	6	73
	23 Branches/Stumps/Prunings/Trimmings	1.5%	1.3%	1.1%	5	5	12
Organics		21.6%	31.0%	31.1%	75	110	335
	24 Food Waste	14.0%	7.1%	22.3%	48	25	240
	25 Tires	0.0%	1.1%	0.9%	0	4	10
	26 Untreated Lumber	3.1%	7.8%	2.2%	11	28	24
	27 Pallets	NA	NA	0.7%	NA	NA	7
	28 Treated Wood Waste	0.3%	5.1%	1.2%	1	18	13
	29 Textiles and Leather	1.9%	1.4%	2.3%	7	5	25
	30 Carpet	NA	3.7%	0.0%	NA	13	0
	31 Diapers	0.8%	0.8%	0.6%	3	3	7
	32 Manure	NA	NA	0.3%	NA	NA	3
	33 Other Organics	1.6%	4.0%	0.6%	6	14	7
Inerts		3.6%	13.0%	8.5%	13	46	92
	34 Crushable Inerts	0.0%	7.0%	7.4%	0	25	79
	35 Other Inerts	3.0%	1.5%	1.1%	10	5	12
	36 Gypsum Board	0.6%	3.8%	0.0%	2	14	0
	37 Asphalt Roofing	0.0%	0.6%	0.0%	0	2	0
HHW		1.4%	0.2%	0.5%	5	1	6
	38 Paint/Adhesives	NA	NA	0.3%	NA	NA	4
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.1%	NA	NA	1
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.0%	NA	NA	0
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	1.4%	0.2%	0.0%	5	1	0
Special		7.1%	3.8%	2.0%	24	14	21
	46 Brown Goods	7.1%	1.0%	0.3%	24	4	3
	47 Composite Bulky Items	0.0%	2.8%	1.7%	0	10	18
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	345	355	1,077

**Table 15
Unincorporated Alameda County Detailed Historic Comparison of Roll-Off Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		11.0%	16.5%	25.3%	110	188	306
	1 Uncoated Corrugated Cardboard	5.6%	5.3%	6.3%	56	60	77
	2 High Grade Paper	0.2%	0.8%	2.1%	2	9	25
	3 Newspaper	0.1%	2.3%	0.0%	1	26	0
	4 Mixed Recyclable Paper	1.7%	2.6%	12.3%	17	30	149
	5 Compostable Paper	NA	NA	4.0%	NA	NA	49
	6 Other Paper	3.4%	5.5%	0.6%	34	63	7
Plastics		11.3%	8.5%	7.5%	113	97	91
	7 HDPE Bottles (#2)	0.3%	1.2%	0.1%	3	14	2
	8 PETE Bottles (#1)	0.1%	0.0%	0.2%	1	0	2
	9 Other Plastic Containers	NA	0.1%	0.1%	NA	2	1
	10 Plastic Bags	NA	NA	0.2%	NA	NA	3
	11 Other Film	1.4%	1.6%	4.3%	14	19	52
	12 Expanded Polystyrene Blocks	NA	NA	0.1%	NA	NA	2
	13 Mixed Rigid Plastics	NA	NA	1.6%	NA	NA	19
	14 Other Plastics	9.6%	5.5%	0.9%	96	63	11
Glass		0.2%	0.4%	1.4%	2	4	17
	15 Recyclable Glass Bottles/Containers	0.2%	0.3%	1.4%	2	3	17
	16 Other Glass	0.0%	0.1%	0.0%	0	1	0
Metals		6.4%	13.5%	6.1%	64	155	74
	17 Aluminum Cans	0.1%	0.1%	0.2%	1	1	2
	18 Other Non-Ferrous	0.2%	1.5%	0.0%	2	17	0
	19 Steel Food and Beverage Cans	0.1%	0.4%	0.0%	1	4	0
	20 Other Ferrous	5.9%	8.1%	6.0%	59	93	72
	21 White Goods	0.0%	3.5%	0.0%	0	39	0
Yard Waste		5.3%	1.2%	7.5%	53	14	90
	22 Leaves/Grass/Chips	0.8%	0.2%	2.9%	8	2	35
	23 Branches/Stumps/Prunings/Trimnings	4.5%	1.1%	4.6%	45	12	56
Organics		33.0%	34.9%	31.1%	330	399	377
	24 Food Waste	9.4%	9.6%	8.3%	94	110	101
	25 Tires	0.5%	0.2%	0.2%	5	3	2
	26 Untreated Lumber	18.8%	13.6%	2.0%	188	155	24
	27 Pallets	NA	NA	9.1%	NA	NA	110
	28 Treated Wood Waste	3.3%	6.4%	8.3%	33	74	100
	29 Textiles and Leather	0.6%	0.9%	1.8%	6	10	22
	30 Carpet	NA	1.7%	0.2%	NA	19	3
	31 Diapers	0.1%	0.0%	0.2%	1	0	3
	32 Manure	NA	NA	0.0%	NA	NA	0
	33 Other Organics	0.2%	2.5%	0.9%	2	29	11
Inerts		23.4%	16.9%	21.0%	235	193	254
	34 Crushable Inerts	8.8%	15.5%	7.7%	88	177	93
	35 Other Inerts	4.2%	0.2%	6.9%	42	2	83
	36 Gypsum Board	0.2%	1.2%	6.5%	2	14	78
	37 Asphalt Roofing	10.2%	0.0%	0.0%	102	0	0
HHW		0.8%	0.2%	0.2%	8	3	3
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	0
	41 Medical Waste	NA	NA	0.1%	NA	NA	2
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.1%	NA	NA	1
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	0.8%	0.2%	0.0%	8	3	0
Special		8.7%	7.7%	0.0%	87	88	0
	46 Brown Goods	2.2%	0.0%	0.0%	22	0	0
	47 Composite Bulky Items	6.5%	7.7%	0.0%	65	88	0
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		100.0%	100.0%	100.0%	1,001	1,141	1,213

**2008 WASTE CHARACTERIZATION RESULTS
UNINCORPORATED ALAMEDA COUNTY**

**Table 16
Unincorporated Alameda County Detailed Historic Comparison of Self-Haul Waste**

Material Group	Material	Mean Comparison			Weight Comparison		
		1995	2000	2008	1995	2000	2008
Paper		11.0%	18.1%	12.6%	988	1,451	970
	1 Uncoated Corrugated Cardboard	1.2%	1.3%	5.3%	108	108	407
	2 High Grade Paper	0.2%	1.2%	1.1%	19	95	88
	3 Newspaper	1.6%	5.4%	0.5%	145	438	36
	4 Mixed Recyclable Paper	6.6%	5.6%	5.0%	589	454	384
	5 Compostable Paper	NA	NA	0.6%	NA	NA	43
	6 Other Paper	1.4%	4.4%	0.2%	127	357	13
Plastics		2.7%	7.1%	3.4%	247	572	263
	7 HDPE Bottles (#2)	0.3%	0.4%	0.0%	24	33	2
	8 PETE Bottles (#1)	0.0%	0.8%	0.1%	2	67	4
	9 Other Plastic Containers	NA	0.4%	0.0%	NA	33	3
	10 Plastic Bags	NA	NA	0.1%	NA	NA	9
	11 Other Film	0.4%	2.8%	1.2%	37	223	91
	12 Expanded Polystyrene Blocks	NA	NA	0.0%	NA	NA	3
	13 Mixed Rigid Plastics	NA	NA	1.7%	NA	NA	130
	14 Other Plastics	2.0%	2.7%	0.3%	184	215	22
Glass		1.0%	1.2%	4.0%	90	93	309
	15 Recyclable Glass Bottles/Containers	0.8%	1.0%	0.7%	70	80	54
	16 Other Glass	0.2%	0.2%	3.3%	20	12	255
Metals		4.5%	3.2%	5.6%	400	256	432
	17 Aluminum Cans	0.7%	0.2%	0.1%	61	17	4
	18 Other Non-Ferrous	0.1%	0.5%	0.2%	8	38	14
	19 Steel Food and Beverage Cans	0.1%	0.4%	0.1%	13	30	5
	20 Other Ferrous	3.5%	1.9%	5.2%	319	156	399
	21 White Goods	0.0%	0.2%	0.1%	0	14	10
Yard Waste		11.1%	12.0%	12.0%	1,001	968	926
	22 Leaves/Grass/Chips	1.6%	1.8%	6.7%	144	148	512
	23 Branches/Stumps/Prunings/Trimmings	9.5%	10.2%	5.4%	858	820	413
Organics		42.4%	40.8%	32.4%	3,812	3,279	2,493
	24 Food Waste	1.1%	6.8%	1.6%	101	550	127
	25 Tires	0.0%	0.3%	0.0%	4	24	0
	26 Untreated Lumber	17.5%	11.5%	6.7%	1,577	922	517
	27 Pallets	NA	NA	0.5%	NA	NA	38
	28 Treated Wood Waste	13.5%	4.0%	15.3%	1,217	323	1,181
	29 Textiles and Leather	8.9%	1.7%	1.9%	800	137	150
	30 Carpet	NA	13.9%	5.6%	NA	1,114	429
	31 Diapers	0.3%	1.5%	0.0%	31	119	2
	32 Manure	NA	NA	0.2%	NA	NA	12
	33 Other Organics	0.9%	1.1%	0.5%	84	89	37
Inerts		23.0%	14.4%	28.1%	2,073	1,157	2,164
	34 Crushable Inerts	9.4%	1.9%	12.0%	844	149	925
	35 Other Inerts	4.7%	6.8%	9.7%	427	543	748
	36 Gypsum Board	0.0%	1.4%	3.7%	0	114	283
	37 Asphalt Roofing	8.9%	4.4%	2.7%	803	352	208
HHW		1.2%	0.3%	0.1%	106	21	10
	38 Paint/Adhesives	NA	NA	0.0%	NA	NA	0
	39 Vehicle & Equipment Fluids	NA	NA	0.0%	NA	NA	0
	40 Universal Hazardous Waste	NA	NA	0.0%	NA	NA	0
	41 Medical Waste	NA	NA	0.0%	NA	NA	0
	42 Medicine	NA	NA	0.0%	NA	NA	0
	43 Covered E-Waste	NA	NA	0.1%	NA	NA	10
	44 Other E-Waste	NA	NA	0.0%	NA	NA	0
	45 Other Hazardous Waste	1.2%	0.3%	0.0%	106	21	0
Special		2.1%	3.0%	1.7%	188	240	133
	46 Brown Goods	1.8%	1.0%	0.1%	162	78	6
	47 Composite Bulky Items	0.3%	2.0%	1.6%	26	162	127
	48 Other Special Waste	NA	NA	0.0%	NA	NA	0
TOTAL		99.0%	100.0%	100.0%	8,998	8,037	7,700

Appendix B

DETAILED COMPARISON TABLES

Summary of Tables and Figures

The tables within this section are provided for a more detailed statistical comparison of Countywide results for the 2008 Alameda County Waste Characterization Study with previous studies.

Table 1
2008 Countywide Detailed Waste Composition Comparison

Material Group	Material	1995 (Mean, Lower 90%, Upper 90%)			2000 (Mean, Lower 90%, Upper 90%)			2008 (Mean, Lower 90%, Upper 90%)		
Paper		24.7%	24.3%	25.1%	22.9%	21.8%	24.2%	20.9%	20.4%	21.5%
	1 Uncoated Corrugated Cardboard	4.7%	4.5%	4.9%	4.9%	4.6%	5.4%	3.1%	2.9%	3.3%
	2 High Grade Paper	2.3%	2.2%	2.5%	2.2%	2.1%	2.5%	1.2%	1.1%	1.4%
	3 Newspaper	2.6%	2.5%	2.8%	2.7%	2.5%	3.0%	0.8%	0.7%	0.8%
	4 Mixed Recyclable Paper	6.3%	NC	NC	5.1%	NC	NC	4.5%	4.2%	4.8%
	5 Compostable Paper	NA	NC	NC	NA	NC	NC	10.1%	9.9%	10.3%
	6 Other Paper	8.7%	8.5%	9.0%	7.9%	7.5%	8.4%	1.3%	1.2%	1.4%
Plastics		10.5%	10.1%	10.8%	10.6%	10.0%	11.3%	9.9%	9.7%	10.2%
	7 HDPE Bottles (#2)	0.5%	NC	NC	0.8%	NC	NC	0.3%	0.3%	0.4%
	8 PETE Bottles (#1)	0.2%	NC	NC	0.4%	NC	NC	0.4%	0.4%	0.4%
	9 Other Plastic Containers	NA	NC	NC	0.3%	0.3%	0.4%	0.5%	0.5%	0.5%
	10 Plastic Bags	NA	NC	NC	NA	NC	NC	0.8%	0.8%	0.9%
	11 Other Film	3.7%	3.5%	3.9%	4.3%	4.1%	4.6%	4.1%	3.9%	4.2%
	12 Expanded Polystyrene Blocks	NA	NC	NC	NA	NC	NC	0.2%	0.2%	0.2%
	13 Mixed Rigid Plastics	NA	NC	NC	NA	NC	NC	2.4%	2.3%	2.5%
	14 Other Plastics	5.9%	5.6%	6.3%	4.7%	4.4%	5.1%	1.2%	1.1%	1.2%
Glass		2.6%	2.5%	2.7%	1.9%	1.8%	2.1%	3.0%	2.8%	3.2%
	15 Recyclable Glass Bottles/Containers	2.0%	NC	NC	1.4%	NC	NC	1.7%	1.6%	1.8%
	16 Other Glass	0.6%	0.5%	0.7%	0.5%	0.4%	0.6%	1.3%	1.1%	1.4%
Metals		4.5%	4.3%	4.7%	6.1%	5.7%	6.7%	4.3%	4.1%	4.5%
	17 Aluminum Cans	0.2%	0.2%	0.2%	0.3%	0.2%	0.3%	0.2%	0.1%	0.2%
	18 Other Non-Ferrous	0.4%	0.4%	0.5%	0.7%	0.6%	0.7%	0.5%	0.5%	0.6%
	19 Steel Food and Beverage Cans	0.6%	0.6%	0.7%	0.6%	0.5%	0.6%	0.5%	0.5%	0.5%
	20 Other Ferrous	2.9%	2.7%	3.0%	4.3%	3.9%	4.7%	3.0%	2.8%	3.2%
	21 White Goods	0.3%	0.2%	0.4%	0.4%	0.3%	0.5%	0.1%	0.1%	0.1%
Yard Waste		11.6%	11.1%	12.2%	7.0%	6.3%	8.1%	5.7%	5.3%	6.3%
	22 Leaves/Grass/Chips	6.2%	5.8%	6.6%	3.5%	3.1%	4.1%	3.3%	3.0%	3.7%
	23 Branches/Slumps/Prunings/Trimmings	5.5%	NC	NC	3.5%	NC	NC	2.4%	2.2%	2.8%
Organics		31.2%	30.5%	31.8%	35.2%	33.6%	36.9%	40.3%	39.3%	41.4%
	24 Food Waste	10.5%	10.2%	10.8%	11.9%	11.3%	12.7%	18.7%	18.2%	19.4%
	25 Tires	0.2%	0.2%	0.3%	0.4%	0.3%	0.5%	0.1%	0.1%	0.1%
	26 Untreated Lumber	8.3%	7.8%	8.8%	8.8%	8.0%	9.8%	2.8%	2.6%	3.1%
	27 Pallets	NA	NC	NC	NA	NC	NC	2.3%	2.1%	2.6%
	28 Treated Wood Waste	3.7%	3.3%	4.0%	5.5%	5.0%	6.1%	6.4%	5.8%	7.0%
	29 Textiles and Leather	5.1%	4.8%	5.4%	2.3%	2.2%	2.5%	3.9%	3.6%	4.1%
	30 Carpet	NA	NC	NC	2.5%	2.2%	2.9%	1.4%	1.2%	1.8%
	31 Diapers	1.7%	1.6%	1.7%	1.6%	1.5%	1.8%	2.3%	2.2%	2.4%
	32 Manure	NA	NC	NC	NA	NC	NC	1.0%	0.9%	1.1%
	33 Other Organics	1.7%	1.4%	1.9%	2.2%	NC	NC	1.3%	1.2%	1.5%
Inerts		10.0%	NC	NC	9.7%	NC	NC	11.4%	10.6%	12.4%
	34 Crushable Inerts	2.7%	2.4%	3.0%	3.6%	3.3%	4.2%	4.2%	3.7%	4.7%
	35 Other Inerts	3.2%	2.9%	3.5%	2.8%	2.5%	3.2%	4.4%	4.1%	4.9%
	36 Gypsum Board	1.7%	NC	NC	2.0%	NC	NC	1.9%	1.7%	2.2%
	37 Asphalt Roofing	2.4%	2.0%	2.7%	1.3%	1.1%	1.6%	0.9%	0.8%	1.2%
HHW		0.4%	NC	NC	0.6%	NC	NC	1.0%	0.9%	1.1%
	38 Paint/Adhesives	NA	NC	NC	NA	NC	NC	0.1%	0.1%	0.1%
	39 Vehicle & Equipment Fluids	NA	NC	NC	NA	NC	NC	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	NA	NC	NC	NA	NC	NC	0.2%	0.2%	0.2%
	41 Medical Waste	NA	NC	NC	NA	NC	NC	0.1%	0.0%	0.1%
	42 Medicine	NA	NC	NC	NA	NC	NC	0.0%	0.0%	0.0%
	43 Covered E-Waste	NA	NC	NC	NA	NC	NC	0.2%	0.1%	0.2%
	44 Other E-Waste	NA	NC	NC	NA	NC	NC	0.3%	0.3%	0.3%
	45 Other Hazardous Waste	0.4%	NC	NC	0.6%	NC	NC	0.1%	0.1%	0.2%
Special		4.6%	NC	NC	6.0%	NC	NC	3.5%	3.1%	4.0%
	46 Brown Goods	1.3%	1.2%	1.4%	1.1%	1.0%	1.3%	0.3%	0.3%	0.4%
	47 Composite Bulky Items	3.3%	2.9%	3.6%	4.9%	4.3%	5.6%	3.1%	2.8%	3.6%
	48 Other Special Waste	NA	NC	NC	NA	NC	NC	0.0%	0.0%	0.0%
TOTAL		100.0%			100.0%			100.0%		

DETAILED COMPARISON TABLES

**Table 2
2008 Countywide Detailed Waste Disposal Comparison**

Material Group	Material	1995 (Mean, Lower 90%, Upper 90%)			2000 (Mean, Lower 90%, Upper 90%)			2008 (Mean, Lower 90%, Upper 90%)			
Paper		374,076	367,343	380,808	355,288	338,232	375,226	248,198	241,779	255,382	
	1 Uncoated Corrugated Cardboard	71,386	68,361	74,411	76,602	71,028	84,254	36,409	33,849	39,568	
	2 High Grade Paper	35,163	33,016	37,310	34,869	32,105	38,683	14,575	13,295	16,184	
	3 Newspaper	39,964	38,237	41,692	42,189	39,098	46,269	9,247	8,617	10,069	
	4 Mixed Recyclable Paper	95,276	NC	NC	79,142	NC	NC	53,049	50,239	56,615	
	5 Compostable Paper	NA	NC	NC	NA	NC	NC	119,891	117,477	122,512	
	6 Other Paper	132,286	129,009	135,564	122,485	116,257	130,155	15,027	13,740	16,702	
Plastics		158,320	152,914	163,726	164,725	155,882	175,384	117,789	115,232	120,730	
	7 HDPE Bottles (#2)	8,149	NC	NC	12,376	NC	NC	4,092	3,938	4,274	
	8 PETE Bottles (#1)	3,685	NC	NC	6,964	NC	NC	4,664	4,526	4,822	
	9 Other Plastic Containers	NA	NC	NC	5,338	4,861	6,076	6,131	5,909	6,399	
	10 Plastic Bags	NA	NC	NC	NA	NC	NC	9,775	9,405	10,230	
	11 Other Film	56,402	53,671	59,134	66,753	63,384	71,094	48,221	46,767	49,944	
	12 Expanded Polystyrene Blocks	NA	NC	NC	NA	NC	NC	2,313	1,951	2,817	
	13 Mixed Rigid Plastics	NA	NC	NC	NA	NC	NC	28,724	27,669	30,048	
	14 Other Plastics	90,084	85,482	94,686	73,294	68,301	79,697	13,870	13,198	14,698	
	Glass		39,390	37,195	41,585	29,754	27,690	32,444	35,172	33,068	37,860
		15 Recyclable Glass Bottles/Containers	30,463	NC	NC	22,248	NC	NC	20,329	19,478	21,375
		16 Other Glass	8,927	7,530	10,325	7,506	6,684	8,739	14,843	13,137	17,132
	Metals		67,760	64,546	70,975	95,274	88,231	104,618	50,530	48,188	53,384
		17 Aluminum Cans	3,438	3,122	3,753	4,075	3,714	4,567	1,831	1,751	1,934
18 Other Non-Ferrous		6,805	5,678	7,931	10,589	9,851	11,623	5,942	5,496	6,536	
19 Steel Food and Beverage Cans		9,814	9,304	10,324	8,652	8,105	9,429	6,062	5,829	6,343	
20 Other Ferrous		43,415	40,847	45,982	66,238	60,946	73,582	35,450	33,362	38,094	
21 White Goods		4,290	2,937	5,643	5,720	4,979	7,746	1,244	948	1,704	
Yard Waste		176,093	167,396	184,790	109,393	97,656	125,291	68,072	62,380	75,150	
	22 Leaves/Grass/Chips	93,330	87,192	99,468	54,328	48,665	62,916	39,210	35,820	43,662	
	23 Branches/Stumps/Prunings/Trimmings	82,763	NC	NC	55,064	NC	NC	28,862	25,926	32,692	
Organics		471,865	462,615	481,116	545,873	521,048	573,154	478,530	466,647	491,019	
	24 Food Waste	159,218	155,054	163,382	184,717	174,915	196,904	222,457	216,239	229,827	
	25 Tires	3,705	3,055	4,354	5,637	4,263	7,967	1,254	1,056	1,626	
	26 Untreated Lumber	125,598	118,648	132,549	136,741	124,858	152,457	33,413	30,446	37,143	
	27 Pallets	NA	NC	NC	NA	NC	NC	27,287	24,554	30,840	
	28 Treated Wood Waste	55,336	50,446	60,226	85,357	77,948	95,298	75,399	68,705	83,225	
	29 Textiles and Leather	77,479	73,071	81,887	36,073	33,564	39,499	45,868	43,314	49,033	
	30 Carpet	NA	NC	NC	38,408	33,976	45,283	17,168	14,383	20,805	
	31 Diapers	25,130	24,030	26,229	24,695	22,716	27,273	27,721	26,693	28,970	
	32 Manure	NA	NC	NC	NA	NC	NC	12,026	11,238	13,510	
	33 Other Organics	25,400	21,768	29,032	34,243	NC	NC	15,937	14,663	17,832	
	Inerts		151,583	NC	NC	150,785	NC	NC	135,715	125,344	147,671
		34 Crushable Inerts	41,219	36,575	45,864	56,503	50,823	64,602	49,275	44,368	55,345
35 Other Inerts		48,821	44,227	53,416	43,359	39,092	49,568	52,769	48,083	58,636	
36 Gypsum Board		25,669	NC	NC	30,720	NC	NC	22,567	20,007	26,028	
37 Asphalt Roofing		35,873	31,012	40,735	20,203	16,970	25,250	11,105	9,222	13,652	
HHW		5,837	NC	NC	8,710	NC	NC	11,879	10,886	13,329	
	38 Paint/Adhesives	NA	NC	NC	NA	NC	NC	1,356	1,177	1,631	
	39 Vehicle & Equipment Fluids	NA	NC	NC	NA	NC	NC	447	373	555	
	40 Universal Hazardous Waste	NA	NC	NC	NA	NC	NC	2,267	1,961	2,659	
	41 Medical Waste	NA	NC	NC	NA	NC	NC	649	567	780	
	42 Medicine	NA	NC	NC	NA	NC	NC	261	232	306	
	43 Covered E-Waste	NA	NC	NC	NA	NC	NC	1,809	1,538	2,250	
	44 Other E-Waste	NA	NC	NC	NA	NC	NC	3,587	3,206	4,144	
	45 Other Hazardous Waste	5,837	NC	NC	8,710	NC	NC	1,503	1,188	2,283	
Special		69,524	NC	NC	92,883	NC	NC	41,225	36,453	47,351	
	46 Brown Goods	19,872	17,798	21,945	17,346	15,803	19,737	6,677	3,261	4,274	
	47 Composite Bulky Items	49,652	44,601	54,702	75,538	67,201	87,022	37,304	32,670	43,298	
	48 Other Special Waste	NA	NC	NC	NA	NC	NC	244	186	330	
TOTAL		1,514,448			1,552,683			1,187,108			

Table 3
2008 Countywide Single-Family Residential Detailed Waste Composition Comparison

Material Group	Material	1995 (Mean, Lower 90%, Upper 90%)			2000 (Mean, Lower 90%, Upper 90%)			2008 (Mean, Lower 90%, Upper 90%)		
Paper		32.9%	32.0%	33.8%	33.3%	30.9%	35.9%	23.3%	22.6%	23.9%
	1 Uncoated Corrugated Cardboard	3.2%	3.0%	3.5%	2.6%	2.4%	2.9%	0.5%	0.4%	0.5%
	2 High Grade Paper	2.2%	2.0%	2.4%	1.9%	1.7%	2.2%	0.4%	0.3%	0.4%
	3 Newspaper	4.8%	4.3%	5.3%	5.8%	5.1%	6.8%	0.9%	0.7%	1.0%
	4 Mixed Recyclable Paper	8.5%	NC	NC	8.4%	NC	NC	3.1%	2.9%	3.4%
	5 Compostable Paper	NA	NC	NC	NA	NC	NC	17.5%	17.0%	18.1%
	6 Other Paper	14.2%	13.7%	14.7%	14.6%	13.3%	16.0%	0.9%	0.9%	1.0%
Plastics		10.5%	10.2%	10.9%	12.3%	11.6%	13.1%	13.5%	13.2%	13.9%
	7 HDPE Bottles (#2)	0.8%	NC	NC	0.9%	NC	NC	0.5%	0.5%	0.5%
	8 PETE Bottles (#1)	0.5%	NC	NC	0.7%	NC	NC	0.6%	0.6%	0.7%
	9 Other Plastic Containers	NA	NC	NC	0.5%	0.4%	0.6%	1.0%	0.9%	1.0%
	10 Plastic Bags	NA	NC	NC	NA	NC	NC	1.7%	1.6%	1.8%
	11 Other Film	4.9%	4.7%	5.1%	6.4%	6.0%	6.9%	5.1%	4.8%	5.4%
	12 Expanded Polystyrene Blocks	NA	NC	NC	NA	NC	NC	0.1%	0.1%	0.2%
	13 Mixed Rigid Plastics	NA	NC	NC	NA	NC	NC	3.1%	2.9%	3.2%
	14 Other Plastics	4.3%	4.1%	4.6%	3.8%	3.4%	4.2%	1.5%	1.4%	1.6%
Glass		4.1%	3.8%	4.4%	3.1%	2.7%	3.7%	2.8%	2.6%	3.0%
	15 Recyclable Glass Bottles/Containers	3.7%	NC	NC	2.7%	NC	NC	2.4%	2.2%	2.6%
	16 Other Glass	0.4%	0.4%	0.5%	0.4%	0.3%	0.5%	0.4%	0.3%	0.5%
Metals		3.7%	3.5%	3.9%	3.2%	2.9%	3.5%	3.4%	3.3%	3.6%
	17 Aluminum Cans	0.3%	0.3%	0.4%	0.3%	0.3%	0.4%	0.2%	0.2%	0.2%
	18 Other Non-Ferrous	0.6%	0.5%	0.7%	0.6%	0.5%	0.7%	0.5%	0.4%	0.5%
	19 Steel Food and Beverage Cans	1.4%	1.3%	1.5%	1.1%	1.0%	1.2%	1.0%	0.9%	1.1%
	20 Other Ferrous	1.3%	1.2%	1.5%	1.0%	0.9%	1.3%	1.8%	1.6%	2.0%
	21 White Goods	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
Yard Waste		12.9%	11.5%	14.3%	5.1%	3.3%	7.8%	2.7%	2.3%	3.2%
	22 Leaves/Grass/Chips	8.8%	7.6%	9.9%	3.3%	2.2%	5.0%	1.7%	1.5%	2.1%
	23 Branches/Stumps/Prunings/Trimmings	4.1%	NC	NC	1.8%	NC	NC	1.0%	0.8%	1.2%
Organics		32.4%	31.4%	33.3%	38.5%	36.4%	40.7%	48.8%	47.9%	49.8%
	24 Food Waste	21.2%	20.4%	22.0%	23.5%	21.7%	25.5%	32.8%	31.8%	33.8%
	25 Tires	0.0%	0.0%	0.0%	0.1%	0.1%	0.2%	0.0%	0.0%	0.1%
	26 Untreated Lumber	0.6%	0.4%	0.8%	0.9%	0.6%	1.4%	0.5%	0.5%	0.7%
	27 Pallets	NA	NC	NC	NA	NC	NC	0.0%	0.0%	0.0%
	28 Treated Wood Waste	0.5%	0.4%	0.7%	0.9%	0.7%	1.2%	1.4%	1.2%	1.6%
	29 Textiles and Leather	4.2%	3.8%	4.6%	3.8%	3.3%	4.3%	4.2%	3.9%	4.5%
	30 Carpet	NA	NC	NC	0.9%	0.7%	1.5%	0.3%	0.3%	0.5%
	31 Diapers	4.7%	4.3%	5.0%	4.5%	4.0%	5.2%	5.7%	5.4%	6.2%
	32 Manure	NA	NC	NC	NA	NC	NC	2.9%	2.5%	3.4%
	33 Other Organics	1.2%	1.0%	1.4%	3.9%	NC	NC	0.9%	0.7%	1.0%
Inerts		2.3%	NC	NC	2.5%	NC	NC	4.0%	3.6%	4.5%
	34 Crushable Inerts	0.4%	0.3%	0.6%	0.7%	0.5%	1.0%	1.1%	1.0%	1.3%
	35 Other Inerts	1.8%	1.5%	2.1%	1.4%	1.1%	2.0%	2.4%	2.1%	2.8%
	36 Gypsum Board	0.0%	NC	NC	0.3%	NC	NC	0.4%	0.3%	0.6%
	37 Asphalt Roofing	0.0%	0.0%	0.0%	0.1%	0.0%	0.2%	0.0%	0.0%	0.1%
HHW		0.6%	NC	NC	0.6%	NC	NC	0.7%	0.6%	0.9%
	38 Paint/Adhesives	NA	NC	NC	NA	NC	NC	0.0%	0.0%	0.1%
	39 Vehicle & Equipment Fluids	NA	NC	NC	NA	NC	NC	0.0%	0.0%	0.0%
	40 Universal Hazardous Waste	NA	NC	NC	NA	NC	NC	0.1%	0.1%	0.2%
	41 Medical Waste	NA	NC	NC	NA	NC	NC	0.1%	0.0%	0.1%
	42 Medicine	NA	NC	NC	NA	NC	NC	0.1%	0.0%	0.1%
	43 Covered E-Waste	NA	NC	NC	NA	NC	NC	0.0%	0.0%	0.1%
	44 Other E-Waste	NA	NC	NC	NA	NC	NC	0.3%	0.2%	0.4%
	45 Other Hazardous Waste	0.6%	NC	NC	0.6%	NC	NC	0.1%	0.1%	0.1%
Special		0.8%	NC	NC	1.4%	NC	NC	0.7%	0.5%	0.8%
	46 Brown Goods	0.7%	0.6%	0.8%	0.9%	0.8%	1.3%	0.3%	0.3%	0.4%
	47 Composite Bulky Items	0.1%	0.0%	0.2%	0.4%	0.3%	0.7%	0.3%	0.3%	0.5%
	48 Other Special Waste	NA	NC	NC	NA	NC	NC	0.0%	0.0%	0.0%
TOTAL		100.0%			100.0%			100.0%		

DETAILED COMPARISON TABLES

Table 4
2008 Countywide Single-Family Residential Detailed Waste Disposal Comparison

Material Group	Material	1995 (Mean, Lower 90%, Upper 90%)			2000 (Mean, Lower 90%, Upper 90%)			2008 (Mean, Lower 90%, Upper 90%)				
Paper		109,551	106,599	112,503	110,895	102,926	119,468	64,008	62,249	65,853		
	1	Uncoated Corrugated Cardboard	10,701	9,847	11,556	8,737	7,926	9,724	1,286	1,134	1,492	
	2	High Grade Paper	7,364	6,687	8,041	6,352	5,554	7,448	989	821	1,234	
	3	Newspaper	16,001	14,319	17,683	19,417	16,812	22,754	2,396	2,048	2,874	
	4	Mixed Recyclable Paper	28,148	NC	NC	27,941	NC	NC	8,562	7,895	9,375	
	5	Compostable Paper	NA	NC	NC	NA	NC	NC	48,192	46,696	49,781	
6	Other Paper	47,337	45,696	48,978	48,447	44,346	53,156	2,582	2,398	2,801		
Plastics		34,994	33,849	36,140	40,896	38,569	43,431	37,251	36,286	38,266		
	7	HDPE Bottles (#2)	2,508	NC	NC	2,874	NC	NC	1,397	1,306	1,503	
	8	PETE Bottles (#1)	1,577	NC	NC	2,445	NC	NC	1,755	1,663	1,860	
	9	Other Plastic Containers	NA	NC	NC	1,630	1,362	2,018	2,653	2,492	2,840	
	10	Plastic Bags	NA	NC	NC	NA	NC	NC	4,630	4,306	5,010	
	11	Other Film	16,433	15,811	17,055	21,378	19,875	23,097	14,038	13,338	14,814	
	12	Expanded Polystyrene Blocks	NA	NC	NC	NA	NC	NC	384	325	468	
	13	Mixed Rigid Plastics	NA	NC	NC	NA	NC	NC	8,401	7,960	8,896	
	14	Other Plastics	14,476	13,627	15,325	12,569	11,393	13,975	3,994	3,729	4,309	
	Glass		13,616	12,659	14,573	10,473	9,096	12,190	7,696	7,232	8,236	
		15	Recyclable Glass Bottles/Containers	12,248	NC	NC	9,107	NC	NC	6,588	6,132	7,148
		16	Other Glass	1,369	1,177	1,560	1,366	1,081	1,801	1,108	951	1,335
	Metals		12,318	11,631	13,006	10,529	9,569	11,669	9,476	9,023	9,982	
		17	Aluminum Cans	1,160	1,070	1,251	1,103	983	1,265	540	498	591
18		Other Non-Ferrous	1,997	1,765	2,229	2,108	1,822	2,488	1,248	1,157	1,356	
19		Steel Food and Beverage Cans	4,686	4,392	4,980	3,721	3,400	4,130	2,748	2,598	2,917	
20		Other Ferrous	4,474	3,940	5,009	3,484	2,883	4,352	4,895	4,468	5,420	
21		White Goods	0	0	0	113	57	224	45	21	84	
Yard Waste		42,859	38,132	47,585	16,939	10,948	25,800	7,404	6,425	8,852		
	22	Leaves/Grass/Chips	29,156	25,456	32,856	10,817	7,220	16,551	4,724	4,042	5,775	
	23	Branches/Stumps/Prunings/Trimings	13,703	NC	NC	6,122	NC	NC	2,680	2,209	3,414	
Organics		107,785	104,575	110,994	128,088	121,132	135,303	134,332	131,818	136,871		
	24	Food Waste	70,494	67,775	73,213	78,274	72,291	84,907	90,186	87,592	92,881	
	25	Tires	3	2	4	434	237	809	137	109	183	
	26	Untreated Lumber	1,916	1,284	2,547	2,970	1,978	4,592	1,483	1,266	1,805	
	27	Pallets	NA	NC	NC	NA	NC	NC	8	0	53	
	28	Treated Wood Waste	1,752	1,266	2,237	2,853	2,253	3,837	3,811	3,362	4,422	
	29	Textiles and Leather	14,024	12,752	15,297	12,481	10,955	14,432	11,596	10,863	12,445	
	30	Carpet	NA	NC	NC	3,154	2,194	4,956	927	725	1,246	
	31	Diapers	15,613	14,419	16,806	15,066	13,325	17,295	15,773	14,737	16,980	
	32	Manure	NA	NC	NC	NA	NC	NC	8,034	6,998	9,397	
	33	Other Organics	3,984	3,341	4,627	12,856	NC	NC	2,376	2,013	2,861	
	Inerts		7,528	NC	NC	8,238	NC	NC	11,042	9,976	12,374	
		34	Crushable Inerts	1,438	1,012	1,864	2,289	1,714	3,335	3,095	2,692	3,665
		35	Other Inerts	5,972	5,063	6,881	4,725	3,612	6,595	6,698	5,908	7,713
36		Gypsum Board	74	NC	NC	977	NC	NC	1,190	916	1,632	
37		Asphalt Roofing	43	0	105	247	100	550	59	3	150	
HHW		1,856	NC	NC	2,139	NC	NC	2,050	1,765	2,438		
	38	Paint/Adhesives	NA	NC	NC	NA	NC	NC	104	75	150	
	39	Vehicle & Equipment Fluids	NA	NC	NC	NA	NC	NC	67	34	120	
	40	Universal Hazardous Waste	NA	NC	NC	NA	NC	NC	389	340	460	
	41	Medical Waste	NA	NC	NC	NA	NC	NC	159	98	256	
	42	Medicine	NA	NC	NC	NA	NC	NC	143	113	188	
	43	Covered E-Waste	NA	NC	NC	NA	NC	NC	137	56	270	
	44	Other E-Waste	NA	NC	NC	NA	NC	NC	849	658	1,144	
	45	Other Hazardous Waste	1,856	NC	NC	2,139	NC	NC	202	161	264	
Special		2,515	NC	NC	4,506	NC	NC	1,820	1,495	2,320		
	46	Brown Goods	2,316	1,844	2,788	3,112	2,497	4,175	874	692	1,159	
	47	Composite Bulky Items	199	0	504	1,394	937	2,330	934	713	1,293	
	48	Other Special Waste	NA	NC	NC	NA	NC	NC	11	0	37	
TOTAL		333,023			332,703			275,079				

Table 5
Countywide Multi-Family Residential Detailed Waste Composition Comparison

Material Group	Material	1995 (Mean, Lower 90%, Upper 90%)			2000 (Mean, Lower 90%, Upper 90%)			2008 (Mean, Lower 90%, Upper 90%)			
Paper		32.1%	30.1%	34.1%	32.5%	29.7%	35.6%	25.6%	24.7%	26.4%	
	1 Uncoated Corrugated Cardboard	4.4%	3.8%	4.9%	3.6%	3.2%	4.1%	1.3%	1.1%	1.5%	
	2 High Grade Paper	2.6%	2.1%	3.2%	2.6%	2.1%	3.3%	0.7%	0.6%	0.9%	
	3 Newspaper	6.5%	5.6%	7.4%	5.6%	4.7%	6.7%	1.3%	1.1%	1.7%	
	4 Mixed Recyclable Paper	7.4%	NC	NC	7.5%	NC	NC	4.3%	3.9%	4.9%	
	5 Compostable Paper	NA	NC	NC	NA	NC	NC	17.1%	16.3%	17.9%	
6 Other Paper	11.2%	10.3%	12.1%	13.2%	11.9%	14.8%	0.9%	0.8%	1.0%		
Plastics		10.0%	9.4%	10.7%	11.4%	10.6%	12.3%	13.8%	13.2%	14.4%	
	7 HDPE Bottles (#2)	1.1%	NC	NC	0.8%	NC	NC	0.7%	0.7%	0.8%	
	8 PETE Bottles (#1)	0.6%	NC	NC	0.7%	NC	NC	0.8%	0.7%	0.9%	
	9 Other Plastic Containers	NA	NC	NC	0.5%	0.4%	0.7%	1.0%	0.9%	1.1%	
	10 Plastic Bags	NA	NC	NC	NA	NC	NC	1.7%	1.5%	1.9%	
	11 Other Film	4.0%	3.6%	4.3%	5.8%	5.2%	6.5%	4.5%	4.2%	4.9%	
	12 Expanded Polystyrene Blocks	NA	NC	NC	NA	NC	NC	0.2%	0.2%	0.2%	
	13 Mixed Rigid Plastics	NA	NC	NC	NA	NC	NC	3.6%	3.3%	4.0%	
	14 Other Plastics	4.3%	3.8%	4.8%	3.6%	3.2%	4.2%	1.3%	1.2%	1.4%	
	Glass		5.2%	4.5%	5.9%	3.7%	3.1%	4.3%	3.8%	3.5%	4.2%
		15 Recyclable Glass Bottles/Containers	4.7%	NC	NC	3.4%	NC	NC	3.3%	3.0%	3.6%
		16 Other Glass	0.5%	0.3%	0.6%	0.3%	0.2%	0.4%	0.6%	0.5%	0.7%
	Metals		4.7%	4.2%	5.3%	3.8%	3.2%	4.5%	4.4%	4.1%	4.9%
		17 Aluminum Cans	0.5%	0.4%	0.6%	0.4%	0.3%	0.4%	0.3%	0.2%	0.3%
18 Other Non-Ferrous		0.4%	0.2%	0.6%	0.7%	0.6%	0.8%	0.6%	0.5%	0.7%	
19 Steel Food and Beverage Cans		1.3%	1.2%	1.5%	0.9%	0.8%	1.1%	0.9%	0.9%	1.0%	
20 Other Ferrous		2.1%	1.7%	2.5%	1.8%	1.4%	2.5%	2.4%	2.1%	2.9%	
21 White Goods		0.3%	0.1%	0.5%	0.0%	0.0%	0.1%	0.2%	0.1%	0.5%	
Yard Waste		8.0%	6.5%	9.5%	7.0%	4.8%	10.3%	3.7%	3.2%	4.4%	
	22 Leaves/Grass/Chips	6.8%	5.5%	8.1%	4.7%	3.4%	6.9%	2.7%	2.3%	3.4%	
23 Branches/Stumps/Prunings/Trimmings	1.2%	NC	NC	2.3%	NC	NC	1.0%	0.8%	1.2%		
Organics		32.3%	30.5%	34.1%	36.3%	33.6%	39.2%	42.8%	41.5%	44.1%	
	24 Food Waste	16.7%	15.1%	18.2%	20.9%	18.9%	23.3%	25.9%	24.6%	27.2%	
	25 Tires	0.6%	0.3%	0.9%	0.4%	0.1%	1.1%	0.1%	0.0%	0.4%	
	26 Untreated Lumber	1.0%	0.3%	1.8%	2.0%	1.4%	3.9%	0.9%	0.7%	1.3%	
	27 Pallets	NA	NC	NC	NA	NC	NC	0.1%	0.0%	0.2%	
	28 Treated Wood Waste	1.8%	1.3%	2.3%	1.3%	1.0%	1.8%	1.8%	1.5%	2.2%	
	29 Textiles and Leather	7.8%	6.7%	8.9%	3.6%	3.1%	4.4%	6.1%	5.5%	6.8%	
	30 Carpet	NA	NC	NC	1.1%	0.7%	2.1%	0.6%	0.4%	0.8%	
	31 Diapers	2.8%	2.3%	3.3%	3.5%	3.0%	4.2%	4.8%	4.4%	5.4%	
	32 Manure	NA	NC	NC	NA	NC	NC	1.8%	1.5%	2.3%	
	33 Other Organics	1.5%	1.0%	2.1%	3.4%	NC	NC	0.7%	0.6%	1.0%	
	Inerts		2.2%	NC	NC	2.3%	NC	NC	3.9%	3.4%	4.6%
		34 Crushable Inerts	0.6%	0.4%	0.9%	0.6%	0.4%	1.0%	1.0%	0.8%	1.5%
		35 Other Inerts	1.4%	0.9%	2.0%	1.4%	1.0%	2.2%	2.7%	2.4%	3.2%
36 Gypsum Board		0.1%	NC	NC	0.2%	NC	NC	0.2%	0.1%	0.3%	
37 Asphalt Roofing		0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
HHW		1.0%	NC	NC	0.8%	NC	NC	1.0%	0.8%	1.4%	
	38 Paint/Adhesives	NA	NC	NC	NA	NC	NC	0.1%	0.1%	0.2%	
	39 Vehicle & Equipment Fluids	NA	NC	NC	NA	NC	NC	0.1%	0.0%	0.1%	
	40 Universal Hazardous Waste	NA	NC	NC	NA	NC	NC	0.1%	0.0%	0.1%	
	41 Medical Waste	NA	NC	NC	NA	NC	NC	0.1%	0.1%	0.2%	
	42 Medicine	NA	NC	NC	NA	NC	NC	0.0%	0.0%	0.1%	
	43 Covered E-Waste	NA	NC	NC	NA	NC	NC	0.3%	0.1%	0.5%	
	44 Other E-Waste	NA	NC	NC	NA	NC	NC	0.3%	0.2%	0.5%	
	45 Other Hazardous Waste	1.0%	NC	NC	0.8%	NC	NC	0.1%	0.0%	0.2%	
Special		4.5%	NC	NC	2.3%	NC	NC	1.0%	0.6%	1.6%	
	46 Brown Goods	0.9%	0.4%	1.5%	1.1%	0.8%	1.7%	0.4%	0.2%	0.6%	
	47 Composite Bulky Items	3.6%	2.6%	4.5%	1.3%	0.9%	2.5%	0.6%	0.2%	1.2%	
	48 Other Special Waste	NA	NC	NC	NA	NC	NC	0.0%	0.0%	0.0%	
TOTAL		100.0%			100.0%			100.0%			

DETAILED COMPARISON TABLES

Table 6
Countywide Multi-Family Residential Detailed Waste Disposal Comparison

Material Group	Material	1995 (Mean, Lower 90%, Upper 90%)			2000 (Mean, Lower 90%, Upper 90%)			2008 (Mean, Lower 90%, Upper 90%)			
Paper		35,961	33,713	38,208	39,917	36,437	43,708	33,747	32,642	34,907	
	1 Uncoated Corrugated Cardboard	4,895	4,303	5,487	4,384	3,888	5,069	1,657	1,428	1,973	
	2 High Grade Paper	2,952	2,316	3,587	3,213	2,632	4,093	960	830	1,147	
	3 Newspaper	7,254	6,249	8,260	6,846	5,826	8,211	1,729	1,391	2,195	
	4 Mixed Recyclable Paper	8,316	NC	NC	9,198	NC	NC	5,693	5,110	6,408	
	5 Compostable Paper	NA	NC	NC	NA	NC	NC	22,555	21,539	23,661	
6 Other Paper	12,544	11,532	13,555	16,277	14,646	18,216	1,153	1,043	1,296		
Plastics		11,238	10,534	11,942	14,008	12,998	15,172	18,185	17,403	19,036	
	7 HDPE Bottles (#2)	1,286	NC	NC	964	NC	NC	966	893	1,054	
	8 PETE Bottles (#1)	696	NC	NC	856	NC	NC	1,062	984	1,151	
	9 Other Plastic Containers	NA	NC	NC	640	517	843	1,288	1,133	1,494	
	10 Plastic Bags	NA	NC	NC	NA	NC	NC	2,191	1,953	2,498	
	11 Other Film	4,435	4,083	4,787	7,086	6,397	7,951	5,994	5,600	6,448	
	12 Expanded Polystyrene Blocks	NA	NC	NC	NA	NC	NC	252	205	325	
	13 Mixed Rigid Plastics	NA	NC	NC	NA	NC	NC	4,733	4,319	5,232	
	14 Other Plastics	4,821	4,251	5,390	4,461	3,939	5,138	1,699	1,545	1,897	
	Glass		5,818	5,041	6,595	4,505	3,870	5,338	5,048	4,650	5,521
		15 Recyclable Glass Bottles/Containers	5,310	NC	NC	4,149	NC	NC	4,309	3,938	4,758
	16 Other Glass	509	363	654	356	258	512	739	619	921	
	Metals		5,310	4,727	5,893	4,636	3,983	5,558	5,877	5,356	6,516
		17 Aluminum Cans	565	475	655	440	390	507	378	319	460
18 Other Non-Ferrous		494	280	708	817	686	1,005	797	659	988	
19 Steel Food and Beverage Cans		1,511	1,350	1,672	1,143	1,003	1,344	1,216	1,128	1,320	
20 Other Ferrous		2,397	1,954	2,840	2,177	1,695	3,121	3,212	2,790	3,796	
21 White Goods		343	72	614	59	30	149	275	68	646	
Yard Waste		8,971	7,321	10,620	8,558	5,930	12,709	4,873	4,219	5,831	
	22 Leaves/Grass/Chips	7,645	6,191	9,100	5,735	4,145	8,528	3,613	3,031	4,508	
23 Branches/Stumps/Prunings/Trimings	1,326	NC	NC	2,823	NC	NC	1,260	1,043	1,611		
Organics		36,158	34,132	38,184	44,603	41,235	48,161	56,510	54,765	58,294	
	24 Food Waste	18,708	16,967	20,449	25,708	23,211	28,575	34,185	32,545	35,954	
	25 Tires	653	326	980	451	135	1,406	176	0	543	
	26 Untreated Lumber	1,165	344	1,987	2,443	1,674	4,756	1,183	890	1,673	
	27 Pallets	NA	NC	NC	NA	NC	NC	99	26	243	
	28 Treated Wood Waste	1,996	1,405	2,588	1,587	1,218	2,267	2,337	1,944	2,928	
	29 Textiles and Leather	8,768	7,542	9,994	4,464	3,845	5,360	8,071	7,310	9,034	
	30 Carpet	NA	NC	NC	1,383	897	2,544	749	532	1,121	
	31 Diapers	3,183	2,632	3,733	4,329	3,702	5,175	6,365	5,797	7,077	
	32 Manure	NA	NC	NC	NA	NC	NC	2,384	1,962	3,014	
	33 Other Organics	1,684	1,069	2,300	4,238	NC	NC	962	734	1,311	
	Inerts		2,474	NC	NC	2,804	NC	NC	5,201	4,519	6,133
		34 Crushable Inerts	723	442	1,004	752	547	1,248	1,383	1,017	1,994
		35 Other Inerts	1,607	994	2,219	1,762	1,278	2,743	3,602	3,133	4,260
36 Gypsum Board		90	NC	NC	284	NC	NC	207	114	371	
37 Asphalt Roofing	55	0	200	5	2	14	9	0	47		
HHW		1,135	NC	NC	980	NC	NC	1,374	1,024	1,899	
	38 Paint/Adhesives	NA	NC	NC	NA	NC	NC	182	134	269	
	39 Vehicle & Equipment Fluids	NA	NC	NC	NA	NC	NC	96	59	167	
	40 Universal Hazardous Waste	NA	NC	NC	NA	NC	NC	70	47	106	
	41 Medical Waste	NA	NC	NC	NA	NC	NC	130	68	244	
	42 Medicine	NA	NC	NC	NA	NC	NC	49	25	91	
	43 Covered E-Waste	NA	NC	NC	NA	NC	NC	378	191	709	
	44 Other E-Waste	NA	NC	NC	NA	NC	NC	357	204	622	
	45 Other Hazardous Waste	1,135	NC	NC	980	NC	NC	112	44	236	
Special		5,022	NC	NC	2,861	NC	NC	1,267	741	2,148	
	46 Brown Goods	1,043	417	1,668	1,297	956	2,118	479	324	751	
	47 Composite Bulky Items	3,980	2,907	5,053	1,564	1,046	3,069	769	287	1,613	
48 Other Special Waste	NA	NC	NC	NA	NC	NC	20	1	55		
TOTAL		112,086			122,872			132,081			

Table 7
Countywide Commercial Detailed Waste Composition Comparison

Material Group	Material	1995 (Mean, Lower 90%, Upper 90%)			2000 (Mean, Lower 90%, Upper 90%)			2008 (Mean, Lower 90%, Upper 90%)		
Paper		36.9%	35.8%	38.0%	31.3%	28.8%	34.0%	27.6%	26.7%	28.6%
	1 Uncoated Corrugated Cardboard	6.2%	5.7%	6.7%	7.0%	6.2%	8.0%	2.1%	1.9%	2.3%
	2 High Grade Paper	4.6%	4.2%	5.0%	4.4%	3.8%	5.2%	1.2%	1.0%	1.3%
	3 Newspaper	4.1%	3.8%	4.4%	3.0%	2.7%	3.4%	0.9%	0.8%	1.0%
	4 Mixed Recyclable Paper	7.7%	NC	NC	5.6%	NC	NC	4.3%	3.9%	4.7%
	5 Compostable Paper	NA	NC	NC	NA	NC	NC	18.0%	17.3%	18.8%
	6 Other Paper	14.2%	13.6%	14.8%	11.3%	10.3%	12.4%	1.2%	1.1%	1.3%
Plastics		12.0%	11.4%	12.6%	13.9%	12.5%	15.3%	14.7%	14.3%	15.2%
	7 HDPE Bottles (#2)	0.9%	NC	NC	1.1%	NC	NC	0.6%	0.6%	0.7%
	8 PETE Bottles (#1)	0.3%	NC	NC	0.6%	NC	NC	0.6%	0.5%	0.6%
	9 Other Plastic Containers	NA	NC	NC	0.4%	0.3%	0.5%	0.8%	0.7%	0.8%
	10 Plastic Bags	NA	NC	NC	NA	NC	NC	1.1%	1.0%	1.2%
	11 Other Film	4.7%	4.4%	5.0%	6.0%	5.4%	6.7%	6.4%	6.1%	6.7%
	12 Expanded Polystyrene Blocks	NA	NC	NC	NA	NC	NC	0.2%	0.2%	0.2%
	13 Mixed Rigid Plastics	NA	NC	NC	NA	NC	NC	3.6%	3.4%	3.8%
	14 Other Plastics	6.1%	5.6%	6.6%	5.8%	5.0%	6.7%	1.5%	1.4%	1.6%
Glass		3.0%	2.8%	3.2%	2.3%	2.0%	2.7%	2.6%	2.4%	2.9%
	15 Recyclable Glass Bottles/Containers	2.4%	NC	NC	2.0%	NC	NC	1.9%	1.7%	2.1%
	16 Other Glass	0.6%	0.4%	0.7%	0.3%	0.2%	0.3%	0.7%	0.6%	0.9%
Metals		5.3%	4.7%	5.9%	5.5%	4.7%	6.5%	4.1%	3.8%	4.4%
	17 Aluminum Cans	0.3%	0.3%	0.3%	0.4%	0.3%	0.5%	0.2%	0.2%	0.2%
	18 Other Non-Ferrous	0.5%	0.4%	0.5%	0.6%	0.5%	0.7%	0.5%	0.5%	0.6%
	19 Steel Food and Beverage Cans	0.7%	0.6%	0.8%	0.7%	0.6%	0.9%	0.7%	0.7%	0.8%
	20 Other Ferrous	3.5%	3.0%	3.9%	3.6%	3.0%	4.3%	2.5%	2.2%	2.8%
	21 White Goods	0.4%	0.1%	0.7%	0.3%	0.2%	0.4%	0.1%	0.0%	0.2%
Yard Waste		4.9%	4.3%	5.6%	4.2%	3.1%	5.8%	4.3%	3.9%	4.8%
	22 Leaves/Grass/Chips	3.1%	2.6%	3.6%	2.1%	1.8%	2.7%	3.0%	2.7%	3.5%
	23 Branches/Stumps/Prunings/Trimmings	1.8%	NC	NC	2.0%	NC	NC	1.3%	1.1%	1.5%
Organics		31.8%	30.7%	33.0%	35.2%	32.6%	38.0%	40.2%	39.0%	41.4%
	24 Food Waste	14.9%	13.9%	15.9%	16.2%	14.5%	18.3%	26.1%	24.9%	27.5%
	25 Tires	0.7%	0.5%	0.9%	0.9%	0.6%	1.5%	0.2%	0.2%	0.3%
	26 Untreated Lumber	5.6%	4.9%	6.2%	6.4%	5.3%	7.9%	2.1%	1.8%	2.5%
	27 Pallets	NA	NC	NC	NA	NC	NC	0.9%	0.8%	1.2%
	28 Treated Wood Waste	2.1%	1.7%	2.4%	4.0%	3.2%	5.1%	3.1%	2.7%	3.6%
	29 Textiles and Leather	4.9%	4.5%	5.3%	2.6%	2.2%	3.1%	3.1%	2.8%	3.4%
	30 Carpet	NA	NC	NC	1.8%	1.4%	2.4%	0.7%	0.5%	0.9%
	31 Diapers	1.3%	1.0%	1.5%	1.3%	1.1%	1.6%	2.2%	2.0%	2.5%
	32 Manure	NA	NC	NC	NA	NC	NC	0.6%	0.5%	0.7%
	33 Other Organics	2.5%	2.0%	2.9%	2.0%	NC	NC	1.2%	1.1%	1.3%
Inerts		3.1%	NC	NC	3.8%	NC	NC	4.9%	4.4%	5.5%
	34 Crushable Inerts	1.4%	1.1%	1.7%	2.2%	1.6%	3.1%	2.1%	1.8%	2.5%
	35 Other Inerts	1.3%	1.1%	1.5%	0.9%	0.7%	1.2%	2.1%	1.9%	2.3%
	36 Gypsum Board	0.4%	NC	NC	0.5%	NC	NC	0.5%	0.4%	0.7%
	37 Asphalt Roofing	0.1%	0.0%	0.1%	0.2%	0.1%	0.3%	0.2%	0.2%	0.3%
HHW		0.5%	NC	NC	0.4%	NC	NC	0.9%	0.8%	1.1%
	38 Paint/Adhesives	NA	NC	NC	NA	NC	NC	0.1%	0.1%	0.1%
	39 Vehicle & Equipment Fluids	NA	NC	NC	NA	NC	NC	0.0%	0.0%	0.1%
	40 Universal Hazardous Waste	NA	NC	NC	NA	NC	NC	0.1%	0.0%	0.1%
	41 Medical Waste	NA	NC	NC	NA	NC	NC	0.1%	0.1%	0.1%
	42 Medicine	NA	NC	NC	NA	NC	NC	0.0%	0.0%	0.0%
	43 Covered E-Waste	NA	NC	NC	NA	NC	NC	0.1%	0.1%	0.2%
	44 Other E-Waste	NA	NC	NC	NA	NC	NC	0.4%	0.4%	0.6%
	45 Other Hazardous Waste	0.5%	NC	NC	0.4%	NC	NC	0.1%	0.0%	0.1%
Special		2.4%	NC	NC	3.3%	NC	NC	0.8%	0.6%	1.0%
	46 Brown Goods	1.5%	1.1%	1.8%	1.8%	1.5%	2.3%	0.2%	0.2%	0.3%
	47 Composite Bulky Items	0.9%	0.6%	1.3%	1.5%	1.1%	2.1%	0.5%	0.4%	0.6%
	48 Other Special Waste	NA	NC	NC	NA	NC	NC	0.1%	0.1%	0.1%
TOTAL		100.0%			100.0%			100.0%		

DETAILED COMPARISON TABLES

Table 8
Countywide Commercial Detailed Waste Disposal Comparison

Material Group	Material	1995 (Mean, Lower 90%, Upper 90%)			2000 (Mean, Lower 90%, Upper 90%)			2008 (Mean, Lower 90%, Upper 90%)			
Paper		97,589	94,753	100,424	110,976	102,177	120,600	65,484	63,260	67,801	
	1 Uncoated Corrugated Cardboard	16,454	15,148	17,761	24,827	21,979	28,344	4,968	4,484	5,562	
	2 High Grade Paper	12,194	11,074	13,314	15,566	13,367	18,482	2,734	2,405	3,150	
	3 Newspaper	10,895	10,084	11,706	10,776	9,667	12,151	2,093	1,849	2,396	
	4 Mixed Recyclable Paper	20,445	NC	NC	19,827	NC	NC	10,132	9,268	11,152	
	5 Compostable Paper	NA	NC	NC	NA	NC	NC	42,789	41,147	44,535	
6 Other Paper	37,600	35,992	39,208	39,979	36,481	44,094	2,769	2,515	3,081		
Plastics		31,798	30,214	33,382	49,088	44,374	54,369	34,936	33,875	36,054	
	7 HDPE Bottles (#2)	2,313	NC	NC	3,921	NC	NC	1,438	1,334	1,559	
	8 PETE Bottles (#1)	871	NC	NC	2,035	NC	NC	1,374	1,292	1,468	
	9 Other Plastic Containers	NA	NC	NC	1,403	1,169	1,731	1,852	1,734	1,985	
	10 Plastic Bags	NA	NC	NC	NA	NC	NC	2,565	2,364	2,812	
	11 Other Film	12,553	11,761	13,344	21,276	19,276	23,618	15,213	14,495	16,003	
	12 Expanded Polystyrene Blocks	NA	NC	NC	NA	NC	NC	454	393	534	
	13 Mixed Rigid Plastics	NA	NC	NC	NA	NC	NC	8,524	8,054	9,052	
	14 Other Plastics	16,061	14,733	17,390	20,453	17,731	23,823	3,517	3,230	3,857	
	Glass		7,873	7,287	8,458	8,203	7,190	9,462	6,141	5,592	6,808
		15 Recyclable Glass Bottles/Containers	6,367	NC	NC	7,247	NC	NC	4,473	4,130	4,879
	16 Other Glass	1,505	1,134	1,877	956	796	1,197	1,668	1,307	2,176	
	Metals		13,990	12,452	15,529	19,593	16,816	23,029	9,624	8,939	10,417
		17 Aluminum Cans	808	730	886	1,413	1,114	1,824	454	422	492
18 Other Non-Ferrous		1,192	935	1,449	2,109	1,818	2,502	1,279	1,149	1,443	
19 Steel Food and Beverage Cans		1,785	1,568	2,002	2,591	2,215	3,090	1,758	1,598	1,952	
20 Other Ferrous		9,208	7,980	10,436	12,589	10,493	15,402	5,896	5,319	6,609	
21 White Goods		997	148	1,846	890	584	1,387	236	73	475	
Yard Waste		13,002	11,255	14,750	14,806	10,892	20,491	10,242	9,258	11,492	
	22 Leaves/Grass/Chips	8,193	6,931	9,454	7,593	6,207	9,618	7,232	6,479	8,216	
23 Branches/Stumps/Prunings/Trimings	4,810	NC	NC	7,213	NC	NC	3,010	2,615	3,550		
Organics		84,216	81,256	87,175	124,894	115,627	134,685	95,309	92,535	98,137	
	24 Food Waste	39,486	36,810	42,162	57,429	51,285	64,782	62,023	59,000	65,242	
	25 Tires	1,771	1,279	2,263	3,282	1,997	5,254	473	369	630	
	26 Untreated Lumber	14,700	12,906	16,494	22,624	18,725	27,825	5,070	4,390	5,974	
	27 Pallets	NA	NC	NC	NA	NC	NC	2,253	1,866	2,795	
	28 Treated Wood Waste	5,461	4,618	6,303	14,134	11,453	17,979	7,355	6,513	8,436	
	29 Textiles and Leather	12,893	11,793	13,993	9,247	7,894	10,994	7,292	6,652	8,059	
	30 Carpet	NA	NC	NC	6,406	5,014	8,570	1,558	1,175	2,085	
	31 Diapers	3,389	2,753	4,025	4,577	3,877	5,550	5,172	4,628	5,845	
	32 Manure	NA	NC	NC	NA	NC	NC	1,307	1,113	1,575	
	33 Other Organics	6,516	5,268	7,763	7,195	NC	NC	2,806	2,528	3,165	
	Inerts		8,299	NC	NC	13,465	NC	NC	11,521	10,355	12,954
		34 Crushable Inerts	3,784	2,958	4,610	7,847	5,759	10,955	4,926	4,207	5,878
		35 Other Inerts	3,358	2,864	3,852	3,298	2,617	4,327	4,897	4,422	5,494
36 Gypsum Board		961	NC	NC	1,709	NC	NC	1,169	857	1,612	
37 Asphalt Roofing		196	33	359	611	353	1,026	528	390	730	
HHW		1,362	NC	NC	1,578	NC	NC	2,194	1,855	2,647	
	38 Paint/Adhesives	NA	NC	NC	NA	NC	NC	201	167	251	
	39 Vehicle & Equipment Fluids	NA	NC	NC	NA	NC	NC	103	71	147	
	40 Universal Hazardous Waste	NA	NC	NC	NA	NC	NC	124	105	150	
	41 Medical Waste	NA	NC	NC	NA	NC	NC	158	127	201	
	42 Medicine	NA	NC	NC	NA	NC	NC	65	56	78	
	43 Covered E-Waste	NA	NC	NC	NA	NC	NC	343	228	509	
	44 Other E-Waste	NA	NC	NC	NA	NC	NC	1,041	834	1,335	
	45 Other Hazardous Waste	1,362	NC	NC	1,578	NC	NC	159	38	337	
	Special		6,407	NC	NC	11,796	NC	NC	1,865	1,542	2,312
46 Brown Goods		3,902	2,941	4,863	6,538	5,382	8,188	538	366	778	
47 Composite Bulky Items		2,505	1,554	3,455	5,258	3,901	7,354	1,114	918	1,403	
48 Other Special Waste		NA	NC	NC	NA	NC	NC	213	167	278	
TOTAL		264,535		354,398		237,315					

**Table 9
Countywide Roll-Off Detailed Waste Composition Comparison**

Material Group	Material	1995 (Mean, Lower 90%, Upper 90%)			2000 (Mean, Lower 90%, Upper 90%)			2008 (Mean, Lower 90%, Upper 90%)			
Paper		25.1%	22.8%	27.5%	18.0%	15.2%	21.6%	21.9%	20.1%	23.9%	
	1 Uncoated Corrugated Cardboard	8.6%	7.3%	9.8%	7.2%	6.1%	8.8%	6.9%	6.1%	7.8%	
	2 High Grade Paper	2.5%	1.7%	3.3%	1.9%	1.6%	2.4%	2.8%	2.3%	3.3%	
	3 Newspaper	0.7%	0.5%	0.8%	0.9%	0.8%	1.2%	0.7%	0.5%	0.9%	
	4 Mixed Recyclable Paper	6.1%	NC	NC	4.2%	NC	NC	7.0%	6.2%	8.1%	
	5 Compostable Paper	NA	NC	NC	NA	NC	NC	2.0%	1.8%	2.3%	
6 Other Paper	7.3%	6.1%	8.5%	3.8%	3.1%	4.7%	2.5%	2.0%	3.2%		
Plastics		16.7%	14.4%	18.9%	11.3%	9.6%	13.4%	6.7%	6.1%	7.5%	
	7 HDPE Bottles (#2)	0.3%	NC	NC	0.8%	NC	NC	0.1%	0.1%	0.1%	
	8 PETE Bottles (#1)	0.1%	NC	NC	0.3%	NC	NC	0.1%	0.1%	0.1%	
	9 Other Plastic Containers	NA	NC	NC	0.3%	0.2%	0.4%	0.1%	0.0%	0.1%	
	10 Plastic Bags	NA	NC	NC	NA	NC	NC	0.1%	0.1%	0.1%	
	11 Other Film	5.8%	4.6%	7.1%	3.7%	3.1%	4.4%	3.5%	3.1%	4.0%	
	12 Expanded Polystyrene Blocks	NA	NC	NC	NA	NC	NC	0.2%	0.1%	0.2%	
	13 Mixed Rigid Plastics	NA	NC	NC	NA	NC	NC	1.5%	1.3%	1.9%	
	14 Other Plastics	10.5%	8.6%	12.3%	6.2%	5.3%	7.4%	1.2%	1.0%	1.4%	
	Glass		1.6%	0.9%	2.3%	0.9%	0.7%	1.2%	3.2%	2.7%	3.9%
		15 Recyclable Glass Bottles/Containers	1.3%	NC	NC	0.3%	NC	NC	1.2%	1.0%	1.5%
		16 Other Glass	0.3%	0.1%	0.6%	0.6%	0.5%	0.9%	2.0%	1.5%	2.6%
	Metals		4.7%	3.7%	5.7%	9.2%	7.8%	11.1%	4.8%	4.3%	5.5%
		17 Aluminum Cans	0.2%	0.0%	0.3%	0.2%	0.2%	0.3%	0.1%	0.1%	0.1%
18 Other Non-Ferrous		0.3%	0.0%	0.6%	0.9%	0.8%	1.1%	0.4%	0.2%	0.5%	
19 Steel Food and Beverage Cans		0.4%	0.2%	0.6%	0.2%	0.2%	0.3%	0.1%	0.1%	0.1%	
20 Other Ferrous		3.4%	2.6%	4.2%	7.3%	6.3%	8.8%	4.2%	3.7%	4.9%	
21 White Goods		0.4%	0.0%	0.8%	0.5%	0.4%	1.0%	0.1%	0.1%	0.1%	
Yard Waste		5.2%	3.7%	6.6%	2.8%	2.2%	3.8%	7.3%	6.2%	8.7%	
	22 Leaves/Grass/Chips	2.4%	1.4%	3.4%	1.5%	1.1%	2.0%	3.5%	2.9%	4.4%	
	23 Branches/Stumps/Prunings/Trimmings	2.8%	NC	NC	1.3%	NC	NC	3.7%	3.2%	4.6%	
Organics		30.1%	27.4%	32.9%	35.2%	30.9%	40.1%	35.1%	32.5%	37.9%	
	24 Food Waste	5.6%	4.4%	6.8%	5.3%	4.3%	6.9%	11.5%	9.8%	13.8%	
	25 Tires	0.1%	0.0%	0.1%	0.1%	0.1%	0.2%	0.1%	0.1%	0.2%	
	26 Untreated Lumber	13.3%	11.1%	15.5%	17.3%	14.7%	20.6%	3.5%	3.0%	4.1%	
	27 Pallets	NA	NC	NC	NA	NC	NC	8.2%	7.1%	9.6%	
	28 Treated Wood Waste	4.7%	3.2%	6.2%	7.5%	6.2%	9.3%	6.2%	5.4%	7.3%	
	29 Textiles and Leather	4.1%	2.8%	5.4%	1.4%	1.1%	1.9%	2.3%	1.8%	2.9%	
	30 Carpet	NA	NC	NC	2.2%	1.6%	3.4%	0.9%	0.7%	1.2%	
	31 Diapers	0.4%	0.3%	0.5%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	
	32 Manure	NA	NC	NC	NA	NC	NC	0.1%	0.0%	0.5%	
	33 Other Organics	2.0%	1.0%	3.1%	1.3%	NC	NC	2.1%	1.8%	2.7%	
	Inerts		11.5%	NC	NC	13.0%	NC	NC	15.5%	13.5%	18.0%
		34 Crushable Inerts	3.1%	1.7%	4.4%	5.0%	4.0%	6.4%	4.7%	4.0%	5.5%
		35 Other Inerts	2.7%	1.7%	3.8%	3.6%	3.0%	4.4%	6.6%	5.5%	8.1%
36 Gypsum Board		3.1%	NC	NC	2.6%	NC	NC	2.7%	2.2%	3.5%	
37 Asphalt Roofing		2.7%	1.3%	4.0%	1.8%	1.2%	2.8%	1.5%	1.1%	2.1%	
HHW		0.1%	NC	NC	0.7%	NC	NC	1.1%	0.8%	1.4%	
	38 Paint/Adhesives	NA	NC	NC	NA	NC	NC	0.1%	0.1%	0.2%	
	39 Vehicle & Equipment Fluids	NA	NC	NC	NA	NC	NC	0.0%	0.0%	0.0%	
	40 Universal Hazardous Waste	NA	NC	NC	NA	NC	NC	0.3%	0.2%	0.5%	
	41 Medical Waste	NA	NC	NC	NA	NC	NC	0.1%	0.1%	0.1%	
	42 Medicine	NA	NC	NC	NA	NC	NC	0.0%	0.0%	0.0%	
	43 Covered E-Waste	NA	NC	NC	NA	NC	NC	0.1%	0.1%	0.1%	
	44 Other E-Waste	NA	NC	NC	NA	NC	NC	0.3%	0.2%	0.4%	
	45 Other Hazardous Waste	0.1%	NC	NC	0.7%	NC	NC	0.1%	0.1%	0.3%	
Special		5.0%	NC	NC	8.9%	NC	NC	4.4%	3.5%	5.5%	
	46 Brown Goods	1.0%	0.6%	1.4%	0.8%	0.6%	1.0%	0.2%	0.1%	0.2%	
	47 Composite Bulky Items	4.1%	2.6%	5.5%	8.1%	6.5%	10.4%	4.2%	3.4%	5.4%	
	48 Other Special Waste	NA	NC	NC	NA	NC	NC	0.0%	0.0%	0.0%	
TOTAL		100.0%			100.0%			100.0%			

DETAILED COMPARISON TABLES

Table 10
Countywide Roll-Off Detailed Waste Disposal Comparison

Material Group	Material	1995 (Mean, Lower 90%, Upper 90%)			2000 (Mean, Lower 90%, Upper 90%)			2008 (Mean, Lower 90%, Upper 90%)			
Paper		85,265	77,322	93,208	73,322	61,894	87,645	59,791	54,858	65,311	
	1 Uncoated Corrugated Cardboard	29,128	24,864	33,392	29,412	24,876	35,907	18,756	16,616	21,437	
	2 High Grade Paper	8,609	5,922	11,296	7,834	6,528	9,796	7,533	6,295	9,077	
	3 Newspaper	2,223	1,686	2,759	3,705	3,062	4,947	1,887	1,489	2,404	
	4 Mixed Recyclable Paper	20,664	NC	NC	17,074	NC	NC	19,250	17,061	22,019	
	5 Compostable Paper	NA	NC	NC	NA	NC	NC	5,470	4,891	6,286	
6 Other Paper	24,642	20,563	28,720	15,298	12,645	19,276	6,894	5,576	8,616		
Plastics		56,532	48,853	64,212	45,879	39,147	54,291	18,439	16,715	20,526	
	7 HDPE Bottles (#2)	965	NC	NC	3,287	NC	NC	238	205	287	
	8 PETE Bottles (#1)	362	NC	NC	1,228	NC	NC	329	292	378	
	9 Other Plastic Containers	NA	NC	NC	1,254	967	1,739	161	132	199	
	10 Plastic Bags	NA	NC	NC	NA	NC	NC	217	192	254	
	11 Other Film	19,742	15,556	23,927	14,894	12,758	17,987	9,576	8,591	10,833	
	12 Expanded Polystyrene Blocks	NA	NC	NC	NA	NC	NC	417	332	527	
	13 Mixed Rigid Plastics	NA	NC	NC	NA	NC	NC	4,182	3,535	5,096	
	14 Other Plastics	35,463	29,059	41,868	25,216	21,501	30,052	3,319	2,816	3,947	
	Glass		5,397	2,967	7,828	3,728	2,928	4,983	8,710	7,267	10,672
		15 Recyclable Glass Bottles/Containers	4,327	NC	NC	1,208	NC	NC	3,304	2,743	4,002
	16 Other Glass	1,071	243	1,898	2,520	1,914	3,504	5,406	4,217	7,135	
	Metals		15,801	12,425	19,178	37,365	31,869	44,948	13,216	11,716	15,120
		17 Aluminum Cans	529	143	914	957	801	1,160	308	266	362
18 Other Non-Ferrous		1,010	0	2,093	3,601	3,060	4,385	981	666	1,372	
19 Steel Food and Beverage Cans		1,306	622	1,991	873	707	1,176	233	189	294	
20 Other Ferrous		11,550	8,873	14,227	29,711	25,456	35,763	11,473	10,118	13,284	
21 White Goods		1,406	72	2,740	2,224	1,753	4,069	221	137	336	
Yard Waste		17,539	12,528	22,549	11,388	8,931	15,366	19,861	16,855	23,697	
	22 Leaves/Grass/Chips	8,106	4,653	11,559	5,922	4,541	8,304	9,628	7,795	11,996	
23 Branches/Stumps/Prunings/Trimings	9,433	NC	NC	5,466	NC	NC	10,233	8,634	12,502		
Organics		102,184	92,859	111,508	143,255	125,525	163,001	96,049	88,827	103,693	
	24 Food Waste	18,966	14,983	22,948	21,708	17,662	28,203	31,571	26,661	37,858	
	25 Tires	175	0	479	570	438	926	385	322	532	
	26 Untreated Lumber	45,107	37,634	52,581	70,232	59,896	83,857	9,567	8,166	11,342	
	27 Pallets	NA	NC	NC	NA	NC	NC	22,372	19,471	26,121	
	28 Treated Wood Waste	15,872	10,723	21,021	30,335	25,034	37,721	17,088	14,796	20,011	
	29 Textiles and Leather	13,833	9,373	18,292	5,773	4,570	7,649	6,267	5,045	7,863	
	30 Carpet	NA	NC	NC	9,093	6,352	13,768	2,393	1,815	3,297	
	31 Diapers	1,293	974	1,613	405	301	582	302	214	422	
	32 Manure	NA	NC	NC	NA	NC	NC	229	0	1,411	
	33 Other Organics	6,938	3,377	10,498	5,138	NC	NC	5,873	4,904	7,471	
	Inerts		39,056	NC	NC	52,650	NC	NC	42,468	37,035	49,113
		34 Crushable Inerts	10,378	5,700	15,056	20,160	16,308	25,878	12,734	10,957	15,066
		35 Other Inerts	9,247	5,753	12,742	14,507	12,222	17,974	18,167	15,113	22,062
36 Gypsum Board		10,409	NC	NC	10,726	NC	NC	7,396	6,042	9,440	
37 Asphalt Roofing		9,022	4,535	13,509	7,258	4,888	11,292	4,171	3,069	5,699	
HHW		343	NC	NC	2,785	NC	NC	2,944	2,273	3,792	
	38 Paint/Adhesives	NA	NC	NC	NA	NC	NC	409	269	644	
	39 Vehicle & Equipment Fluids	NA	NC	NC	NA	NC	NC	0	0	0	
	40 Universal Hazardous Waste	NA	NC	NC	NA	NC	NC	947	667	1,297	
	41 Medical Waste	NA	NC	NC	NA	NC	NC	203	159	261	
	42 Medicine	NA	NC	NC	NA	NC	NC	0	0	0	
	43 Covered E-Waste	NA	NC	NC	NA	NC	NC	235	164	351	
	44 Other E-Waste	NA	NC	NC	NA	NC	NC	749	543	1,057	
	45 Other Hazardous Waste	343	NC	NC	2,785	NC	NC	402	142	729	
	Special		17,127	NC	NC	36,095	NC	NC	11,943	9,568	15,163
46 Brown Goods		3,357	2,052	4,662	3,180	2,624	4,025	414	314	554	
47 Composite Bulky Items		13,770	8,737	18,804	32,915	26,552	42,126	11,529	9,190	14,715	
48 Other Special Waste	NA	NC	NC	NA	NC	NC	0	0	0		
TOTAL		339,245			406,468			273,420			

Table 11
Countywide Self-Haul Detailed Waste Composition Comparison

Material	1995 (Mean, Lower 90%, Upper 90%)			2000 (Mean, Lower 90%, Upper 90%)			2008 (Mean, Lower 90%, Upper 90%)		
	9.8%	8.6%	11.0%	6.0%	5.2%	7.1%	9.3%	8.4%	10.4%
1 Uncoated Corrugated Cardboard	2.2%	1.8%	2.6%	2.8%	2.4%	3.2%	3.6%	3.2%	4.1%
2 High Grade Paper	0.9%	0.5%	1.2%	0.6%	0.5%	0.7%	0.9%	0.8%	1.0%
3 Newspaper	0.8%	0.5%	1.0%	0.4%	0.3%	0.6%	0.4%	0.4%	0.5%
4 Mixed Recyclable Paper	3.8%	NC	NC	1.5%	NC	NC	3.5%	3.1%	4.1%
5 Compostable Paper	NA	NC	NC	NA	NC	NC	0.3%	0.3%	0.4%
6 Other Paper	2.2%	1.7%	2.6%	0.7%	0.6%	0.9%	0.6%	0.5%	0.7%
	5.1%	4.3%	5.9%	4.4%	3.8%	5.2%	3.3%	3.0%	3.7%
7 HDPE Bottles (#2)	0.2%	NC	NC	0.4%	NC	NC	0.0%	0.0%	0.0%
8 PETE Bottles (#1)	0.0%	NC	NC	0.1%	NC	NC	0.1%	0.0%	0.1%
9 Other Plastic Containers	NA	NC	NC	0.1%	0.1%	0.2%	0.1%	0.1%	0.1%
10 Plastic Bags	NA	NC	NC	NA	NC	NC	0.1%	0.1%	0.1%
11 Other Film	0.7%	0.4%	1.0%	0.6%	0.6%	0.7%	1.3%	1.1%	1.4%
12 Expanded Polystyrene Blocks	NA	NC	NC	NA	NC	NC	0.3%	0.2%	0.4%
13 Mixed Rigid Plastics	NA	NC	NC	NA	NC	NC	1.1%	0.9%	1.2%
14 Other Plastics	4.1%	3.4%	4.9%	3.2%	2.7%	3.7%	0.5%	0.4%	0.6%
	1.4%	1.0%	1.9%	0.8%	0.7%	1.0%	2.8%	2.4%	3.3%
15 Recyclable Glass Bottles/Containers	0.5%	NC	NC	0.2%	NC	NC	0.6%	0.5%	0.7%
16 Other Glass	1.0%	0.5%	1.4%	0.7%	0.6%	0.8%	2.2%	1.9%	2.6%
	4.4%	3.6%	5.1%	6.9%	5.9%	8.1%	4.6%	4.1%	5.1%
17 Aluminum Cans	0.1%	0.0%	0.1%	0.0%	0.0%	0.1%	0.1%	0.0%	0.1%
18 Other Non-Ferrous	0.5%	0.1%	0.8%	0.6%	0.5%	0.7%	0.6%	0.5%	0.7%
19 Steel Food and Beverage Cans	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.0%	0.0%	0.0%
20 Other Ferrous	3.4%	2.8%	4.0%	5.4%	4.8%	6.3%	3.7%	3.3%	4.2%
21 White Goods	0.3%	0.0%	0.7%	0.7%	0.6%	0.9%	0.2%	0.1%	0.2%
	20.1%	17.6%	22.7%	17.2%	14.6%	20.3%	9.5%	8.3%	11.1%
22 Leaves/Grass/Chips	8.6%	6.9%	10.4%	7.2%	6.1%	8.7%	5.2%	4.5%	6.2%
23 Branches/Stumps/Prunings/Trimings	11.5%	NC	NC	9.9%	NC	NC	4.3%	3.7%	5.2%
	30.4%	28.1%	32.7%	31.2%	28.0%	34.8%	35.8%	33.4%	38.3%
24 Food Waste	2.5%	1.8%	3.1%	0.5%	0.4%	0.6%	1.7%	1.4%	2.0%
25 Tires	0.2%	0.1%	0.4%	0.3%	0.2%	0.4%	0.0%	0.0%	0.0%
26 Untreated Lumber	13.5%	11.7%	15.3%	11.4%	10.2%	13.0%	6.0%	5.3%	6.8%
27 Pallets	NA	NC	NC	NA	NC	NC	0.9%	0.8%	1.2%
28 Treated Wood Waste	6.5%	5.2%	7.8%	10.8%	9.5%	12.4%	16.6%	15.0%	18.6%
29 Textiles and Leather	6.0%	4.9%	7.1%	1.2%	1.1%	1.4%	4.7%	4.2%	5.4%
30 Carpet	NA	NC	NC	5.5%	4.6%	6.7%	4.3%	3.6%	5.2%
31 Diapers	0.4%	0.3%	0.4%	0.1%	0.1%	0.1%	0.0%	0.0%	0.1%
32 Manure	NA	NC	NC	NA	NC	NC	0.0%	0.0%	0.0%
33 Other Organics	1.3%	0.5%	2.2%	1.4%	NC	NC	1.5%	1.2%	1.7%
	20.2%	NC	NC	21.9%	NC	NC	24.3%	21.9%	27.0%
34 Crushable Inerts	5.3%	4.1%	6.6%	7.6%	6.5%	9.0%	10.1%	8.9%	11.6%
35 Other Inerts	6.2%	4.7%	7.6%	5.7%	4.7%	7.0%	7.2%	6.2%	8.4%
36 Gypsum Board	3.0%	NC	NC	5.1%	NC	NC	4.7%	4.1%	5.4%
37 Asphalt Roofing	5.7%	4.3%	7.1%	3.6%	2.9%	4.5%	2.4%	1.9%	2.9%
	0.2%	NC	NC	0.4%	NC	NC	1.2%	1.1%	1.5%
38 Paint/Adhesives	NA	NC	NC	NA	NC	NC	0.2%	0.1%	0.2%
39 Vehicle & Equipment Fluids	NA	NC	NC	NA	NC	NC	0.1%	0.1%	0.1%
40 Universal Hazardous Waste	NA	NC	NC	NA	NC	NC	0.3%	0.2%	0.3%
41 Medical Waste	NA	NC	NC	NA	NC	NC	0.0%	0.0%	0.0%
42 Medicine	NA	NC	NC	NA	NC	NC	0.0%	0.0%	0.0%
43 Covered E-Waste	NA	NC	NC	NA	NC	NC	0.3%	0.2%	0.3%
44 Other E-Waste	NA	NC	NC	NA	NC	NC	0.2%	0.2%	0.3%
45 Other Hazardous Waste	0.2%	NC	NC	0.4%	NC	NC	0.2%	0.2%	0.4%
	8.3%	NC	NC	11.2%	NC	NC	9.0%	7.9%	10.5%
46 Brown Goods	2.0%	1.4%	2.6%	1.0%	0.8%	1.2%	0.5%	0.4%	0.6%
47 Composite Bulky Items	6.3%	4.9%	7.7%	10.2%	8.7%	12.1%	8.5%	7.4%	9.9%
48 Other Special Waste	NA	NC	NC	NA	NC	NC	0.0%	0.0%	0.0%
	100.0%			100.0%			100.0%		

DETAILED COMPARISON TABLES

Table 12
Countywide Self-Haul Detailed Waste Disposal Comparison

Material Group	Material	1995 (Mean, Lower 90%, Upper 90%)			2000 (Mean, Lower 90%, Upper 90%)			2008 (Mean, Lower 90%, Upper 90%)			
Paper		45,711	39,983	51,439	20,206	17,405	23,747	25,167	22,682	28,088	
	1 Uncoated Corrugated Cardboard	10,207	8,349	12,066	9,249	8,042	10,829	9,741	8,624	11,086	
	2 High Grade Paper	4,045	2,339	5,750	1,911	1,550	2,394	2,358	2,032	2,780	
	3 Newspaper	3,591	2,361	4,822	1,446	1,106	1,963	1,142	964	1,369	
	4 Mixed Recyclable Paper	17,704	NC	NC	5,105	NC	NC	9,411	8,279	10,904	
	5 Compostable Paper	NA	NC	NC	NA	NC	NC	885	775	1,032	
6 Other Paper	10,164	8,029	12,300	2,495	2,154	2,973	1,629	1,373	1,960		
Plastics		23,757	19,838	27,676	14,865	12,799	17,557	8,978	8,045	10,086	
	7 HDPE Bottles (#2)	1,077	NC	NC	1,332	NC	NC	53	46	63	
	8 PETE Bottles (#1)	178	NC	NC	399	NC	NC	144	126	165	
	9 Other Plastic Containers	NA	NC	NC	411	346	513	177	139	227	
	10 Plastic Bags	NA	NC	NC	NA	NC	NC	172	149	203	
	11 Other Film	3,240	2,056	4,423	2,124	1,881	2,436	3,400	3,027	3,848	
	12 Expanded Polystyrene Blocks	NA	NC	NC	NA	NC	NC	807	562	1,149	
	13 Mixed Rigid Plastics	NA	NC	NC	NA	NC	NC	2,884	2,518	3,342	
	14 Other Plastics	19,262	15,614	22,911	10,599	9,169	12,551	1,340	1,137	1,598	
	Glass		6,686	4,508	8,864	2,847	2,286	3,524	7,577	6,539	8,853
		15 Recyclable Glass Bottles/Containers	2,212	NC	NC	539	NC	NC	1,655	1,398	1,981
	16 Other Glass	4,474	2,377	6,572	2,308	1,870	2,835	5,922	5,032	7,026	
	Metals		20,340	16,706	23,975	23,149	19,932	27,131	12,337	11,160	13,752
		17 Aluminum Cans	375	67	683	163	142	192	150	132	174
18 Other Non-Ferrous		2,111	671	3,551	1,954	1,691	2,299	1,637	1,438	1,925	
19 Steel Food and Beverage Cans		525	370	681	325	236	561	107	88	134	
20 Other Ferrous		15,785	12,857	18,714	18,274	16,062	21,052	9,975	8,916	11,264	
21 White Goods		1,544	0	3,094	2,433	1,956	3,089	467	376	591	
Yard Waste		93,722	81,979	105,465	57,692	49,096	68,159	25,692	22,262	29,892	
	22 Leaves/Grass/Chips	40,230	32,215	48,244	24,256	20,674	29,103	14,013	12,050	16,584	
23 Branches/Stumps/Prunings/Trimings	53,492	NC	NC	33,436	NC	NC	11,679	9,898	13,915		
Organics		141,524	130,760	152,288	105,032	94,241	117,157	96,330	89,811	103,197	
	24 Food Waste	11,565	8,569	14,560	1,612	1,268	2,121	4,492	3,734	5,484	
	25 Tires	1,103	264	1,943	901	613	1,513	83	66	104	
	26 Untreated Lumber	62,710	54,290	71,130	38,465	34,288	43,572	16,110	14,294	18,366	
	27 Pallets	NA	NC	NC	NA	NC	NC	2,554	2,105	3,170	
	28 Treated Wood Waste	30,255	24,170	36,340	36,442	32,078	41,732	44,807	40,320	49,979	
	29 Textiles and Leather	27,961	22,711	33,210	4,109	3,549	4,868	12,642	11,187	14,428	
	30 Carpet	NA	NC	NC	18,370	15,366	22,385	11,541	9,618	14,024	
	31 Diapers	1,652	1,276	2,028	317	244	425	109	88	137	
	32 Manure	NA	NC	NC	NA	NC	NC	71	46	104	
	33 Other Organics	6,278	2,494	10,062	4,816	NC	NC	3,920	3,339	4,690	
	Inerts		94,226	NC	NC	73,608	NC	NC	65,484	59,050	72,739
		34 Crushable Inerts	24,896	18,924	30,868	25,449	21,891	30,123	27,137	23,889	31,104
		35 Other Inerts	28,637	22,068	35,206	19,062	15,738	23,644	19,404	16,759	22,676
36 Gypsum Board		14,136	NC	NC	17,018	NC	NC	12,605	11,024	14,654	
37 Asphalt Roofing		26,557	19,922	33,193	12,079	9,902	15,062	6,338	5,200	7,860	
HHW		1,140	NC	NC	1,228	NC	NC	3,317	2,899	4,027	
	38 Paint/Adhesives	NA	NC	NC	NA	NC	NC	460	380	565	
	39 Vehicle & Equipment Fluids	NA	NC	NC	NA	NC	NC	182	144	229	
	40 Universal Hazardous Waste	NA	NC	NC	NA	NC	NC	737	618	898	
	41 Medical Waste	NA	NC	NC	NA	NC	NC	0	0	0	
	42 Medicine	NA	NC	NC	NA	NC	NC	3	2	5	
	43 Covered E-Waste	NA	NC	NC	NA	NC	NC	716	601	903	
	44 Other E-Waste	NA	NC	NC	NA	NC	NC	590	495	709	
	45 Other Hazardous Waste	1,140	NC	NC	1,228	NC	NC	628	530	1,115	
	Special		38,452	NC	NC	37,616	NC	NC	24,331	21,309	28,133
46 Brown Goods		9,254	6,374	12,135	3,221	2,730	3,921	1,372	1,153	1,674	
47 Composite Bulky Items		29,198	22,734	35,662	34,396	29,237	40,671	22,959	20,024	26,682	
48 Other Special Waste		NA	NC	NC	NA	NC	NC	0	0	0	
TOTAL	465,559			336,244			269,213				

Appendix C
2008 Alameda Waste Characterization Study
Study Design

2008 ALAMEDA WASTE
CHARACTERIZATION STUDY –
STUDY DESIGN

Stop Waste.Org

February 2008

ALAMEDA COUNTY WASTE CHARACTERIZATION STUDY - 2008

Stop Waste.Org

February 2008



2008 Alameda County Waste Characterization Study - Study Design

StopWaste.Org

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Appendix F MATERIAL CATEGORY DEFINITIONS

This report has been prepared for the use of the client for the specific purposes identified in the report. The conclusions, observations and recommendations contained herein attributed to R. W. Beck, Inc. (R. W. Beck) constitute the opinions of R. W. Beck. To the extent that statements, information and opinions provided by the client or others have been used in the preparation of this report, R. W. Beck has relied upon the same to be accurate, and for which no assurances are intended and no representations or warranties are made. R. W. Beck makes no certification and gives no assurances except as explicitly set forth in this report.

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Section 1

SAMPLING PLAN

1.1 Introduction/Purpose

The Alameda County Waste Management Authority and the Alameda County Source Reduction and Recycling Board operate as one public agency known as StopWaste.Org. StopWaste.Org is among a small, elite number of regional organizations in the United States providing comprehensive support for waste reduction and recycling among its member agencies, with an emphasis on environmental, economic, and community sustainability goals.

In 1990, 1995, and again in the 2000 Alameda County Waste Management Authority and Source Reduction and Recycling Board (StopWaste) conducted solid waste characterization studies to better understand and monitor the composition of solid waste generated and disposed in Alameda County, California (County). Given Alameda's current 59 percent diversion rate and aggressive approach to meeting its 75 percent goal, StopWaste is seeking to obtain current and detailed composition data for waste generated throughout the County. Significant changes to the local and Countywide waste management programs and policies, improvements in diversion and recycling activities, expanding reusable material markets, and modifications to the type of materials used by various manufacturing industries since the previous study all support the need for an updated waste characterization study.

The 2008 Waste Characterization Study is an opportunity to demonstrate how a new generation of waste characterization studies can provide far more practical information on the divertability of specific waste streams than traditional protocols have. This study (2008 Study) will estimate the composition of currently disposed solid waste generated in the County's 14 incorporated municipalities, two Sanitary Districts, and the unincorporated areas within the County, as well as the Countywide aggregate composition. Moreover, the composition data will provide an opportunity to evaluate the performance of existing programs and assist identifying potential diversion improvements as well as challenges. R. W. Beck, Inc. (R. W. Beck) was contracted by StopWaste to provide an updated waste characterization study to meet these objectives.

1.2 Description of Existing System

1.2.1 Jurisdictions

The Alameda County 2008 study will include sampling and sorting of waste generated within incorporated and unincorporated areas of the county. These include the City of Alameda, City of Albany, City of Berkeley, Castro Valley Sanitary District, City of Dublin, City of Emeryville, City of Fremont, City of Hayward, City of Livermore, City of Newark, City of Oakland, Oro Loma Sanitary District, City of Piedmont, City of Pleasanton, City of San Leandro, City of Union City and unincorporated County areas. These jurisdictions utilize a combination of the waste collection facilities mentioned in Section 1.3. Based on data from Stopwaste.org, Table 1.1 shows the 2006 annual waste quantities generated in each jurisdiction throughout the county. Unincorporated Alameda County waste quantities were not available in the Audit.

Table 1.1
2006 Annual Waste Quantities

Jurisdiction	Annual Waste Quantities, tons
Alameda	74,252
Albany	9,189
Berkeley	112,750
Castro Valley SD	27,751
Dublin	38,484
Emeryville	39,607
Fremont	191,849
Hayward	164,365
Livermore	115,101
Newark	43,257
Oakland	390,470
Oro Loma SD	68,151
Piedmont	4,702
Pleasanton	114,073
San Leandro	122,836
Uninc. Alameda	-
Union City	61,199
Total	1,578,036

1.2.2 Targeted Waste Streams

Five segments of the overall waste stream were defined for the 2000 Study, including single-family residential, multi-family residential, commercial (or non-residential), roll-off containers, and self-haul. Single-family residential, multi-family residential, and commercial waste streams represent typical generator types with unique compositions. Roll-off containers and self-haul waste streams represent delivery methods for non-generator specific and typically non-franchised waste received at solid waste facilities. The waste within these categories could potentially come from any of the three previously mentioned generator types or industrial or construction and demolition (C&D) operations. For comparability, the 2008 study will use the same general five targeted waste streams. In addition, the 2008 study will code and report the source of self-haul and roll-off loads sampled as single or multi-family residential, commercial, construction or demolition, or industrial. These basic segments, as well as an indication of how material from each generating sector is typically delivered to disposal facilities in Alameda County, are summarized by the letters A through E in Table 1.2:

Table 1.2
Generating Sectors and Modes of Delivery to Disposal Facilities

Waste Generating Sector	Method of collection and delivery to disposal facilities			
	RL or Side-load Packer Trucks (curbside)	Front-end Loaders (dumpster)	Roll-off (compactor or open top)	Self-haul
Collected from:	.05-.5-cy totes, cans and carts	1-8 cy metal bins	10-50-cy metal bins	loose bulk
Single-family	[A]			[E]
Multi-family	*	[B]	[D]	[E]
Commercial	*	[C]	[D]	[E]
Construction			[D]	[E]
Demolition			[D]	[E]
Industrial		[C]	[C]	

* Trace amounts of waste may be delivered via this collection method. These quantities are considered insignificant for the purposes of this study.

The five waste stream segments used in reporting all results are defined in more detail below:

A) *Single Family Residential:* Waste collected from single-family homes. Within each jurisdiction in the County, a single hauler (either private or public sector) provides collection for this generator sector. Generally, truckloads from this stream include curbside-collected waste from several hundred homes, and are relatively homogenous in composition.

Section 1

B) Multi-Family Residential: Waste collected from apartments, condominiums, and other multi-family dwellings. Within each jurisdiction in the County (with the exception of Berkeley), a single hauler (either private or public sector) provides collection for this generator sector. Generally, truckloads from this stream include dumpster-collected waste from multiple multi-family dwellings, and are relatively homogenous in composition. However, trucks used for collecting multi-family waste are often used to collect commercial waste in the same loads, so care must be taken to obtain segregated multi-family waste if the sampled load is mixed. It is expected that samples will be collected from truckloads that contain primarily or entirely multi-family waste.

C) Commercial: Waste collected from any non-residential source, such as: offices, restaurants, retail establishments, malls, institutions, warehouses, hotels, etc. Within each jurisdiction in the County (with the exception of Berkeley), a single hauler (either private or public sector) provides collection for this generator sector. Generally, truckloads from this stream include dumpster-collected waste from multiple commercial establishments, and are relatively heterogeneous in composition from sample to sample¹. Trucks used for collecting commercial waste are often used to collect multi-family waste as well, so care must be taken to obtain segregated commercial waste. It is expected that samples will be collected from truckloads that contain primarily or entirely commercial waste.

D) Roll-off containers: Waste collected within roll-off containers, either compactor or open top. Typical waste generators include multi-family, commercial, industrial, construction and demolition. Within each jurisdiction in the County (with the exception of Berkeley), a single hauler (either private or public sector) provides collection for this generator sector. Generally, the wastes contained in any one roll-off box are collected from a single generator, and are relatively heterogeneous in composition from sample to sample (see footnote 1). Truckloads will be selected at random for characterization by either visual or physical sorting as deemed appropriate.

E) Self-haul: A significant portion of the waste disposed in the County is delivered directly to disposal facilities by single family residents, multi-family residents, or commercial entities (e.g., contractors) other than franchise haulers. Generally, self-haul waste is delivered from a single generator, and is relatively heterogeneous in composition from sample to sample². Self-haul vehicles will be selected at random for characterization by either visual or physical sorting.

Note that in Table 1.2, the single-family, multi-family and commercial streams (A, B, and C) consists of material that is exclusively generated by a single sector. However, roll-off and self-haul waste (D and E) may include material from the single-family, multi-family or commercial sectors. More samples are necessary for these waste

¹ Heterogeneity is due to the fact that the waste generated at one type of commercial establishment (e.g., restaurants) is different compared to waste generated at another type of commercial establishment (e.g., an office building)

² Heterogeneity is due to variation in types of self-haul loads, which include: residential basement clean-outs; general contractor renovation debris, land clearing debris, and a wide variety of other waste.

types to obtain representative results. The fact that roll-off and self-haul waste may be generated by the single-family, multi-family, commercial or C&D sectors does not pose a problem when developing an aggregate waste composition for each jurisdiction.

To better understand the origin and divertability of roll-off and self-haul loads, additional information will be collected during the field study. This will be described in greater detail in Section 2. Table 1.3 compares the annual waste quantities produced throughout the County for each waste segment, based on waste flow data provided by StopWaste.

**Table 1.3
2006 Annual Total Waste Quantities by Generator Type (tons)**

	SF Res.	MF Res.	Commercial & Roll-Off	Self Haul	Total
Alameda	11,831	Comm	22,483	39,938	74,252
Albany	2,638	SF	4,000	2,551	9,189
Berkeley	17,888	SF/Comm	24,350	70,512	112,750
Castro Valley SD	13,998	SF	10,538	3,215	27,751
Dublin	8,791	SF	13,902	15,791	38,484
Emeryville	682	2,983	6,129	29,813	39,607
Fremont	38,849	16,989	36,643	99,368	191,849
Hayward	29,658	Comm	78,011	56,696	164,365
Livermore	18,168	Comm	9,809	87,124	115,101
Newark	7,895	SF	12,961	22,401	43,257
Oakland	79,097	SF	156,828	154,545	390,470
Oro Loma SD	27,524	Comm	34,741	5,886	68,151
Piedmont	3,207	SF	909	586	4,702
Pleasanton	21,157	Comm	14,452	78,464	114,073
San Leandro	11,565	SF	40,548	70,723	122,836
Union City	12,294	3,044	29,617	16,244	61,199
Total	305,242	23,016	495,921	791,422	1,578,036

*Based on the 2007 Program Assessment, Unincorporated Alameda County was not presented

1.2.3 Solid Waste Facilities

The County is comprised of a number of waste collection and disposal facilities. These can be divided into transfer stations, landfills, and alternative disposal facilities. Some of these facilities will be used for sampling and sorting throughout this Characterization Report. The facilities currently being utilized in Alameda County include:

- Transfer Stations:
 - Davis Street Transfer Station (DSTS) in San Leandro, Aladdin Avenue
 - Direct (ACI) Transfer Facility in San Leandro, Berkeley Transfer

Section 1

Station (BTS) in Berkeley, Fremont Recycling and Transfer Station (FRTS) in Fremont, Pleasanton Transfer Station (PTS) in Pleasanton

- Landfills:
 - Tri-Cities Recycling and Disposal Facility, Altamont Landfill (Altamont) near Livermore, Vasco Road Landfill (Vasco Road) near Livermore

- Processing Facilities:
 - Mixed Recyclables Processing
 - CCC in Berkeley
 - CWS MRF in Oakland
 - Davis Street Transfer Station
 - Fremont Transfer Station
 - Pleasanton Transfer Station
 - Smurfit Recycling

 - Building Materials
 - Urban Ore [building materials reuse] in Berkeley
 - Ohmega Salvage in Berkeley
 - ReStore in San Leandro
 - The ReUse People in San Leandro
 - Berkeley Architectural Salvage in Oakland
 - C&K Salvage in Oakland

 - C&D Materials Processing
 - Davis Street Transfer Station
 - Newby Island Landfill
 - Zanker Road Landfill
 - Zanker Road Materials Processing Facility

 - Mixed Organics
 - Z-Best in Gilroy

 - Mattresses
 - DR3 in San Leandro

Waste flow data was available from two sources: the 2006 Alameda County Waste Management Authority Landfill Tonnage Reports and the 2007 Program Assessment. Table 1.3, above, shows the annual tonnage of 2006 per generator type per jurisdiction based on the 2007 Program Assessment. Table 1.4 and Table 1.5, below, show the municipal solid waste (MSW) and other waste flows, respectively, at each facility throughout the County per jurisdiction based on the 2006 Alameda County WMA Landfill Tonnage Report. The facilities listed in Tables 1.4 and 1.5 will be the facilities used for the sample collection throughout the 2008 Study.

Table 1.4
2006 Annual MSW Quantities by In-County Solid Waste Facility (tons)

	Davis Street TS	Altamont Landfill	Vasco Road Landfill	Fremont TS	Berkeley TS	ACI TS	PTS	Total MSW
Alameda	25,093	32			143			25,268
Albany		1			626			627
Berkeley		36			65,742			65,778
Castro Valley SD	23,934	1						23,935
Dublin		27,921	1,349					29,270
Emeryville	11,427	1			223			11,651
Fremont		85	82	180,000				180,167
Hayward	133,978	386	354					134,718
Livermore		2,521	63,748					66,269
Newark		16	6	40,139				40,161
Oakland	262,526	45			11,983			274,554
Oro Loma SD	39,995	2						39,997
Piedmont					399			399
Pleasanton		335					98,590	98,925
San Leandro	17,502	47				41,062		58,611
Uninc. Alameda	25,093	2,841	2,731					30,665
Union City		135	222	47,068				47,425

Table 1.5
2006 Annual Other (C&D, Special, & Not Specified) Waste Quantities by Solid Waste Facility (tons)

	Davis Street TS	Altamont Landfill	Vasco Road Landfill	Total Other
Alameda	43,050	100	4,685	47,835
Albany	7,383	1	855	8,239
Berkeley	2,820	3,914	628	7,362
Castro Valley SD	3,747	43		3,790
Dublin	49	34	8,458	8,541
Emeryville	171	20,444	102	20,717
Fremont	713	249	5,660	6,622
Hayward	15,924	3,658	10,332	29,914
Livermore	32	8,862	37,691	46,585
Newark	71	2,530	141	2,742
Oakland	49,978	309	12,489	62,776
Oro Loma SD	2,044	63		2,107
Piedmont	248		184	432
Pleasanton	166	361	13,658	14,185
San Leandro	33,293	554	17,197	51,044
Uninc. Alameda		1,511	4,887	6,398
Union City	703	7,511	456	8,670

Table 1.6 compares the total tonnage of waste generated in 2006 for each jurisdiction from both sources of data.

Table 1.6
2006 Total Tonnage Disposal per Jurisdiction

	Total from Audit	Total From Landfill Report	% Diff
Alameda	74,252	73,103	2%
Albany	9,189	8,866	4%
Berkeley	112,750	73,140	35%
Castro Valley SD	27,751	27,725	0%
Dublin	38,484	37,811	2%
Emeryville	39,607	32,368	18%
Fremont	191,849	186,789	3%
Hayward	164,365	164,632	0%
Livermore	115,101	112,854	2%
Newark	43,257	42,903	1%
Oakland	390,470	337,330	14%
Oro Loma SD	68,151	42,104	38%
Piedmont	4,702	831	82%
Pleasanton	114,073	113,110	1%
San Leandro	122,836	109,655	11%
Uninc. Alameda	-	37,063	N/A
Union City	61,199	56,095	8%
Total	1,578,036	1,456,379	8%

Piedmont wastes are currently collected by Republic and are disposed of in Contra Costa County at Richmond, which explains the large discrepancy in the total waste from In-County disposal facilities. Other discrepancies could be attributed to how each source calculates or tracks self-hauled waste material.

1.3 Sampling Plan Summary

To maximize comparability of the data from the two Studies, the sampling plan for the 2008 Study is closely based on that used for the 2000 Study. In 2000, a total of 1,030 physically sorted (i.e., sorted by hand) samples and 1,045 visually surveyed samples were taken across four seasons. The 2008 Study will target 1,100 physical samples primarily from single-family residential, multi-family residential, and commercial sectors. In order to better characterize roll-off and self-haul waste within the County, an increased number of visual samples will be collected over each of the four seasons.

The 2008 Study will have an aggressive visual sorting technique in addition to the physical sorting to obtain statistically defensible and representative characterization data for the County and each member jurisdiction, including qualitative data on sampled loads as described above, and to characterize the potential to divert from disposal materials in sampled loads. Although they will yield additional information compared to traditional studies, the technical sampling and sorting methods used are

considered the industry standard and are in accordance with those provided by CIWMB in the Uniform Waste Characterization Study Methodology.

Physical samples will be collected and sorted from loads that are well-mixed in order to achieve accurate characterization. Generator types that will generally require physical sampling are residential waste (single and multi-family) and commercial waste typically collected by franchised haulers in automatically-loaded vehicles. Physical sampling is usually appropriate for these generator types because many different waste materials are well-mixed within each load making it difficult to accurately estimate the sample composition by visual inspection.

Single and multi-family generator types are often described as low variability waste streams because the composition is not visually distinct from load to load. Alternatively, commercial waste has high variability because the waste composition of various commercial facilities is very irregular. For example, a collection route of primarily office buildings will have a much different composition than another collection route of restaurants or retailers.

In the 2008 Study, the number of samples targeted for collection from each of these generator types is consistent for each jurisdiction, with the exception of jurisdictions with quantity limitations. We expect that a small number of roll-off and self-haul loads will require physical sorting due to variability within the load.

Also as part of the 2008 Study, R.W. Beck will assist Stopwaste.org in conducting supplemental side sorts designed to provide more detailed analysis of certain waste categories. Upon request, R.W. Beck will set-aside portions of selected samples. R.W. Beck anticipates that supplemental sorting will be conducted on all or a portion of waste paper, plastics and hazardous wastes, and that the number of samples selected will be sufficient to provide statistically representative results for the County as a whole, not on a jurisdiction-specific basis. Stopwaste.org will be responsible for all aspects of completing the side sorts, including: developing the sampling plan; determining the number and type of samples to be set-aside, re-sorting the samples into categories that are different than the standardized categories being used by R.W. Beck, analyzing and presenting data on these supplemental sorts. R.W. Beck's responsibility in relation to the side sorts is limited to setting aside portions of samples identified by Stopwaste.org; and additional support for these activities is subject to additional budget allocation.

Section 3 describes physical sampling and sorting methods in more detail.

A majority of the waste received by roll-off containers and self-haul vehicles will be more appropriate for visual characterization since the materials within each load are typically very homogeneous. The visual characterization methodology is described in further detail in Section 2. Since visual characterization is less timely than physical sampling/sorting, a relatively high number of visual samples will be targeted from the roll-off and self-haul sectors, and R. W. Beck will complete a hauler interview to obtain additional qualitative information for each sample. Because these waste streams generally vary greatly from load to load, the larger number of samples will provide more representative results.

The sample distribution is further described in Section 1.5.

1.4 Schedule of Field Work

In 2000, field study was performed across four seasonal sorting events, and at all six disposal facilities located in the County. A four-season effort will be retained in the 2008 study. Table 1.7 presents the proposed sampling schedule and tentative number of days for field work at each solid waste facility.

In order to maintain sorting efficiency and reduce the impacts of sorting activities on multiple facilities, R. W. Beck intends to complete all sorting activities at the Fremont Transfer Station and Davis Street Transfer Station. The Field Supervisor and Hauler Liaison will visit the other facilities listed to perform physical and visual sampling for those jurisdictions delivering waste there. At the end of the day, the physical samples will be transported back to one of the two sorting locations for sorting on the following day.

Table 1.7
Tentative Field Sampling Schedule, by Season

Facility	Spring Season (Feb 2008)	Summer Season (June 2008)	Fall Season (Sept 2008)	Winter Season (Dec 2009)
Berkeley Transfer Station	2 days	2 days	2 days	2 days
Pleasanton Transfer Station	2 days	2 days	2 days	2 days
Altamont Landfill	2 days	2 days	2 days	2 days
Vasco Road Landfill	2 days	2 days	2 days	2 days
West CC Landfill, Richmond	1 day	1 day	1 day	1 day
ACI Transfer Station	1 day	1 day	1 day	1 day
Fremont Transfer Station	3 days	3 days	3 days	3 days
Davis St. Transfer Station	6 days	6 days	6 days	6 days
Total Days of Sorting	19 days	19 days	19 days	19 days

1.5 Distribution of Samples

As previously mentioned, characterization data will be collected utilizing both physical and visual sampling techniques in the 2008 Study. A majority of physical samples will be targeted from residential and commercial waste streams collected by private or public haulers while a majority of the roll-off container and self-haul waste will be more appropriate for visual characterization.

The number of physical samples being sorted in this study is similar to the number sampled in 2000. Collection and sorting of 15-20 samples is typically acceptable for achieving representative characterization of residential waste for a given jurisdiction. Table 1.8 provides a comparison of the number of physical samples collected in the 2000 Study against the targeted number of samples in the 2008 Study. The 2008 Study will target 20 single-family, 12 multi-family residential, and 35 commercial waste samples from each jurisdiction, except for jurisdictions that produce significantly smaller waste flows. The smaller number of multi-family residential samples is acceptable because of the lower variability and low waste flows representing each

jurisdiction. More commercial samples are required because the variation of waste materials from load to load is typically greater.

Table 1.8
Average Number of Physical Samples Per Jurisdiction

	2000 Study	2008 Study
Single-family Residential	15	19
Multi-family Residential	7	12
Commercial	28	33

Due to the extremely high variability of waste within roll-off containers and self-haul vehicles, a higher number of samples are necessary to obtain representative results. Approximately 1,200 samples are targeted in the 2008 Study for visual characterization of roll-off containers and self-haul vehicles, compared to 1,045 samples in the 2000 Study. In order to estimate the targeted number of visual samples to be collected for each jurisdiction, we will use direct correlation between the actual waste flows of each jurisdiction. Table 1.9 presents a comparison of the number of visual samples completed in 2000 against the 2008 Study target. The number of visual samples to be collected in the 2008 represents roughly 1 sample per 250 tons of waste collected in 2006, with a minimum of 5 samples per jurisdiction per generator type. The 2000 Study did not appear to correlate the number of visual samples with the waste flows as some of the jurisdictions appeared to have representative data for these segments while others did not.

Table 1.9
Number of Visual Samples Per Jurisdiction

	2000 Study	2008 Study
Alameda	17	61
Albany	9	10
Berkeley	104	94
Castro Valley SD	16	15
Dublin	31	28
Emeryville	14	35
Fremont	169	131
Hayward	92	125
Livermore	71	91
Newark	41	34
Oakland	263	290
Oro Loma SD	4	39
Piedmont	11	10
Pleasanton	65	89
San Leandro	67	110
Uninc. Alameda	29	10
Union City	42	45
Total	1045	1217

Table 1.10 shows the proposed distribution of samples to be sorted both physically and visually. The actual number of samples will be based on incoming waste flows throughout the sampling event and can be adjusted accordingly throughout the study as necessary. Some jurisdictions have a smaller number of samples planned for the 2008 Study because they had less waste roll-off or self-haul material disposed of according to landfill reports.

**Table 1.10
Planned Sample Distribution**

	Physical Samples			Visual Samples		Solid Waste Facility
	SF Res.	MF Res.	Commercial	Roll-off	Self-Haul	
Alameda	20	12	35	22	39	Davis Street TS
Albany	18	12	20	5	5	Davis Street TS
Berkeley	20	12	35	24	70	Berkeley TS
Castro Valley SD	20	12	35	10	5	Davis Street TS
Dublin	20	12	35	13	15	Altamont LF
Emeryville	15	12	35	6	29	Davis Street TS
Fremont	20	12	35	36	95	Fremont TS
Hayward	20	12	35	75	50	Davis Street TS
Livermore	20	12	35	9	82	Vasco Road LF
Newark	20	12	35	12	22	Fremont TS
Oakland	20	12	35	145	145	Davis Street TS
Oro Loma SD	20	12	35	34	5	Davis Street TS
Piedmont	18	12	20	5	5	West Coast TS
Pleasanton	20	12	35	14	75	Pleasanton TS
San Leandro	20	12	35	40	70	ACI TS
Uninc. Alameda	20	12	35	5	5	Davis Street TS
Union City	20	12	35	29	16	Freemont TS
Total	331	204	565	484	733	

1.6 Health and Safety Measures for Sampling

R.W. Beck, Inc. believes that the health and safety of its employees is of paramount importance. The issue of health and safety is particularly important in conducting solid waste composition field sorting. To address this issue, a Health and Safety Plan (“HASP”) has been developed to provide guidelines to Project Managers, Field Supervisors, Sort Managers, and other field workers involved in R.W. Beck’s waste characterization studies. Our HASP is attached as Appendix A.

Industry experience has shown that sampling and sorting of municipal solid waste poses the potential for worker exposure to blood borne pathogens in the waste, and is therefore subject to the OSHA blood borne pathogens standard in 29 CFR 1910.1030. This standard requires employers to inform employees of the risk of exposure to blood borne pathogens, to take reasonable measures to reduce the risk of worker exposure, and to offer exposed employees a vaccination against hepatitis-B. This and other precautionary measures are covered in Beck's Health and Safety Plan and can be modified to conform to any additional California requirements.

1.7 Data Quality Control

During the sampling and sorting processes, our Field Supervisor and data collection staff will take several steps to ensure accuracy, including:

- The Field Supervisor will record the source of samples, type of vehicle delivering load, type of load, and other related data on the Sample Management Form (see Appendix B).
- Accompanying and observing the host facility equipment operator that obtains samples to verify the source and appropriate means of obtaining the sample.
- Checking to ensure the sample meets the minimum weight criterion at the moment when the sample is extracted from the selected load.
- Training each member of the waste sort team in the definitions of each material component, and referring to the written definitions as often as needed during sorting and characterization.
- Only the R.W. Beck's professional staff will record data.
- The Field Supervisor will review the Sample Management Forms, the Physical Sorting Forms (see Appendix C), and the Visual Characterization Forms (see Appendix D) at the end of each day. Any omissions or errors will be corrected by the responsible professional before they are sent to the Data Management Team.
- Each sample will be weighed (1) when it is acquired (recorded on the Sample Management Form), (2) just before sorting, and (3) the aggregate weight of the components after sorting (recorded on the Physical Sorting Form).
- The Sort Manager will periodically make spot checks of material containers during sorting to assure that the sorting protocol is being followed (i.e. Is there OCC in the ONP container?)
- The sorting table and the area around the sorting table will be swept clean between each sample to avoid the mixing of materials from different samples.
- Scales will be checked each day to be sure that they are recording weights accurately.
- Tare weight of 10 randomly-selected containers will be taken periodically and an average of the 10 containers used as the "official" tare weight.

Section 1

As part of the computer entry and analysis of data, R. W. Beck will take the following steps to ensure the integrity of the process:

- Verify that data forms were obtained for each day the field staff was sampling at a host facility. This applies to forms from waste sampling, sorting, and visual characterization.
- Have our sorting crew Field Supervisor keep copies of all forms while the originals are being shipped by courier to Beck's data analysis team.
- Designate the data entry databases to prevent out-of-range values for sample characteristics such as gross weight, net weight, etc.
- Random and systematic checks of the computer-entered data against the paper form, to verify that all numbers are being entered and to look for any systematic or random mistakes.

Section 2

VISUAL CHARACTERIZATION PROTOCOL

2.1 Introduction

Visual estimation is the preferred method for characterizing solid waste that is relatively homogeneous in composition, or that contains predominantly large, bulky items. In 1995, visual estimates were primarily used to characterize the roll-off and self-haul solid waste streams (although some physical samples were taken from these loads). In 2000, roll-off and self-haul samples were again estimated predominantly using a visual protocol. In both the 1995 and 2000 Studies, visual composition estimates were weight-based (as opposed to volume-based). For the 2008 study, the field team will gather volume-based data in the field, and then convert to weight during data analysis, using volume-to-weight conversion factors.

Also, the 1995 and 2000 Studies designated an additional category of “Household Waste” for all visual samples. Since a few bags of residential solid waste are frequently encountered in otherwise homogenous self-haul and roll-off loads, one additional solid waste material category of "household waste" was included when performing visual surveys. During data analysis, the “household waste” percentage of each visual sample was apportioned across all other material categories (using an average composition of household waste derived from other data collected in the study).

Our visual observation team will consist of the following staff positions:

- **Hauler Liaison:** The Hauler Liaison will be responsible for interviewing haulers to determine the source and type of waste material, along with other information on sampled loads, and performing/recording the visual characterizations/field observations of each load sampled
- **Field Observer(s):** The Field Observer will primarily be responsible for calibrating visual characterization methods with the Hauler Liaison in the beginning of each sorting event and periodically completing Quality Assurance checks of the visual apportionments of waste material.

Based on conducting observations of 1,200 loads in 80 sorting days, on average approximately 15 loads will need to be selected each day at each facility.

When a truckload that has been selected for observation arrives at the facility, the hauler liaison will record the basic data for the truck, including (but not limited to) the hauler’s name, origin of the load, type of material in the load, and size of the load. The hauler liaison will also interview the driver. Finally, the hauler liaison will direct the driver to unload their materials at the designated location, and mark the load so that it is not contaminated with materials from other loads.

After the visual observations of each load have been completed, the Hauler Liaison will notify the loader operator that that material is no longer needed, and the space will be cleared to make room for another sample. The Field Observer will assist the Hauler Liaison with initial visual characterization methods/apportionments and will provide periodic independent opinions of apportionment to be reconciled immediately so as to remain consistent throughout the Study.

Where the logistics of each facility allow, the field team will determine the actual weight of sampled roll-off and self-haul loads. For loads that are weighed by the facility, the Hauler Liaison will provide a card to driver to give to the scale attendant upon weighing out. The scale attendant will flag that vehicle and provide the gross and tare weights of all samples at the end of the day. It is common that self-haul vehicles are not weighed at the facility, but rather charged a set fee per load. Periodically, the Hauler Liaison will ask the scale attendant to weigh a self-haul load to obtain the gross weight and have that vehicle weigh out to get the tare. This process will be completed for approximately 10% of the self-haul loads and will provide a check for the load weight calculation completed for all visual samples.

2.2 Visual Characterization Methodology

R. W. Beck proposes the following visual characterization methods for each sample designated for evaluation:

1. Estimate total volume of load: The first step in the observation process is to estimate the total volume of each load. This is accomplished using a tape measure to record the three basic dimensions: length, width and height of the cargo area of the incoming truck, and estimating the percentage fullness of the load. All measurements will be recorded on the Visual Characterization Data Form.
2. Identify and record material categories in load: Walk entirely around the load in one direction and place a check on the Visual Characterization Data Form by each of the material categories appearing in the load. Walk around the load in the opposite direction and confirm the materials present. Take a representative photograph of each sampled load.
3. Estimate composition by volume of load: Beginning with the largest material category by volume, estimate the volumetric percentage of this material to the nearest 5% and record it on the Visual Characterization Form. Repeat this process (for the next most common material) until the percentage of each material that represents at least 5% of the load has been estimated.
4. During the first day of sampling event, and periodically throughout, the Field Observer will be used to independently duplicate the process, and the results of

the two observers will be compared. The two observers will reconcile any differences in their observations, and a single data sheet will be produced for those visual observations. Observed differences will be discussed and the sampling procedures modified to produce consistent results.

5. Review the estimated volume of each component material in relation to each other material type (so if wood is 15%, is there more or less drywall).
6. Calculate the subtotal of all materials from Step 3.
7. Record the volumetric percentage of the remaining material: All remaining material should be classified as “remainder/miscellaneous.”
8. Check and reconcile percentage data: Make sure the subtotals from steps 6 and 7 add up to 100%. If they do not, adjust proportionally so that the total equals 100%.
9. At the data analysis stage, for each sample, the recorded volume of each material is multiplied by a volume-to-weight conversion factor. The calculated weights of the materials are used as composition data.
10. Reconcile the total estimated weight against the actual weight of the load as weighed at the scale house.
11. Continue refining weight-based estimates on subsequent loads.

2.3 Divertability Analysis

To provide information on the divertability of materials in the loads for which visual characterization is performed, the Hauler Liaison will complete the Divertability Analysis component of the Visual Characterization Form (See Appendix D). During the data analysis phase after sorting is complete, these data will be used in conjunction with the Hauler Survey Form to provide additional information for evaluation of current programs and potentially useful future modifications.

For each category of material identified in the visual characterization above, the following steps will be performed to evaluate divertability. The analyst will begin with the most prominent material categories and, as time permits, move on to the material categories found in lesser amounts:

12. Estimate the percentage of the whole category that is reusable and the percentage of the whole category that is recyclable (but not reusable).

13. For each entry in the reuse and recycling column (time permitting), identify the key product forms by either writing in the name of the observed standardized product forms or the associated letters (see Standard Product Forms sheet in Appendix D). Begin with the largest observed percentages of reusable (product form 1) and recyclable (product form 2) categories. As time permits, then move on to the smaller observed reusable and recyclable percentages. The intent is to capture as many examples of observed reusable and recyclable product forms as possible, given time constraints for visual sorting.
14. For material categories that are not reusable or recyclable due to observed barriers, enter the letter code(s) in the barrier column that best describe the reason why the observed material is not divertable. Beginning with the most prominent non-recyclable categories (time permitting), identify key product forms of the non-recyclable component in the product form 2 column. The intent is to capture information on the divertability of these materials *as-is*, in the form that they appear when delivered to the disposal facility.

The overall intent of the divertability analysis is to document minimum percentages of observed materials that appear to be reusable or recyclable, as they are delivered to the facility, to identify key observed barriers to recyclability and to identify key specific reusable and recyclable product forms observed. The sampling plan calls for completing an average of 15 visual sorts each day, and this will limit the time available for conducting the divertability analysis. Consequently, it is not expected that the divertability analysis will comprehensively be applied to every observed material category in each sampled load that is visually sorted. When time limits constrain observations, the priority will be to first document the largest fractions deemed to be reusable or recyclable.

2.4 Hauler Interview

To provide background data on each of the loads on which visual characterization is performed, the Hauler Liaison will conduct interviews with the driver who delivered the load for observation. A copy of the hauler interview form can be found in Appendix E.

The hauler interviews will include a question as to whether the driver had considered taking any of the materials to a recycling facility instead of the disposal site; what they perceived the barriers to recycling their load were, and whether some additional incentives might have gotten them to recycle the load, or separate some of the materials out for reuse or recycling.

Section 3

PHYSICAL SAMPLING METHODOLOGY

3.1 Introduction

This section will describe the detailed process for collection and sorting of physical samples during field activities.

The physical sampling process will include all of the following three tasks:

- Taking representative samples of waste material for each jurisdiction and for each generator type;
- Physically sorting each sample into the target material categories; and
- Recording the weight (physical) of sorted materials.

Our field data collection project team will consist of the following staff positions:

- **Field Supervisor:** The Field Supervisor will be primarily responsible for all phases of the field data collection, including scheduling requirements, coordinating with host facility management leading up to and during the sort, taking all physical samples and recording pertinent data by sample, and adhering to proper health and safety requirements during field data collection.
- **Sort Manager:** The Sort Manager will be responsible for overseeing and managing the physical sorting work area, including coordination with the Field Supervisor, management of data collection forms and protocols, managing the sorting team, proper sorting techniques, and recording of sort data.
- **Sorting Team:** The sorting team will be made up of temporary laborers hired by and under the supervision of R. W. Beck staff. The Sorting Team will travel with the Field Supervisor and Sort Manager to each solid waste facility where physical sorting is to occur. This configuration will assure consistency in the sorting process, eliminate re-training requirements, and maintain high efficiency as the field data collection moves from facility to facility.

The Field Supervisor will be responsible for overseeing the collection of each sample. For each sample, the jurisdiction and generator type will be recorded, as well as the date and time of day the material was sampled. The Field Supervisor will take digital photographs to document the physical sampling process throughout the 2008 Study.

3.2 Sample Sizes

Physical sorting is the preferred method of characterizing solid waste that contains a wide variety of material categories, typically of small particle size. In both the 1995

and 2000 Studies, physical samples were used exclusively to characterize the single-family, multi-family and commercial solid waste delivered by franchise haulers. Consistent with the 2000 Study, the 2008 Study will target roughly 200-pound samples of waste from incoming vehicles to be physically sorted into the material categories defined above. The industry-standard sample size for characterization of municipal solid waste is approximately 200 pounds. The R. W. Beck Field Supervisor will select the loads for which physical samples will be collected and will ask for assistance from the designated waste facility equipment operator to collect the sample using a bucket loader or other appropriate equipment. This sampling method constitutes industry “Best Practices” for performing waste composition studies.

A total of 1,100 samples will be collected for physical sorting from the seven solid waste facilities over four seasons, starting in February 2008. For each member jurisdiction, the proposed minimum number of samples required to develop meaningful, statistically defensible estimates of the composition of the specific waste stream is provided in Table 1.8, which shows the estimated number of both physical and visual samples to be collected in during this 2008 Study.

3.3 Sampling Methodology

To ensure efficient and successful sampling, the Field Supervisor will have an idea of the number and origin of samples to be collected on any given day. At each facility, the Field Supervisor will coordinate with the designated operations staff for sample collection. Physical samples of a minimum 200 pounds each will be collected from randomly selected truckloads entering each solid waste facility (“Nth Truck approach”). When a truckload arrives at the facility that has been selected for sampling, the Field Supervisor will record basic data for the truck (i.e. route and truck number, hauler name, truck type, etc.) on a Sample Management Form, completed for each physical sample collected. Any notable field observations potentially impacting the results or findings will also be documented.

Each sample will have a unique identification number, based on the jurisdiction and applicable waste stream. For example, the Sample ID for the first sample of Berkeley commercial waste will be B-C-1. Data provided on the Field Sample Forms will be included with sort data for that sample.

Samples will be selected at random for physical sorting to ensure unbiased and representative results. The Field Supervisor will decide the portion of the waste pile for sampling by using a list of random numbers from 1 to 6. Each number represents a portion of any given pile. The Field Supervisor will verify the sample material is appropriate for physical sampling and request assistance from the designated waste facility equipment operator to collect the sample using a bucket loader or other appropriate equipment. The equipment operator will collect a “grab” sample by approaching the selected portion of the waste pile and taking a floor-level grab of the material. The sample will be placed into labeled containers for preliminary weighing. Any bulky items included within the sample that do not fit into the sample container will be recorded separately and included into the final data records. The collected

sample material will be transferred to the designated sorting area for sorting. This sampling method constitutes industry “Best Practices” for performing waste composition studies.

3.4 Sorting Methodology

The sorting methodologies to be used for the 2008 Study will be similar to those of the 2000 Study. On the first day of sorting at each host facility, our team will record tare weights for each of the containers used in the sort. Tare weights must be subtracted from the gross container weights to obtain accurate net material weight data.

For each solid waste facility hosting sorting activities, we will work with the facility representatives to secure an adequately sized and safe location for sorting activities. Depending on the facility and the space available for this Study, either 1 or 2 four-person Sort Teams will be utilized to complete sample sorting. The Sort Manager will direct the Sort Team which sample is to be sorted and the waste material within the sample will be placed on the sorting table. Under constant supervision of the Sort Manager, the Sort Team will physically sort the sample material over 2-inch particle size into designated containers for each material category. The Sort Manager will train the Sort Team in the material category definitions used for this Study.

After material from a given sample has been sorted into the appropriate bin, our team will systematically record the gross weights of containers on an individual data collection sheet. Our team will use a digital scale with a 200-pound capacity (registering down to 0.1 pound) to weigh all sorting baskets/containers. The Sort Manager will be responsible for recording the weights. Bulky items too large to fit into a labeled container will be weighed out separately and recorded as net weights. Especially large items will be noted on the data collection sheet.

To the extent a layer of “fines” remain on the sort table, the fines will be apportioned based on the Sort Manager’s judgement as to the proper visual allocation. Similar to the 2000 Study, we do not intend to use a screen for sorting waste material greater than 2 inches.

The team will provide tables, containers, scales, signs/labels, data forms, hand tools, tarps and other ground cover, protective clothing and other safety-related equipment required to complete the work at each solid waste facility.

Weighed material will be deposited in an adjacent area or in a container designated and provided by the facility for disposal.

4.1 Database Development and Data Entry

Over 2,000 samples of waste will be physically sorted or visually characterized for this study. For each physical sample collected, there will be a Sampling Form and a Sorting Data Form. For each visual characterization performed, there will be a Hauler Questionnaire and a Visual Characterization Data Form.

Results will be submitted to the Data Analysis Team for entry into a single database for statistical analysis and aggregation. For the purposes of comparison with 2000 Study data, the 2008 Study results will be presented in a final report as described below:

- **Jurisdiction-level, waste stream-specific results:** Separately calculate the mean composition, standard deviation, confidence intervals, and measures of sampling error for each waste stream in each of the 17 jurisdictions. There will be a total of 85 results sets calculated in this step (5 generating sectors x 17 jurisdictions).
- **Aggregate results by jurisdiction:** Aggregate the results from each waste stream based on a weighted average of disposed tons within each municipality. This step yielded another 17 results sets (one in each of the 17 jurisdictions).
- **Countywide results by waste stream:** For each of the five identified waste streams, aggregated Countywide total results will be calculated based on the tons disposed in each jurisdiction. This step will yield the Countywide composition estimates for each of the five waste streams.
- **Countywide roll-off container results by generator type:** Calculate separate Countywide compositions for waste received within roll-off containers for each generator type, including Construction and Demolition.
- **Countywide self-haul vehicle results by generator type:** Calculate separate Countywide compositions for waste received within self-haul vehicles for each generator type, including Construction and Demolition.
- **Aggregate Countywide results:** This step involves aggregating the five Countywide results by into the Countywide aggregate composition.

Additionally, the database will be constructed to allow Stopwaste.org staff to run queries based on all data gathered on each load.

4.2 Statistical Analysis

Similar to previous studies, the statistical analysis to be performed for each set of results presented in the draft report are described below:

Sample Mean – The sample mean composition is the average composition of each material category (or material group) for the samples included in a given results set. Because it is conceptually easy to understand, the sample mean values are often cited as a definitive estimate of the actual mean (i.e., the mean of the entire population). The sample mean was calculated in the same way in both the 2000 Study and the 1995 Study.

Standard Deviation – The standard deviation measures the level of dispersion of the underlying data around the sample mean. Higher standard deviation indicates the individual data points are more widely variant (i.e., spread across a wider range) compared to lower standard deviation.

Confidence intervals – The lower and upper confidence intervals indicate the likelihood that the population mean (i.e., the composition of the entire waste stream) falls close to the sample mean (i.e., the samples analyzed in the study). The lower and upper bound will be calculated at a 90 percent level of confidence, per industry standard. This means we can be 90 percent confident that the fraction of this material category in the overall population falls between the lower and upper bound calculated.

4.3 Comparison of Previous Study Results and Evaluation of Diversion Programs

Data collected for the 2008 Study will be compared to the previous studies (1990 Study, 1995 Study, and 2000 Study) conducted to facilitate identification of any changes in waste composition, flow, disposal methods, and generator types. It is expected that the comparison analysis will be presented in bar chart format to include major material category results for Countywide aggregated results, Countywide aggregated waste stream-specific results, and any jurisdiction that has identified a solid waste management program change since 2008. Statistically significant trends or noticeable discrepancies will be independently called out and discussed within the draft report.

R. W. Beck will also identify and describe the potential impact of special circumstances that may affect waste generation amounts and types throughout the 2008 Study. Examples of this include drought, recession, employee strike, collection contract renegotiations, garbage disposal availability, and significant demographic changes.

4.4 Error Analysis

Consistent with that of previous studies, potential sources of error within characterization profiles will be identified and explained. The Sampling Error will be

calculated for each material category within a given composition profile to provide additional statistical information on the reliability of the data. Any potential improvements for future studies or additional recommended follow-up work will be presented and summarized.

4.5 Database Training

After the database is created and report has been finalized, there will be a one-day database training provided by the model developer to teach designated County officials how to use the database model. This will allow the County to run specific queries and continually adjust or modify the database for the purpose of predicting or reviewing the outcome of future or recently implemented waste management programs.

Appendix A

Health and Safety Plan

R.W. BECK, Inc. Health and Safety Plan for Waste Composition Field Sorting

Date modified: January 16, 2007

Introduction

Corporate Safety Policy

R.W. Beck, Inc. believes that the health and safety of its employees is of paramount importance. The issue of health and safety is particularly important in conducting solid waste composition field sorting. The terms “waste sort,” “waste composition study,” “waste characterization study,” and the like may be used interchangeably, and all relate to any project that requires the manual handling of municipal solid waste (“MSW”) and subsequent sorting and weighing MSW to determine the percentage of different components in the MSW stream.

To address this issue, the following Health and Safety Plan (“HASP”) has been developed to provide guidelines to Project Managers, Field Supervisors, Sort Managers, and other field workers (“Field Personnel”) involved in R.W. Beck’s waste characterization studies. This Plan has also been prepared for distribution to third parties, such as R. W. Beck’s clients who are commissioning the waste composition study, solid waste management facility managers who may be hosting a waste composition study, and subconsultants retained by the firm to assist with the performance of any of the on-site activities of a waste composition study.

Objectives of the Plan

R.W. Beck’s HASP for Waste Characterization Field Sorting has the following four objectives:

- To align R. W. Beck’s health and safety efforts with policies and procedures that are already in place at the solid waste management facilities that host waste composition studies,
- To describe the roles and responsibilities of professional staff regarding health and safety,
- To describe the personal and site safety equipment that must be provided at all waste sorting sites,
- To provide field personnel with a description of the safety procedures to be followed in waste sorting,
- To describe the training and monitoring that R. W. Beck field personnel, subconsultants, and temporary workers must undergo before engaging in waste sorting activities.

Host Facility Health and Safety Coordination

Facilities at which R.W. Beck will sort waste may be owned and operated by third parties that have their own health and safety plans and procedures. It is important that, as guests at the facility, R.W. Beck's workers understand and adhere to the facility's health and safety plan. Adherence to the facility plan may include:

- Confining our waste sorting activities to the areas designated by the facility's owner/operator
- Wearing safety equipment required by the facility's owner/operator, and
- Understanding emergency plans and procedures.

It is important that the Field Supervisor or Project Manager work closely with the facility's owner/operator to integrate operations, including training staff regarding health and safety planning. Specific hold harmless or indemnification requirements by the Host Facility should be reviewed in accordance with the firm's Authorization Policy.

Staff Roles and Responsibilities

Every waste characterization study is unique in some way. Differences in the scope of work, size of the project, and sorting sites, for example, will require different configurations of staffing. However, for the purposes of this Health and Safety Plan, the responsibilities of four types of professionals are described here: (1) Safety Manager, (2) Project Manager, (3) Field Supervisor, and (4) Sort Manager. Some of these roles may overlap in practice. Their roles and responsibilities in the safety effort are described below.

Safety Manager

The Safety Manager is an R. W. Beck employee who is responsible for overseeing the health and safety policies and practices for all waste characterization projects across the firm. This responsibility includes seeing that the HASP is up-to-date, that an appropriate level of safety training for professional staff and temporary workers is maintained, that the most appropriate safety equipment is available to sorting crews, and that issues relating to the health and safety on waste characterization projects have been addressed. The Safety Manager is also responsible for communicating significant HASP changes or updates, newly acquired waste composition-related projects, and any health or safety-related events that occur while performing a waste composition study to R. W. Beck's Risk Management Department so that the firm can comprehensively and accurately monitor the success of the Plan.

Project Manager

The Project Manager of a waste characterization study has overall responsibility for the safety and health of all members of his Project Team. Although he/she will delegate some of these responsibilities to the Field Supervisor and Sort Manager(s), the Project Manager remains the primary responsible party. The Project Manager must be an R. W. Beck employee.

The Project Manager is responsible for developing a project budget, schedule, and scope of work that provides the time and funds for conducting a safe waste sort. Proper safety equipment must be obtained and issued to workers, and the training of the professional staff and temporary workers must take place before any actual sorting begins. This training is discussed in more detail below. The Project Manager must instill in his/her Project Team an attitude of prudence and care in carrying out the sort.

The Project Manager is also responsible for coordinating with host facility management regarding risk management issues such as waivers, indemnification, and/or adding the host facility as an additional insured to Beck's insurance policy(s), if required.

The Project Manager is not required to participate in any phases of the on-site waste sorting. However, when less experienced Field Supervisors or Sort Managers may be involved, the Project Manager should use professional judgment in deciding whether to observe and/or participate on the initial day of field sorting to assure that health and safety practices are being followed, and to communicate to the client, host facility manager, or other parties in the event of any problems. The Project Manager is also responsible for performing periodic observations, as appropriate, to assure that HASP standards are met.

Field Supervisor

The Field Supervisor is generally the most experienced and knowledgeable member of the field sorting team. The Field Supervisor will be the primary contact with the sorting site owner/operator, coordinating sorting activities with other site activities, and supporting any incidents that may occur.

The Field Supervisor has overall responsibility for the sorting site, including the designation of the area where the sorting will take place. In addition to securing the sorting site (i.e. identifying and marking the boundaries of the sorting site), the Field Supervisor should ensure that the sort workers are protected from other equipment and activities on the site. Typically, the Field Supervisor will oversee the selection, delivery, and queuing of samples. The Field Supervisor has the authority to reject any samples and/or immediately terminate any staff who have not following appropriate health and safety practices.

Sort Manager

The Sort Manager is the individual most directly responsible for the health and safety of the individuals sorting waste. The Sort Manager does not have to be an R. W. Beck employee. He/She should take a leading role in pre-sort training, be sure that sorting workers have proper personal protective equipment, and that safe sorting procedures are followed throughout the project. As the supervisor working most closely with sorters, the Sort Manager must be alert to unsafe practices (e.g. shoving a hand into the middle of a pile of waste) and warn workers about these practices when they occur. The Sort Manager may be the first person to see an accident and must take appropriate action immediately. The Sort Manager has the authority to immediately terminate sort employees not following appropriate health and safety practices.

Sorter

Sort laborers for waste composition studies may be acquired from multiple organizations, including temporary staffing companies, subconsultants, college or high school internship programs, prison labor programs, professional solid waste trade association membership, and volunteers from numerous other sources (including the client organization and from within R. W. Beck during waste sort training). Regardless of the labor source, sorters are responsible for observing the training provided at the outset of a sort, adhering to the proper health and safety practices throughout the sort, wearing the appropriate personal protective equipment while engaged in sorting, and following the directions provided by the Sort Manager and Field Supervisor at all times. Any sorter not following directions may be terminated immediately without cause.

All MSW site employees, regardless of their level of authority, have the responsibility to report unsafe conditions immediately to their supervisor or to the clients on-site representative.

Safety Equipment

Personal Protection Equipment (“PPE”)

The selection of Personal Protective Equipment is based upon a thorough analysis of anticipated and actual hazards on the MSW site.

PPE is broken down into two classes: (1) PPE that must be worn at all times during any sorting of MSW, and (2) PPE that may be required in addition to the required PPE, depending on local host facility requirements and/or work conditions.

The following safety equipment may be provided for each member of the sorting crew (both professional staff and temporary workers), depending on the host facility requirements and comfort.

- Protective coveralls
- Protective eyewear
- Ear plugs
- Dust mask
- Hard hat
- Reflective vest
- Puncture-resistant gloves, and
- Back-support belts

We require all workers to wear a sturdy work boot, although we do not supply these. A more detailed description of the personal safety equipment is presented in Attachment A. At a minimum, the following equipment must be worn at all times by all members of the sorting crew.

- Protective coveralls
- Protective eyewear
- Puncture-resistant gloves
- Boots

Other PPE may be required depending on the policy of the facility operator or the judgment of the Sort Manager and/or Field Supervisor.

Site Safety Equipment

In addition to the personal safety equipment provided to each worker, each sorting site will have the following equipment,

- A Industrial First Aid Kit;
- An Eye-Wash kit or five eye wash bottles per crew person;
- Moist towelettes;
- Traffic cones;
- Yellow caution tape;
- A fire extinguisher;
- A cell phone or facility-maintained two-way radio ;
- Insect Repellent;
- Ice chest with drinks;
- Tent, if appropriate, and
- Heaters, if necessary.
- Emergency notification information

A more detailed description of the site safety equipment is provided in Attachment B.

Field Sorting Safety Procedures

Site Layout

Waste sorting may take place at a variety of venues – landfills, transfer stations, or other facilities. Before any sorting takes place, an R.W. Beck supervisor must inspect the site for the following::

1. Sorting activities will be well away from other activities, such as equipment and vehicle operations, that might endanger or impede waste sorting work.
2. There is adequate room to carry out the sorting activities, including the receiving and queuing samples and the disposal and recycling of sorted waste. This includes safety precautions in the refuse trucks being used.
3. If the site is outside and extreme weather may be encountered, provisions should be made for a tent or other temporary shelter to be erected.
4. Arrangements for toilet facilities and a “break” area have been made, and;
5. Access to the site by a vehicle moving the sorting equipment and crew on and off the site is available. Or: Transportation of equipment and sort personnel to and from the site is available.

Once a suitable site has been located, the Project Manager or the Field Supervisor will schedule the sort at a time agreed to by the Client and the site owner/operator. When the schedule has been determined, arrangements will be made to deliver sorting and safety equipment to the site.

If the Sorting Site is close to operational activities at the facility, it should be marked with traffic cones or high visibility warning tape so that it is clear to all Field Personnel, subconsultants, temporary workers, and facility workers exactly what area is designated for the sorting activities. It must be made clear that all areas which are not designated for sorting activities are strictly off-limits.

MSW Facility Safety Procedures

If the sorting site is located at a facility that disposes, transfers, or otherwise processes MSW, R.W. Beck’s Project Manager or Field Supervisor should meet with the Site Owner/Operator to coordinate the safety procedures at the site with R.W. Beck’s safety procedures. For example, the site may require the wearing of reflective vests and this must become a requirement for the sorting crew on this project. This meeting must take place before any sorting commences.

The Site Manager should outline the facility's health and safety plan and explain the facility's emergency procedures. The location of the nearest hospital, emergency services, and poison control offices should be obtained from the Site Owner/Operator.

R.W. Beck's Supervisor should provide the Site Owner/Operator with a copy of our Health and Safety Plan, explain our safety procedures, and provide documentation of safety training for the Field Personnel, subconsultants, and temporary workers on the waste sort. During this exchange of information, any potential conflicts in approach or procedures should be resolved and both parties should be clear regarding safety and health issues.

The Project Manager should be prepared to sign an indemnification form, and possibly to add the host landfill as an additional insured on R. W. Beck's general liability policy.

Communications

It is important that supervisory staff be able to communicate with each other at all times. If one of the professional staff must leave the site for some reason, he/she should make it clear where they are going, when they will return, and what steps should be taken in case of an emergency. If, for example, the Sort Manager must leave the site, the Field Supervisor should take over the Sort Manager's duties at the sorting table. Either the Field Supervisor or Sort Manager, or both, should have a working cell phone or a facility-managed two-way radio (a standard item in the Site Safety Equipment) in case of an emergency.

Site Control

The integrity of the sorting site must be maintained at all times. Where appropriate, the area boundaries should be marked. Workers should understand that they must remain within the sort site and that other are on the site are prohibited. Both the Field Supervisor and the Sort Manager are responsible to see that sorting activities and workers stay within the sorting area.

There should be no smoking, eating, or drinking during sorting activities. Food and non-alcoholic liquids must be consumed away from the sorting area. Drinks should be taken in single-use disposable cups or from the original single serve containers. Personal hygiene practices such a hand washing and removal of contaminated coveralls should be conducted prior to eating, drinking or smoking.

Ergonomics

Waste sorts often involve moving and lifting containers of waste that may weigh 100 lbs or more. To prevent back strain and pulled muscles, staff must be trained in proper lifting techniques as part of the pre-sort training. When heavy containers must be moved or

lifted, the Sort Manager should assign an appropriate number of workers and material handling equipment to the job.

Environmental Conditions

Extreme Heat

The risk of heat stress can be significant in summer sorts where the temperature and humidity are high. In these conditions, Sort Managers should monitor workers for signs of fatigue and listlessness. Breaks in the work schedule, plenty of fluids, and clothing which allows sweat to evaporate can all help to alleviate the dangers of heat stress.

Extreme Cold

Winter sorts may take place at sites with very low temperatures and high winds. Protection from the cold should include proper clothing, walls on the tent to lessen the effects of wind, and electric or gas heaters (properly ventilated). Sort Managers should be alert for indications of cold-effects, such as shivering and fatigue.

Fatigue

Most projects have tight schedules and the uncertainties associated with the delivery of solid waste to a landfill or transfer station can interrupt this schedule. As a result, there is usually pressure to work as long and as quickly as possible. This, in turn, can lead to carelessness and worker fatigue. Regular breaks in sorting should be built into the schedule to provide for rest and recuperation. Typically these breaks include 15 minute breaks in the morning and afternoon and a 30-60 lunch break. If sorting goes beyond 8 hours, additional breaks should be scheduled. The judgment of the Sort Manager is critical. Workers showing signs of fatigue should be given an opportunity to rest, especially if they are becoming careless or tired.

Injury Prevention

Three of the most common sources of potential injury in waste sorting are:

- Careless handling of waste,
- Lifting heavy objects, including containers of materials, and
- Walking into areas where heavy equipment is operating.

Risks associated with handling mixed solid waste can include contact with hazardous materials, sharps, and other potentially dangerous objects. Controls against injury associated with those risks are:

- (1) Wear proper safety equipment at all times and
- (2) Know what you are picking up. Never reach into the middle of a pile of waste to pull out material. Always select only material or objects you can see. Hand rakes can be used

to spread out a pile of waste; hands or arms should never be used. Using the puncture-resistant gloves provided to the crew, sorters can more safely remove needles, broken glass, and sharpened metal from a pile of waste, if the sorter sees what he/she is removing and handles it with care.

Unidentifiable Liquids, Powders, or Medical Waste

Unidentifiable liquids or powders should be treated as hazardous. If there is any question about any material or object, the sorter should immediately stop sorting and notify the Sort Manager. If, at any time, the Sort Manager believes that the sample being sorted includes institutional medical waste or a significant amount of hazardous materials, the crew should stop sorting. The Sort Manager and Field Supervisor should confer and determine if that sample should be discarded without further sorting. The sorting of institutional medical waste and commercial hazardous waste is not performed by R. W. Beck, and the responsibility for handling this material shall be solely with the host facility in the event such material is encountered. It is the responsibility of the Field Supervisor to alert the host facility management.

Lifting Controls

The Sort Manager direct lifting activities at all times. Specifically, the Sort Manager should be sure workers asked to move or lift heavy containers of waste have help available from other members of the crew. Items that cannot be lifted safely by multiple sort laborers shall not be manually weighed and shall be removed by other means. If back injuries or muscle pulls do occur, the Sort Manager should have the worker rest and decide if the injury is severe enough to warrant medical attention.

Both the Field Supervisor and the Sort Manager must see that the sorting area is clearly marked and that the sorting crew understands where the boundaries are. Moving through the area outside the sorting area should be done only with the permission and guidance of the Sort Manager.

Bloodborne Pathogens

Injuries involving cuts and puncture wounds can potentially offer an entry-point for bloodborne pathogens, such as those carrying Hepatitis and HIV. Every cut and puncture wound should be treated and the following steps should be taken by the Sort Manager or Field Supervisor:

- Using sterile gloves, immediately clean the wound with antiseptic and wrap in gauze;
- Place the needle or object causing the wound in a plastic bag;
- If, in the judgment of the Sort Manager and Field Supervisor, the wound caused by a hypodermic needle or a metal object, poses a health or safety risk to the worker, the worker will be taken to the nearest hospital or clinic for evaluation and treatment;

- Notify the Site owner/operator, the Employment Agency (if the patient is a temporary worker), and the Project Manager, who in turn should alert the Safety Manager; and the R.W. Beck Risk Manager.
- Document the incident on an accident report form and submit the completed form to the Safety Manager.

Similar steps should be taken if the worker has been exposed to potentially hazardous material and shows abnormal or unusual symptoms.

Accident Reporting & Investigation

As a part of the Site Training of the crew, the Field Supervisor should educate workers so they are familiar with the Emergency Contact Information Sheet (see Attachment D) and that it is clearly posted in the sorting area.

All accidents must be reported in writing by the Sort Manager or Field Supervisor, using the Accident Report Form shown in Attachment C. A copy of the completed form should be provided to the Site Owner/Operator, the Employment Agency (if the patient is a temporary worker), the Project Manager, who in turn notifies the Safety Manager.

It is the responsibility of the Safety Manager to maintain a file of completed accident report forms and to see that the “lessons learned” for accidents are incorporated into the HASP. Root cause analysis should be the goal of all accident/incident investigations.

Health and Safety Training

All members of a crew responsible for sorting waste must undergo, at a minimum, the training outlined below.

Professional Staff Training

R.W. Beck’s professional staff should, at a minimum, have 8 hours of pre-sort training and serve a 2-day apprenticeship before taking on the role of Sort Manager. The pre-sort training must include review and understanding of the HASP and viewing R.W. Beck’s safety videos. Training related to other aspects of the sort, such as material identification can also be done during this 8-hour period. Professional staff should have a current tetanus booster.

A Sort Manager should work for at least one full week before being considered for the position of Field Supervisor.

Sorter Training

Before any waste sorting takes place, the Sort Manager and/or Field Supervisor must review relevant sections of the R.W. Beck HASP with temporary workers, be sure that all

safety procedures are clear, and that all questions from the sorters have been answered. A Sorter Training Acknowledgment Form is presented in Attachment E.

Next, a “test sort” should be run at a very slow pace to be certain that all safety equipment is being worn properly and that sorters understand the safe and proper way to sort samples of waste.

At the beginning of each day of the sort, the Sort Manager should take a few minutes to check that all safety equipment is being worn and is in good shape. The Sort Manager should also remind the crew about safe sorting and go over the lessons learned from any accidents, or near accidents that have occurred.

Attachment A: Personal Protection Equipment

Personal Protection Equipment (“PPE”) will be supplied to all workers sorting waste to protect them from the various hazards that might be encountered in carrying out their work. Some of the PPE is mandatory and must be worn at all times by all workers. Other PPE may be worn depending on the weather, site conditions, policy of the sorting site, and judgment of the Sort Manager and Field Supervisor.

The mandatory PPE include:

- Protective coveralls – Tyvek or cotton coveralls must be worn at all times to protect worker’s clothing from accidental spills, offer an added layer of warmth in cold weather conditions, and provide added visibility to worker’s on the site.
- Puncture-resistant gloves – Rubber, plastic, or leather gloves must be worn while sorting waste. They are designed to protect sorters from accidental cuts or punctures from needles, broken glass, and sharpened metal. A latex or cotton inner glove will also be provided.
 - Our preferred gloves are MAPA Stanzoil Heavy-Duty Neoprene Gloves
 - Also, recommended are Wells Lamont Puncture- and cut-resistant gloves and Wells Lamont Drivers gloves.
- Protective Eyewear – to provide splash/spatter protection for the sorters
 - Our preferred eyewear protection is the Uvex Astro 3001 for “over the glasses” style for sorters who need to wear their own glasses and Crews Klondike for others.
- Sturdy work boots in good repair

PPE which may be worn, at the discretion of the Sort Manager or Field Supervisor include:

- Back-support belts
- Dust Masks – a dust mask should provide protection from dust and MSW particulates.
 - Our preferred dust mask is the 3M 3-panel disposable Respirator
 - Also recommended are the AOSafety “Pleats Plus” and the WilsOn Saf-T-FIT N95 Respirators.
- Ear plugs
- Hard hat
- Reflective vest
- Steel-toed boots

All pieces of equipment listed above will be available to all crew members at any time.

Attachment B: Site Safety Equipment

Site Safety Equipment (“SSE”) will be available at all times on the sorting site to protect workers from hazards and provide emergency first aid. The standard SSE includes:

- A Industrial First Aid Kit – an OSHA-rated 25-person first aid kit or better
- An Eye-Wash kit or five eye wash bottles per crew.
- Moist towelettes
- Traffic cones – four cones to help demarcate the sorting area
- Yellow caution tape – to mark the sorting area.
- A fire extinguisher – a multi-purpose extinguisher that can be used on ordinary combustibles, flammable liquids, and electrically energized fires.
- A cell phone or facility-managed two-way radio
- Insect Repellent
- Ice chest with drinks

If site conditions and weather warrant, a tent will be provided to protect against sun, rain, and wind. Side flaps may also be installed if the weather is cold and/or windy. For very cold conditions, a gas or electric heater may be used. If a gas heater is used, adequate ventilation must be arranged.

Attachment C: Accident Report Forms

Sort Dates:

Sort Site Information

Location:

Office Telephone:

General Manager:

Site Manager:

Field Supervisor:

Sort Manager(s):

Description of Accident:

- **Date**
- **Name of Injured Person**

Actions Taken:

Reported by: _____

Date: _____

Attachment D: Emergency Contact Form

Sort Dates:

Sort Site Information

Location:

Office Telephone:

General Manager:

Site Manager:

Field Supervisor:

Sort Manager(s):

Local Hospital

Name:

Address:

Telephone:

Directions from Sort Site:

Emergency Medical Services

Name:

Address:

Telephone:

Directions from Sort Site:

Police

Name:

Address:

Telephone:

Directions from Sort Site

Fire

Name:

Address:

Telephone:

Directions from Sort Site

Poison Control Center

Telephone:

R.W. Beck Office

R.W. Beck, Inc

Suite 300

800 N. Magnolia Ave.

PO Box 538814

Orlando, FL 32803

(407) 422-4911

Contact: Debbie McDonough, John Culbertson

Safety Manager:

Attachment E: Sorter Training Acknowledgment Form

A critical element of training personnel to sort refuse is health and safety training. Before any work can begin, all sorting personnel are trained in safe procedures for handling and sorting waste. This training includes the following topics.

- Purpose of the waste sort
- Site layout – Landfill hazards
- Introduction to professional staff roles and responsibilities
- Sorters responsibilities
 - Punctuality
 - Rest
 - No drugs or alcohol
 - No smoking
 - Prescribed medications
- Sort Safety Procedures
 - Waste handling
 - Use of Personal Protective Equipment
 - Site Safety Equipment
 - Designated work and break areas
- Ergonomics
 - Safe lifting to avoid back stress
- Environmental Conditions
 - Heat Stress
 - Cold
 - Fatigue
- Injury Prevention
- Hazardous Wastes
- Bloodborne Pathogens
- Emergency Procedures
- Accident Reporting
- Training Sort

Acknowledgement

I acknowledge that the professional staff from R.W. Beck has discussed and explained the topics listed above, addressed any question I have about these topics, and conducted a training sort to demonstrate the safe handling and sorting of waste.

Signed _____ Date _____

**StopWaste.Org 2008 Waste Characterization Study
SAMPLE MANAGEMENT FORM**

<i>Background Information</i>						
Date						
Time						
Sampling Location						
Weather (circle which apply)	Heavy Rain	Light Rain	Snow	Clear/Dry	Cloudy/Dry	Fog
Sample Manager Name						

<i>Sample Information</i>				
Jurisdiction	Waste Stream	Sample #	Truck Type	Truck Number

Special Notes	
---------------	--

<i>Toter Weights</i>	<i>Net Weight</i>	<i>Gross Weight</i>	<i>Special Notes</i>
Toter #1			
Toter #2			
Toter #3			
Toter #4			

<i>Bulky Items</i>	<i>Weight in Sample</i>	<i>Percent in Sample</i>	<i>Description</i>	<i>Material Num (See Bulk Mat. List)</i>
Item #1				
Item #2				
Item #3				
Item #4				

TOTAL SAMPLE WEIGHT	
----------------------------	--

Net Weight of Truck Load: _____ tons or pounds (circle one)



PHYSICAL SORTING FORM

Facility: _____

Date Sampled: _____

Date Sorted: _____

Sample#: _____

		Material Categories	Tare	Gross Weight	Net Weight	Tare	Gross Weight	Net Weight	Tare	Gross Weight	Net Weight
Paper	1	Uncoated Corrugated Cardboard									
	2	High Grade Paper									
	3	Newspaper									
	4	Mixed Recyclable Paper									
	5	Compostable Paper									
	6	Other Paper									
Plastic	7	HDPE Bottles (#2)									
	8	PETE Bottles (#1)									
	9	Other Plastic Containers									
	10	Plastic Bags									
	11	Other Film									
	12	Expanded Polystyrene Blocks									
	13	Mixed Plastics									
	14	Other Plastics									
Glass	15	Recyclable Glass Bottles/Containers									
	16	Other Glass									
Metal	17	Aluminum Cans									
	18	Other Non-Ferrous									
	19	Steel Food and Beverage Cans									
	20	Other Ferrous									
	21	White Goods									
Yard Waste	22	Leaves/Grass/Chips									
	23	Branches/Stumps/Prunings/Trimmings									
Organic	24	Food Waste									
	25	Tires									
	26	Untreated Lumber									
	27	Pallets									
	28	Treated Wood Waste									
	29	Textiles and Leather									
	30	Carpet									
	31	Diapers									
	32	Manure									
	33	Other Organics									
	C&D Waste	34	Crushable Inerts								
35		Other Inerts									
36		Gypsum Board									
37		Asphalt Roofing									
Hazard Waste	38	Paint/Adhesives									
	39	Vehicle & Equip. Fluids									
	40	Universal Hazardous Waste									
	41	Medical Waste									
	42	Medicine									
	43	Covered E-Waste									
	44	Other E-Waste									
	45	Other Hazardous Waste									
Special	46	Brown Goods									
	47	Composite Bulky Items									
	48	Other Special Waste									
Total Weight of Fines:			Description		% of Total		Description		% of Total		

Sample Manager: _____

Notes: _____



Date Sampled: _____

Date Sorted: _____

Sample#: _____

Material Categories	Tare	Gross Weight	Net Weight	Tare	Gross Weight	Net Weight	Tare	Gross Weight	Net Weight
<hr/>									

STANDARD PRODUCT FORMS - 2008 ALAMEDA COUNTY WCS



	Select Categories	A	B	C	D	E	F
1	Corrugated Cardboard	Shipping Boxes	Kraft Paper				
2	High Grade Paper	White Bond	Computer	Colored Bond			
4	Mixed Recyclable Paper	Magazines	Catalogs	Junk Mail	Coated Boxboard		
5	Compostable Paper	Food	Tissues/Papertowels				
6	Other Nonrecyclable Paper	Aeseptic	Wax-coated	Glue-coated			
7	HDPE Bottles (#2)	Natural-Colored	Food	Other Household	Equipment Fluid		
8	PETE Bottles (#1)	Soda small	Soda large				
9	Other Plastic Containers	#3-7 Bottles	#1-7 Containers				
10	Plastic Bags	Clear	Colored				
11	Other Film	Sheet	Flexible film	Food bags (chips)			
12	Expanded Polystyrene Blocks	Packaging	Cooler				
13	Mixed Rigid Plastics	Toys	Automobile Parts	5 gal & 55 gal buckets	Food Service	Blisterpacks	Pipe
15	Recyclable Glass	Clear bottles	Colored bottles	Containers			
16	Other Glass	Windows/Mirrors	Fixtures/Bulbs	Kitchenware			
18	Other Non-Ferrous	Structural	Furniture	Other Household	Industrial		
20	Other Ferrous	Structural	Furniture	Other Household	Industrial		
21	White Goods	Clothes Appliances	Cooking Appliances	Refrigerator	Water Heater	Industrial	
22	Leaves, grass, and chips	Leaves	Grass	Wood Chips			
23	Branches/Stumps/Prunings	Branches	Stumps	Prunings/Trimmings			
24	Food	Vegetables/fruits	Meats	Packaged food	Liquid		
25	Tires	Large Vehicles	Automobile	Bicycle			
26	Untreated Lumber	Dimensional	Plywood				
28	Treated Wood Waste	Painted	Creosote/Other	Particle/chipboard	Fiberboard		
29	Textiles and Leather	Clothes	Stuffed Animals	Decorative	Leather	Shoes	
30	Carpet	Rugs	Plastic	Padding			
33	Other Organics	Vacuum bag	Sawdust				
34	Crushable Inerts	Rock	Brick	Concrete	Asphalt	Ceramics	Tile
35	Other Inerts	Soil	Plaster				
38	Paint/Adhesives	Paint/stain	Caulk/putty/epoxy	Glue			
39	Vehicle & Equip. Fluids	Oil	Grease/Lubricant	Radiator Fluid	Auto Batteries		
40	Universal HHW	Small Batteries	Fluorescent Lights	Mercury-containing	Aerosol		
41	Medical Waste	Sharps	Blood bandages	Surgical instruments			
42	Medicine	Vitamins	OTC Pills	Prescription Pills	Liquid		
43	Covered Electronic Devices	TVs	Computer monitors	Laptops	Portable DVDs		
44	Other E-Waste	Computer-related	Phone-related	Camera-related			
45	Other Hazardous Waste	Household cleaners	Fire Extinguishers	Chemicals	Pesticide & Herbicide		
46	Brown Goods	Bathroom	Kitchen	Tools	Entertainment		
47	Composite Bulky Items	Furniture	Mattresses	Household Equipment	Industrial		

HAULER SURVEY FORM

Facility	Hauler Name	Date
Surveyor Name	Truck No.	Time

1. Sample Type/Number: _____

2. Vehicle Type/Size

Open Roll-Off	10CY	20CY	40 CY	
Compactor RO				Trailer
Pickup				Other
Flat Bed				Van
End Dump				SUV
Box Truck				
Other	_____			

5. Jurisdiction

Alameda
Albany
Berkeley
Castro Valley SD
Dublin
Emeryville
Fremont
Hayward
Livermore
Newark
Oakland
Oro Loma SD
Piedmont
Pleasanton
San Leandro
Uninc. Alameda
Union City

3. Sample Size

Load Weight:	Gross	Load	Vol:	L
Tons	Tare			W
Pounds	Net	%full		H

4. Load Type (if more than 50% by volume)

Green waste	Construction	Demolition	Roofing	Other inerts
Other	Mixed			

6. Gender

Male	Female
------	--------

7. Language

English	Spanish	Other
---------	---------	-------

8. Ethnicity

Caucasian	Latino/Mexican	Asian	African American	Indian	Other
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9. Generator Type (% on a volume basis)

SF / MF Residential	Commercial	Industrial	Institutional
Home Renovation	Office	Manufacturing	Govt Agency
House Clean-up	Restaurant	Tech	Education/School
Yard Clean-up	Retail	Food Processing	Other
Other	Landscape	Other	
	Wherehouse/ Distribution		
	Other		

10. Who is delivering the waste?

Resident/generator	Employee/Agent of generator
Independent hauler	

11. How often does the customer come to the Facility?

1-4 per year	1-3/month	Once/week	2x/week	Everyday
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12. Why didn't you take these materials to a recycling Facility? (circle all that apply)

Too costly	No programs available	Lack of information, don't know if it is recyc.
Not enough time	Don't know where to	Don't have enough recyclables
Don't care	Not my decision/I was told to	Other

13. Are any of these items reusable/repairable? Yes No Which ones? _____

14. Do you have an account at this facility? Yes No

Appendix F

Material Category Definitions

PAPER

1. Uncoated Corrugated Cardboard. Old corrugated cardboard (OCC) and Kraft paper – Kraft linerboard and containerboard cartons and shipping boxes with corrugated paper medium (excludes wax or plastic coated boxes). Kraft paper bags are also included. This category includes all of the brown fiber packages that are not coated with plastic, wax or treated to retain their form when wet [soft drink and beer packaging]. The fiber may have a white paper layer of labeling.
2. High Grade Paper. Bond, rag-content, manila or stationery grade paper with or without color. Includes ledger, photocopy paper, computer printouts, manila folders, index cards, and envelopes (without windows or gummed labels). It does not include bulk mail or self-adhesive [Post-It] notes.
3. Newspaper. Printed and unprinted groundwood newsprint. This category may include some glossy paper typically used in advertisements, if included with the newspaper at the time of distribution
4. Mixed Recyclable Paper. Low-grade recyclable paper. Includes junk mail, magazines, catalogs, text books, phone books, paperboard, boxboard, colored paper, construction paper, and blue prints. Higher grade papers are included if they contain gummed labels or plastic elements. Does not include paper contaminated with food or liquids.
5. Compostable Paper. Generally, low-grade non-recyclable, coated paper, and contaminated paper. Includes facial and toilet tissue paper, napkins, paper towels, paper plates, paper food cartons, milk cartons, and other paper with significant moisture or food contamination. Would also include newspaper used for pet litter (to line bird cages), and waxed cardboard produce boxes. Does not include paper covered with paint or oil.
6. Other Non-Recyclable Paper. Paper that does not fall into any of the above categories. Includes aseptic packages, multi-material, multi-layer paper packaging, cigarette packages, photographs.

PLASTIC

7. High Density Polyethylene (HDPE) Bottles. Blow-molded grade HDPE bottles, including both natural (non-pigmented as commonly used for dairy products and fruit juice) and colored (pigmented as commonly used for bleach, liquid detergents, motor oil, food containers, and other household products). Usually bears the number "2" within the recycling triangle symbol at the bottom of the container and has a neck narrower than the body.
8. Polyethylene Teraphtalate (PETE) Bottles. Blow-molded grade PETE bottles, including both color and clear, as commonly used for beverages. Usually bears the number "1" within the recycling triangle at the bottom of the container and has a neck narrower than the body.
9. Other Plastic Containers. Other HDPE and PETE containers including cups, tubs, and trays. Also includes all bottles and containers (with or without lids) not identified in the above categories with numbers "3" through "7" within the recycling triangle symbol at

APPENDIX F – (Cont.)

the bottom of the container: polyvinyl chloride (PVC), polypropylene (PP), polystyrene (PS), acrylonitrile-butadiene-styrene (ABS), and others.

10. Plastic Bags. Includes both clear and colored plastic shopping bags and other bags used for product packaging, including food, produce, powder, ice, etc.
11. Other Film. Plastic wrapping materials, bubble wrap, flexible film and sheet plastic.
12. Expanded Polystyrene Blocks. Packaging plastic material commonly referred to as Styrofoam. Includes only solid polystyrene blocks, all other PS will be categorized under “Other Plastics”.
13. Mixed Rigid Plastics. Hard, rigid non-container plastic objects not classified above, such as plastic pipe, CD/DVD cases, automotive components, toys, coolers, electrical components, plastic strapping, furniture and empty clamshell or blisterpack packaging bearing the number “3” within the recycling triangle, typically used for food or other household items such as tools, utensils, etc.
14. Other Plastics. Plastic-based materials that do not fall into any of the above categories. Includes composite material items that are comprised primarily of plastic.

GLASS

15. Recyclable Glass Bottles and Containers. Recyclable glass bottles and containers of any color used for beverages or food, such as beer bottle and jelly containers
16. Other Glass. Flat, pressed and blown glass products such as light bulbs, mirrors, decorative items and fixtures, plate glass windows and shelving, safety glass, and cooking ware.

METALS

17. Aluminum Cans. All aluminum beverage containers.
18. Other Non-Ferrous Metals. Metals derived from materials other than iron such as aluminum, copper, brass, bronze, lead, zinc, and other metals to which magnet will not adhere. Stainless steel is also included in this category.
19. Steel Food and Beverage Cans. All coated and tin-free ferrous food and beverage cans, including bi-metal cans.
20. Other Ferrous Metals. Ferrous and ferrous scrap metals from any source except food and beverage containers, intact white goods, and composite bulky items as defined below (included empty aerosol cans).
21. White Goods. Discarded, enamel-coated major appliances, such as washing machines, clothes dryers, hot water heaters, stoves, refrigerators, and freezers. Also includes stainless steel washers and refrigerators.

YARD WASTE

22. Leaves, Grass and Chips. Lawn clippings, weeds and leaves that are not attached to branches. Also includes small pieces of wood or chips that have been processed/shred to less than 2-inch on any axis.

APPENDIX F – (Cont.)

23. Branches, Stumps, Prunings, and Trimmings. Stumps, branches, prunings and trimmings from trees, bushes, shrubs, and other plants.

OTHER ORGANICS

24. Food Waste. Food capable of being decomposed by microorganisms with sufficient rapidity as to cause nuisance from odors and gases. Kitchen wastes and food from containers are examples. Containerized liquids are also included in this category.
25. Tires. Pneumatic tires from vehicles, including bicycles.
26. Untreated Lumber. Wood and dimensional lumber construction materials from new construction, remodeling or demolition, including plywood and shingles if uncontaminated by paint or preservative treatment. Also includes easily separable wood from furniture, tools, untreated wood crates, and other durable products. Does not include preservative treated wood or particleboard, chipboard or masonite.
27. Pallets. Untreated and treated wood pallets.
28. Treated Wood Waste. Any wood with paint or preservative treatment [but does not include solid wood furniture (desks, cabinets and tables), fences and decks]. Also includes particleboard, chipboard, OSB (oriented strand board), MDF (medium-density fiberboard) and masonite.
29. Textiles and Leather. Fabric materials, including natural and man-made textile materials made from cottons, wools, silks, nylon, rayon, polyesters and other materials. This category includes clothing, rags, curtains and other fabric materials. Leather and leather goods are also included such as belts and wallets. All shoes are included in this category.
30. Carpet. Includes carpets made from natural and man-made materials such as wool, nylon and plastics. May include the padding material used for carpets.
31. Diapers. Disposable diapers.
32. Manure. Includes animal waste and Kitty litter (including the litter).
33. Other Organic Waste. Organic materials not otherwise categorized. Includes natural fibers, cork, hemp rope, wicker products, jute carpet backing, sawdust, hair and lint. Soap, bathroom products such as: bubble bath, body waste, shampoo, and conditioner.

C&D WASTE

34. Crushable Inerts. Includes rock, brick, Portland-cement concrete, asphaltic-cement concrete, tile, and ceramics.
35. Other Inerts. All dirt, sand, soil and soil-like products. Also includes plaster and inert solids not suitable for use as crushed aggregate.
36. Gypsum Wallboard - Unpainted. All gypsum-based wallboard, including board for use in the drywall or plaster trades, only if it is not painted or covered with spackle or wall paper.
37. Asphalt Roofing. Includes three-tab composition roofing shingles, tar and gravel roofing, and asphalt-impregnated roofing papers and felts. Wood shingles are Treated Wood Waste. Tile roofing is Crushable Inerts.

APPENDIX F – (Cont.)

Hazardous Waste

38. Paints/Adhesives. Containers with a measurable amount of liquid paint, adhesives, or other solvents. This does not include dried paint, empty paint cans, or empty aerosol containers. Includes softened roofing tar and wood stains.
39. Vehicle & Equip. Fluids. Containers with a measurable amount of vehicle or equipment fluid that may be harmful to the environment or cause other hazards if improperly disposed of in the waste stream. Includes used oil filters.
40. Other Universal Waste. Includes common hazardous waste materials such as small household batteries, fluorescent light bulbs, mercury containing devices, and non-empty aerosol cans that contain hazardous materials.
41. Medical Waste. Treated medical waste that has been sanitized prior to disposal or untreated medical waste such as sharps, surgical instruments, and bloody bandages.
42. Medicine. Includes prescription and over-the-counter medication in pill or liquid form, including those present within containers.
43. Covered Electronic Devices. Devices with CRT or LCD screen over 4 inches diagonal that are covered under the Electronic Waste Recycling Act, such as televisions and computer monitors, laptop computers, and portable DVD players.
44. Other E-Waste. Includes **Computer-related Electronics** such as processors, mice, keyboards, laptops, disk drives, printers, modems, and fax machines; and **Other Small Consumer Electronics** such as personal digital assistants (PDAs), cell phones, phone systems, phone answering machines, computer games and other electronic toys, portable CD players, camcorders, and digital cameras. Also includes stereos, microwave ovens, telephones, and any other electronic device with a non trivial circuit board.
45. Other Hazardous Wastes. Hazardous Waste not described in any of the above categories that can be potentially harmful if disposed of improperly, including household cleaners and chemicals, detergents, fire extinguishers, pesticides, and herbicides.

Special Waste

46. Brown Goods. Typically electrically powered household products fabricated from metals and plastics and not easily separable into individual materials. Examples include hair dryers, toasters, and other common house electronics with only a trivial circuit board.
47. Composite Bulky Items. Large non-electrical items made of several material types and not easily separated by material, including lamps, furniture, mattresses and box springs,
48. Other Special Waste. Other waste materials not classified within any of the above categories which may require special handling.