

GEOGRAPHICAL VARIATIONS IN SOLID WASTE DISPOSAL

The population densities of Missouri fall into three main categories. According to the Missouri State Census Data Center, Missouri is comprised of two large metropolitan areas, three small metropolitan areas, and the remainder is classified as rural. The composition and quantity of waste received by a landfill is greatly affected by the density of the population it serves.

Metropolitan areas have more regulations associated with waste management than their rural counterparts. For example; most metropolitan areas have bans on burning MSW but many rural areas do not, most industries locate in a metropolitan area to take advantage of labor forces and efficient transportation networks, and construction and demolition waste is more prevalent in metropolitan areas. Therefore the composition of solid waste varied significantly between metropolitan and rural landfills.

The following three sections of this report characterize the solid waste components of the large metropolitan, small metropolitan, and rural areas of the state. All observations were done between October 1998 and May of 1999. The estimated tonnage for each material and component is based on actual tonnage reported to the Missouri Department of Natural Resources.

All percentages are based on observations and extrapolations as explained in the introduction. The percentage of waste components and their materials were multiplied by the actual tonnage reported to Missouri DNR. Those tonnage totals were then combined with other geographically similar landfills to produce a profile of each type of landfill (large metropolitan, small metropolitan, and rural).

LARGE METROPOLITAN AREAS

Over half of Missouri's population resides within the states two large metropolitan areas. According to the Missouri State Census Data, the population of the St. Louis metropolitan area is 2,444,099, and the population of the Kansas City Metropolitan area is 1,566,280. However there are major difference between the waste flows from each area. Both metropolitan areas export waste to neighboring states.

St. Louis

The five St. Louis landfills (three sanitary and two C&D) received 1,767,353 tons of waste in 1998. The Oak Ridge Landfill in West St. Louis County is owned by Superior Waste Services. The Bridgeton Landfill in Bridgeton is owned by Allied Waste Services. The Fred Weber Inc. Landfill in Maryland Heights is owned and operated by Fred Weber Inc. The Peerless C&D landfill is located in West St. Louis County, and the Rockhill C&D landfill is located in an old quarry in Rockhill.

In addition, the St. Louis area exports a considerable amount of waste to Illinois. The City of St. Louis South Transfer station exported about 280,000 tons, the Waste Management Inc. transfer stations exported over 66,000 plus individual packer loads, and Republic exported about 30,000 tons to Illinois in 1998. The State of Illinois reported receiving 1,154,657 tons of waste from Missouri.

In addition to the export situation, the ownership of private hauling companies and landfills seem to change almost weekly. The largest national companies in the solid waste industry are vertically integrated. It makes good business sense to own the hauling division, transfer station, transportation companies and of course the final destination for most solid waste, the landfill.

The table on page 142 lists the composition of the three St. Louis landfills and the table on page 143 combines the sanitary and C&D waste for the five St. Louis landfills (3 sanitary and 2 C&D).

The Chart on page 145 illustrates the waste distribution and composition of St. Louis solid waste. The bar graph at the bottom of page 145 illustrates the tonnage for all materials regardless of their origins. The materials are combined into the following categories.

- Paper:** Includes MSW, construction cardboard, industrial cardboard and paper.
- Glass:** MSW only
- Metals:** Includes metals from MSW, construction, demolition, and industrial.
- Plastics:** Includes MSW, construction, and industrial.
- Organics:** Includes MSW, industrial food, textiles, and rubber.
- Inorganics:** Includes MSW, construction and demolition drywall, construction and demolition masonry, and soil
- Wood:** Includes construction, demolition, and industrial wood.
- Roofing:** Demolition roofing only
- Other Items:** Includes "other" items from each component plus demolition carpet and asbestos.
- Bulky Items:** Includes furniture and other materials too large to be disposed in bags.

ST. LOUIS SANITARY LANDFILL COMPONENTS

MATERIAL	Oak Ridge		Fred Weber		Bridgeton		Total St. Louis	
	Pct.	Estimated Tonnage*	Pct.	Estimated Tonnage*	Pct.	Estimated Tonnage*	Pct.	Estimated Tonnage*
Municipal Solid Waste								
Paper	20.5%	53,778	11.6%	37,411	24.9%	227,412	21.3%	318,601
Glass	3.2%	8,359	1.8%	5,812	3.9%	35,369	3.3%	49,540
Metals	3.8%	9,937	2.1%	6,869	4.6%	42,025	3.9%	58,831
Plastics	7.9%	20,769	4.5%	14,478	9.6%	87,825	8.2%	123,073
Organics	16.9%	44,438	9.6%	30,859	20.6%	187,771	17.6%	263,068
Inorganics	2.6%	6,909	1.5%	4,756	3.2%	29,308	2.7%	40,973
TOTAL MSW	55.0%	144,190	31.2%	100,185	66.7%	609,710	57.0%	854,085
Construction Waste								
Wood	2.1%	5,587	7.6%	24,518	2.1%	19,274	3.3%	49,379
Dry Wall	1.3%	3,390	4.1%	13,210	0.8%	7,153	1.6%	23,754
Masonry	1.8%	4,649	1.3%	4,333	0.8%	7,551	1.1%	16,532
Metal	0.0%	128	0.2%	634	0.0%	99	0.1%	861
Plastic	0.1%	367	0.6%	1,797	0.2%	2,086	0.3%	4,250
Cardboard	0.2%	567	1.4%	4,544	0.5%	4,471	0.6%	9,582
Other	0.2%	580	0.7%	2,325	0.1%	695	0.2%	3,600
TOTAL CONSTRUCTION	5.8%	15,268	16.0%	51,361	4.5%	41,330	7.2%	107,958
Demolition Waste								
Wood	2.1%	5,629	8.9%	28,745	2.1%	18,777	3.5%	53,152
Dry Wall	0.1%	337	1.8%	5,812	0.8%	6,855	0.9%	13,004
Roofing	0.6%	1,608	8.1%	25,892	0.6%	5,266	2.2%	32,765
Masonry	2.1%	5,629	10.0%	32,021	1.9%	17,784	3.7%	55,434
Metal	0.3%	798	1.8%	5,812	0.3%	2,285	0.6%	8,895
Carpet	0.4%	972	1.3%	4,227	0.5%	4,173	0.6%	9,372
Other	0.2%	571	2.5%	8,137	0.1%	993	0.6%	9,702
TOTAL DEMOLITION	5.9%	15,545	34.4%	110,648	6.1%	56,133	12.2%	182,325
Industrial Waste								
Cardboard	1.4%	3,761	1.9%	6,129	4.8%	43,416	3.6%	53,307
Paper	1.2%	3,190	0.7%	2,114	0.7%	6,557	0.8%	11,861
Food	0.5%	1,395	0.0%	-	0.0%	-	0.1%	1,395
Metal	0.1%	247	0.0%	106	0.0%	99	0.0%	452
Wood	0.7%	1,753	0.9%	2,959	4.0%	36,263	2.7%	40,975
Plastic	1.1%	2,981	0.5%	1,691	0.9%	8,643	0.9%	13,315
Textiles	0.0%	-	0.1%	211	0.3%	2,285	0.2%	2,496
Rubber	0.1%	158	2.7%	8,560	0.0%	199	0.6%	8,917
Other	3.2%	8,487	0.0%	-	0.4%	4,073	0.8%	12,560
TOTAL INDUSTRIAL	8.4%	21,972	6.8%	21,770	11.1%	101,536	9.7%	145,278
Special Wastes								
Bulky Items	0.5%	1,335	4.2%	13,527	0.7%	6,160	1.4%	21,022
Soil and Inert Materials	24.4%	64,056	0.0%	-	8.0%	73,320	9.2%	137,376
Asbestos	0.0%	-	0.0%	-	1.2%	10,829	0.7%	10,829
Other	0.0%	-	7.4%	23,778	1.6%	14,604	2.6%	38,383
TOTAL SPECIAL	24.9%	65,391	11.6%	37,305	11.5%	104,913	13.9%	207,609
TOTAL WASTE STREAM	100%	262,365	100%	321,269	100%	913,621	100%	1,497,255

* Based on observation data

TOTAL ST. LOUIS LANDFILL COMPONENTS

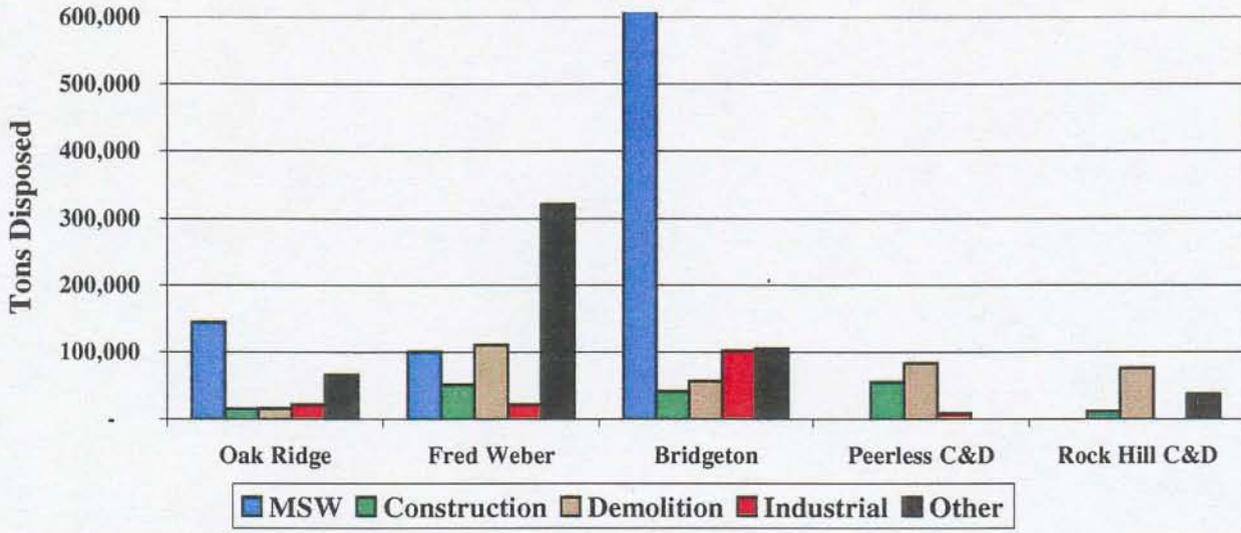
MATERIAL	Peerless		Rockhill		Other Landfills**		Total St. Louis	
	Pct.	Estimated Tonnage*	Pct.	Estimated Tonnage*	Pct.	Estimated Tonnage*	Pct.	Estimated Tonnage**
Municipal Solid Waste								
Paper	0.0%	-	0.0%	-	21.3%	318,601	18.0%	318,601
Glass	0.0%	-	0.0%	-	3.3%	49,540	2.8%	49,540
Metals	0.0%	-	0.0%	-	3.9%	58,831	3.3%	58,831
Plastics	0.0%	-	0.0%	-	8.2%	123,073	7.0%	123,073
Organics	0.0%	-	0.0%	-	17.6%	263,068	14.9%	263,068
Inorganics	0.0%	-	0.0%	-	2.7%	40,973	2.3%	40,973
TOTAL MSW	0.0%	-	0.0%	-	57.0%	854,085	48.3%	854,085
Construction Waste								
Wood	15.0%	21,977	4.8%	5,984	3.3%	49,379	4.4%	77,341
Dry Wall	7.3%	10,742	2.2%	2,773	1.6%	23,754	2.1%	37,269
Masonry	5.3%	7,728	0.4%	511	1.1%	16,532	1.4%	24,770
Metal	0.2%	301	0.0%	-	0.1%	861	0.1%	1,162
Plastic	1.3%	1,973	0.4%	438	0.3%	4,250	0.4%	6,661
Cardboard	3.3%	4,823	1.1%	1,387	0.6%	9,582	0.9%	15,792
Other	4.8%	7,015	0.5%	657	0.2%	3,600	0.6%	11,272
TOTAL CONSTRUCTION	37.3%	54,559	9.5%	11,750	7.2%	107,958	9.9%	174,267
Demolition Waste								
Wood	13.5%	19,703	24.3%	30,141	3.5%	53,152	5.8%	102,996
Dry Wall	3.4%	4,933	1.4%	1,679	0.9%	13,004	1.1%	19,615
Roofing	18.7%	27,375	8.1%	9,998	2.2%	32,765	4.0%	70,139
Masonry	12.1%	17,675	25.0%	30,944	3.7%	55,434	5.9%	104,053
Metal	1.2%	1,781	1.8%	2,189	0.6%	8,895	0.7%	12,866
Carpet	1.6%	2,411	0.4%	511	0.6%	9,372	0.7%	12,294
Other	6.1%	8,961	0.1%	146	0.6%	9,702	1.1%	18,809
TOTAL DEMOLITION	56.6%	82,839	61.0%	75,608	12.2%	182,325	19.3%	340,772
Industrial Waste								
Cardboard	0.3%	438	0.0%	-	3.6%	53,307	3.0%	53,745
Paper	0.5%	685	0.0%	-	0.8%	11,861	0.7%	12,546
Food	0.0%	-	0.0%	-	0.1%	1,395	0.1%	1,395
Metal	0.3%	493	0.0%	-	0.0%	452	0.1%	945
Wood	1.1%	1,562	0.0%	-	2.7%	40,975	2.4%	42,537
Plastic	0.8%	1,233	0.0%	-	0.9%	13,315	0.8%	14,548
Textiles	0.0%	-	0.0%	-	0.2%	2,496	0.1%	2,496
Rubber	2.5%	3,590	0.0%	-	0.6%	8,917	0.7%	12,507
Other	0.6%	849	0.0%	-	0.8%	12,560	0.8%	13,409
TOTAL INDUSTRIAL	6.1%	8,851	0.0%	-	9.7%	145,278	8.7%	154,129
Special Wastes								
Bulky Items	0.0%	-	0.0%	-	1.4%	21,022	1.2%	21,022
Soil and Inert Materials	0.0%	-	29.5%	36,491	9.2%	137,376	9.8%	173,867
Asbestos	0.0%	-	0.0%	-	0.7%	10,829	0.6%	10,829
Other	0.0%	-	0.0%	-	2.6%	38,383	2.2%	38,383
TOTAL SPECIAL	0.0%	-	29.5%	36,491	13.9%	207,609	13.8%	244,100
TOTAL WASTE STREAM	100%	146,249	100%	123,849	100%	1,497,255	100%	1,767,353

* Based on observation data

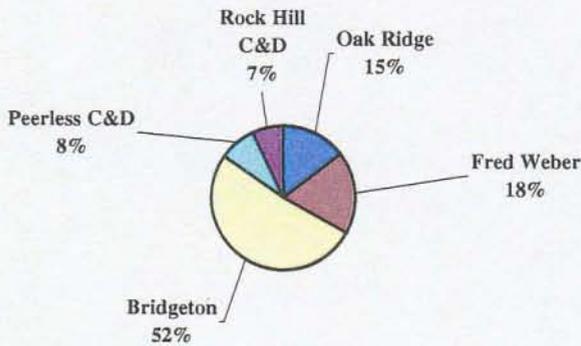
** Includes observed data from Oak Ridge, Bridgeton, and Fred Weber landfill's

ST. LOUIS LANDFILL COMPONENTS

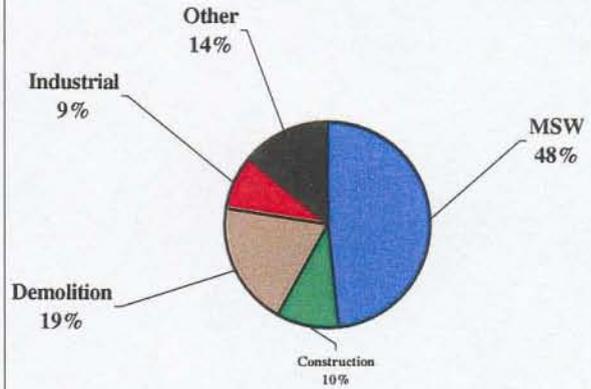
Solid Waste Composition in St. Louis



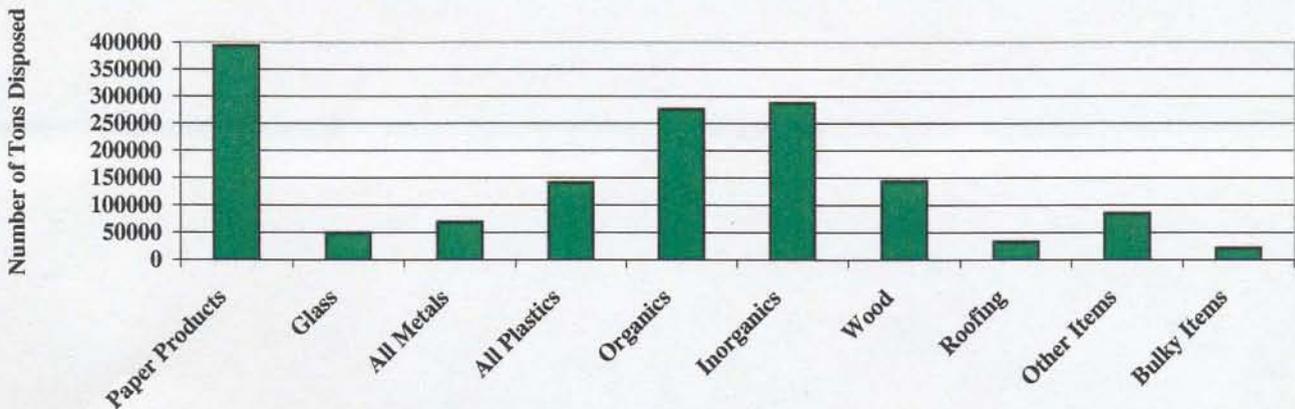
Distribution of Waste in St. Louis



St. Louis Waste Components



Combined Materials from all Waste Components Disposed in St. Louis



Kansas City

Prior to March 1999 there were three Missouri landfills in the greater Kansas City area. The Courtney Ridge Landfill in Sugar Creek, Missouri is owned and operated by Waste Management Inc. All MSW from the City of Kansas City is picked up in City refuse trucks and taken to the Courtney Ridge Facility. There are also several industrial parks near the landfill. The Courtney Ridge Landfill was observed in February of 1999 and results are on page 39.

Allied Waste Services owned and operated the Southeast Landfill in Kansas City until it closed in March of 1999. They received MSW from independent haulers, BFI, and Deffenbaugh. Due to their location near the older portion of the metropolitan area, they received higher quantities of demolition materials. During the observation period they received sizable amounts of contaminated soil from underground tank remediation projects and the City of Kansas City Street Department. The Southeast Landfill was observed in December of 1998 and the results are on page 87.

The City of Lee's Summit also owns and operates a landfill. However the City of Lee's Summit does not operate a municipal waste hauling service. The individual waste hauler contracts all residential and commercial hauling. The Lee's Summit Landfill was observed in May 1999 but an error in the scale software program made the scale data unreliable. Therefore the data from that observation period was not used. A weighted average of the Courtney Ridge and Southeast landfills was used to estimate the waste components at Lee's Summit.

Some of the Kansas City waste is exported to Kansas. The State of Kansas reports that 395,712 tons of waste was received from Missouri in 1995. However that figure is somewhat misleading. The state line runs directly through the greater Kansas City Metropolitan area and many waste loads (both packers and self-haul) are picked up in Missouri and driven to a nearby Kansas landfill. The State of Kansas does not track these individual trucks (their import numbers primarily reflect transfer trailers arriving from out of state).

The table on page 148 lists the composition of the three Kansas City landfills.

The Chart on page 149 illustrates the waste distribution and composition for Kansas City solid waste. The bar graph at the bottom of page 149 illustrates the tonnage for all materials regardless of their origins. The materials are combined into the following categories.

- Paper:** Includes MSW, construction cardboard, industrial cardboard and paper.
- Glass:** MSW only
- Metals:** Includes metals from MSW, construction, demolition, and industrial.
- Plastics:** Includes MSW, construction, and industrial.
- Organics:** Includes MSW, industrial food, textiles, and rubber.
- Inorganics:** Includes MSW, construction and demolition drywall, construction and demolition masonry, and soil
- Wood:** Includes construction, demolition, and industrial wood.
- Roofing:** Demolition roofing only
- Other Items:** Includes "other" items from each component plus demolition carpet and asbestos.
- Bulky Items:** Includes furniture and other materials too large to be disposed in bags.

KANSAS CITY SOLID WASTE COMPONENTS

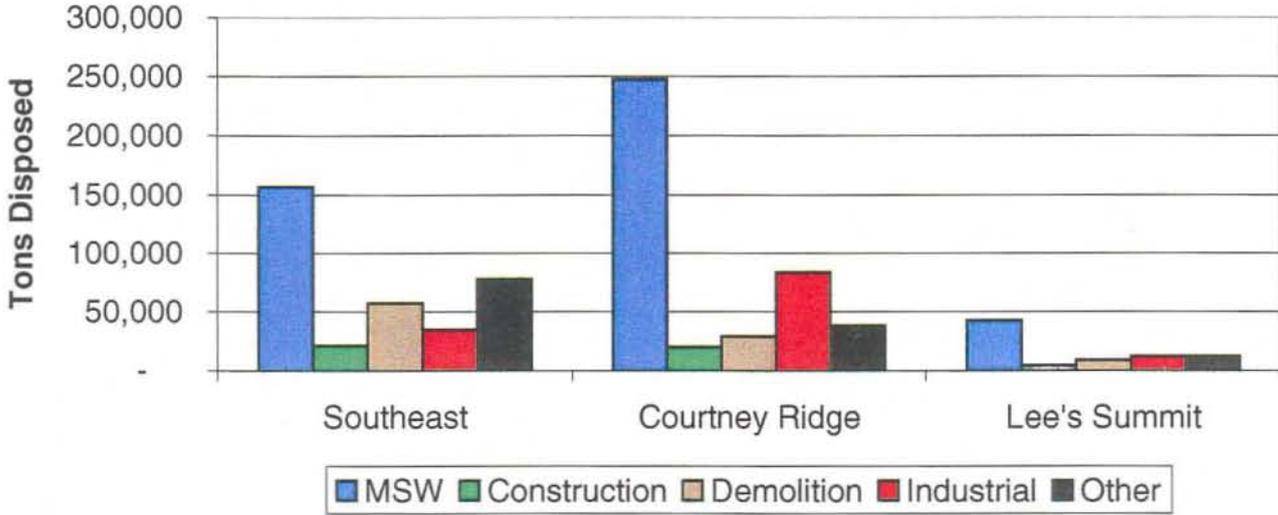
MATERIAL	Southeast		Courtney Ridge		Lee's Summit		Total Kansas City	
	Pct.	Estimated Tonnage*	Pct.	Estimated Tonnage*	Pct.	Estimated Tonnage**	Pct.	Estimated Tonnage
Municipal Solid Waste								
Paper	16.8%	58,515	21.6%	90,357	19.4%	15,652	19.4%	164,524
Glass	2.6%	9,092	3.4%	14,338	3.1%	2,501	3.1%	25,931
Metals	3.1%	10,802	4.1%	17,032	3.6%	2,905	3.6%	30,738
Plastics	6.5%	22,613	8.5%	35,604	7.6%	6,132	7.6%	64,349
Organics	13.9%	48,335	18.2%	76,212	16.2%	13,070	16.2%	137,617
Inorganics	2.2%	7,538	2.8%	11,836	2.5%	2,017	2.5%	21,391
TOTAL MSW	45.1%	156,894	59.1%	247,399	52.7%	42,519	52.7%	446,813
Construction Waste								
Wood	2.9%	10,102	2.5%	10,344	2.7%	2,178	2.7%	22,625
Dry Wall	0.9%	3,147	1.0%	4,244	1.0%	807	1.0%	8,198
Masonry	1.4%	4,896	0.3%	1,299	0.8%	645	0.8%	6,840
Metal	0.3%	909	0.1%	414	0.2%	161	0.2%	1,484
Plastic	0.2%	715	0.4%	1,626	0.3%	242	0.3%	2,583
Cardboard	0.3%	1,065	0.5%	2,069	0.4%	323	0.4%	3,456
Other	0.1%	303	0.0%	87	0.1%	81	0.1%	470
TOTAL CONSTRUCTION	6.1%	21,137	4.8%	20,083	5.4%	4,357	5.4%	45,576
Demolition Waste								
Wood	5.6%	19,660	2.4%	10,162	3.9%	3,147	3.9%	32,968
Dry Wall	1.2%	4,305	0.6%	2,665	0.9%	726	0.9%	7,697
Roofing	4.2%	14,609	1.6%	6,697	2.8%	2,259	2.8%	23,566
Masonry	4.5%	15,775	0.6%	2,483	2.4%	1,936	2.4%	20,194
Metal	0.3%	1,197	0.6%	2,589	0.5%	403	0.5%	4,189
Carpet	0.3%	1,204	0.5%	2,281	0.5%	403	0.5%	3,888
Other	0.2%	824	0.6%	2,329	0.4%	323	0.4%	3,475
TOTAL DEMOLITION	16.5%	57,574	7.0%	29,205	11.3%	9,117	11.3%	95,896
Industrial Waste								
Cardboard	3.4%	11,889	4.3%	18,139	3.9%	3,147	3.9%	33,175
Paper	0.8%	2,860	1.6%	6,813	1.3%	1,049	1.3%	10,721
Food	1.1%	3,862	6.9%	28,849	4.3%	3,469	4.3%	36,180
Metal	0.1%	295	0.0%	173	0.1%	81	0.1%	549
Wood	2.4%	8,315	4.4%	18,533	3.5%	2,824	3.5%	29,672
Plastic	1.3%	4,616	0.9%	3,955	1.1%	888	1.1%	9,458
Textiles	0.0%	-	0.0%	-	0.0%	-	0.0%	-
Rubber	0.0%	-	0.0%	-	0.0%	-	0.0%	-
Other	0.8%	2,937	1.7%	7,284	1.3%	1,049	1.3%	11,271
TOTAL INDUSTRIAL	10.0%	34,775	20.0%	83,746	15.5%	12,506	15.5%	131,027
Special Wastes								
Bulky Items	1.5%	5,113	3.2%	13,347	2.4%	1,936	2.4%	20,396
Soil and Inert Materials	19.1%	66,441	2.1%	8,939	9.8%	7,907	9.8%	83,287
Asbestos	1.8%	6,326	3.4%	14,251	2.7%	2,178	2.7%	22,755
Other	0.0%	-	0.4%	1,655	0.2%	161	0.2%	1,816
TOTAL SPECIAL	22.4%	77,880	9.1%	38,192	15.1%	12,183	15.1%	128,255
TOTAL WASTE STREAM	100%	348,260	100%	418,625	100%	80,682	100%	847,567

* Based on observation data

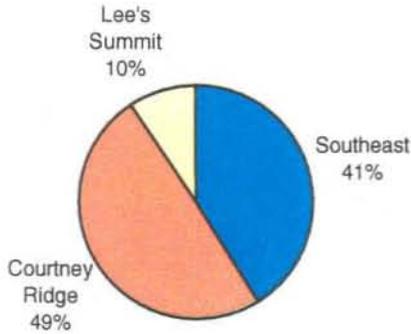
** Based on weighted average from Southeast and Courtney Ridge.

KANSAS CITY SOLID WASTE COMPONENTS

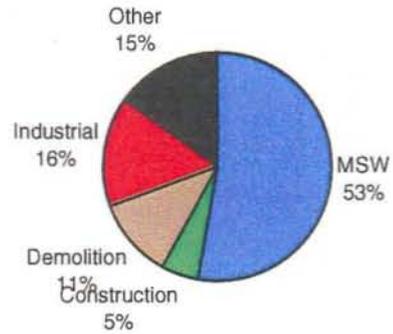
Solid Waste Composition in Kansas City



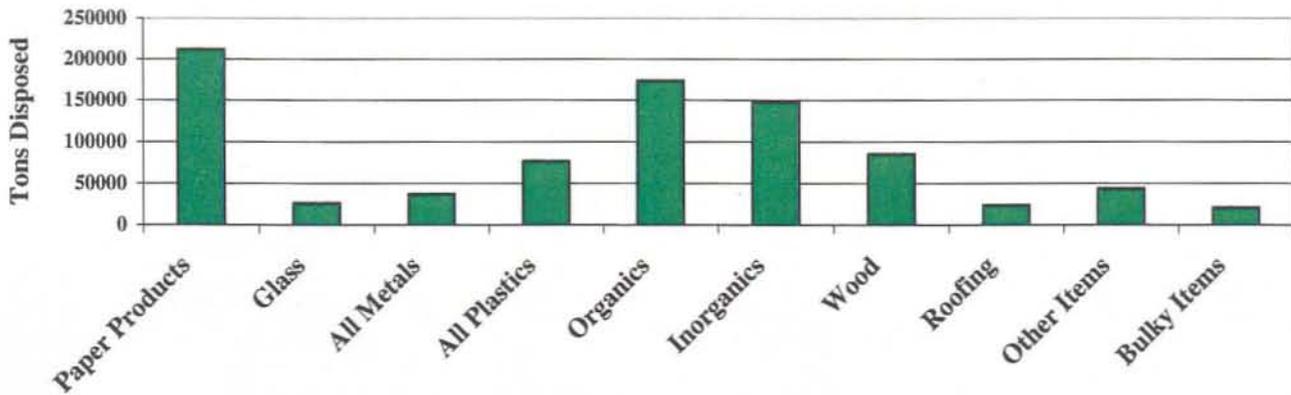
Disposal of Solid Waste in Kansas City Sanitary Landfills



Kansas City Solid Waste Components



Combined Materials from all Waste Components Disposed in Kansas City



Large Metropolitan Solid Waste Components

The landfills within the two large metropolitan areas within Missouri disposed of 2,614,920 tons of solid waste in 1998. There was of course some import and export of waste so it is difficult to determine waste generation numbers without a long term, tedious study to track every load of solid waste.

The Table on page 152 lists the percentage of solid waste components and the materials within those components, based on observation data. The estimated tonnage is the 1998 tonnage of the combined landfills multiplied by the observed percentage.

The St. Louis numbers include the construction and demolition landfills at Peerless and Rockhill, but the Kansas City numbers do not include any construction and demolition landfills. The only C&D landfills in the Kansas City metropolitan area is located in Kansas and therefore not part of this study.

The Chart on page 153 illustrates the waste distribution and composition for St. Louis and Kansas City solid waste. The bar graph at the top of page 153 depicts the difference in the Kansas City and St. Louis waste components. The bar graph at the bottom of page 153 illustrates the tonnage for all materials regardless of their origins. The materials are combined into the following categories:

- Paper:** Includes MSW, construction cardboard, industrial cardboard and paper.
- Glass:** MSW only
- Metals:** Includes metals from MSW, construction, demolition, and industrial.
- Plastics:** Includes MSW, construction, and industrial.
- Organics:** Includes MSW, industrial food, textiles, and rubber.
- Inorganics:** Includes MSW, construction and demolition drywall, construction and demolition masonry, and soil
- Wood:** Includes construction, demolition, and industrial wood.
- Roofing:** Demolition roofing only
- Other Items:** Includes "other" items from each component plus demolition carpet and asbestos.
- Bulky Items:** Includes furniture and other materials too large to be disposed in bags.

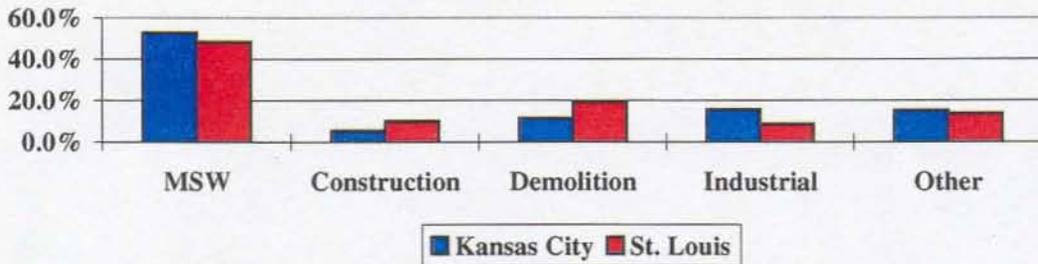
LARGE METROPOLITAN SOLID WASTE COMPONENTS

MATERIAL	Kansas City		St. Louis		Total Large Metro	
	Pct.	Estimated Tonnage	Pct.	Estimated Tonnage*	Pct.	Estimated Tonnage
Municipal Solid Waste						
Paper	19.4%	164,524	18.0%	318,601	18.5%	483,125
Glass	3.1%	25,931	2.8%	49,540	2.9%	75,471
Metals	3.6%	30,738	3.3%	58,831	3.4%	89,569
Plastics	7.6%	64,349	7.0%	123,073	7.2%	187,422
Organics	16.2%	137,617	14.9%	263,068	15.3%	400,685
Inorganics	2.5%	21,391	2.3%	40,973	2.4%	62,364
TOTAL MSW	52.7%	446,813	48.3%	854,085	49.7%	1,300,898
Construction Waste						
Wood	2.7%	22,625	4.4%	77,341	3.8%	99,966
Dry Wall	1.0%	8,198	2.1%	37,269	1.7%	45,467
Masonry	0.8%	6,840	1.4%	24,770	1.2%	31,610
Metal	0.2%	1,484	0.1%	1,162	0.1%	2,646
Plastic	0.3%	2,583	0.4%	6,661	0.4%	9,244
Cardboard	0.4%	3,456	0.9%	15,792	0.7%	19,248
Other	0.1%	470	0.6%	11,272	0.4%	11,742
TOTAL CONSTRUCTION	5.4%	45,576	9.9%	174,267	8.4%	219,843
Demolition Waste						
Wood	3.9%	32,968	5.8%	102,996	5.2%	135,964
Dry Wall	0.9%	7,697	1.1%	19,615	1.0%	27,312
Roofing	2.8%	23,566	4.0%	70,139	3.6%	93,705
Masonry	2.4%	20,194	5.9%	104,053	4.8%	124,247
Metal	0.5%	4,189	0.7%	12,866	0.7%	17,055
Carpet	0.5%	3,888	0.7%	12,294	0.6%	16,182
Other	0.4%	3,475	1.1%	18,809	0.9%	22,284
TOTAL DEMOLITION	11.3%	95,896	19.3%	340,772	16.7%	436,668
Industrial Waste						
Cardboard	3.9%	33,175	3.0%	53,745	3.3%	86,920
Paper	1.3%	10,721	0.7%	12,546	0.9%	23,267
Food	4.3%	36,180	0.1%	1,395	1.4%	37,575
Metal	0.1%	549	0.1%	945	0.1%	1,494
Wood	3.5%	29,672	2.4%	42,537	2.8%	72,209
Plastic	1.1%	9,458	0.8%	14,548	0.9%	24,006
Textiles	0.0%		0.1%	2,496	0.1%	2,496
Rubber	0.0%		0.7%	12,507	0.5%	12,507
Other	1.3%	11,271	0.8%	13,409	0.9%	24,680
TOTAL INDUSTRIAL	15.5%	131,027	8.7%	154,129	10.9%	285,156
Special Wastes						
Bulky Items	2.4%	20,396	1.2%	21,022	1.6%	41,418
Soil and Inert Materials	9.8%	83,287	9.8%	173,867	9.8%	257,154
Asbestos	2.7%	22,755	0.6%	10,829	1.3%	33,584
Other	0.2%	1,816	2.2%	38,383	1.5%	40,199
TOTAL SPECIAL	15.1%	128,255	13.8%	244,100	14.2%	372,355
TOTAL WASTE STREAM	100%	847,567	100%	1,767,353	100%	2,614,920

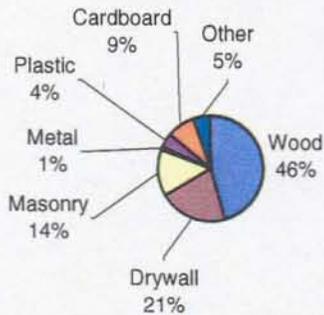
*Includes Rockhill and Peerless C&D landfills

LARGE METROPOLITAN SOLID WASTE COMPONENTS

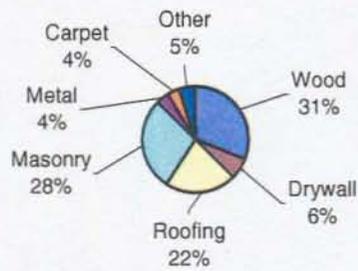
Kansas City and St. Louis Solid Waste Components



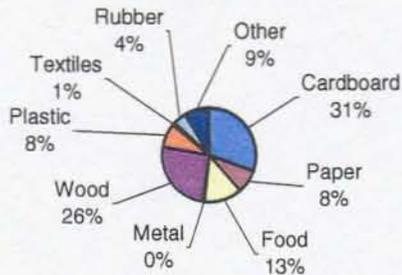
Large Metropolitan Construction Component - 219,520 Tons



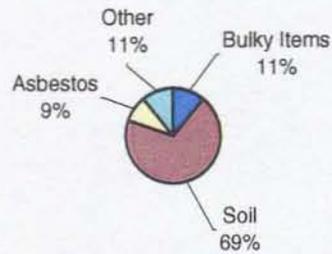
Large Metropolitan Demolition Component - 436,426 Tons



Large Metropolitan Industrial Component - 284,752 Tons



Large Metropolitan "Other" Waste Component - 372,275 Tons



Combined Materials from all Waste Components in Large Metropolitan Areas

