

Seattle Public Utilities

Construction, Demolition and Landclearing Debris Waste Composition Study

Final Report

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in cooperation with
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1. Overview

1.1 Introduction

Solid waste management planning and service delivery begins with knowing precisely what is in the waste stream. Seattle Public Utilities (formerly the Seattle Solid Waste Utility) commissioned this waste characterization study with the following objectives:

- Determining the quantity and composition of the overall construction, demolition and landclearing (CDL) waste stream
- Identifying materials in the disposed CDL stream that are potentially recyclable
- Understanding seasonal and substream differences so that targeted waste diversion programs can be designed, implemented and monitored
- Establishing a baseline for continued long-term measurement of the CDL stream

Both waste sampling and vehicle survey data were gathered at four local facilities— the City's North and South Recycling and Disposal Stations (NRDS and SRDS), as well as the privately operated Third & Lander and Black River transfer stations. The study began in the fall of 1994 and was completed in the summer of 1995. A total of 242 waste samples and 1,146 surveys were recorded. This report summarizes the overall results.¹

Cunningham Environmental Consulting served as the prime contractor and managed the vehicle surveys, which were conducted using field personnel from Market Trends. Cascadia Consulting Group managed the waste sorting, Elway Research created the sampling plan and Sky Valley Associates performed the sampling field work.

The report is organized into three segments: Section 1 provides an overview of the project, Section 2 presents the detailed waste composition results and Section 3 describes the detailed vehicle survey results. Appendices follow the main body of the report.

¹ In addition, a survey of building contractors was conducted to examine the materials recycled and the potential for additional recycling. The survey revealed the types of CDL debris generated, the materials most likely to be recycled, obstacles to recycling, and interest levels in CDL waste reduction. Procedures and results are documented in a separate report entitled *Results of the Seattle Jobsite Recycling Survey* (June 1995).

1.2 Methodology Overview

1.2.1 CDL Wastestream

As shown in Table 1-1, Seattle's CDL waste stream includes both the CDL waste that is disposed at private, dedicated CDL facilities and the CDL waste that is found in the municipal solid waste (MSW) stream.

Table 1-1 Source of CDL Wastes²
1995

	Total '95 Tonnage	CDL, as a % of Site's Total	Estimated '95 CDL Tonnage	Sampled in Current Study?	Included in Study's Composition Tables?
Municipal Solid Waste (NRDS and SRDS)					
Self-Hauled	84,897	47%	39,902 21%	Yes	Yes
Commercially Collected, Residential	147,658	5%	7,383 4%	No	No
Commercially Collected, Non-Residential	197,689	10%	19,769 11%	No	No
Dedicated CDL					
Black River and Third & Lander	99,326	100%	99,326 53%		
Delivered in trucks				Yes	Yes
Delivered in intermodal containers				No	Yes
Eastmont and Argo	20,137	100%	20,137 11%	No	Yes
Overall	549,707		186,517 100%		159,365

Typically, CDL waste flowing to the dedicated facilities is 100% CDL debris, while only a fraction of the MSW stream consists of CDL debris. This study sampled the dedicated CDL waste stream³ and the CDL found in the self-haul portion of the MSW stream.⁴

1.2.2 Substream Definitions

During both the surveying and waste sampling stages of this project, vehicle drivers were asked to choose from a list of nine pre-defined substreams to best describe the source of their load.⁵ The substreams were described as follows:

- **New Construction, Residential:** construction of new residential buildings and additions to existing structures

² Total 1995 tonnage figures were provided by the City. The CDL tonnage estimated to be disposed with MSW was calculated by applying the most up-to-date MSW waste composition percentages to the total tonnage. These percentages were found in the 1996 *Commercial and Self-Haul Waste Composition Study* and the 1994/95 *Residential Waste Composition Study*, both conducted by the Cascadia Consulting Group for the City of Seattle. It should be noted that only the waste components included in the CDL category (lumber, gypsum, etc.) were included in this calculation; other materials that would likely also have originated from CDL jobsites (such as metals, carpet, etc.) were ignored.

³ Wastes delivered to Black River and Third & Lander in intermodal containers are loaded directly onto rail cars and thus were not sampled. Wastes were not sampled at Eastmont or Argo because this tonnage accounted for a relatively small portion of the dedicated CDL stream during the study period.

⁴ The commercially collected portion of the MSW stream was not sampled because 1) relatively small amounts of CDL are now found in these substreams, and 2) the composition of these substreams is regularly documented as part of Seattle's ongoing waste composition study.

⁵ It was often difficult for drivers to distinguish the Remodeling substream from the New Construction or Demolition substreams.

- **New Construction, Commercial/Institutional:** construction of new commercial/institutional buildings and additions to existing structures
- **Remodeling, Residential:** remodeling or other improvement of existing residential structures
- **Remodeling, Commercial/Institutional:** remodeling or other improvement of existing commercial/institutional structures
- **Demolition, Residential:** demolition of existing residential structures
- **Demolition, Commercial/Institutional:** demolition of existing commercial/institutional structures
- **Roofing:** New and re-roofing activities
- **Landclearing:** Landclearing, grubbing, and grading activities
- **Other:** Any other categories not included above, such as landscape lumber and wood from old docks.

In order to provide a more detailed profile of Seattle's CDL wastestream, both the survey and waste sampling results are analyzed in terms of these substreams. However, there was no intent to capture a certain number of records from any particular substream. Many of the substream-specific analyses are based on a small number of surveys and/or waste samples and are thus subject to a relatively wide margin of error.

1.2.3 Waste Sampling

This section provides a brief overview of the waste sampling methodology. For more detail, please refer to Appendices A, B and C.

The objective of this task was to determine the overall composition of Seattle's disposed CDL waste stream.

As discussed in Section 1.1, samples were not taken at Eastmont or the Argo railhead. Sampling occurred at four transfer stations: NRDS, SRDS, Third & Lander and Black River. Samples were allocated to each of the four transfer stations based on the estimated proportion of CDL tonnage arriving at each site. Furthermore, samples were distributed among nine different vehicle types according to the estimated CDL tonnage each vehicle type typically transports to each site.

Sampling days were scheduled during all four seasons of the study year (October 1994 to August 1995). During the first season, the sampling days were selected in order to coincide with other field work being conducted at the transfer stations.

Study vehicles were selected at the transfer station gate according to predetermined frequency intervals for each vehicle type. Selected drivers were interviewed using the same form developed for the surveying task (please refer to Section 1.2.4). A representative (about 300 pounds) sample of the load was hand-sorted into 124 component categories. Component definitions are listed in Appendix C.

1.2.4 Vehicle Surveys

This section provides a brief overview of the survey methodology. For more detail, please refer to Appendix D.

The objective of this survey was to obtain information on CDL disposal rates and to create generator profiles.

Quarterly surveys were conducted at the same four transfer stations from which waste samples were obtained. During the first season, no surveys were collected at the NRDS or SRDS (since the surveyors had just completed a survey at those sites to determine the sampling intervals) and the survey days at Third & Lander and Black River were selected to coincide with other field work being conducted there.

The following information was recorded about each vehicle (that carried at least 50% CDL materials) arriving at the transfer station during the survey day:

- City of origin
- Customer class
(*self-haul: business/industry, residential, government/institution; or commercial hauler*)
- Substream
(*nine categories, described in Section 1.2.2*)
- Net weight

2. Sampling Results

A total of 242 loads from Seattle's CDL waste stream was sampled between October 1994 and August 1995. CDL loads were systematically selected and sorted at the City's NRDS and SRDS, as well as the privately operated Third & Lander and Black River transfer stations.

The overall composition results are described in Section 3.1. In addition, composition analyses were calculated according to the following:

- Substream Section 3.2
- Season Section 3.3
- Disposal Location Section 3.4

Table 2-1 presents the sample count, total and average sample weights, and the net load weights for each sector analyzed in this report.

Table 2-1 Sampling Summary
October 1994 to August 1995

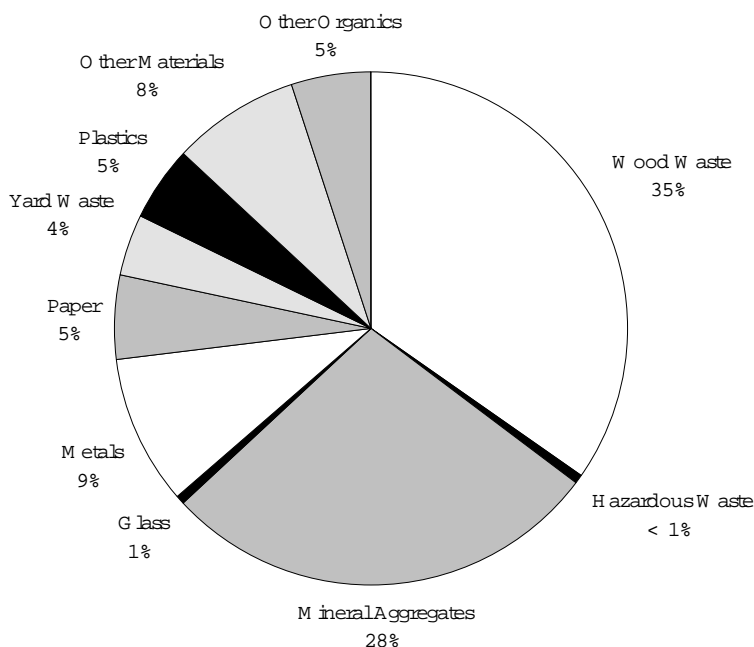
	Sam ple Count	<i>(All weights in pounds)</i>		
		Total Sam ple	Average Sam ple	Average Net Load
New Construction, Residential	14	4,805	343	3,400
New Construction, Commercial/Institutional	28	9,628	344	5,740
Remodeling, Residential	48	16,012	334	3,480
Remodeling, Commercial/Institutional	35	11,974	342	4,320
Demolition, Residential	25	8,062	323	3,640
Demolition, Commercial/Institutional	59	20,393	346	4,520
Roofing	19	6,245	329	6,000
Other	14	3,764	342	2,780
Fall (October 1994)	67	21,504	321	5,020
Winter (February 1995)	63	21,255	354	3,080
Spring (May 1995)	57	20,182	354	5,780
Summer (August 1995)	55	17,941	326	3,240
North Recycling & Disposal Station	37	12,557	339	3,460
South Recycling & Disposal Station	35	11,367	334	4,540
Third & Lander Transfer Station	141	48,142	341	4,460
Black River Transfer Station	29	8,815	327	4,180
Overall	242	80,881	338	4,280

All waste composition results were derived using a 90% confidence level. This means there is a 90% certainty that the actual composition is within the calculated range. In charts throughout this report, the values graphed represent the mean component percentage, not the range.

2.1 Overall Composition

The overall CDL composition was calculated by performing a weighted average of each substream's composition results. A summary of the overall results is shown in Figure 2-1.

**Figure 2-1 Overview of Seattle CDL Waste Composition
October 1994 to August 1995**



On a more detailed level, Table 2-2 lists the complete results by sampling component. As shown, the most prevalent materials include:

- Painted/Stained Wood 7.5%
- Composition Shingles 6.4%
- Mixed/Demo Gypsum Scrap 6.0%
- New Gypsum Scrap 4.1%
- New Lumber 3.8%
- Built-Up Roofing 3.4%
- Carpet 3.3%
- Contaminated Demo Wood 3.3%
- Pallets & Crates 3.2%
- Mixed Metals/Materials 3.1%

**Table 2-2 Composition, by Weight: Overall CDL
October 1994 to August 1995**

Percent & Range at 90% Confidence Interval

	Estimated Disposed Tons			Composition			Estimated Disposed Tons			Composition	
	Low	Mean	High	Mean	+/-		Low	Mean	High	Mean	+/-
WOOD WASTE	48,031	55,476	62,920	34.8%		YARD WASTE	5,118	6,143	7,168	3.9%	
New Lumber	5,559	6,131	6,703	3.8%	0.4%	Stumps	904	1,057	1,211	0.7%	0.1%
New Panelboard	3,140	3,526	3,912	2.2%	0.2%	Large Prunings	1,613	1,898	2,184	1.2%	0.2%
Dem o Lumber	8,716	9,855	10,995	6.2%	0.7%	Bulky Yard Waste	362	442	522	0.3%	0.1%
Dem o Panelboard	2,600	3,008	3,415	1.9%	0.3%	Sm all Prunings	1,091	1,352	1,613	0.8%	0.2%
Rem anufacturing Scrap	3	8	14	0.0%	0.0%	Leaves & Grass	1,149	1,393	1,638	0.9%	0.2%
Creosote Wood	210	366	522	0.2%	0.1%	PLASTICS	5,903	7,332	8,761	4.6%	
Pressure Treated Wood	437	575	713	0.4%	0.1%	PET #1 Bottles	49	59	70	0.0%	0.0%
Painted/Stained Wood	10,616	12,004	13,393	7.5%	0.9%	HDPE #2 Bottles	33	39	45	0.0%	0.0%
Contaminated Dem o Wood	4,110	5,207	6,304	3.3%	0.7%	5 Gal.#2 w ith Handles	118	160	202	0.1%	0.0%
Wood, Other Materials	2,196	2,483	2,771	1.6%	0.2%	5 Gal.#2 w /o Handles	3	4	4	0.0%	0.0%
Roofing/Siding	3,722	4,136	4,550	2.6%	0.3%	Other Containers	22	27	31	0.0%	0.0%
Unfinished Furnishings	0	0	0	0.0%	0.0%	Polystyrene Foam	140	172	203	0.1%	0.0%
Finished Furnishings	2,291	2,971	3,651	1.9%	0.4%	Polystyrene Insulation	478	749	1,020	0.5%	0.2%
Pallets & Crates	4,367	5,134	5,901	3.2%	0.5%	Film and Bags	1,557	1,738	1,918	1.1%	0.1%
Sawdust	0	0	0	0.0%	0.0%	Other Packaging	90	111	132	0.1%	0.0%
Other Wood	65	70	75	0.0%	0.0%	Plastic Products	756	860	963	0.5%	0.1%
MINERAL AGGREGATES	37,408	44,247	51,087	27.8%		PVC Pipe	55	64	73	0.0%	0.0%
Asphaltic Concrete	162	206	249	0.1%	0.0%	ABS Pipe	36	40	44	0.0%	0.0%
BuiltUp Roofing	4,302	5,475	6,648	3.4%	0.7%	Polyurethane Foam	515	600	684	0.4%	0.1%
Composition Shingles	9,622	10,257	10,893	6.4%	0.4%	Thermoset Products	261	368	475	0.2%	0.1%
Tarpaper/Felt	538	940	1,342	0.6%	0.3%	Plastic Other Materials	785	1,054	1,323	0.7%	0.2%
Concrete w ith Rebar	569	809	1,048	0.5%	0.2%	Lam inate/Fom ica	61	68	76	0.0%	0.0%
Concrete w /o Rebar	2,328	2,762	3,196	1.7%	0.3%	Fiberglass Ceiling Panels	632	802	972	0.5%	0.1%
Bricks	1,483	1,877	2,271	1.2%	0.2%	Structural Fiberglass	1	1	1	0.0%	0.0%
CMU	586	668	750	0.4%	0.1%	Lino leum	311	417	524	0.3%	0.1%
Masonry Tile	160	181	202	0.1%	0.0%	OTHER MATERIALS	9,410	12,920	16,430	8.1%	
Mortar	650	810	971	0.5%	0.1%	Ashes	8	21	34	0.0%	0.0%
Plaster	2,200	2,664	3,129	1.7%	0.3%	Nondistinct Fines	3,015	3,903	4,791	2.4%	0.6%
Clay Roofing Tile	7	8	9	0.0%	0.0%	Sand	1,269	1,717	2,166	1.1%	0.3%
Slate/Quarry Tile	25	31	37	0.0%	0.0%	Topsoil	1,626	2,505	3,385	1.6%	0.6%
Mineral Wool	240	283	327	0.2%	0.0%	Gravel	63	81	99	0.1%	0.0%
Fiberglass Insulation	865	1,098	1,330	0.7%	0.1%	Furniture/M attresses	1,188	1,412	1,635	0.9%	0.1%
New Gypsum Scrap	5,488	6,572	7,656	4.1%	0.7%	Sm all Appliances	552	926	1,300	0.6%	0.2%
Mixed, Dem o Gypsum Scrap	8,183	9,606	11,029	6.0%	0.9%	Large Appliances	825	1,273	1,721	0.8%	0.3%
GLASS	736	1,105	1,473	0.7%		Ceram ic Tile	0	0	0	0.0%	0.0%
Clear Containers	141	183	225	0.1%	0.0%	Kitchen Ware	16	23	30	0.0%	0.0%
Green Containers	18	22	26	0.0%	0.0%	Porcelain	487	636	786	0.4%	0.1%
Brown Containers	0	1	1	0.0%	0.0%	M isc. Inorganics	361	422	484	0.3%	0.0%
Refillable Beer	13	15	17	0.0%	0.0%	OTHER ORGANICS	6,768	8,025	9,282	5.0%	
Other NR Glass	54	70	87	0.0%	0.0%	Food W astes	160	211	261	0.1%	0.0%
Window Glass	460	753	1,046	0.5%	0.2%	Textiles/Clothes	874	1,047	1,221	0.7%	0.1%
Minor Glass	50	60	70	0.0%	0.0%	Carpet	4,532	5,238	5,943	3.3%	0.4%
METALS	12,176	14,868	17,561	9.3%		Upholstery	25	29	33	0.0%	0.0%
Aluminum Cans	64	79	94	0.0%	0.0%	Textile Related Products	340	405	470	0.3%	0.0%
Other Aluminum	309	386	464	0.2%	0.0%	Disposable Diapers	25	50	75	0.0%	0.0%
Tinned Food Cans	110	132	153	0.1%	0.0%	Rubber Products	442	574	705	0.4%	0.1%
Other Ferrous	3,801	4,492	5,182	2.8%	0.4%	Tires	55	92	128	0.1%	0.0%
Galvanized Steel	2,574	3,229	3,884	2.0%	0.4%	Anim al Carcasses	0	0	0	0.0%	0.0%
Other Tinned Cans	363	595	826	0.4%	0.1%	Anim al Feces	0	0	0	0.0%	0.0%
Other Nonferrous	205	287	370	0.2%	0.1%	W ax	0	0	0	0.0%	0.0%
Mixed Metals/M aterials	4,226	4,924	5,621	3.1%	0.4%	M isc. Organics	315	380	445	0.2%	0.0%
Insulated Wire/Cable	505	723	941	0.5%	0.1%	HAZARDOUS WASTE	439	737	1,036	0.5%	
Electric Motors	6	6	7	0.0%	0.0%	Used Oil	3	5	7	0.0%	0.0%
Aerosol Cans	14	16	19	0.0%	0.0%	Vehicle Batteries	0	0	0	0.0%	0.0%
CFC Compressors	0	0	0	0.0%	0.0%	Household Batteries	0	0	0	0.0%	0.0%
PAPER	6,937	8,512	10,086	5.3%		Latex Paint	16	18	21	0.0%	0.0%
Newspaper	536	711	887	0.4%	0.1%	Wood Preservatives	0	0	0	0.0%	0.0%
OC Kraft	3,279	3,593	3,908	2.3%	0.2%	Varnishes & Finishes	64	165	265	0.1%	0.1%
Low Grade Recyclable	1,099	1,435	1,772	0.9%	0.2%	Solvents/Thinners	87	217	348	0.1%	0.1%
High Grade Printing	285	358	430	0.2%	0.0%	Adhesives/G lues	228	259	290	0.2%	0.0%
Computer Paper	64	77	90	0.0%	0.0%	Cleaners and Composites	6	7	7	0.0%	0.0%
Bleached Polycoats	6	7	9	0.0%	0.0%	Pesticides/H erbicides	0	0	0	0.0%	0.0%
Paper, Other Materials	960	1,469	1,978	0.9%	0.3%	Gas/Fuel Oil	0	0	0	0.0%	0.0%
Tyvek	27	42	56	0.0%	0.0%	Antifreeze	0	0	0	0.0%	0.0%
Other NR Paper	683	819	956	0.5%	0.1%	Medical Waste	0	0	0	0.0%	0.0%
Total Disposed Tons	159,365					Asbestos	1	1	1	0.0%	0.0%
Number of Samples	242					Other Hazardous	33	66	98	0.0%	0.0%

2.2 Composition by Substream

During both the surveying and waste sampling stages of this project, vehicle drivers were asked to identify from which type of project (new construction, roofing, etc.) they had collected the load.⁶

2.2.1 Total Tonnage

In addition to noting each sampled vehicle's substream, the net weights were recorded. As shown in Table 2-3, the total tonnage contributed by each substream was estimated using these data.

Table 2-3 Total Disposed Tonnage, by Substream
October 1994 to August 1995

	Total Net Tons		Estimated Disposal	
	Surveyed Vehicles		Applied to Overall Tonnage	
New Construction, Residential	54	3.0%	4,765	3.0%
New Construction, Commercial/Institutional	130	7.2%	11,499	7.2%
Remodeling, Residential	209	11.5%	18,407	11.5%
Remodeling, Commercial/Institutional	123	6.8%	10,806	6.8%
Demolition, Residential	219	12.1%	19,308	12.1%
Demolition, Commercial/Institutional	671	37.1%	59,153	37.1%
Roofing	226	12.5%	19,918	12.5%
Other	176	9.7%	15,510	9.7%
Overall	1,808	100.0%	159,365	100.0%

2.2.2 Results

The most prevalent (at least 3% of the substream's total) waste types are summarized in Table 2-4. Substantial amounts of wood wastes, mineral aggregates and carpet were found in most of the substreams.

⁶ Only one sample was taken from the Landclearing substream. For the purposes of the waste composition analysis, this sample was added to the "Other" substream. It was often difficult for drivers to distinguish the Remodeling substream from the New Construction or Demolition substreams. This may explain the large percentage of gypsum scrap and other demolition materials in the New Construction substream and the large percentage of new lumber and new gypsum scrap in the Demolition substream.

**Table 2-4 Summary of Most Prevalent Disposed Wastes, by Substream
October 1994 to August 1995**

	New Construction		Remodeling		Demolition		Roofing	Other
	Residential	Commercial	Residential	Commercial	Residential	Commercial		
WOOD WASTE								
New Lumber	13.2%	10.0%	5.0%	7.5%	3.2%	3.1%		
New Panelboard	6.2%	3.7%	3.9%	6.4%				
Dem o Lumber	3.1%		9.9%	3.0%	10.6%	4.7%	3.6%	11.1%
Dem o Panelboard		3.3%	3.9%					3.1%
Painted/Stained Wood	4.3%	5.5%	7.2%	8.7%	13.5%	7.1%	6.0%	5.9%
Contaminated Dem o Wood	8.6%		5.4%		3.3%	4.2%		
Wood/Other Materials			6.3%					
Roofing/Siding					3.0%		14.4%	
Finished Furnishings				8.4%				
Pallets & Crates	6.7%	5.2%		4.2%		4.1%		4.3%
MINERAL AGGREGATES								
Built-Up Roofing						3.1%	17.2%	
Composition Shingles			3.0%		3.8%		43.4%	
Concrete w/o Rebar		6.5%	3.1%					
Bricks								5.9%
CMU	7.8%							
Plaster			6.3%					
New Gypsum Scrap		6.3%	5.7%	6.1%	3.6%	4.2%		6.2%
Mixed/Demo Gypsum Scrap	9.5%	5.1%	3.4%	5.3%	7.9%	8.8%	3.3%	
METALS								
Other Ferrous						4.6%		3.6%
Galvanized Steel						4.2%		
Mixed Metals/Materials		3.4%		5.7%		4.3%		4.3%
PAPER								
OCCKraft	7.1%	4.6%						
YARD WASTE								
Stumps					5.4%			
Large Prunings								10.1%
PLASTICS								
Film and Bags		4.5%						
Polyurethane Foam								3.4%
Fiberglass Ceiling Panels				3.9%				
OTHER MATERIALS								
Nondistinct Fines	3.8%					5.4%		
Topsoil								6.6%
Furniture/Addresses								5.0%
OTHER ORGANICS								
Carpet	3.6%		4.5%	4.6%	5.0%			12.9%

Tables 2-5 through 2-12 provide the estimated composition, by weight, of each substream follows. As described in Section 1, the waste sampling selection was based on vehicle class. There was no intent to capture a certain number of samples from any particular substream. Many of the substream-specific waste composition analyses are based on a small number of samples and are thus subject to a relatively wide margin of error.⁷ Substream-specific results are presented in order to provide rough estimates only.

⁷ For example, as shown in Table 2-5, New Lumber accounts for anywhere from 4.1% to 22.3% of the New Construction, Residential substream.

**Table 2-5 Composition, by Weight: New Construction, Residential
October 1994 to August 1995**

Percent & Range at 90% Confidence Interval

	Estimated Disposed Tons			Composition			Estimated Disposed Tons			Composition	
	Low	Mean	High	Mean	+/-		Low	Mean	High	Mean	+/-
WOOD WASTE	330	2,162	4,097	45.4%		YARD WASTE	0	80	211	1.7%	
New Lum ber	194	627	1,060	13.2%	9.1%	Stumps	0	16	42	0.3%	0.5%
New Panelboard	99	295	490	6.2%	4.1%	Large Prunings	0	0	0	0.0%	0.0%
Dem o Lum ber	0	148	299	3.1%	3.2%	Bulky Yard W aste	0	48	128	1.0%	1.7%
Dem o Panelboard	0	63	126	1.3%	1.3%	Sm allPrunings	0	6	16	0.1%	0.2%
Rem anufacturing Scrap	0	0	0	0.0%	0.0%	Leaves & Grass	0	9	25	0.2%	0.3%
Creosote W ood	0	7	19	0.2%	0.3%	PLASTICS	15	327	706	6.9%	
Pressure Treated W ood	0	6	15	0.1%	0.2%	PET #1 Bottles	0	3	5	0.1%	0.1%
Painted/Stained W ood	37	203	368	4.3%	3.5%	HDPE #2 Bottles	0	1	2	0.0%	0.0%
Contam inated Dem o W ood	0	412	851	8.6%	9.2%	5 Gal.#2 w ith H andles	0	0	0	0.0%	0.0%
W ood/O therM aterials	0	1	2	0.0%	0.0%	5 Gal.#2 w /o H andles	0	0	0	0.0%	0.0%
Roofing/Siding	0	28	68	0.6%	0.8%	O therContainers	0	0	1	0.0%	0.0%
Unfinished Furnishings	0	0	0	0.0%	0.0%	Polystyrene Foam	0	2	5	0.0%	0.1%
Finished Furnishings	0	1	1	0.0%	0.0%	Polystyrene Insulation	2	17	32	0.4%	0.3%
Pallets & Crates	0	319	660	6.7%	7.2%	Film and Bags	13	130	248	2.7%	2.5%
Saw dust	0	0	0	0.0%	0.0%	O therPackaging	0	4	7	0.1%	0.1%
O therW ood	0	52	137	1.1%	1.8%	Plastic Products	0	92	214	1.9%	2.6%
MINERAL AGGREGATES	6	1,022	2,400	21.5%		PVC Pipe	0	4	11	0.1%	0.1%
Asphaltic Concrete	0	0	0	0.0%	0.0%	ABS Pipe	0	5	11	0.1%	0.1%
BuiltUp Roofing	0	0	0	0.0%	0.0%	Polyurethane Foam	0	4	11	0.1%	0.1%
Com position Shingles	0	35	92	0.7%	1.2%	Them osetProducts	0	1	2	0.0%	0.0%
Tarpaper/Felt	0	5	12	0.1%	0.2%	Plastic/O therM aterials	0	35	88	0.7%	1.1%
Concrete w ith Rebar	0	0	0	0.0%	0.0%	Lam inateFom ica	0	5	14	0.1%	0.2%
Concrete w /o Rebar	0	0	0	0.0%	0.0%	Fiberglass Ceiling Panels	0	8	22	0.2%	0.3%
Bricks	0	5	13	0.1%	0.2%	StructuralFiberglass	0	0	0	0.0%	0.0%
CM U	0	374	989	7.8%	12.9%	Linoeum	0	15	34	0.3%	0.4%
M asonry Tile	0	4	11	0.1%	0.1%	OTHER MATERIALS	0	286	640	6.0%	
M ortar	0	17	44	0.3%	0.6%	Ashes	0	0	0	0.0%	0.0%
Plaster	0	97	257	2.0%	3.4%	N ondistinctFines	0	182	365	3.8%	3.8%
Clay Roofing Tile	0	0	0	0.0%	0.0%	Sand	0	0	0	0.0%	0.0%
Slate/Quany Tile	0	0	0	0.0%	0.0%	Topsoil	0	0	0	0.0%	0.0%
M ineralW ool	0	0	0	0.0%	0.0%	Gravel	0	0	0	0.0%	0.0%
Fiberglass Insulation	0	28	70	0.6%	0.9%	FurnitureM attresses	0	0	0	0.0%	0.0%
New Gypsum Scrap	0	6	13	0.1%	0.1%	Sm allAppliances	0	2	5	0.0%	0.1%
M ixed/D em o Gypsum Scrap	6	452	899	9.5%	9.4%	Large Appliances	0	0	0	0.0%	0.0%
GLASS	0	22	53	0.5%		Ceram ic Tile	0	0	0	0.0%	0.0%
ClearContainers	0	4	8	0.1%	0.1%	Kitchen Ware	0	0	0	0.0%	0.0%
Green Containers	0	4	12	0.1%	0.2%	Porcelain	0	102	271	2.1%	3.5%
Brown Containers	0	0	0	0.0%	0.0%	M isc. Inorganics	0	0	0	0.0%	0.0%
Refillable Beer	0	11	26	0.2%	0.3%	OTHER ORGANICS	0	322	695	6.8%	
O therNR Glass	0	2	5	0.0%	0.1%	Food W astes	0	1	2	0.0%	0.0%
W indow Glass	0	1	3	0.0%	0.0%	Textiles/Clothes	0	0	1	0.0%	0.0%
M inorGlass	0	0	0	0.0%	0.0%	Carpet	0	170	363	3.6%	4.0%
M ETALS	4	138	296	2.9%		Upholstery	0	0	0	0.0%	0.0%
Alum inum Cans	0	4	8	0.1%	0.1%	Textile Related Products	0	69	143	1.5%	1.5%
O therAlum inum	0	1	4	0.0%	0.1%	Disposable Diapers	0	0	1	0.0%	0.0%
Tinned Food Cans	0	0	1	0.0%	0.0%	RubberProducts	0	23	50	0.5%	0.6%
O therFermous	0	40	87	0.8%	1.0%	Tires	0	27	73	0.6%	0.9%
Galvanized Steel	4	25	45	0.5%	0.4%	Anim alCarcasses	0	0	0	0.0%	0.0%
O therTinned Cans	0	37	79	0.8%	0.9%	Anim alFeces	0	0	0	0.0%	0.0%
O therN onferous	0	0	0	0.0%	0.0%	W ax	0	0	0	0.0%	0.0%
M ixedM etalsM aterials	0	25	59	0.5%	0.7%	M isc. Organics	0	30	63	0.6%	0.7%
Insulated W ire/Cable	0	2	4	0.0%	0.1%	HAZARDOUS WASTE	0	18	37	0.4%	
Electric M otors	0	3	8	0.1%	0.1%	Used Oil	0	0	0	0.0%	0.0%
AerosolCans	0	1	2	0.0%	0.0%	Vehicle Batteries	0	0	0	0.0%	0.0%
CFC Com pressors	0	0	0	0.0%	0.0%	Household Batteries	0	0	0	0.0%	0.0%
PAPER	162	388	618	8.1%		Latex Paint	0	1	3	0.0%	0.0%
New spaper	4	11	18	0.2%	0.2%	W ood Preservatives	0	0	0	0.0%	0.0%
O CC Kraft	147	337	526	7.1%	4.0%	Varnishes & Finishes	0	0	0	0.0%	0.0%
Low Grade Recyclable	11	33	56	0.7%	0.5%	Solvents/Thinners	0	0	0	0.0%	0.0%
High Grade Printing	0	4	10	0.1%	0.1%	Adhesives/G lues	0	17	35	0.3%	0.4%
Com puterPaper	0	0	0	0.0%	0.0%	Cleaners and Com osives	0	0	0	0.0%	0.0%
Bleached Polycoats	0	0	1	0.0%	0.0%	Pesticides/H erbicides	0	0	0	0.0%	0.0%
PaperO therM aterials	0	1	3	0.0%	0.0%	Gas/FuelOil	0	0	0	0.0%	0.0%
Tyvek	0	1	2	0.0%	0.0%	Antifreeze	0	0	0	0.0%	0.0%
O therNR Paper	0	0	1	0.0%	0.0%	M edicalW aste	0	0	0	0.0%	0.0%
						Asbestos	0	0	0	0.0%	0.0%
						O therH azardous	0	0	0	0.0%	0.0%
Total Disposed Tons		4,765									
Number of Sam ples		14									

**Table 2-6 Composition, by Weight: New Construction, Commercial
October 1994 to August 1995**

Percent & Range at 90% Confidence Interval

	Estimated Disposed Tons			Composition			Estimated Disposed Tons			Composition	
	Low	Mean	High	Mean	+/-		Low	Mean	High	Mean	+/-
WOOD WASTE	1,120	3,891	6,854	33.8%		YARD WASTE	0	218	456	1.9%	
New Lum ber	613	1,149	1,685	10.0%	4.7%	Stumps	0	0	0	0.0%	0.0%
New Panelboard	173	425	677	3.7%	2.2%	Large Prunings	0	0	0	0.0%	0.0%
Dem o Lum ber	0	292	595	2.5%	2.6%	Bulky Yard Waste	0	0	0	0.0%	0.0%
Dem o Panelboard	12	385	757	3.3%	3.2%	Sm all Prunings	0	19	40	0.2%	0.2%
Rem anufacturing Scrap	0	0	0	0.0%	0.0%	Leaves & Grass	0	199	416	1.7%	1.9%
Creosote Wood	0	0	0	0.0%	0.0%	PLASTICS	149	903	1,740	7.9%	
Pressure Treated Wood	0	53	130	0.5%	0.7%	PET #1 Bottles	1	4	8	0.0%	0.0%
Painted/Stained Wood	253	629	1,005	5.5%	3.3%	HDPE #2 Bottles	2	8	15	0.1%	0.1%
Contaminated Dem o Wood	0	38	88	0.3%	0.4%	5 Gal.#2 with Handles	1	30	59	0.3%	0.2%
Wood/Other Materials	0	38	80	0.3%	0.4%	5 Gal.#2 w/o Handles	0	2	6	0.0%	0.0%
Roofing/Siding	0	126	316	1.1%	1.7%	Other Containers	0	1	2	0.0%	0.0%
Unfinished Furnishings	0	0	0	0.0%	0.0%	Polystyrene Foam	1	13	25	0.1%	0.1%
Finished Furnishings	0	162	398	1.4%	2.1%	Polystyrene Insulation	10	39	68	0.3%	0.3%
Pallets & Crates	69	595	1,120	5.2%	4.6%	Film and Bags	133	519	904	4.5%	3.4%
Sawdust	0	0	0	0.0%	0.0%	Other Packaging	0	23	49	0.2%	0.2%
Other Wood	0	0	1	0.0%	0.0%	Plastic Products	0	35	74	0.3%	0.3%
MINERAL AGGREGATES	121	3,029	6,569	26.3%		PVC Pipe	0	36	74	0.3%	0.3%
Asphaltic Concrete	0	167	436	1.5%	2.3%	ABS Pipe	0	24	64	0.2%	0.3%
Built-Up Roofing	0	81	213	0.7%	1.1%	Polyurethane Foam	0	15	38	0.1%	0.2%
Composition Shingles	0	150	351	1.3%	1.7%	Thermoset Products	0	0	0	0.0%	0.0%
Tarpaper/Felt	0	0	0	0.0%	0.0%	Plastic/Other Materials	0	94	220	0.8%	1.1%
Concrete with Rebar	0	29	73	0.3%	0.4%	Laminated Foam	0	0	0	0.0%	0.0%
Concrete w/o Rebar	92	744	1,396	6.5%	5.7%	Fiberglass Ceiling Panels	0	59	133	0.5%	0.6%
Bricks	0	14	36	0.1%	0.2%	Structural Fiberglass	0	0	0	0.0%	0.0%
CMU	0	140	366	1.2%	2.0%	Linoeum	0	0	0	0.0%	0.0%
Masonry Tile	0	29	77	0.2%	0.4%	OTHER MATERIALS	68	875	1,916	7.6%	
Mortar	0	65	145	0.6%	0.7%	Ashes	0	0	0	0.0%	0.0%
Plaster	0	74	194	0.6%	1.0%	Nondistinct Fines	68	267	466	2.3%	1.7%
Clay Roofing Tile	0	8	23	0.1%	0.1%	Sand	0	110	289	1.0%	1.6%
Slate/Quarry Tile	0	0	0	0.0%	0.0%	Topsoil	0	146	334	1.3%	1.6%
Mineral Wool	0	156	412	1.4%	2.2%	Gravel	0	16	44	0.1%	0.2%
Fiberglass Insulation	3	59	115	0.5%	0.5%	Furniture Mattresses	0	0	0	0.0%	0.0%
New Gypsum Scrap	0	725	1,582	6.3%	7.5%	Sm all Appliances	0	1	4	0.0%	0.0%
Mixed/Dem o Gypsum Scrap	26	588	1,149	5.1%	4.9%	Large Appliances	0	0	0	0.0%	0.0%
GLASS	8	38	74	0.3%		Ceramic Tile	0	0	0	0.0%	0.0%
Clear Containers	8	24	41	0.2%	0.1%	Kitchen Ware	0	0	0	0.0%	0.0%
Green Containers	0	6	12	0.0%	0.1%	Porcelain	0	0	0	0.0%	0.0%
Brown Containers	0	0	0	0.0%	0.0%	Misc. Inorganics	0	335	780	2.9%	3.9%
Refillable Beer	0	0	0	0.0%	0.0%	OTHER ORGANICS	0	419	924	3.6%	
Other NR Glass	0	4	10	0.0%	0.1%	Food Wastes	0	43	89	0.4%	0.4%
Window Glass	0	4	10	0.0%	0.1%	Textiles/Clothes	0	267	585	2.3%	2.8%
Mirror Glass	0	0	0	0.0%	0.0%	Carpet	0	40	82	0.3%	0.4%
METALS	168	1,020	1,936	8.9%		Upholstery	0	5	12	0.0%	0.1%
Aluminum Cans	4	11	19	0.1%	0.1%	Textile Related Products	0	15	34	0.1%	0.2%
Other Aluminum	0	21	45	0.2%	0.2%	Disposable Diapers	0	10	26	0.1%	0.1%
Tinned Food Cans	0	2	5	0.0%	0.0%	Rubber Products	0	16	32	0.1%	0.1%
Other Ferrous	120	258	395	2.2%	1.2%	Tires	0	0	0	0.0%	0.0%
Galvanized Steel	43	191	339	1.7%	1.3%	Animal Carcasses	0	0	0	0.0%	0.0%
Other Tinned Cans	0	54	111	0.5%	0.5%	Animal Feces	0	0	0	0.0%	0.0%
Other Nonferrous	0	46	119	0.4%	0.6%	Wax	0	0	0	0.0%	0.0%
Mixed Metals Materials	0	386	802	3.4%	3.6%	Misc. Organics	0	24	64	0.2%	0.3%
Insulated Wire/Cable	0	44	88	0.4%	0.4%	HAZARDOUS WASTE	0	77	165	0.7%	
Electric Motors	0	0	0	0.0%	0.0%	Used Oil	0	0	0	0.0%	0.0%
Aerosol Cans	1	7	13	0.1%	0.1%	Vehicle Batteries	0	0	0	0.0%	0.0%
CFC Compressors	0	0	0	0.0%	0.0%	Household Batteries	0	0	0	0.0%	0.0%
PAPER	431	1,027	1,650	8.9%		Latex Paint	0	0	0	0.0%	0.0%
Newspaper	3	39	74	0.3%	0.3%	Wood Preservatives	0	0	0	0.0%	0.0%
OK Kraft	321	524	727	4.6%	1.8%	Varnishes & Finishes	0	0	0	0.0%	0.0%
Low Grade Recyclable	38	128	218	1.1%	0.8%	Solvents/Thinners	0	0	0	0.0%	0.0%
High Grade Printing	0	2	4	0.0%	0.0%	Adhesives/Glues	0	73	153	0.6%	0.7%
Computer Paper	0	42	109	0.4%	0.6%	Cleaners and Cosmetics	0	0	0	0.0%	0.0%
Bleached Polycoats	0	2	4	0.0%	0.0%	Pesticides/Herbicides	0	0	0	0.0%	0.0%
Paper/Other Materials	16	105	195	0.9%	0.8%	Gas/Fuel Oil	0	0	0	0.0%	0.0%
Tyvek	0	0	0	0.0%	0.0%	Antifreeze	0	0	0	0.0%	0.0%
Other NR Paper	52	185	318	1.6%	1.2%	Medical Waste	0	0	0	0.0%	0.0%
Total Disposed Tons	11,499					Asbestos	0	1	3	0.0%	0.0%
Number of Samples	28					Other Hazardous	0	3	9	0.0%	0.0%

**Table 2-7 Composition, by Weight: Remodeling, Residential
October 1994 to August 1995**

Percent & Range at 90% Confidence Interval

	Estimated Disposed Tons			Composition		Estimated Disposed Tons			Composition	
	Low	Mean	High	Mean	+/-	Low	Mean	High	Mean	+/-
WOOD WASTE	3,438	8,988	14,976	48.8%		25	638	1,374	3.5%	
New Lumber	568	915	1,262	5.0%	1.9%	Stumps	0	0	0.0%	0.0%
New Panelboard	267	713	1,160	3.9%	2.4%	Large Prunings	0	13	34	0.1%
Dem o Lumber	757	1,831	2,904	9.9%	5.8%	Bulky Yard Waste	0	0	0.0%	0.0%
Dem o Panelboard	62	727	1,391	3.9%	3.6%	Sm all Prunings	0	366	847	2.0%
Remanufacturing Scrap	0	0	0	0.0%	0.0%	Leaves & Grass	25	259	492	1.4%
Cresote Wood	0	0	0	0.0%	0.0%	PLASTICS	52	601	1,288	3.3%
Pressure Treated Wood	0	296	744	1.6%	2.4%	PET #1 Bottles	0	2	4	0.0%
Painted/Stained Wood	881	1,324	1,767	7.2%	2.4%	HDPE #2 Bottles	0	1	2	0.0%
Contaminated Dem o Wood	447	990	1,532	5.4%	2.9%	5 Gal. #2 w/ H handles	0	18	42	0.1%
Wood/Other Materials	434	1,151	1,867	6.3%	3.9%	5 Gal. #2 w/o H handles	0	0	0	0.0%
Roofing/Siding	22	492	961	2.7%	2.6%	Other Containers	0	5	11	0.0%
Unfinished Furnishings	0	0	0	0.0%	0.0%	Polystyrene Foam	4	19	34	0.1%
Finished Furnishings	0	76	167	0.4%	0.5%	Polystyrene Insulation	0	24	53	0.1%
Pallets & Crates	0	466	1,197	2.5%	4.0%	Film and Bags	23	85	147	0.5%
Sawdust	0	0	0	0.0%	0.0%	Other Packaging	0	5	9	0.0%
Other Wood	0	9	22	0.0%	0.1%	Plastic Products	18	127	235	0.7%
MINERAL AGGREGATES	827	4,787	8,929	26.0%		PVC Pipe	0	5	13	0.0%
Asphaltic Concrete	0	0	0	0.0%	0.0%	ABS Pipe	1	9	17	0.0%
Built-Up Roofing	0	99	262	0.5%	0.9%	Polyurethane Foam	0	0	0	0.0%
Composition Shingles	39	556	1,072	3.0%	2.8%	Thermoset Products	0	119	290	0.6%
Tarpaper/Felt	8	24	39	0.1%	0.1%	Plastic/Other Materials	0	68	156	0.4%
Concrete with Rebar	0	38	100	0.2%	0.3%	Laminated Foam	6	27	47	0.1%
Concrete w/o Rebar	60	570	1,079	3.1%	2.8%	Fiberglass Ceiling Panels	0	2	5	0.0%
Bricks	0	0	0	0.0%	0.0%	Structural Fiberglass	0	0	0	0.0%
CMU	0	19	41	0.1%	0.1%	Linoeum	0	87	222	0.5%
Masonry Tile	16	128	241	0.7%	0.6%	OTHER MATERIALS	77	792	1,676	4.3%
Mortar	0	262	582	1.4%	1.7%	Ashes	0	0	0	0.0%
Plaster	153	1,152	2,152	6.3%	5.4%	Nondistinct Fines	76	162	248	0.9%
Clay Roofing Tile	0	0	0	0.0%	0.0%	Sand	0	35	75	0.2%
Slate/Quarry Tile	0	0	0	0.0%	0.0%	Topsoil	0	0	0	0.0%
Mineral Wool	0	115	264	0.6%	0.8%	Gravel	0	0	0	0.0%
Fiberglass Insulation	52	156	260	0.8%	0.6%	Furniture Mattresses	0	75	168	0.4%
New Gypsum Scrap	287	1,046	1,806	5.7%	4.1%	Sm all Appliances	0	52	135	0.3%
Mixed/Dem o Gypsum Scrap	212	623	1,034	3.4%	2.2%	Large Appliances	0	167	441	0.9%
GLASS	0	172	390	0.9%		Ceramic Tile	0	0	0	0.0%
Clear Containers	0	5	10	0.0%	0.0%	Kitchen Ware	0	10	23	0.1%
Green Containers	0	3	8	0.0%	0.0%	Porcelain	0	267	538	1.5%
Brown Containers	0	0	0	0.0%	0.0%	Misc. Inorganics	2	25	49	0.1%
Refillable Beer	0	1	3	0.0%	0.0%	OTHER ORGANICS	138	1,090	2,082	5.9%
Other NR Glass	0	3	7	0.0%	0.0%	Food Wastes	1	8	14	0.0%
Window Glass	0	99	213	0.5%	0.6%	Textiles/Clothes	0	57	133	0.3%
Minor Glass	0	60	149	0.3%	0.5%	Carpet	130	821	1,512	4.5%
METALS	206	819	1,441	4.4%		Upholstery	0	5	13	0.0%
Aluminum Cans	1	6	11	0.0%	0.0%	Textile Related Products	6	73	141	0.4%
Other Aluminum	6	30	53	0.2%	0.1%	Disposable Diapers	0	0	0	0.0%
Tinned Food Cans	0	0	1	0.0%	0.0%	Rubber Products	0	125	269	0.7%
Other Ferrous	14	163	312	0.9%	0.8%	Tires	0	0	0	0.0%
Galvanized Steel	74	269	464	1.5%	1.1%	Animal Carcasses	0	0	0	0.0%
Other Tinned Cans	0	19	44	0.1%	0.1%	Animal Feces	0	0	0	0.0%
Other Nonferrous	0	21	45	0.1%	0.1%	Wax	0	0	0	0.0%
Mixed Metals Materials	110	301	493	1.6%	1.0%	Misc. Organics	0	0	0	0.0%
Insulated Wire/Cable	1	8	15	0.0%	0.0%	HAZARDOUS WASTE	0	19	43	0.1%
Electric Motors	0	0	0	0.0%	0.0%	Used Oil	0	1	3	0.0%
Aerosol Cans	0	2	4	0.0%	0.0%	Vehicle Batteries	0	0	0	0.0%
CFC Compressors	0	0	0	0.0%	0.0%	Household Batteries	0	0	0	0.0%
PAPER	203	502	823	2.7%		Latex Paint	0	13	28	0.1%
Newspaper	0	19	39	0.1%	0.1%	Wood Preservatives	0	0	0	0.0%
OK Kraft	180	328	476	1.8%	0.8%	Varnishes & Finishes	0	1	2	0.0%
Low Grade Recyclable	16	37	57	0.2%	0.1%	Solvents/Thinners	0	0	0	0.0%
High Grade Printing	0	7	14	0.0%	0.0%	Adhesives/Glues	0	1	4	0.0%
Computer Paper	0	0	0	0.0%	0.0%	Cleaners and Cosmetics	0	0	0	0.0%
Bleached Polycoats	0	1	3	0.0%	0.0%	Pesticides/Herbicides	0	0	0	0.0%
Paper/Other Materials	0	80	180	0.4%	0.5%	Gas/Fuel Oil	0	0	0	0.0%
Tyvek	0	0	0	0.0%	0.0%	Antifreeze	0	0	0	0.0%
Other NR Paper	6	31	55	0.2%	0.1%	Medical Waste	0	0	0	0.0%
Total Disposed Tons	18,407					Asbestos	0	0	0	0.0%
Number of Samples	48					Other Hazardous	0	3	7	0.0%

**Table 2-8 Composition, by Weight: Remodeling, Commercial
October 1994 to August 1995**

Percent & Range at 90% Confidence Interval

	Estimated Disposed Tons			Composition			Estimated Disposed Tons			Composition	
	Low	Mean	High	Mean	+/-		Low	Mean	High	Mean	+/-
WOOD WASTE	1,224	4,962	8,782	45.9%		YARD WASTE	0	84	199	0.8%	
New Lumber	393	812	1,231	7.5%	3.9%	Stumps	0	0	0	0.0%	0.0%
New Panelboard	396	696	996	6.4%	2.8%	Large Prunings	0	0	0	0.0%	0.0%
Dem o Lumber	58	326	593	3.0%	2.5%	Bulky Yard Waste	0	0	0	0.0%	0.0%
Dem o Panelboard	27	191	354	1.8%	1.5%	Sm all Prunings	0	1	2	0.0%	0.0%
Rem anufacturing Scrap	0	0	0	0.0%	0.0%	Leaves & Grass	0	83	196	0.8%	1.0%
Cresote Wood	0	0	0	0.0%	0.0%	PLASTICS	59	937	1,982	8.7%	
Pressure Treated Wood	0	57	120	0.5%	0.6%	PET #1 Bottles	1	5	10	0.0%	0.0%
Painted/Stained Wood	349	942	1,536	8.7%	5.5%	HDPE #2 Bottles	0	2	4	0.0%	0.0%
Contaminated Dem o Wood	0	296	601	2.7%	2.8%	5 Gal.#2 with Handles	0	12	27	0.1%	0.1%
Wood/O ther Materials	0	271	566	2.5%	2.7%	5 Gal.#2 w/o Handles	0	2	4	0.0%	0.0%
Roofing/Siding	0	0	0	0.0%	0.0%	O ther Containers	0	3	6	0.0%	0.0%
Unfinished Furnishings	0	0	0	0.0%	0.0%	Polystyrene Foam	0	16	36	0.1%	0.2%
Finished Furnishings	0	903	1,845	8.4%	8.7%	Polystyrene Insulation	0	13	30	0.1%	0.1%
Pallets & Crates	1	459	916	4.2%	4.2%	Film and Bags	55	191	328	1.8%	1.3%
Saw dust	0	0	0	0.0%	0.0%	O ther Packaging	2	5	8	0.0%	0.0%
O ther Wood	0	9	24	0.1%	0.1%	Plastic Products	0	44	100	0.4%	0.5%
MINERAL AGGREGATES	181	1,927	3,940	17.8%		PVC Pipe	0	1	4	0.0%	0.0%
Asphaltic Concrete	0	0	0	0.0%	0.0%	ABS Pipe	0	1	3	0.0%	0.0%
BuiltUp Roofing	0	10	27	0.1%	0.2%	Polyurethane Foam	0	28	64	0.3%	0.3%
Composition Shingles	0	0	0	0.0%	0.0%	Therm oset Products	0	10	23	0.1%	0.1%
Tarpaper/Felt	0	20	54	0.2%	0.3%	Plastic/O ther Materials	2	8	15	0.1%	0.1%
Concrete with Rebar	0	21	57	0.2%	0.3%	Lam inate Form ica	0	26	70	0.2%	0.4%
Concrete w/o Rebar	17	103	189	1.0%	0.8%	Fiberglass Ceiling Panels	0	420	861	3.9%	4.1%
Bricks	0	4	11	0.0%	0.1%	Structural Fiberglass	0	0	0	0.0%	0.0%
CM U	0	59	150	0.5%	0.8%	Linoeum	0	149	391	1.4%	2.2%
M asonry Tile	0	0	0	0.0%	0.0%	O THER MATERIALS	0	327	828	3.0%	
M ortar	0	146	369	1.3%	2.1%	Ashes	0	0	0	0.0%	0.0%
Plaster	0	277	654	2.6%	3.5%	Non distinct Fines	0	17	36	0.2%	0.2%
Clay Roofing Tile	0	0	0	0.0%	0.0%	Sand	0	287	733	2.7%	4.1%
Slate/Quany Tile	0	1	3	0.0%	0.0%	Topsoil	0	17	45	0.2%	0.3%
Mineral Wool	0	0	0	0.0%	0.0%	Gravel	0	0	0	0.0%	0.0%
Fiberglass Insulation	15	55	96	0.5%	0.4%	Furniture M attresses	0	0	0	0.0%	0.0%
New Gypsum Scrap	0	657	1,335	6.1%	6.3%	Sm all Appliances	0	0	0	0.0%	0.0%
M ixed/D em o Gypsum Scrap	149	573	996	5.3%	3.9%	Large Appliances	0	0	0	0.0%	0.0%
GLASS	0	9	19	0.1%		Ceram ic Tile	0	0	0	0.0%	0.0%
Clear Containers	0	4	7	0.0%	0.0%	Kitchen Ware	0	0	0	0.0%	0.0%
Green Containers	0	0	1	0.0%	0.0%	Porcelain	0	0	0	0.0%	0.0%
Brown Containers	0	0	0	0.0%	0.0%	M isc. Inorganics	0	6	14	0.1%	0.1%
Refillable Beer	0	0	1	0.0%	0.0%	O THER ORGANICS	115	740	1,397	6.8%	
O ther NR Glass	0	2	4	0.0%	0.0%	Food W astes	0	30	80	0.3%	0.5%
Window Glass	0	2	5	0.0%	0.0%	Textiles/Clothes	6	51	96	0.5%	0.4%
Minor Glass	0	0	0	0.0%	0.0%	Carpet	89	493	898	4.6%	3.7%
M ETALS	494	1,226	2,033	11.3%		Upholstery	0	0	0	0.0%	0.0%
Aluminum Cans	0	5	10	0.0%	0.0%	Textile Related Products	0	17	42	0.2%	0.2%
O ther Aluminum	0	1	2	0.0%	0.0%	Disposable Diapers	0	0	0	0.0%	0.0%
Tinned Food Cans	0	92	243	0.8%	1.4%	Rubber Products	0	44	94	0.4%	0.5%
O ther Ferrous	119	288	457	2.7%	1.6%	Tires	0	0	0	0.0%	0.0%
Galvanized Steel	57	147	236	1.4%	0.8%	Anim al Carcasses	0	0	0	0.0%	0.0%
O ther Tinned Cans	0	5	12	0.0%	0.1%	Anim al Feces	0	0	0	0.0%	0.0%
O ther Nonferrous	0	54	118	0.5%	0.6%	W ax	0	0	0	0.0%	0.0%
M ixed Metals Materials	318	617	917	5.7%	2.8%	M isc. Organics	21	104	188	1.0%	0.8%
Insulated Wire/Cable	0	15	29	0.1%	0.1%	HAZARDOUS WASTE	0	78	179	0.7%	
Electric Motors	0	3	8	0.0%	0.0%	Used Oil	0	2	4	0.0%	0.0%
Aerosol Cans	0	1	2	0.0%	0.0%	Vehicle Batteries	0	0	0	0.0%	0.0%
CFC Com pressors	0	0	0	0.0%	0.0%	Household Batteries	0	0	0	0.0%	0.0%
PAPER	143	517	939	4.8%		Latex Paint	0	4	12	0.0%	0.1%
Newspaper	2	15	28	0.1%	0.1%	Wood Preservatives	0	0	0	0.0%	0.0%
OCC Kraft	131	277	423	2.6%	1.3%	Varnishes & Finishes	0	0	0	0.0%	0.0%
Low Grade Recyclable	10	27	44	0.3%	0.2%	Solvents/Thinners	0	0	0	0.0%	0.0%
High Grade Printing	0	6	14	0.1%	0.1%	Adhesives/G lues	0	66	146	0.6%	0.7%
Computer Paper	0	26	69	0.2%	0.4%	Cleaners and Com osives	0	6	17	0.1%	0.1%
Bleached Polycoats	0	0	0	0.0%	0.0%	Pesticides/H erbicides	0	0	0	0.0%	0.0%
Paper/O ther Materials	0	26	68	0.2%	0.4%	Gas/Fuel Oil	0	0	0	0.0%	0.0%
Tyvek	0	7	18	0.1%	0.1%	Antifreeze	0	0	0	0.0%	0.0%
O ther NR Paper	0	132	274	1.2%	1.3%	Medical Waste	0	0	0	0.0%	0.0%
						Asbestos	0	0	0	0.0%	0.0%
						O ther Hazardous	0	0	0	0.0%	0.0%
Total Disposed Tons		10,806									
Number of Samples		35									

**Table 2-9 Composition, by Weight: Demolition, Residential
October 1994 to August 1995**

Percent & Range at 90% Confidence Interval

	Estimated Disposed Tons			Composition			Estimated Disposed Tons			Composition	
	Low	Mean	High	Mean	+/-		Low	Mean	High	Mean	+/-
WOOD WASTE	2,013	7,829	13,990	40.5%		YARD WASTE	0	2,171	5,041	11.2%	
New Lum ber	0	609	1,268	3.2%	3.4%	Stumps	0	1,043	2,349	5.4%	6.8%
New Panelboard	0	100	219	0.5%	0.6%	Large Prunings	0	288	629	1.5%	1.8%
Dem o Lum ber	709	2,055	3,402	10.6%	7.0%	Bulky Yard Waste	0	394	1,043	2.0%	3.4%
Dem o Panelboard	34	301	568	1.6%	1.4%	Sm all Prunings	0	365	820	1.9%	2.4%
Rem anufacturing Scrap	0	0	0	0.0%	0.0%	Leaves & Grass	0	80	200	0.4%	0.6%
Creosote Wood	0	0	0	0.0%	0.0%	PLASTICS	43	506	1,001	2.6%	
Pressure Treated Wood	0	38	80	0.2%	0.2%	PET #1 Bottles	0	14	29	0.1%	0.1%
Painted/Stained Wood	1,104	2,598	4,091	13.5%	7.7%	HDPE #2 Bottles	0	10	21	0.1%	0.1%
Contaminated Dem o Wood	110	639	1,168	3.3%	2.7%	5 Gal.#2 w ith Handles	0	0	0	0.0%	0.0%
Wood/O therM aterials	56	298	541	1.5%	1.3%	5 Gal.#2 w /o Handles	0	0	0	0.0%	0.0%
Roofing/Siding	0	583	1,316	3.0%	3.8%	O ther Containers	0	3	8	0.0%	0.0%
Unfinished Furnishings	0	0	0	0.0%	0.0%	Polystyrene Foam	0	40	87	0.2%	0.2%
Finished Furnishings	0	424	941	2.2%	2.7%	Polystyrene Insulation	0	2	6	0.0%	0.0%
Pallets & Crates	0	184	397	1.0%	1.1%	Film and Bags	11	42	74	0.2%	0.2%
Saw dust	0	0	0	0.0%	0.0%	O ther Packaging	0	23	48	0.1%	0.1%
O ther Wood	0	0	0	0.0%	0.0%	Plastic Products	32	293	555	1.5%	1.4%
MINERAL AGGREGATES	23	4,684	10,585	24.3%		PVC Pipe	0	5	11	0.0%	0.0%
Asphaltic Concrete	0	0	0	0.0%	0.0%	ABS Pipe	0	0	0	0.0%	0.0%
BuiltUp Roofing	0	0	0	0.0%	0.0%	Polyurethane Foam	0	8	22	0.0%	0.1%
Composition Shingles	0	742	1,698	3.8%	4.9%	Therm oset Products	0	0	0	0.0%	0.0%
Tarpaper/Felt	0	84	213	0.4%	0.7%	Plastic/O therM aterials	0	53	115	0.3%	0.3%
Concrete w ith Rebar	0	446	1,180	2.3%	3.8%	Lam inate Fom ica	0	10	27	0.1%	0.1%
Concrete w /o Rebar	0	216	471	1.1%	1.3%	Fiberglass Ceiling Panels	0	0	0	0.0%	0.0%
Bricks	0	375	993	1.9%	3.2%	Structural Fiberglass	0	0	0	0.0%	0.0%
CM U	0	15	39	0.1%	0.1%	Lino leum	0	0	0	0.0%	0.0%
M asonry Tile	0	18	48	0.1%	0.2%	OTHER MATERIALS	0	1,332	3,106	6.9%	
M ortar	0	178	472	0.9%	1.5%	Ashes	0	0	0	0.0%	0.0%
Plaster	0	288	693	1.5%	2.1%	Non distinct Fines	0	78	173	0.4%	0.5%
Clay Roofing Tile	0	0	0	0.0%	0.0%	Sand	0	0	0	0.0%	0.0%
Slate/Quany Tile	0	30	80	0.2%	0.3%	Topsoil	0	0	0	0.0%	0.0%
M ineral Wool	0	0	0	0.0%	0.0%	Gravel	0	0	0	0.0%	0.0%
Fiberglass Insulation	0	64	146	0.3%	0.4%	FurnitureM attresses	0	562	1,416	2.9%	4.4%
New Gypsum Scrap	23	694	1,364	3.6%	3.5%	Sm all Appliances	0	274	586	1.4%	1.6%
M ixed/D em o Gypsum Scrap	0	1,533	3,190	7.9%	8.6%	Large Appliances	0	359	773	1.9%	2.1%
GLASS	8	284	588	1.5%		Ceram ic Tile	0	0	0	0.0%	0.0%
Clear Containers	0	1	3	0.0%	0.0%	Kitchen Ware	0	7	18	0.0%	0.1%
Green Containers	0	0	0	0.0%	0.0%	Porcelain	0	47	125	0.2%	0.4%
Brown Containers	0	0	0	0.0%	0.0%	M isc. Inorganics	0	6	15	0.0%	0.0%
Refillable Beer	0	0	0	0.0%	0.0%	OTHER ORGANICS	64	1,157	2,294	6.0%	
O ther NR Glass	0	43	115	0.2%	0.4%	Food W astes	0	0	0	0.0%	0.0%
W indow Glass	8	239	470	1.2%	1.2%	Textiles/Clothes	0	15	39	0.1%	0.1%
M inor Glass	0	0	0	0.0%	0.0%	Carpet	64	970	1,875	5.0%	4.7%
METALS	117	867	1,643	4.5%		Upholstery	0	19	44	0.1%	0.1%
Alum inum Cans	1	5	8	0.0%	0.0%	Textile Related Products	0	45	120	0.2%	0.4%
O ther Alum inum	0	38	76	0.2%	0.2%	Disposable Diapers	0	0	0	0.0%	0.0%
Tinned Food Cans	0	2	4	0.0%	0.0%	Rubber Products	0	0	0	0.0%	0.0%
O ther Ferrous	65	359	653	1.9%	1.5%	Tires	0	0	0	0.0%	0.0%
Galvanized Steel	0	0	0	0.0%	0.0%	Anim al Carcasses	0	0	0	0.0%	0.0%
O ther Tinned Cans	9	46	82	0.2%	0.2%	Anim al Feces	0	0	0	0.0%	0.0%
O ther Nonferrous	0	5	12	0.0%	0.0%	W ax	0	0	0	0.0%	0.0%
M ixed MetalsM aterials	42	371	700	1.9%	1.7%	M isc. Organics	0	108	216	0.6%	0.6%
Insulated Wire/Cable	0	40	102	0.2%	0.3%	HAZARDOUS WASTE	0	49	129	0.3%	
Electric Motors	0	0	0	0.0%	0.0%	Used Oil	0	0	0	0.0%	0.0%
Aerosol Cans	0	2	6	0.0%	0.0%	Vehicle Batteries	0	0	0	0.0%	0.0%
CFC Com pressors	0	0	0	0.0%	0.0%	Household Batteries	0	0	0	0.0%	0.0%
PAPER	72	431	843	2.2%		Latex Paint	0	0	0	0.0%	0.0%
Newspaper	0	11	23	0.1%	0.1%	Wood Preservatives	0	0	0	0.0%	0.0%
OCC Kraft	72	279	486	1.4%	1.1%	Varnishes & Finishes	0	0	0	0.0%	0.0%
Low Grade Recyclable	0	72	164	0.4%	0.5%	Solvents/Thinners	0	0	0	0.0%	0.0%
High Grade Printing	0	6	16	0.0%	0.1%	Adhesives/G lues	0	49	129	0.3%	0.4%
Computer Paper	0	0	0	0.0%	0.0%	Cleaners and Com osives	0	0	0	0.0%	0.0%
Bleached Polycoats	0	1	3	0.0%	0.0%	Pesticides/H erbicides	0	0	0	0.0%	0.0%
Paper/O therM aterials	0	44	112	0.2%	0.4%	Gas/Fuel Oil	0	0	0	0.0%	0.0%
Tyvek	0	0	0	0.0%	0.0%	Antifreeze	0	0	0	0.0%	0.0%
O ther NR Paper	0	18	41	0.1%	0.1%	Medical Waste	0	0	0	0.0%	0.0%
						Asbestos	0	0	0	0.0%	0.0%
						O ther Hazardous	0	0	0	0.0%	0.0%
Total Disposed Tons		19,308									
Number of Samples		25									

**Table 2-10 Composition, by Weight: Demolition, Commercial
October 1994 to August 1995**

Percent & Range at 90% Confidence Interval

	Estimated Disposed Tons			Composition			Estimated Disposed Tons			Composition	
	Low	Mean	High	Mean	+/-		Low	Mean	High	Mean	+/-
WOOD WASTE	5,971	17,471	29,168	29.5%		YARD WASTE	22	541	1,130	0.9%	
New Lumber	920	1,845	2,770	3.1%	1.6%	Stumps	0	0	0	0.0%	0.0%
New Panelboard	464	1,144	1,824	1.9%	1.1%	Large Prunings	0	0	0	0.0%	0.0%
Dem o Lumber	1,263	2,782	4,302	4.7%	2.6%	Bulky Yard Waste	0	0	0	0.0%	0.0%
Dem o Panelboard	176	528	880	0.9%	0.6%	Sm all Prunings	0	211	494	0.4%	0.5%
Rem anufacturing Scrap	0	8	22	0.0%	0.0%	Leaves & Grass	22	329	637	0.6%	0.5%
Cresote Wood	0	138	364	0.2%	0.4%	PLASTICS	561	3,161	5,892	5.3%	
Pressure Treated Wood	0	120	308	0.2%	0.3%	PET #1 Bottles	8	27	45	0.0%	0.0%
Painted/Stained Wood	1,956	4,224	6,492	7.1%	3.8%	HDPE #2 Bottles	6	17	28	0.0%	0.0%
Contaminated Dem o Wood	75	2,479	4,884	4.2%	4.1%	5 Gal. #2 with Handles	1	98	195	0.2%	0.2%
Wood/O ther Materials	26	303	579	0.5%	0.5%	5 Gal. #2 w/o Handles	0	0	0	0.0%	0.0%
Roofing/Siding	0	44	113	0.1%	0.1%	O ther Containers	6	15	24	0.0%	0.0%
Unfinished Furnishings	0	0	0	0.0%	0.0%	Polystyrene Foam	19	75	132	0.1%	0.1%
Finished Furnishings	0	1,406	2,821	2.4%	2.4%	Polystyrene Insulation	0	655	1,361	1.1%	1.2%
Pallets & Crates	1,091	2,449	3,808	4.1%	2.3%	Film and Bags	403	733	1,062	1.2%	0.6%
Saw dust	0	0	0	0.0%	0.0%	O ther Packaging	9	51	93	0.1%	0.1%
O ther Wood	0	0	0	0.0%	0.0%	Plastic Products	21	91	161	0.2%	0.1%
MINERAL AGGREGATES	3,738	13,827	24,749	23.4%		PVC Pipe	0	7	15	0.0%	0.0%
Asphaltic Concrete	0	39	104	0.1%	0.1%	ABS Pipe	0	0	0	0.0%	0.0%
BuiltUp Roofing	0	1,862	3,997	3.1%	3.6%	Polyurethane Foam	2	20	39	0.0%	0.0%
Composition Shingles	0	125	253	0.2%	0.2%	Thermoset Products	8	239	470	0.4%	0.4%
Tarpaper/Felt	0	631	1,598	1.1%	1.6%	Plastic/O ther Materials	78	661	1,243	1.1%	1.0%
Concrete with Rebar	0	275	650	0.5%	0.6%	Laminated Foam	0	0	0	0.0%	0.0%
Concrete w/o Rebar	365	1,135	1,904	1.9%	1.3%	Fiberglass Ceiling Panels	0	307	660	0.5%	0.6%
Bricks	0	332	678	0.6%	0.6%	Structural Fiberglass	0	0	0	0.0%	0.0%
CMU	0	61	157	0.1%	0.2%	Linoeum	0	166	365	0.3%	0.3%
Masonry Tile	0	2	6	0.0%	0.0%	OTHER MATERIALS	1,059	7,199	14,714	12.2%	
Mortar	0	144	328	0.2%	0.3%	Ashes	0	21	56	0.0%	0.1%
Plaster	72	780	1,489	1.3%	1.2%	Non distinct Fines	846	3,204	5,563	5.4%	4.0%
Clay Roofing Tile	0	0	0	0.0%	0.0%	Sand	213	1,286	2,360	2.2%	1.8%
Slate/Quany Tile	0	0	0	0.0%	0.0%	Topsoil	0	1,317	3,231	2.2%	3.2%
Mineral Wool	0	13	35	0.0%	0.0%	Gravel	0	6	16	0.0%	0.0%
Fiberglass Insulation	185	738	1,291	1.2%	0.9%	Furniture Mattresses	0	11	28	0.0%	0.0%
New Gypsum Scrap	585	2,491	4,398	4.2%	3.2%	Sm all Appliances	0	530	1,387	0.9%	1.4%
Mixed/Dem o Gypsum Scrap	2,532	5,197	7,863	8.8%	4.5%	Large Appliances	0	543	1,435	0.9%	1.5%
GLASS	36	581	1,393	1.0%		Ceramic Tile	0	0	0	0.0%	0.0%
Clear Containers	35	143	251	0.2%	0.2%	Kitchen Ware	0	7	18	0.0%	0.0%
Green Containers	1	8	16	0.0%	0.0%	Porcelain	0	221	499	0.4%	0.5%
Brown Containers	0	1	2	0.0%	0.0%	Misc. Inorganics	0	52	120	0.1%	0.1%
Refillable Beer	0	3	6	0.0%	0.0%	OTHER ORGANICS	425	2,177	3,985	3.7%	
O ther NR Glass	0	16	34	0.0%	0.0%	Food Wastes	11	123	236	0.2%	0.2%
Window Glass	0	410	1,084	0.7%	1.1%	Textiles/Clothes	287	645	1,004	1.1%	0.6%
Minor Glass	0	0	0	0.0%	0.0%	Carpet	59	745	1,432	1.3%	1.2%
METALS	3,375	9,169	15,136	15.5%		Upholstery	0	0	0	0.0%	0.0%
Aluminum Cans	12	47	82	0.1%	0.1%	Textile Related Products	20	118	217	0.2%	0.2%
O ther Aluminum	24	117	209	0.2%	0.2%	Disposable Diapers	0	40	106	0.1%	0.1%
Tinned Food Cans	6	35	64	0.1%	0.0%	Rubber Products	48	327	606	0.6%	0.5%
O ther Ferrous	1,333	2,741	4,149	4.6%	2.4%	Tires	0	64	160	0.1%	0.2%
Galvanized Steel	798	2,470	4,142	4.2%	2.8%	Animal Carcasses	0	0	0	0.0%	0.0%
O ther Tinned Cans	0	436	1,022	0.7%	1.0%	Animal Feces	0	0	0	0.0%	0.0%
O ther Nonferrous	0	163	350	0.3%	0.3%	Wax	0	0	0	0.0%	0.0%
Mixed Metals Materials	1,161	2,559	3,956	4.3%	2.4%	Misc. Organics	0	113	227	0.2%	0.2%
Insulated Wire/Cable	41	598	1,155	1.0%	0.9%	HAZARDOUS WASTE	0	426	1,126	0.7%	
Electric Motors	0	0	0	0.0%	0.0%	Used Oil	0	2	6	0.0%	0.0%
Aerosol Cans	0	4	8	0.0%	0.0%	Vehicle Batteries	0	0	0	0.0%	0.0%
CFC Compressors	0	0	0	0.0%	0.0%	Household Batteries	0	0	0	0.0%	0.0%
PAPER	1,316	4,604	8,027	7.8%		Latex Paint	0	0	0	0.0%	0.0%
Newspaper	137	593	1,049	1.0%	0.8%	Wood Preservatives	0	0	0	0.0%	0.0%
OCC Kraft	977	1,527	2,077	2.6%	0.9%	Varnishes & Finishes	0	164	434	0.3%	0.5%
Low Grade Recyclable	27	730	1,432	1.2%	1.2%	Solvents/Thinners	0	211	558	0.4%	0.6%
High Grade Printing	29	121	213	0.2%	0.2%	Adhesives/Glues	0	0	0	0.0%	0.0%
Computer Paper	0	9	24	0.0%	0.0%	Cleaners and Cosmetics	0	0	0	0.0%	0.0%
Bleached Polycoats	0	3	5	0.0%	0.0%	Pesticides/Herbicides	0	0	0	0.0%	0.0%
Paper/O ther Materials	0	1,142	2,410	1.9%	2.1%	Gas/Fuel Oil	0	0	0	0.0%	0.0%
Tyvek	0	34	72	0.1%	0.1%	Antifreeze	0	0	0	0.0%	0.0%
O ther NR Paper	146	445	745	0.8%	0.5%	Medical Waste	0	0	0	0.0%	0.0%
Total Disposed Tons	59,153					Asbestos	0	0	0	0.0%	0.0%
Number of Samples	59					O ther Hazardous	0	48	127	0.1%	0.1%

Table 2-11 Composition, by Weight: Roofing
October 1994 to August 1995

Percent & Range at 90% Confidence Interval

	Estimated Disposed Tons			Composition			Estimated Disposed Tons			Composition	
	Low	Mean	High	Mean	+/-		Low	Mean	High	Mean	+/-
WOOD WASTE	1,366	5,701	10,312	28.6%		YARD WASTE	0	302	649	1.5%	
New Lum ber	0	61	162	0.3%	0.5%	Stumps	0	0	0	0.0%	0.0%
New Panelboard	0	156	330	0.8%	0.9%	Large Prunings	0	43	93	0.2%	0.3%
Dem o Lum ber	0	721	1,514	3.6%	4.0%	Bulky Yard Waste	0	0	0	0.0%	0.0%
Dem o Panelboard	0	343	772	1.7%	2.2%	Sm all Prunings	0	20	43	0.1%	0.1%
Rem anufacturing Scrap	0	0	0	0.0%	0.0%	Leaves & Grass	0	239	513	1.2%	1.4%
Creosote Wood	0	0	0	0.0%	0.0%	PLASTICS	0	127	311	0.6%	
Pressure Treated Wood	0	7	18	0.0%	0.1%	PET #1 Bottles	0	4	9	0.0%	0.0%
Painted/Stained Wood	198	1,192	2,186	6.0%	5.0%	HDPE #2 Bottles	0	0	0	0.0%	0.0%
Contaminated Dem o Wood	0	360	777	1.8%	2.1%	5 Gal.#2 w/ H handles	0	0	0	0.0%	0.0%
Wood/O ther Materials	0	0	0	0.0%	0.0%	5 Gal.#2 w/o H handles	0	0	0	0.0%	0.0%
Roofing/Siding	1,168	2,861	4,554	14.4%	8.5%	O ther Containers	0	0	0	0.0%	0.0%
Unfinished Furnishings	0	0	0	0.0%	0.0%	Polystyrene Foam	0	1	3	0.0%	0.0%
Finished Furnishings	0	0	0	0.0%	0.0%	Polystyrene Insulation	0	0	0	0.0%	0.0%
Pallets & Crates	0	0	0	0.0%	0.0%	Film and Bags	0	0	1	0.0%	0.0%
Saw dust	0	0	0	0.0%	0.0%	O ther Packaging	0	0	0	0.0%	0.0%
O ther Wood	0	0	0	0.0%	0.0%	Plastic Products	0	1	3	0.0%	0.0%
MINERAL AGGREGATES	5,724	13,131	20,955	65.9%		PVC Pipe	0	0	0	0.0%	0.0%
Asphaltic Concrete	0	0	0	0.0%	0.0%	ABS Pipe	0	0	0	0.0%	0.0%
BuiltUp Roofing	337	3,425	6,513	17.2%	15.5%	Polyurethane Foam	0	0	0	0.0%	0.0%
Composition Shingles	5,387	8,652	11,918	43.4%	16.4%	Therm oset Products	0	0	0	0.0%	0.0%
Tarpaper/Felt	0	160	348	0.8%	0.9%	Plastic/O ther Materials	0	120	293	0.6%	0.9%
Concrete w/ th Rebar	0	0	0	0.0%	0.0%	Lam inate Foam ica	0	0	0	0.0%	0.0%
Concrete w/ o Rebar	0	0	0	0.0%	0.0%	Fiberglass Ceiling Panels	0	0	0	0.0%	0.0%
Bricks	0	243	643	1.2%	2.0%	Structural Fiberglass	0	1	3	0.0%	0.0%
CM U	0	0	0	0.0%	0.0%	Lino leum	0	0	0	0.0%	0.0%
M asonry Tile	0	0	0	0.0%	0.0%	OTHER MATERIALS	0	105	278	0.5%	
M ortar	0	0	0	0.0%	0.0%	Ashes	0	0	0	0.0%	0.0%
Plaster	0	0	0	0.0%	0.0%	N ondistinct Fines	0	0	0	0.0%	0.0%
Clay Roofing Tile	0	0	0	0.0%	0.0%	Sand	0	0	0	0.0%	0.0%
Slate/Quany Tile	0	0	0	0.0%	0.0%	Topsoil	0	0	0	0.0%	0.0%
M ineral Wool	0	0	0	0.0%	0.0%	Gravel	0	58	154	0.3%	0.5%
Fiberglass Insulation	0	0	0	0.0%	0.0%	Furniture M attresses	0	0	0	0.0%	0.0%
New Gypsum Scrap	0	0	0	0.0%	0.0%	Sm all Appliances	0	0	0	0.0%	0.0%
M ixed/Dem o Gypsum Scrap	0	651	1,533	3.3%	4.4%	Large Appliances	0	47	123	0.2%	0.4%
GLASS	0	1	3	0.0%		Ceram ic Tile	0	0	0	0.0%	0.0%
Clear Containers	0	1	3	0.0%	0.0%	Kitchen Ware	0	0	0	0.0%	0.0%
Green Containers	0	0	0	0.0%	0.0%	Porcelain	0	0	0	0.0%	0.0%
Brown Containers	0	0	0	0.0%	0.0%	M isc. Inorganics	0	0	0	0.0%	0.0%
Refillable Beer	0	0	0	0.0%	0.0%	OTHER ORGANICS	0	14	36	0.1%	
O ther NR Glass	0	0	0	0.0%	0.0%	Food W astes	0	6	15	0.0%	0.0%
W indow Glass	0	0	0	0.0%	0.0%	Textiles/Clothes	0	0	0	0.0%	0.0%
M inor Glass	0	0	0	0.0%	0.0%	Carpet	0	8	21	0.0%	0.1%
METALS	10	364	836	1.8%		Upholstery	0	0	0	0.0%	0.0%
Aluminum Cans	0	0	1	0.0%	0.0%	Textile Related Products	0	0	0	0.0%	0.0%
O ther Aluminum	0	159	419	0.8%	1.3%	Disposable Diapers	0	0	0	0.0%	0.0%
Tinned Food Cans	0	0	0	0.0%	0.0%	Rubber Products	0	0	0	0.0%	0.0%
O ther Ferrous	10	89	167	0.4%	0.4%	Tires	0	0	0	0.0%	0.0%
Galvanized Steel	0	116	248	0.6%	0.7%	Anim al Carcasses	0	0	0	0.0%	0.0%
O ther Tinned Cans	0	0	1	0.0%	0.0%	Anim al Feces	0	0	0	0.0%	0.0%
O ther Nonferrous	0	0	0	0.0%	0.0%	W ax	0	0	0	0.0%	0.0%
M ixed Metals Materials	0	0	0	0.0%	0.0%	M isc. Organics	0	0	0	0.0%	0.0%
Insulated Wire/Cable	0	0	0	0.0%	0.0%	HAZARDOUS WASTE	0	0	0	0.0%	
Electric Motors	0	0	0	0.0%	0.0%	Used Oil	0	0	0	0.0%	0.0%
Aerosol Cans	0	0	0	0.0%	0.0%	Vehicle Batteries	0	0	0	0.0%	0.0%
CFC Com pressors	0	0	0	0.0%	0.0%	Household Batteries	0	0	0	0.0%	0.0%
PAPER	1	173	368	0.9%		Latex Paint	0	0	0	0.0%	0.0%
Newspaper	0	0	0	0.0%	0.0%	Wood Preservatives	0	0	0	0.0%	0.0%
OC Kraft	0	125	275	0.6%	0.8%	Varnishes & Finishes	0	0	0	0.0%	0.0%
Low Grade Recyclable	1	47	93	0.2%	0.2%	Solvents/Thinners	0	0	0	0.0%	0.0%
High Grade Printing	0	0	0	0.0%	0.0%	Adhesives/G lues	0	0	0	0.0%	0.0%
Computer Paper	0	0	0	0.0%	0.0%	Cleaners and Com osives	0	0	0	0.0%	0.0%
Bleached Polycoats	0	0	0	0.0%	0.0%	Pesticides/H erbicides	0	0	0	0.0%	0.0%
Paper/O ther Materials	0	0	0	0.0%	0.0%	Gas/Fuel Oil	0	0	0	0.0%	0.0%
Tyvek	0	0	0	0.0%	0.0%	Antifreeze	0	0	0	0.0%	0.0%
O ther NR Paper	0	0	0	0.0%	0.0%	M edical Waste	0	0	0	0.0%	0.0%
						Asbestos	0	0	0	0.0%	0.0%
						O ther Hazardous	0	0	0	0.0%	0.0%
Total Disposed Tons		19,918									
Number of Samples		19									

**Table 2-12 Composition, by Weight: Other
October 1994 to August 1995**

Percent & Range at 90% Confidence Interval

	Estimated Disposed Tons			Composition			Estimated Disposed Tons			Composition	
	Low	Mean	High	Mean	+/-		Low	Mean	High	Mean	+/-
WOOD WASTE	260	4,328	9,139	27.9%		YARD WASTE	0	2,123	5,335	13.7%	
New Lum ber	7	120	232	0.8%	0.7%	Stumps	0	0	0	0.0%	0.0%
New Panelboard	0	0	0	0.0%	0.0%	Large Prunings	0	1,559	4,005	10.1%	15.8%
Dem o Lum ber	253	1,720	3,186	11.1%	9.5%	Bulky Yard Waste	0	0	0	0.0%	0.0%
Dem o Panelboard	0	478	1,272	3.1%	5.1%	Sm allPrunings	0	367	799	2.4%	2.8%
Rem anufacturing Scrap	0	0	0	0.0%	0.0%	Leaves & Grass	0	197	531	1.3%	2.2%
Cresote Wood	0	0	0	0.0%	0.0%	PLASTICS	0	778	1,842	5.0%	
Pressure Treated Wood	0	0	0	0.0%	0.0%	PET #1 Bottles	0	0	0	0.0%	0.0%
Painted/Stained Wood	0	910	2,102	5.9%	7.7%	HDPE #2 Bottles	0	0	0	0.0%	0.0%
Contaminated Dem o Wood	0	0	0	0.0%	0.0%	5 Gal.#2 with Handles	0	3	8	0.0%	0.0%
Wood/Other Materials	0	427	927	2.8%	3.2%	5 Gal.#2 w/o Handles	0	0	0	0.0%	0.0%
Roofing/Siding	0	6	16	0.0%	0.1%	Other Containers	0	0	0	0.0%	0.0%
Unfinished Finishings	0	0	0	0.0%	0.0%	Polystyrene Foam	0	5	12	0.0%	0.0%
Finished Finishings	0	0	0	0.0%	0.0%	Polystyrene Insulation	0	0	0	0.0%	0.0%
Pallets & Crates	0	669	1,403	4.3%	4.7%	Film and Bags	0	39	84	0.3%	0.3%
Saw dust	0	0	0	0.0%	0.0%	Other Packaging	0	0	0	0.0%	0.0%
Other Wood	0	0	0	0.0%	0.0%	Plastic Products	0	178	400	1.1%	1.4%
MINERAL AGGREGATES	0	1,890	4,364	12.2%		PVC Pipe	0	6	16	0.0%	0.1%
Asphaltic Concrete	0	0	0	0.0%	0.0%	ABS Pipe	0	0	0	0.0%	0.0%
BuiltUp Roofing	0	0	0	0.0%	0.0%	Polyurethane Foam	0	525	1,266	3.4%	4.8%
Composition Shingles	0	0	0	0.0%	0.0%	Thermoset Products	0	0	0	0.0%	0.0%
Tarpaper/Felt	0	16	43	0.1%	0.2%	Plastic/Other Materials	0	17	41	0.1%	0.2%
Concrete with Rebar	0	0	0	0.0%	0.0%	Laminated Foam ica	0	0	0	0.0%	0.0%
Concrete w/o Rebar	0	0	0	0.0%	0.0%	Fiberglass Ceiling Panels	0	5	14	0.0%	0.1%
Bricks	0	908	2,344	5.9%	9.3%	Structural Fiberglass	0	0	0	0.0%	0.0%
CM U	0	0	0	0.0%	0.0%	Linoeum	0	0	0	0.0%	0.0%
Masonry Tile	0	0	0	0.0%	0.0%	OTHER MATERIALS	0	2,027	5,170	13.1%	
Mortar	0	0	0	0.0%	0.0%	Ashes	0	0	0	0.0%	0.0%
Plaster	0	0	0	0.0%	0.0%	Nondistinct Fines	0	0	0	0.0%	0.0%
Clay Roofing Tile	0	0	0	0.0%	0.0%	Sand	0	0	0	0.0%	0.0%
Slate/Quany Tile	0	0	0	0.0%	0.0%	Topsoil	0	1,030	2,741	6.6%	11.0%
Mineral Wool	0	0	0	0.0%	0.0%	Gravel	0	0	0	0.0%	0.0%
Fiberglass Insulation	0	0	0	0.0%	0.0%	FurnitureMattresses	0	768	1,821	5.0%	6.8%
New Gypsum Scrap	0	966	1,977	6.2%	6.5%	Sm allAppliances	0	68	183	0.4%	0.7%
Mixed/Dem o Gypsum Scrap	0	0	0	0.0%	0.0%	Large Appliances	0	161	425	1.0%	1.7%
GLASS	0	0	0	0.0%		Ceramic Tile	0	0	0	0.0%	0.0%
Clear Containers	0	0	0	0.0%	0.0%	Kitchen Ware	0	0	0	0.0%	0.0%
Green Containers	0	0	0	0.0%	0.0%	Porcelain	0	0	0	0.0%	0.0%
Brown Containers	0	0	0	0.0%	0.0%	Misc. Organics	0	0	0	0.0%	0.0%
Refillable Beer	0	0	0	0.0%	0.0%	OTHER ORGANICS	0	2,122	4,593	13.7%	
OtherNR Glass	0	0	0	0.0%	0.0%	Food Wastes	0	0	0	0.0%	0.0%
Window Glass	0	0	0	0.0%	0.0%	Textiles/Clothes	0	14	38	0.1%	0.2%
Minor Glass	0	0	0	0.0%	0.0%	Carpet	0	2,000	4,320	12.9%	15.0%
METALS	0	1,287	2,924	8.3%		Upholstery	0	0	0	0.0%	0.0%
Aluminum Cans	0	1	2	0.0%	0.0%	Textile Related Products	0	67	134	0.4%	0.4%
OtherAluminum	0	21	55	0.1%	0.2%	Disposable Diapers	0	0	0	0.0%	0.0%
Tinned Food Cans	0	0	0	0.0%	0.0%	Rubber Products	0	40	100	0.3%	0.4%
Other Ferrous	0	562	1,342	3.6%	5.0%	Tires	0	0	0	0.0%	0.0%
Galvanized Steel	0	16	34	0.1%	0.1%	Animal Carcasses	0	0	0	0.0%	0.0%
Other Tinned Cans	0	0	0	0.0%	0.0%	Animal Feces	0	0	0	0.0%	0.0%
Other Nonferrous	0	0	0	0.0%	0.0%	Wax	0	0	0	0.0%	0.0%
Mixed Metals Materials	0	671	1,445	4.3%	5.0%	Misc. Organics	0	0	0	0.0%	0.0%
Insulated Wire/Cable	0	17	47	0.1%	0.2%	HAZARDOUS WASTE	0	72	194	0.5%	
Electric Motors	0	0	0	0.0%	0.0%	Used Oil	0	0	0	0.0%	0.0%
Aerosol Cans	0	0	0	0.0%	0.0%	Vehicle Batteries	0	0	0	0.0%	0.0%
CFC Compressors	0	0	0	0.0%	0.0%	Household Batteries	0	0	0	0.0%	0.0%
PAPER	12	884	2,083	5.7%		Latex Paint	0	0	0	0.0%	0.0%
Newspaper	0	25	67	0.2%	0.3%	Wood Preservatives	0	0	0	0.0%	0.0%
OK Kraft	12	200	389	1.3%	1.2%	Varnishes & Finishes	0	0	0	0.0%	0.0%
Low Grade Recyclable	0	364	835	2.3%	3.0%	Solvents/Thinners	0	7	18	0.0%	0.1%
High Grade Printing	0	213	575	1.4%	2.3%	Adhesives/Glues	0	54	146	0.4%	0.6%
Computer Paper	0	0	0	0.0%	0.0%	Cleaners and Cosmetics	0	0	0	0.0%	0.0%
Bleached Polycoats	0	0	0	0.0%	0.0%	Pesticides/Herbicides	0	0	0	0.0%	0.0%
Paper/Other Materials	0	73	196	0.5%	0.8%	Gas/Fuel Oil	0	0	0	0.0%	0.0%
Tyvek	0	0	0	0.0%	0.0%	Antifreeze	0	0	0	0.0%	0.0%
OtherNR Paper	0	8	22	0.1%	0.1%	Medical Waste	0	0	0	0.0%	0.0%
						Asbestos	0	0	0	0.0%	0.0%
Total Disposed Tons		15,510				Other Hazardous	0	11	30	0.1%	0.1%
Number of Samples		14									

2.3 Composition by Season

Sampling occurred during each of the four seasons throughout the study period. The most prevalent waste categories (each accounting for at least 3% of the season's total) are summarized in Table 2-13. Substantial amounts of wood waste and mineral aggregates were disposed throughout the year.

Table 2-13 Summary of Most Prevalent Disposed Wastes, by Season
October 1994 to August 1995

	Fall October '94	Winter February '95	Spring May '95	Summer August '95
WOOD WASTE				
New Lum ber	9.0%	4.2%	3.0%	4.4%
New Panelboard	4.3%			
Dem o Lum ber	3.8%	3.4%	6.8%	10.4%
Dem o Panelboard				4.4%
Painted/Stained W ood	11.5%	3.9%	11.3%	
Contam inated Dem o W ood	4.0%	5.9%		
W ood/O ther M aterials	5.1%			
Roofing/Siding			3.5%	
Finished Furnishings				8.8%
Pallets & Crates		4.9%	3.0%	3.3%
MINERAL AGGREGATES				
Built-Up Roofing	3.6%		5.5%	
Com position Shingles			11.0%	
Concrete w /o Rebar	3.9%			
Plaster			3.9%	
New Gypsum Scrap	6.2%		3.0%	6.4%
Mixed/Dem o Gypsum Scrap	4.4%	9.4%	5.1%	4.3%
METALS				
O ther Ferrous				5.9%
Galvanized Steel		3.1%		
Mixed M etals/M aterials		3.8%		3.4%
PAPER				
OCC Kraft		4.2%		
OTHER MATERIALS				
Non distinct Fines		4.7%		
OTHER ORGANICS				
Carpet		5.3%		5.5%

Detailed composition results are shown in Table 2-14.

**Table 2-14 Composition, by Weight: Seasons
October 1994 to August 1995**

	Fall		Winter		Spring		Summer	
	Mean	+/-	Mean	+/-	Mean	+/-	Mean	+/-
WOOD WASTE	43.9%		30.6%		37.2%		41.7%	
New Lum ber	9.0%	3.3%	4.2%	1.6%	3.0%	1.4%	4.4%	2.4%
New Panelboard	4.3%	1.4%	2.5%	1.2%	2.8%	2.0%	2.7%	1.8%
Dem o Lum ber	3.8%	1.6%	3.4%	1.9%	6.8%	4.6%	10.4%	4.5%
Dem o Panelboard	1.3%	0.8%	2.5%	1.2%	0.7%	0.5%	4.4%	3.6%
Rem anufacturing Scrap	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Creosote W ood	0.4%	0.6%	0.0%	0.0%	0.0%	0.0%	0.3%	0.4%
Pressure Treated W ood	0.5%	0.4%	0.1%	0.1%	1.5%	2.0%	0.1%	0.1%
Painted/Stained W ood	11.5%	4.2%	3.9%	2.5%	11.3%	3.8%	2.7%	1.7%
Contam inated Dem o W ood	4.0%	2.2%	5.9%	4.2%	2.6%	1.8%	1.3%	1.6%
W ood/O therM aterials	5.1%	2.9%	0.3%	0.3%	1.8%	1.8%	0.7%	0.6%
Roofing/Siding	0.5%	0.5%	2.0%	1.7%	3.5%	2.5%	2.6%	2.9%
U nfinished Furnishings	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Finished Furnishings	0.4%	0.4%	0.9%	1.0%	0.1%	0.1%	8.8%	6.2%
Pallets & Crates	2.7%	2.3%	4.9%	2.9%	3.0%	3.3%	3.3%	2.1%
Sawdust	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
O therW ood	0.3%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MINERAL AGGREGATES	26.7%		22.5%		34.2%		20.8%	
Asphaltic Concrete	0.0%	0.0%	0.0%	0.0%	0.7%	1.1%	0.1%	0.1%
BuiltUp Roofing	3.6%	4.0%	0.0%	0.0%	5.5%	4.4%	0.0%	0.0%
Com position Shingles	2.8%	2.5%	2.9%	2.8%	11.0%	6.1%	1.5%	1.2%
Tarpaper/Felt	0.2%	0.2%	1.0%	1.6%	0.4%	0.4%	0.1%	0.1%
Concrete w ith Rebar	0.4%	0.3%	0.0%	0.0%	0.9%	1.5%	0.5%	0.7%
Concrete w /o Rebar	3.9%	2.4%	1.3%	1.1%	0.4%	0.4%	2.9%	2.9%
Bricks	0.0%	0.0%	0.6%	0.6%	0.4%	0.6%	2.1%	2.4%
CM U	0.4%	0.5%	0.0%	0.0%	1.9%	3.1%	0.8%	1.1%
M asonry Tile	0.6%	0.5%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%
M ortar	0.7%	1.1%	1.2%	0.9%	0.8%	1.3%	0.0%	0.0%
Plaster	2.2%	1.9%	2.1%	1.5%	3.9%	4.2%	0.9%	1.0%
Clay Roofing Tile	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Slate/Quary Tile	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%
M ineralW ool	0.5%	0.6%	0.6%	1.0%	0.0%	0.0%	0.0%	0.0%
Fiberglass Insulation	0.8%	0.5%	0.7%	0.4%	0.1%	0.1%	1.2%	1.0%
New Gypsum Scrap	6.2%	4.1%	2.6%	2.3%	3.0%	3.6%	6.4%	4.0%
M ixed, Dem o Gypsum Scrap	4.4%	3.0%	9.4%	4.5%	5.1%	3.3%	4.3%	2.9%
GLASS	0.5%		0.4%		1.6%		0.1%	
C lear Containers	0.0%	0.0%	0.3%	0.2%	0.1%	0.0%	0.0%	0.0%
G reen Containers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Brow n Containers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Refillable Beer	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%
O therNR Glass	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%
W indow Glass	0.2%	0.4%	0.1%	0.1%	1.3%	1.3%	0.0%	0.0%
M inor Glass	0.2%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
METALS	5.4%		10.4%		8.1%		11.1%	
Alum inum Cans	0.0%	0.0%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%
O therAlum inum	0.1%	0.1%	0.2%	0.1%	0.4%	0.4%	0.1%	0.1%
Tinned Food Cans	0.0%	0.0%	0.1%	0.0%	0.5%	0.8%	0.0%	0.0%
O therFerrous	1.4%	0.7%	1.1%	0.6%	1.9%	1.0%	5.9%	2.9%
Galvanized Steel	1.5%	1.5%	3.1%	2.2%	1.4%	1.0%	1.1%	0.6%
O therTinned Cans	0.1%	0.1%	1.0%	1.0%	0.1%	0.1%	0.2%	0.2%
O therNonferrous	0.1%	0.2%	0.0%	0.0%	0.6%	0.5%	0.1%	0.1%
M ixed M etalsM aterials	2.2%	1.5%	3.8%	2.1%	2.9%	1.9%	3.4%	1.8%
Insulated W ire/Cable	0.1%	0.1%	1.1%	0.9%	0.0%	0.0%	0.1%	0.1%
Electric M otors	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Aerosol Cans	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CFC Com pressors	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PAPER	4.2%		9.2%		2.9%		4.8%	
New spaper	0.1%	0.1%	0.8%	0.7%	0.5%	0.3%	0.0%	0.0%
O CC Kraft	2.6%	0.8%	4.2%	1.2%	1.5%	0.7%	1.9%	1.2%
Low G rade Recyclable	0.4%	0.2%	1.7%	1.3%	0.3%	0.2%	0.5%	0.3%
H igh G rade Printing	0.1%	0.1%	0.3%	0.4%	0.0%	0.0%	0.1%	0.1%
Com puter Paper	0.2%	0.3%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%
Bleached Polycoats	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PaperO therM aterials	0.2%	0.2%	1.1%	0.7%	0.0%	0.0%	1.9%	2.4%
Tyvek	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
O therNR Paper	0.7%	0.7%	0.8%	0.5%	0.6%	0.5%	0.3%	0.3%
Number of Samples	67		63		57		55	

Table 2-14 Composition, by Weight: Seasons, continued
October 1994 to August 1995

Percent & Range at 90% Confidence Interval

	Fall		Winter		Spring		Summer	
	Mean	+/-	Mean	+/-	Mean	+/-	Mean	+/-
YARD WASTE	4.4%		2.0%		3.9%		2.7%	
Stumps	1.5%	2.4%	0.0%	0.0%	0.0%	0.0%	0.7%	1.1%
Large Prunings	0.4%	0.6%	0.3%	0.3%	1.9%	3.1%	0.0%	0.1%
Bulky Yard Waste	0.8%	1.3%	0.2%	0.4%	0.0%	0.0%	0.0%	0.0%
Small Prunings	1.2%	1.9%	1.1%	1.0%	0.3%	0.3%	0.7%	0.6%
Leaves & Grass	0.5%	0.4%	0.4%	0.4%	1.7%	1.1%	1.3%	1.2%
PLASTICS	4.6%		5.9%		5.0%		5.1%	
PET #1 Bottles	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
HDPE #2 Bottles	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
5 Gal. #2 w/ Handles	0.0%	0.0%	0.3%	0.2%	0.0%	0.0%	0.1%	0.1%
5 Gal. #2 w/o Handles	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other Containers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Polystyrene Foam	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.0%	0.0%
Polystyrene Insulation	0.2%	0.1%	0.3%	0.2%	0.1%	0.1%	1.1%	1.3%
Film and Bags	1.5%	0.8%	1.6%	0.5%	1.9%	1.7%	0.5%	0.4%
Other Packaging	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%
Plastic Products	0.4%	0.4%	1.2%	0.8%	0.3%	0.3%	0.5%	0.3%
PVC Pipe	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%
ABS Pipe	0.0%	0.0%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%
Polyurethane Foam	0.1%	0.1%	0.0%	0.1%	0.1%	0.0%	0.8%	1.1%
Thermoset Products	0.7%	0.8%	0.0%	0.1%	0.1%	0.2%	0.1%	0.1%
Plastic Other Materials	0.8%	0.6%	0.7%	0.5%	0.7%	0.9%	0.0%	0.0%
Laminate/Formica	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.2%	0.3%
Fiberglass Ceiling Panels	0.5%	0.7%	0.4%	0.3%	1.4%	2.2%	0.9%	1.0%
Structural Fiberglass	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Linoleum	0.0%	0.0%	0.9%	1.3%	0.0%	0.0%	0.6%	0.7%
OTHER MATERIALS	6.7%		9.7%		4.5%		6.8%	
Ashes	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Nondistinct Fines	0.5%	0.3%	4.7%	2.9%	1.3%	1.3%	1.9%	2.8%
Sand	2.1%	2.4%	0.9%	1.1%	0.8%	1.3%	0.6%	0.9%
Topsoil	0.4%	0.7%	2.3%	3.0%	1.2%	2.0%	0.1%	0.2%
Gravel	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.0%	0.0%
Furniture/Accessories	0.3%	0.4%	0.1%	0.2%	0.0%	0.0%	2.2%	2.4%
Small Appliances	0.3%	0.5%	0.9%	1.4%	0.2%	0.4%	0.2%	0.4%
Large Appliances	1.3%	1.6%	0.0%	0.0%	0.1%	0.1%	1.4%	1.5%
Ceramic Tile	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Kitchen Ware	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Porcelain	0.4%	0.7%	0.7%	0.9%	0.6%	0.9%	0.4%	0.5%
Misc. Inorganics	1.4%	1.7%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%
OTHER ORGANICS	3.3%		8.4%		2.2%		7.0%	
Food Wastes	0.0%	0.0%	0.2%	0.2%	0.2%	0.3%	0.1%	0.2%
Textiles/Clothes	0.1%	0.1%	1.2%	1.3%	0.5%	0.4%	1.0%	0.7%
Carpet	2.1%	1.5%	5.3%	3.1%	0.3%	0.3%	5.5%	4.5%
Upholstery	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%
Textile Related Products	0.4%	0.3%	0.6%	0.4%	0.1%	0.1%	0.1%	0.1%
Disposable Diapers	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
Rubber Products	0.1%	0.1%	0.5%	0.4%	0.7%	0.7%	0.2%	0.2%
Tires	0.0%	0.0%	0.1%	0.2%	0.1%	0.2%	0.0%	0.0%
Animal Carcasses	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Animal Feces	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Wax	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Misc. Organics	0.6%	0.4%	0.3%	0.3%	0.2%	0.2%	0.0%	0.0%
HAZARDOUS WASTE	0.3%		1.0%		0.4%		0.0%	
Used Oil	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Vehicle Batteries	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Household Batteries	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Latex Paint	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Wood Preservatives	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Varnishes & Finishes	0.0%	0.0%	0.0%	0.0%	0.3%	0.5%	0.0%	0.0%
Solvents/Thinners	0.0%	0.0%	0.3%	0.6%	0.0%	0.0%	0.0%	0.0%
Adhesives/Glues	0.2%	0.4%	0.5%	0.4%	0.1%	0.2%	0.0%	0.0%
Cleaners and Composites	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
Pesticides/Herbicides	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Gas/Fuel Oil	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Antifreeze	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Medical Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Asbestos	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other Hazardous	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%

2.4 Composition by Transfer Station

Samples were sorted at the NRDS, SRDS, Third & Lander and Black River transfer stations. The most prevalent waste categories (each accounting for at least 3% of the site's total) are shown in Table 2-15.

**Table 2-15 Summary of Most Prevalent Disposed Wastes, by Site
October 1994 to August 1995**

	NRDS	SRDS	Third & Lander	Black River
WOOD WASTE				
New Lumber	5.4%	3.4%	6.3%	
New Panelboard	5.8%		3.0%	
Demo Lumber	8.4%	11.7%	3.9%	6.3%
Demo Panelboard		4.5%		
Painted/Stained Wood	12.3%	3.3%	6.4%	12.0%
Contaminated Demo Wood			3.6%	6.8%
Wood/Other Materials	9.1%			
Roofing/Siding				5.1%
Finished Furnishings		9.0%		
Pallets & Crates			5.2%	
MINERAL AGGREGATES				
Built-Up Roofing				11.9%
Composition Shingles	5.3%		4.1%	10.8%
Plaster	4.9%			
New Gypsum Scrap	4.1%	3.4%	4.9%	4.2%
Mixed/Demo Gypsum Scrap	4.3%	3.7%	6.8%	5.8%
METALS				
Other Ferrous			3.0%	
Mixed Metals/Materials		3.4%	3.5%	
YARD WASTE				
Large Prunings				5.7%
OTHER MATERIALS				
Nondistinct Fines			3.1%	
Furniture/Attachments		3.7%		
Large Appliances				3.1%
OTHER ORGANICS				
Carpet		11.0%		

Detailed composition results, by site, as listed in Table 2-16.

**Table 2-16 Composition, by Weight: Transfer Stations
October 1994 to August 1995**

	NRDS		SRDS		Third & Lander		Black River	
	Mean	+/-	Mean	+/-	Mean	+/-	Mean	+/-
WOOD WASTE	48.8%		38.0%		35.5%		38.7%	
New Lum ber	5.4%	1.8%	3.4%	2.2%	6.3%	1.8%	1.5%	1.8%
New Panelboard	5.8%	3.2%	2.3%	1.7%	3.0%	0.9%	0.9%	0.7%
Dem o Lum ber	8.4%	6.7%	11.7%	6.3%	3.9%	1.5%	6.3%	3.5%
Dem o Panelboard	1.0%	0.8%	4.5%	2.8%	2.0%	1.3%	1.8%	1.5%
Rem anufacturing Scrap	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cresote W ood	0.1%	0.1%	0.0%	0.0%	0.1%	0.2%	0.9%	1.4%
Pressure Treated W ood	0.3%	0.3%	0.2%	0.2%	0.7%	0.8%	0.5%	0.7%
Painted/Stained W ood	12.3%	4.3%	3.3%	2.4%	6.4%	2.2%	12.0%	7.3%
Contam inated Dem o W ood	2.9%	2.5%	1.4%	1.5%	3.6%	2.1%	6.8%	3.3%
W ood/O therM aterials	9.1%	5.2%	0.6%	0.6%	0.6%	0.4%	1.7%	1.6%
Roofing/Siding	1.7%	2.8%	0.4%	0.5%	2.1%	1.3%	5.1%	4.0%
U nfinished Furnishings	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Finished Furnishings	0.5%	0.6%	9.0%	9.1%	1.6%	1.0%	0.0%	0.0%
Pallets & Crates	0.6%	0.7%	1.2%	1.5%	5.2%	2.2%	1.1%	1.1%
Sawdust	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
O therW ood	0.5%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MINERAL AGGREGATES	26.1%		17.6%		26.6%		34.8%	
Asphaltic Concrete	0.0%	0.0%	0.0%	0.0%	0.3%	0.5%	0.0%	0.0%
BuiltUp Roofing	0.1%	0.1%	0.0%	0.0%	1.7%	1.6%	11.9%	10.3%
Com position Shingles	5.3%	5.7%	0.9%	1.3%	4.1%	2.3%	10.8%	8.2%
Tarpaper/Felt	0.4%	0.5%	0.1%	0.1%	0.5%	0.7%	0.6%	0.6%
Concrete w ith Rebar	1.7%	2.5%	0.0%	0.0%	0.3%	0.3%	0.0%	0.0%
Concrete w /o Rebar	1.8%	2.5%	2.9%	4.2%	2.3%	1.1%	0.4%	0.7%
Bricks	0.0%	0.0%	1.9%	3.2%	0.7%	0.6%	0.5%	0.8%
CM U	0.1%	0.2%	1.0%	1.7%	1.0%	1.3%	0.0%	0.0%
M asonry Tile	0.8%	0.7%	0.0%	0.0%	0.1%	0.1%	0.3%	0.5%
M ortar	1.2%	2.0%	1.6%	1.5%	0.5%	0.5%	0.0%	0.0%
Plaster	4.9%	6.1%	1.7%	1.7%	2.2%	1.3%	0.0%	0.0%
Clay Roofing Tile	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Slate/Quany Tile	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
M ineralW ool	0.8%	1.0%	0.0%	0.0%	0.3%	0.4%	0.0%	0.0%
Fiberglass Insulation	0.5%	0.5%	0.3%	0.3%	0.9%	0.4%	0.4%	0.4%
New Gypsum Scrap	4.1%	3.7%	3.4%	2.8%	4.9%	2.6%	4.2%	4.8%
M ixed, Dem o Gypsum Scrap	4.3%	4.0%	3.7%	3.2%	6.8%	2.4%	5.8%	6.9%
GLASS	1.4%		0.2%		0.6%		0.5%	
C lear Containers	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%
Green Containers	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Brown Containers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Refillable Beer	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
O therNR Glass	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%
W indow Glass	0.7%	0.8%	0.1%	0.2%	0.4%	0.5%	0.4%	0.6%
M inor Glass	0.4%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
METALS	5.1%		9.4%		10.2%		4.2%	
Alum inum Cans	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
O therAlum inum	0.2%	0.1%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%
Tinned Food Cans	0.0%	0.0%	0.0%	0.0%	0.2%	0.3%	0.0%	0.1%
O therFerrous	1.1%	1.0%	2.8%	2.0%	3.0%	1.1%	0.5%	0.4%
Galvanized Steel	1.7%	2.5%	2.0%	1.5%	2.0%	1.0%	0.5%	0.4%
O therTinned Cans	0.1%	0.1%	0.4%	0.4%	0.4%	0.4%	0.0%	0.0%
O therNonferrous	0.0%	0.0%	0.2%	0.2%	0.3%	0.2%	0.3%	0.4%
M ixed MetalsM aterials	1.7%	1.5%	3.4%	2.2%	3.5%	1.2%	2.6%	3.5%
Insulated W ire,Cable	0.2%	0.2%	0.3%	0.4%	0.5%	0.4%	0.0%	0.0%
Electric M otors	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
AerosolCans	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CFC Com pressors	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PAPER	3.0%		3.4%		6.4%		4.7%	
New spaper	0.1%	0.1%	0.0%	0.0%	0.5%	0.3%	0.6%	0.7%
O CCraft	2.3%	0.9%	1.8%	1.0%	2.9%	0.7%	2.1%	1.6%
Low Grade Recyclable	0.3%	0.3%	0.6%	0.3%	1.0%	0.6%	0.2%	0.2%
H igh Grade Printing	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.0%	0.0%
Com puter Paper	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.3%	0.5%
Bleached Polycoats	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PaperO therM aterials	0.1%	0.1%	0.9%	0.9%	0.9%	0.9%	0.8%	1.0%
Tyvek	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%
O therNR Paper	0.2%	0.2%	0.2%	0.1%	0.8%	0.4%	0.5%	0.9%
Number of Samples	37		35		141		29	

Table 2-16 Composition, by Weight: Transfer Stations, continued
October 1994 to August 1995

Percent & Range at 90% Confidence Interval

	NRD S		SRD S		Third & Lander		Black River	
	Mean	+ / -	Mean	+ / -	Mean	+ / -	Mean	+ / -
YARD WASTE	3.5%		3.5%		2.3%		7.5%	
Stumps	2.5%	4.0%	1.1%	1.8%	0.0%	0.1%	0.0%	0.0%
Large Prunings	0.0%	0.0%	0.1%	0.2%	0.0%	0.0%	5.7%	7.0%
Bulky Yard Waste	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	1.9%	3.0%
Small Prunings	0.3%	0.5%	0.8%	0.9%	1.1%	1.0%	0.0%	0.0%
Leaves & Grass	0.7%	0.8%	1.5%	1.7%	1.1%	0.6%	0.0%	0.0%
PLASTICS	4.6%		5.0%		5.8%		2.5%	
PET #1 Bottles	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
HDPE #2 Bottles	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
5 Gal. #2 w/ Handles	0.0%	0.0%	0.2%	0.3%	0.1%	0.1%	0.0%	0.0%
5 Gal. #2 w/o Handles	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other Containers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Polystyrene Foam	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%
Polystyrene Insulation	0.0%	0.1%	0.1%	0.2%	0.6%	0.5%	0.1%	0.1%
Film and Bags	1.1%	1.0%	0.9%	0.7%	1.7%	0.8%	0.9%	1.0%
Other Packaging	0.0%	0.0%	0.1%	0.2%	0.1%	0.0%	0.0%	0.0%
Plastic Products	0.5%	0.6%	1.3%	1.1%	0.4%	0.2%	1.1%	1.4%
PVC Pipe	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%
ABS Pipe	0.1%	0.1%	0.2%	0.3%	0.0%	0.0%	0.0%	0.0%
Polyurethane Foam	0.0%	0.0%	1.1%	1.7%	0.1%	0.1%	0.0%	0.1%
Thermoset Products	0.7%	1.2%	0.0%	0.0%	0.2%	0.2%	0.1%	0.1%
Plastic Other Materials	0.9%	0.8%	0.2%	0.2%	0.7%	0.5%	0.1%	0.1%
Laminated/Foam ica	0.1%	0.1%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%
Fiberglass Ceiling Panels	0.8%	1.2%	0.1%	0.1%	1.1%	1.0%	0.0%	0.0%
Structural Fiberglass	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Linoleum	0.0%	0.0%	0.1%	0.2%	0.6%	0.6%	0.0%	0.0%
OTHER MATERIALS	5.5%		10.2%		6.9%		5.0%	
Ashes	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
Nondistinct Fines	0.8%	0.5%	0.7%	0.5%	3.1%	1.7%	0.5%	0.7%
Sand	0.1%	0.2%	0.0%	0.0%	1.6%	1.2%	1.3%	2.2%
Topsoil	2.0%	3.3%	0.0%	0.0%	1.2%	1.4%	0.0%	0.0%
Gravel	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%
Furniture/Attachments	0.4%	0.6%	3.7%	3.9%	0.0%	0.1%	0.0%	0.0%
Small Appliances	0.4%	0.6%	2.0%	2.6%	0.2%	0.2%	0.0%	0.0%
Large Appliances	0.1%	0.2%	2.2%	2.3%	0.0%	0.0%	3.1%	3.8%
Ceramic Tile	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Kitchen Ware	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Porcelain	1.5%	1.8%	1.5%	1.7%	0.2%	0.2%	0.0%	0.0%
Misc. Inorganics	0.1%	0.1%	0.1%	0.1%	0.6%	0.8%	0.0%	0.0%
OTHER ORGANICS	2.1%		12.3%		4.9%		1.8%	
Food Wastes	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.0%	0.1%
Textiles/Clothes	0.1%	0.1%	0.5%	0.6%	1.0%	0.6%	0.5%	0.5%
Carpet	0.4%	0.7%	11.0%	7.4%	2.6%	1.3%	0.7%	1.0%
Upholstery	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Textile Related Products	0.2%	0.4%	0.2%	0.3%	0.4%	0.2%	0.0%	0.0%
Disposable Diapers	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
Rubber Products	0.8%	0.9%	0.1%	0.1%	0.4%	0.3%	0.1%	0.1%
Tires	0.0%	0.0%	0.2%	0.4%	0.0%	0.1%	0.0%	0.0%
Animal Carcasses	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Animal Feces	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Wax	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Misc. Organics	0.4%	0.4%	0.3%	0.4%	0.3%	0.2%	0.4%	0.6%
HAZARDOUS WASTE	0.0%		0.4%		0.6%		0.2%	
Used Oil	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Vehicle Batteries	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Household Batteries	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Latex Paint	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Wood Preservatives	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Varnishes & Finishes	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	0.0%
Solvents/Thinners	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.0%	0.0%
Adhesives/Glues	0.0%	0.0%	0.4%	0.5%	0.2%	0.2%	0.2%	0.4%
Cleaners and Composites	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Pesticides/Herbicides	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Gas/Fuel Oil	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Antifreeze	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Medical Waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Asbestos	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other Hazardous	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%

3. Survey Results

A total of 1,146 surveys were administered to vehicles carrying CDL debris from Seattle jobsites to NRDS, SRDS, Third & Lander and Black River during the study period.

3.1 Overall

The substream, customer class, vehicle type, net weight, and transfer station were recorded for each record. For each of these categories, Table 3-1 lists the survey count, average and total net weights.

- In terms of the substream analysis, the residential remodeling substream accounted for the most vehicle traffic (29%) and the commercial/institutional demolition substream contributed the most tonnage (671.3 tons).
- Of the customer classes, business/industrial self-haul accounted for more than half (53%) of the vehicles, but is edged out by the commercial hauler class for most tonnage (799.6 from business/industrial self-haul, compared to 851.5 tons from commercial haulers).
- Although pick-up trucks accounted for a substantial (38%) portion of the traffic, the total tonnage hauled in these trucks during the study period (193.5 tons) was considerably less than the CDL debris collected in roll-offs or dump trucks (690.5 and 679.5 tons, respectively).
- Of the transfer stations, the most vehicles were surveyed at the City's NRDS. The private transfer stations receive much more CDL tonnage on a per-load basis than the City's facilities (2.6 and 3.8 average net tons for the private sites, compared to 0.6 and 0.8 tons at the NRDS and SRDS).

Table 3-1 Vehicle Survey Overview
October 1994 to August 1995

	Survey		NetTons	
	Count		Average	Total
Substream				
New Construction, Residential	53	5%	1.0	54.1
New Construction, Commercial/Institutional	53	5%	2.5	130.5
Remodeling, Residential	328	29%	0.6	208.9
Remodeling, Commercial/Institutional	92	8%	1.3	122.6
Demolition, Residential	199	17%	1.1	219.1
Demolition, Commercial/Institutional	167	15%	4.0	671.3
Roofing	135	12%	1.7	226.0
Land Clearing	43	4%	1.4	59.9
Other	76	7%	1.5	116.1
Customer Class				
Commercial Hauler	183	16%	4.7	851.5
Self Haul, Business/Industrial	603	53%	1.3	799.6
Self Haul, Government/Institutional	14	1%	1.1	14.8
Self Haul, Residential	346	30%	0.4	142.7
Vehicle Type				
Dump Truck	281	25%	2.4	679.5
Dump Truck with Trailer	2	0%	0.6	1.3
Tractor/Trailer	11	1%	7.7	85.1
Roll-off	162	14%	4.3	690.5
Front Loader	0	0%	0.0	0.0
Side Loader	0	0%	0.0	0.0
Rear Loader	2	0%	2.0	4.1
Flatbed Truck	78	7%	1.0	78.7
Pick-up Truck	434	38%	0.4	193.5
Van	76	7%	0.3	20.5
Auto	59	5%	0.2	12.5
Vehicle with Trailer	41	4%	1.0	42.7
Transfer Station				
NRDS	499	44%	0.6	280.4
SRDS	189	16%	0.8	151.1
Third & Lander	318	28%	2.6	840.5
Black River	140	12%	3.8	536.5
Overall	1,146	100%	1.6	1,808.5

3.2 Substream and Customer Class Analysis

For a more detailed accounting, the survey results were also cross-tabulated by substream and customer class. As shown in Table 3-2:

- The business self-haul customer class accounts for the greatest number of vehicles in seven of the substreams (all but the residential remodeling and residential demolition substreams).
- During the study period, the business self-haul customer class accounted for the bulk of the tonnage for the residential new construction, residential remodeling, commercial remodeling and roofing substreams. The commercial hauler class carried the most substantial portion of the commercial new construction, residential demolition, commercial demolition and "other" substreams.

Table 3-2 Substream Survey Results: Cross-Tabulated by Customer Class
October 1994 to August 1995

	Commercial Hauler			Self Haul: Biz/Industrial			Self Haul: Govt/Institutional			Self Haul: Residential			Overall		
	Survey Count	NetTons		Survey Count	NetTons		Survey Count	NetTons		Survey Count	NetTons		Survey Count	NetTons	
		Average	Total		Average	Total		Average	Total		Average	Total		Average	Total
New Construction, Residential	3	1.3	4.0	45	1.1	48.1	0	0.0	0.0	5	0.4	2.0	53	1.0	54.1
New Construction, Commercial/Institutional	23	3.8	86.4	29	1.5	43.6	0	0.0	0.0	1	0.5	0.5	53	2.5	130.5
Remodeling, Residential	15	2.8	41.6	145	0.7	98.8	0	0.0	0.0	168	0.4	68.4	328	0.6	208.9
Remodeling, Commercial/Institutional	14	2.3	32.5	76	1.2	88.9	1	0.3	0.3	1	0.9	0.9	92	1.3	122.6
Demolition, Residential	22	5.0	109.7	74	0.9	70.0	0	0.0	0.0	103	0.4	39.4	199	1.1	219.1
Demolition, Commercial/Institutional	77	6.0	464.7	83	2.4	197.0	7	1.4	9.5	0	0.0	0.0	167	4.0	671.3
Roofing	4	2.7	10.9	102	2.0	202.2	0	0.0	0.0	29	0.4	12.9	135	1.7	226.0
Land Clearing	6	3.9	23.3	20	1.2	23.1	2	1.1	2.2	15	0.8	11.4	43	1.4	59.9
Other	19	4.1	78.4	29	1.0	27.7	4	0.7	2.9	24	0.3	7.2	76	1.5	116.1
Overall	183	4.7	851.5	603	1.3	799.6	14	1.1	14.8	346	0.4	142.7	1,146	1.6	1,808.5

3.3 Site and Vehicle Type Analysis

Table 3-3 cross-tabulates the transfer station results by vehicle type. As shown:

- Pick-up trucks account for the majority of the vehicle traffic at the NRDS and SRDS. In terms of total tonnage, pick-up trucks and dump trucks transport the bulk of the CDL debris received at NRDS and SRDS.
- Roll-offs are both the most numerous and account for the most tonnage at Third & Lander.
- At Black River, dump trucks contribute both the majority of the vehicle traffic and total tonnage.

**Table 3-3 Transfer Station Survey Results: Cross-Tabulated by Vehicle Type
October 1994 to August 1995**

	NRDS			SRDS			Third & Lander			Black River			Overall		
	Survey	NetTons		Survey	NetTons		Survey	NetTons		Survey	NetTons		Survey	NetTons	
	Count	Average	Total	Count	Average	Total	Count	Average	Total	Count	Average	Total	Count	Average	Total
Dump Truck	89	1.3	116.3	27	1.9	50.5	83	1.6	131.2	82	4.7	381.5	281	2.4	679.5
Dump Truck with Trailer	2	0.6	1.3	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	2	0.6	1.3
Tractor/Trailer	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	11	7.7	85.1	11	7.7	85.1
Roll-off	0	0.0	0.0	0	0.0	0.0	151	4.3	645.1	11	4.1	45.5	162	4.3	690.5
Front Loader	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
Side Loader	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
Rear Loader	0	0.0	0.0	0	0.0	0.0	2	2.0	4.1	0	0.0	0.0	2	2.0	4.1
Flatbed Truck	21	0.9	19.8	21	1.2	25.2	30	0.9	27.1	6	1.1	6.6	78	1.0	78.7
Pick-up Truck	262	0.4	102.5	115	0.6	64.4	35	0.5	15.8	22	0.5	10.8	434	0.4	193.5
Van	51	0.2	12.6	14	0.2	3.1	6	0.6	3.5	5	0.3	1.4	76	0.3	20.5
Auto	51	0.2	9.1	5	0.1	0.7	3	0.9	2.8	0	0.0	0.0	59	0.2	12.5
Vehicle with Trailer	23	0.8	18.8	7	1.0	7.3	8	1.4	11.0	3	1.9	5.7	41	1.0	42.7
Overall	499	0.6	280.4	189	0.8	151.1	318	2.6	840.6	140	3.8	536.5	1,146	1.6	1,808.5

Appendix A Waste Sampling Plan

The planned versus actual number of samples is shown in Table A-1.

Table A-1 Planned and Actual Number of Samples
October 1994 to August 1995

	Number of Samples	
	<i>Plan</i>	<i>Actual</i>
NRDS	37 15.6%	37 15.3%
SRDS	33 13.9%	35 14.5%
Third & Lander	130 54.9%	141 58.3%
Black River	37 15.6%	29 12.0%
Total	237	242

The waste sampling plan, which was developed at the project's outset, follows.

Appendix B Sampling Field & Data Procedures

Vehicle Selection

The gatekeeper selected vehicles, according to the sampling interval for each vehicle type, as they entered the facility. (Please see Attachment B-1 for an example of the sampling interval form). The selected driver was interviewed, using the same questionnaire developed for the project's vehicle survey task.

A pair of sample identification tags (Attachment B-2) was placed on the windshield of the vehicle, and the driver directed to the appropriate area for dumping his or her load. When the load was dumped, one of the identification tags was retained for the sampling crew. The second tag was left with the vehicle so that the total load weight would be recorded by the scale operators.

Sample Selection

Loads from the selected vehicles were dumped onto the tipping floor and samples were extracted mechanically by loader or pulled by hand and placed on a tarp for sorting. Once deposited on a tarp, samples were checked for weight, photographed, and logged in for sorting.

Sorting Process

Samples were sorted by hand into the prescribed component categories, using laundry baskets and tarps, then weighed. Samples were sorted to the greatest reasonable detail by hand and, if appropriate, screened with a one-inch mesh to separate fines and "supermixed" small materials.

If "supermix" remained for a given sample, its composition was estimated visually, if possible, or by subsampling. Applicable component weights were subsequently calculated for the supermix and added to the correct component categories.

A hanging digital scale accurate to 0.1 pound and a platform scale accurate to 0.01 pound were used to weight components. Data for each sample were recorded on a Sample Tally Sheet (please see Attachment B-3).

Data Management

Sample Tally Sheets were checked and compiled, and supermix materials were distributed into the correct categories. Vehicle generator information and net weights were transferred from the Gatehouse Selection Sheet.

The data were input into a Microsoft Excel spreadsheet. All data were entered twice to ensure accuracy. For final delivery to the County, the Excel data files were imported into a Borland Paradox database compatible with the existing Waste Monitoring Study data.

Composition Calculations

The composition estimates represent the **ratio of the components' weight to the total waste** for each noted substream. They are derived by summing each component's weight across all of the selected records and dividing by the sum of the total weight of waste, as shown in the following equation:

$$r_j = \frac{\sum_i c_{ij}}{\sum_i w_i}$$

where:

c = weight of particular component

w = sum of all component weights

for i 1 to n

where n = number of selected samples

for j 1 to m

where m = number of components

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

$$V_{r_j}^2 = \left(\frac{1}{n}\right) \cdot \left(\frac{1}{\bar{w}^2}\right) \cdot \left(\frac{\sum_i (c_{ij} - r_j w_i)^2}{n-1}\right)$$

where:

$$\bar{w} = \frac{\sum_i w_i}{n}$$

Second, **precision levels** at the 90% confidence interval are calculated for a component's mean as follows:

$$r_j \pm \left(t \cdot \sqrt{\frac{v}{r_j}} \right)$$

where:

t = the value of the t-statistic (1.645) corresponding to a 90% confidence level

For more detail, please refer to Chapter 6 "Ratio, Regression and Difference Estimation" of *Elementary Survey Sampling* by R.L. Scheaffer, W. Mendenhall and L. Ott (PWS Publishers, 1986).

The overall CDL waste composition estimate was calculated by performing a weighted average across the nine source-specific substreams.

The **weighted average for an overall composition estimate** is performed as follows:

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

where:

p = the proportion of tonnage contributed by the noted substream

r = ratio of component weight to total waste weight in the noted substream

for j 1 to m

where m = number of components

The **variance of the weighted average** is calculated:

$$VarO_j = (p_1^2 * \bar{V}_{r_{j1}}) + (p_2^2 * \bar{V}_{r_{j2}}) + (p_3^2 * \bar{V}_{r_{j3}}) + \dots$$

Attachments B-1,B-2, B-3 not available in electronic form

Appendix C Sorting Component Definitions

Wood Wastes

- a. *New Lumber*—new dimension lumber scraps. Includes materials such as 2 × 4's, 2 × 6's, 2 × 12's and other residual materials from framing and related construction activities.
- b. *New Panelboard*—new scrap from sheet goods such as plywood, particle board, wafer board, oriented strand board and other residual materials used for sheathing and related construction uses.
- c. *Demo Lumber*—dimensional lumber resulting from demolition and/or remodeling activities. May be characterized by nails, paint, or other trace contaminants.
- d. *Demo Panelboard*—used sheet goods resulting from demolition and/or remodeling activities. May be characterized by nails, paint or other trace contaminants.
- e. *Remanufacturing Scrap*—scrap from production of pre-fabricated wood products such as cabinets.
- f. *Creosote Wood*—new and used lumber or panelboard which has been treated with creosote. May include railroad ties, marine timbers and pilings, some landscape timbers, and telephone poles.
- g. *Pressure Treated Wood*—new and used lumber or panelboard which has been treated with pentachlorophenol, copper-chrome arsenate or other chemical preservatives. May be characterized by small linear indentations.
- h. *Painted/Stained Wood*—new and used lumber or panelboard materials with a significant portion of their surface treated with paint or stain products.
- i. *Contaminated Demo Wood*—used wood contaminated with other wastes in such a way that they cannot easily be separated, but consisting primarily (over 50 percent) of wood. Examples include wood with sheetrock attached.
- j. *Wood/Other Materials*—new wood or wood-related products contaminated with or containing other materials.
- k. *Wood Roofing and Siding*—new or used untreated wood that is commonly used for siding or roofing applications, such as cedar shingles or shakes. Commonly characterized by trace amounts of tarpaper and nails.
- l. *Unfinished Furnishings*—all-wood furniture or cabinets which have not been treated with paint, stain, or some other chemical finish.

- m. *Finished Furnishings*—all-wood furniture or cabinets which have been treated with paint, stain, or some other chemical finish.
- n. *Pallets & Crates*—wood pallets, crates, and packaging lumber/panelboard.
- o. *Sawdust* ---small particles of wood produced by sawing, milling or planing.
- p. *Other Wood*—products made primarily of wood, not otherwise classified above.

Mineral Aggregates

- a. *Asphaltic Concrete*—paving material for roads and other surfaces composed of aggregates and asphalt binders. Commonly known as "blacktop" pavement.
- b. *Built-Up Roofing*—roofing material composed of several layers of heavy asphalt-saturated felt. Includes torch-down and hot tar roofs.
- c. *Composition Shingles*—roofing material composed of fiberglass or organic felts saturated with asphalt and covered with asphalt and inert aggregates. Commonly known as three-tab roofing shingles.
- d. *Tarpaper/Asphalt Felt*—various weights of papers saturated with asphalt or tar used in siding and roofing applications as a moisture barrier.
- e. *Concrete with Rebar*—construction material composed of portland cement and water combined with sand, gravel, crushed stone, or other inert materials, containing steel internal structure composed of reinforcing bars or metal mesh.
- f. *Concrete without Rebar*—construction material composed of portland cement and water combined with sand, gravel, crushed stone, or other inert materials.
- g. *Bricks*—common building unit made of hard-baked clay of various types. Manufactured in several forms, usually rectangular in shape and reddish in color.
- h. *Concrete Masonry Unit (CMU)*—concrete masonry consisting of cement, sand and possibly other fillers such as gravel, ash or fibrous materials. Common forms are concrete blocks, cinder blocks or other brick type units.
- i. *Masonry Tile*—construction material used in interior or exterior surface applications. Composed of hard-baked clays, usually reddish in color.
- j. *Mortar*—common masonry bonding material composed of various types of cement or other bonding agents and sand.
- k. *Plaster*—material used for finishing interior surfaces. Usually a lime or gypsum type mortar with some type of fiber added.
- l. *Clay Roofing Tile*—roofing material made from hard-burned clay, designed with overlapping or interlocking edges.
- m. *Slate/Quarry Tile*—roofing material composed of fine-grained natural stone split into thin plates and cut into roofing tiles.

- n. *New Gypsum Scrap*—clean gypsum wallboard scrap. Wallboard is composed of calcium sulfate dihydrate sandwiched between heavy layers of kraft-type paper.
- o. *Mixed/Demo Gypsum Scrap*—gypsum wallboard scrap resulting from demolition and/or remodeling activity. Wallboard may be characterized by surface coatings, tape, paints, nails, or screws.

Glass

- a. *Clear Containers*—clear bottles and jars; used for food, soft drinks, beer, wine, or other beverages.
- b. *Green Containers*—green bottles and jars; used for food, soft drinks, beer, wine, or other beverages.
- c. *Brown Containers*—brown bottles and jars; used for food, soft drinks, beer, wine, or other beverages.
- d. *Refillable Beer Bottles*—beer bottles that can be returned for a deposit and refilled within Seattle, including local brewery bar bottles and stubbies.
- e. *Other/NR Glass*—light bulbs, auto glass and other glass products which are not easily recyclable.
- f. *Window Glass*—including wired window glass.
- g. *Mirror Glass*—flat glass which is laminated or otherwise coated with a reflective film or sheet material.

Metals

- a. *Aluminum Cans*—beverage cans composed of aluminum only.
- b. *Other Aluminum*—other types of aluminum containers such as pans and trays; includes foil and foil products or packages and all other aluminum materials including furniture, house siding, cookware, and scrap.
- c. *Tinned Food Cans*—tin-plated steel cans (food cans), does not include other bi-metals, paint cans, or other type of steel cans.
- d. *Other Ferrous*—ferrous and alloyed ferrous scrap materials derived from iron, including household, industrial, and commercial products.
- e. *Galvanized Steel*—steel alloyed with zinc coating to increase corrosion resistance. Commonly used in sheet goods applications such as flashing and duct work, as well as other construction materials such as nails.
- f. *Other Tinned Cans*—paint, solvent, and other non-food tinned cans.
- g. *Other Nonferrous*—metals that are not materials derived from iron, including copper, brass, bronze, aluminum bronze,

lead, pewter, zinc, and other metals to which a magnet will not adhere. Metals that are significantly contaminated are not included.

- h. *Mixed Metals and Other Materials*—composite metal products and metals combined with other materials, such as engines, umbrellas, and aerosol cans.
- i. *Insulated Wire/Cable*—conductors, primarily copper, insulated with plastic or other non-metallic sheaths for insulation, corrosion, or moisture resistance.
- j. *Electric motors*—commonly found in fans, power equipment, and various appliances. There are several types of electric motors, but most contain a large amount of copper, with various other parts of metal or plastic materials.
- k. *Aerosol Cans*—empty, sealed containers designed to hold propellants and products under pressure.
- l. *Chlorofluorocarbon Compressors*—compressors potentially containing chlorofluorocarbon coolants, typically found in refrigeration units.

Paper

- a. *Old Newspaper (ONP)*—printed groundwood newsprint and other minimally bleached groundwood. This category also includes some glossy paper typically used in newspaper insert advertisements, unless found separately.
- b. *Corrugated Cardboard (OCC/Kraft Bags)*—Kraft linerboard, containerboard cartons and shipping boxes with corrugated paper medium (unwaxed). This category also includes Kraft (brown) paper bags. Excludes waxed and plastic-coated cardboard, solid boxboard, and bags that are not pure unbleached Kraft.
- c. *Low-Grade Recyclable*—magazines, phone books, junk mail, used envelopes, other material with sticky labels, construction paper, blueprint and thermal copy paper (NCR paper), fax paper, brightly dyed paper (fiesta or neon colors), paperback books, and groundwood catalogues. This category also includes other low-grade recyclable papers used in packaging, including chipboard and other solid boxboard (not polycoated), clothing forms, egg cartons (molded pulp), and other boxes.
- d. *High Grade Printing*—printing and writing papers, including both groundwood and thermo-chemical pulps. This category is composed of high-grade paper, which includes white ledger, colored ledger, computer cards, bond, copy machine paper, and carbonless paper. Excludes glossy coated paper such as

magazines, bright papers, and pure groundwood publications such as catalogs.

- e. *Computer Paper*—continuous-feed computer printouts and forms of various types; does not include multiple-copy carbonless paper.
- f. *Bleached Polycoats*—polycoated bleached paperboard cartons used for milk, ice cream, and juice (including aseptic packaging). Does not include frozen food, microwave boxes, cups, or non-food packaging.
- g. *Paper and Other Materials*—items that are primarily paper, but combined with other materials. Includes juice cans, oil cans, paper or boxboard with foil laminates, notebooks, aluminum foil boxes, and other similar packages or products.
- h. *Tyvek Vapor Barrier*—construction material used primarily in siding and other moisture barrier applications composed of paper fiber combined with plastic fibers.
- i. *Other Paper*—paper not included above that is not easily recyclable. Includes carbon paper, tissue, photographs, paper normally soiled through use such as paper plates and paper towels, waxed cardboard, poly-lined chipboard, foil-lined papers, Christmas wrapping paper, microwave containers, frozen food boxes, and hard cover books.

Yard Waste

- a. *Stumps*—stumps of trees and shrubs, with any adhering soil.
- b. *Large Prunings*—other natural woods, such as logs and branches in excess of four inches in diameter (four inches is the limit used for defining prunings as yard wastes).
- c. *Bulky Yard Waste*—logs, tree sections.
- d. *Small Prunings*—prunings under 4 inches in diameter.
- e. *Leaves and Grass*—lawn clippings, weeds, and leaves.

Plastics

- a. *PET Bottles*—all bottles made from polyethylene terephthalate (PET), consisting of pop, oil, liquor, and other types of bottles (SPI code 1).
- b. *HDPE Bottles*—all bottles made of high density polyethylene (HDPE), such as milk, juice, detergent, and other bottles (SPI code 2).
- c. *5 Gal. #2 with Handles*—HDPE buckets in standard 5 gallon commercial sizes with metal wire or other type handles. Usually have round or square shape and are frequently used as containers for paint or other construction materials.

- d. *5 Gal. #2 without Handles*—HDPE buckets in standard 5 gallon commercial sizes. Usually have round or square shape and are frequently used as containers for paint or other construction materials.
- e. *Other Containers*—all other rigid containers with SPI codes 3 through 7, and PET and HDPE containers other than bottles.
- f. *Polystyrene Foam*—expanded polystyrene packaging, food trays, cups, plates, clamshells, and other foam packaging.
- g. *Polystyrene Insulation*—expanded polystyrene bead-board insulation.
- h. *Plastic Film and Bags*—all film, bags and thin plastic packaging, including wrappings, vacuum-formed packaging, bubble packs, and other films, as well as plastic strapping and other thin flexible plastic packaging. Also includes shower curtains, plastic sheeting, trash bags, and other thin plastic products.
- i. *Other Packaging*—all other non-film packaging that does not fit into the above categories including caps, closures, and other miscellaneous items.
- j. *Plastic Products*—primarily rigid or solid consumer items including dishware, utensils and other household items, vinyl products, all-plastic furniture and toys, car parts, foam carpet pads, and clothes hangers.
- k. *PVC Pipe*—pipe or conduit made from polyvinyl chloride used in plumbing and electrical applications. Usually characterized with a "PVC" or "#3" stamp.
- l. *ABS Pipe*—pipe made from acrylonitrile butadiene styrene used in drainage and other applications. Usually black in color and characterized by an "ABS" stamp.
- m. *Polyurethane Foam*—a type of thermosetting plastic used in closed cell applications such as poured-in-place insulation.
- n. *Thermoset Products*—plastics which do not melt when reheated. These types of resins are common in household appliances, tools, and other applications.
- o. *Plastic and Other Materials*—items that are predominantly made of plastic, but are combined with other material, such as kitchenware and car parts with wood or metal components.
- p. *Laminate/Formica*—laminated sheets of thermoset plastics commonly used in countertop and cabinet making applications. May contain colored silicate minerals known as mica.
- q. *Fiberglass (Acoustical) Ceiling Panels*—lightweight panels consisting of paper fiber and glass or other mineral or organic fibers used in commercial construction for sound deadening properties.

- r. *Structural Fiberglass*—includes a variety of fiber reinforced plastics increasingly common in construction products and structural applications. May include a variety of thermoset type resins or epoxies and other fiber types in addition to glass.
- s. *Linoleum*—floor-covering material consisting of a mixture of wood and other fillers, linseed oil and resins on either a burlap or canvas backing.

Other Materials

- a. *Ashes*—material remaining after the combustion process, present in the waste stream as ash from fireplaces and wood stoves, used charcoal from grills, and similar materials.
- b. *Nondistinct Fines*—fine, non-distinct materials.
- c. *Sand*—grains or fine particles of mineral matter derived from the disintegration of rocks, typically used in construction and landscaping applications.
- d. *Topsoil*—contains sand and other nutrient-rich organic matter. Topsoil is commonly generated by landclearing activity and used in finish applications on construction projects.
- e. *Gravel*—small pieces of mineral matter or rock. May include naturally generated round shaped pea gravel created by flowing water or mechanically generated crushed rock.
- f. *Furniture/Mattress*—furniture and mattresses made of mixed materials and in any condition.
- g. *Small Appliances*—small household appliances such as televisions, stereos, radios, toasters, broilers, can openers, blenders, etc.
- h. *Large Appliances*—household or light commercial appliances commonly known as "white goods". Includes washers, dryers, hot water heaters, refrigerators, ranges, and others.
- I. *Ceramic Tile*----tile which is made out of ceramic material
- i. *Kitchen Ware*—glass or ceramic cookware, dishes.
- j. *Porcelain*—toilets, sinks, etc.
- k. *Miscellaneous Inorganics*—inorganic items not otherwise classified.

Other Organics

- a. *Food Wastes*—leftovers and wastes from food preparation. Includes food in the original or another container when the container weight is less than 10% of the total weight.

- b. *Textiles/Clothes*—fabric materials including natural and man-made textile materials such as cottons, wools, silks, woven nylon, rayon, polyesters and other materials.
- c. *Carpeting*—general category of flooring applications consisting of various natural or synthetic fibers bonded to some type of backing material.
- d. *Upholstery*—various types of natural or synthetic fiber cloth fabrics used in furniture and other interior applications.
- e. *Textile-Related Products*—includes shoes, handbags, and other multi-material products composed significantly of textiles.
- f. *Disposable Diapers*—diapers and similar products made from a combination of fibers, synthetic, and/or natural, and made for the purpose of a single use. Diapers that are all cloth and not originally intended for single use will be classified as a textile. This category includes fecal matter contained within, sanitary napkins and tampons, and adult disposable protective undergarments.
- g. *Rubber Products (except tires)*—items made of natural rubber, including door mats, foam rubber, rubber carpet pads, and other products.
- h. *Tires*—whole tires from automobiles, trucks, motorcycles, bicycle, and other vehicles.
- i. *Animal Carcasses*—carcasses of small animals and pieces of larger animals, unless the waste was the result of food storage or preparation.
- j. *Animal Feces*—kitty box litter and feces from other animals.
- k. *Wax*—a general name for a variety of substances of animal and vegetable origin, which are fatty acids in combination with alcohols. May include some types of mineral waxes.
- l. *Miscellaneous Organics*—hair, soap, and other organics not otherwise classified.

Hazardous Waste

- a. *Used Oil*—used lubricating oils, primarily used in cars but including other types with similar characteristics.
- b. *Vehicle Batteries*—car, motorcycle, and other lead-acid batteries used for motorized vehicles.
- c. *Household Batteries*—batteries of various sizes and types, as commonly used in households.
- d. *Latex Paint*—water-based paints and similar products
- e. *Wood Preservatives*—oil-based wood preservatives.

- f. *Varnishes and Finishes*—solvent-based paints, varnishes, and similar products.
- g. *Solvents and Thinners*—various solvents, including chlorinated and flammable solvents, paint strippers, solvents contaminated with other products such as paints, degreasers and some other cleaners if the primary ingredient is (or was) a solvent, and alcohols such as methanol and isopropanol.
- h. *Adhesives and Glue*—glues and adhesives of various sorts, including rubber cement, wood putty, glazing, and spackling compounds, caulking compounds, grout, and joint and auto body fillers.
- i. *Cleaners and Corrosives*—various acids and bases whose primary purpose is to clean surfaces, unclog drains, or perform other actions.
- j. *Pesticides and Herbicides*—variety of poisons whose purpose is to discourage or kill pests, weeds, or microorganisms. Fungicides and wood preservatives, such as pentachlorophenol, are also included.
- k. *Gasoline and Fuel Oil*—gasoline, diesel fuel, and fuel oils.
- l. *Antifreeze*—automobile and other antifreeze mixtures based on ethylene or propylene glycol, also brake and other fluids if based on the same compound.
- m. *Medical Waste*—wastes related to medical activities, including syringes, I.V. tubing, bandages, medications, and other wastes.
- n. *Asbestos*—insulation or vinyl-asbestos tile.
- o. *Other Hazardous Waste*—asbestos-containing wastes if this is the primary hazard associated with the waste; gunpowder, unspent ammunition, picric acid and other potentially explosive chemicals; radioactive materials (but smoke alarms are classified as "other plastic"); and other wastes that do not fit into the above categories.

Quarterly surveys were conducted at the same four transfer stations from which waste samples were obtained. During the first season, no surveys were collected at the NRDS or SRDS and the survey days at Third & Lander and Black River were selected to coincide with other field work being conducted there. The objective of this survey was to obtain information on CDL disposal rates and to create generator profiles.

Field forms are attached.

Staffing Requirements

- one surveyor at each transfer station except Third & Lander, which requires two surveyors

Equipment

- hard hats and safety vests
- one "Survey in Progress" sign
- survey forms printed on Astrobrite paper
- blue card with Source of Materials listed to be handed to driver
- cheat sheet for surveyor listing vehicle type, customer class, and source of materials
- explanation of survey purpose to be handed to driver upon request

Addresses and Hours

North Recycling and Disposal Station
1350 N. 34th St., Seattle
Hours: Monday-Friday 8 AM - 5 PM; Saturday 8 AM - 6 PM; Sunday 9 AM - 6 PM
Contact: Laurie Russel 684-4068

South Recycling and Disposal Station
7800 2nd Avenue South, Seattle
Hours: Monday-Friday 8 AM - 5 PM; Saturday 8 AM - 6 PM; Sunday 9 AM - 6 PM
Contact: Chuck Rangel 684-4131

Third & Lander
2733 Third Avenue South, Seattle

Hours: Monday - Friday 7:30 AM - 6 PM, Saturday 7 AM - 3:30 PM
Contact: Steve Spence, Rabanco 646-2991

Black River

501 S. Monster Road SW, Renton

Hours - Monday - Friday 8 AM - 6 PM, Saturday 10 AM - 4 PM

Contact: Steve Spence, Rabanco 646-2991

Survey Hours

- Surveyors were at the stations by 8:30 at the latest and surveyed for 7½ hours.

Information Collected on the Survey Form

The surveyor first let the driver know that the City of Seattle is conducting a survey to find out how much CDL is being discarded and where the materials are being generated. If the driver seemed apprehensive about answering questions, the surveyor handed the driver a short printed explanation of the survey's purpose.

City or Area — The surveyor asked the driver where the load originated from.

Vehicle Type — The vehicle type was recorded based on the twelve categories as listed below and on the bottom of the form. (1) dump truck (includes flatbeds that dump), (2) tractor/trailer, (3) rear loader, (4) front loader, (5) side loader, (6) rolloff, (7) flatbed, (8) pick-up truck, (9) van, (10) auto, (11) vehicle with trailer, (12) dump truck with trailer.

Customer Class — One of the four possible customer classes was recorded. The surveyor either asked the driver or checked the name on the truck to see if it is a commercial hauler. (The surveyors became familiar with the names of the commercial hauling companies). If the truck was not a commercial hauler, then it was a self-haul vehicle. The surveyor asked if the load came from a business/industry, residence, or government/institution (private hospital, school or college).

Source of Materials (Substream)— A blue card listing nine possible activities that could generate C&D debris was handed to the driver. These activities are listed below and also listed on the bottom of the survey form. (1) new construction - residential, (2) new construction - commercial/institutional, (3) remodeling - residential, (4) remodeling - commercial/institutional, (5) demolition - residential, (6) demolition - commercial/ institutional, (7) roofing, (8) land clearing, and (9) other.

Net Weight — After asking the questions, the surveyor gave the form to the driver and asked him to turn it in to the scalehouse attendant. The net weight was filled in by the scalehouse attendant.

The surveyor collected all forms at the end of the day.

Attachment D-1 & D-2 not available in electronic form