

Chapter 19: Sedalia

COMMUNITY PROFILE

The City of Sedalia is located in Pettis County and is part of the West Central Missouri Solid Waste Management District (District F). Sedalia is the county seat and is the site for the state fairgrounds. It is a business and manufacturing center for its area. Central Missouri Landfill is located west of town on Highway 50. Sedalia is located 186 miles west of St. Louis, 118 miles north of Springfield, and 87 miles east of Kansas City.

Demographics:

	Sedalia	Pettis County
Area (sq. miles)	11.23	684.91
Population (1990)	19,800	35,437
Density (per sq. mile)	1762.57	51.74
Pop. Change since 1980	-5.4%	37.4%
Number of households	8,478	14,122
Persons per household	2.30	2.48
High school graduates	34.7%	38.7%
Median Family Income	\$25,419	\$27,156
Percent below poverty level	15.0%	13.8%

Solid Waste Collection

The City of Sedalia operates its own fleet of collection vehicles. Commercial routes and routes outside the city limits are open to independent haulers. There are no zones or territories established for solid waste collection. No curbside recycling is currently offered.

Solid Waste Disposal

Central Missouri Landfill accepts waste from Pettis and the surrounding counties (Saline, Cooper, Moniteau, etc.). The landfill receives approximately 102,000 tons of waste per year and the current gate tipping fee is \$25.00 per ton.

Waste Reduction and Recycling Programs

There are three drop-off centers located in Sedalia; two accept plastics and cardboard and one accepts aluminum and steel cans. Central Missouri Landfill accepts special waste, bulky items, yard waste, and household hazardous waste for a fee. District F sponsors several educational programs including Recycling Days, held in November.

Central Missouri Landfill Results

Information about sample size and composition are listed in tables 19-1 to 19-8.

All weights are listed in pounds and all volumes are in cubic feet.

SORT #1

Sort Conditions

The first sort was conducted March 6-7, 1997. A location east of the tipping area was chosen as the site location. The weather was cool and sunny. The maximum number of samples were not collected due to equipment failures.

Statistics	
Estimated MSW (lbs) Collected by Site During Sampling Period	310,031
Total Sample Weight (lbs)	1299.8
Significance Test Results	.000
Number of Samples Collected	8

OTHER WASTE CATEGORIES			
Over-the-counter Medication (OTC)	0	Beauty/Hygiene Aerosol Products	0
Prescription Medication (Rx)	0	Household Cleaning Aerosol Products	0
Beauty/Hygiene Products	0	Gardening/Yard Care Products	0
Household Cleaning Products	0	Pet Groom Products	0
Sharps/Blades	0	Disposable Razors	1
Syringes	4	Alkaline Batteries	10
Hardware/Shop Products	0	Automobile Maintenance/Cleaning Products	0
Aerosol Cans	0		
Miscellaneous items: 1 full bingo ink blotter.			
Total Weight (lb): 8.0			
Total Volume (cubic ft.): 0.2			

TABLE 19-1

CENTRAL MISSOURI LANDFILL (SEDALIA)
SORT # 1

Sample #	Sample Size		Composition		Recycling Activities	Collection Location
	Weight	Volume	Res.	Comm.		
1	182.6	39.8	99%	1%	Drop-off	Warrensburg (trailer park)
2	189.9	37.1	0%	100%	Drop-off	Sedalia (in-town)
3	183.6	37.5	50%	50%	Drop-off	Warrensburg
4	153.9	33.7	75%	25%	None	Hughesville (rural) and Sedalia (commercial)
5	127.7	27.4	50%	50%	None	California (in-town)
6	160.5	37.2	100%	0%	Drop-off	Sedalia (city residential)
7	155.1	41.7	100%	0%	Drop-off	Sedalia (trailer court)
8	146.3	34.3	90%	10%	None	Houstonia (rural/residential/commercial)
TOTALS	1299.6	288.9				
AVERAGE	162.45	36.1	70%	30%		

TABLE 19-1

CENTRAL MISSOURI LANDFILL (SEDALIA)

SORT # 1

CATEGORY	TOTALS		AVERAGE		PERCENTAGE	
	wt.	vol.	wt.	vol.	Pct. by wt.	Pct. by vol.
Cardboard	109.8	41.8	13.7	5.2	8.45%	14.47%
Newsprint	81.9	14.7	10.2	1.8	6.30%	5.09%
Magazines	48.5	4.5	6.1	0.6	3.73%	1.56%
High Grade	69.1	12.6	8.6	1.6	5.32%	4.36%
Mixed	206.6	43.3	25.8	5.4	15.89%	14.99%
PAPER TOTALS	515.9	116.9	64.5	14.6	39.69%	40.46%
Clear	32.2	3.3	4.0	0.4	2.48%	1.14%
Brown	20.4	1.8	2.6	0.2	1.57%	0.62%
Green	9.7	1.0	1.2	0.1	0.75%	0.35%
Other	2.2	0.2	0.3	0.0	0.17%	0.07%
GLASS TOTALS	64.5	6.3	8.1	0.8	4.96%	2.18%
Alum. Cans	24.3	7.7	3.0	1.0	1.87%	2.67%
Other Alum	9.8	2.3	1.2	0.3	0.75%	0.80%
Non ferrous	0.0	0.0	0.0	0.0	0.00%	0.00%
Food Cans	52.6	11.2	6.6	1.4	4.05%	3.88%
Ferrous	9.8	0.8	1.2	0.1	0.75%	0.28%
Oil Filters	0.0	0.0	0.0	0.0	0.00%	0.00%
METAL TOTALS	96.5	22.0	12.1	2.8	7.42%	7.62%
PET # 1	26.6	14.0	3.3	1.8	2.05%	4.85%
HDPE # 2	28.3	15.5	3.5	1.9	2.18%	5.37%
Film	34.2	22.5	4.3	2.8	2.63%	7.79%
Other Plastic	122.0	47.0	15.3	5.9	9.39%	16.27%
PLASTIC TOTALS	211.1	99.0	26.4	12.4	16.24%	34.27%
Food Waste	232.1	21.5	29.0	2.7	17.86%	7.44%
Wood Waste	4.4	1.7	0.6	0.2	0.34%	0.59%
Textiles	39.4	8.1	4.9	1.0	3.03%	2.80%
Diapers	67.2	5.8	8.4	0.7	5.17%	2.01%
Other Organics	17.1	2.5	2.1	0.3	1.32%	0.87%
ORGANIC TOTALS	360.2	39.6	45.0	5.0	27.71%	13.71%
Fines	43.6	4.6	5.5	0.6	3.35%	1.59%
Other Inorganics	7.0	0.3	0.9	0.0	0.54%	0.10%
INORGANIC TOTALS	50.6	4.9	6.3	0.6	3.89%	1.70%
OTHER WASTE	1.0	0.2	0.1	0.03	0.08%	0.07%
GRAND TOTAL	1299.8	288.9	162.5	36.1	100.00%	100.00%

SORT #2

Sort Conditions

The second sort was conducted May 21-22, 1997. The same location was used for sort activities as the previous sort. The weather was sunny, windy, and mild.

Statistics	
Estimated MSW (lbs) Collected by Site During Sampling Period	310,031
Total Sample Weight (lbs)	2725.1
Significance Test Results	.000
Number of Samples Collected	12

OTHER WASTE CATEGORIES			
Over-the-counter Medication (OTC)	2	Beauty/Hygiene Aerosol Products	0
Prescription Medication (Rx)	8	Household Cleaning Aerosol Products	1
Beauty/Hygiene Products	4	Gardening/Yard Care Products	2
Household Cleaning Products	1	Pet Groom Products	2
Sharps/Blades	18	Disposable Razors	1
Syringes	2	Alkaline Batteries	12
Hardware/Shop Products	0	Automobile Maintenance/Cleaning Products	1
Aerosol Cans	6		
Miscellaneous items: 1 IV with saline solution (no needle), 1 container of bubble humidifier, 1 package of instant hot compress, 1 marker, 1 set of water colors, 1 container of acrylic enamel.			
Total Weight (1b): 16.0			
Total Volume (cubic ft.): 1.0			

CENTRAL MISSOURI LANDFILL (SEDALIA)

SORT # 2

Sample #	Sample Size		Composition		Recycling Activities	Collection Location
	Weight	Volume	Res.	Comm.		
1	332.3	54.2	50%	50%	None	California
2	187.6	47.7	0%	100%	Drop-off	Sedalia
3	250.2	74.8	0%	100%	Drop-off	Sedalia
4	174.9	43.1	70%	30%	None	Green Ridge (rural)
5	228.4	47.2	70%	30%	None	Green Ridge (rural)
6	199.4	57.8	50%	50%	Drop-off	Sedalia
7	210.2	52.2	75%	25%	Drop-off	Sedalia
8	280.5	51.3	50%	50%	Drop-off	Sedalia
9	187.3	45.6	0%	100%	Drop-off	Sedalia
10	248.7	45.5	90%	10%	Curbside/Drop-off	Marshall
11	243.9	60.9	100%	0%	None	Green Ridge
12	180.9	38.9	100%	0%	Drop-off	Sedalia
TOTALS	2725.1	619				
AVERAGE	227.0917	51.6	55%	45%		

TABLE 19-3

CENTRAL MISSOURI LANDFILL (SEDALIA)

SORT # 2

CATEGORY	TOTALS		AVERAGE		PERCENTAGE	
	wt.	vol.	wt.	vol.	Pct. by wt.	Pct. by vol.
Cardboard	256.9	78.9	21.4	6.6	9.43%	12.75%
Newsprint	144.1	27.1	12.0	2.3	5.29%	4.38%
Magazines	94.8	11.4	7.9	1.0	3.48%	1.84%
High Grade	119.5	35.1	10.0	2.9	4.39%	5.67%
Mixed	431.4	121.2	36.0	10.1	15.83%	19.58%
PAPER TOTALS	1046.7	273.7	87.2	22.8	38.41%	44.22%
Clear	81.5	5.1	6.8	0.4	2.99%	0.82%
Brown	26.2	2.7	2.2	0.2	0.96%	0.44%
Green	2.0	0.3	0.2	0.0	0.07%	0.05%
Other	5.1	0.7	0.4	0.1	0.19%	0.11%
GLASS TOTALS	114.8	8.8	9.6	0.7	4.21%	1.42%
Alum. Cans	32.3	14.0	2.7	1.2	1.19%	2.26%
Other Alum	13.2	3.7	1.1	0.3	0.48%	0.60%
Non ferrous	0.9	0.6	0.1	0.1	0.03%	0.10%
Food Cans	68.7	14.2	5.7	1.2	2.52%	2.29%
Ferrous	17.3	1.5	1.4	0.1	0.63%	0.24%
Oil Filters	0.0	0.0	0.0	0.0	0.00%	0.00%
METAL TOTALS	132.4	34.0	11.0	2.8	4.86%	5.49%
PET # 1	32.8	16.8	2.7	1.4	1.20%	2.71%
HDPE # 2	41.9	24.8	3.5	2.1	1.54%	4.01%
Film	142.0	47.0	11.8	3.9	5.21%	7.59%
Other Plastic	225.6	92.4	18.8	7.7	8.28%	14.93%
PLASTIC TOTALS	442.3	181.0	36.9	15.1	16.23%	29.24%
Food Waste	516.2	53.1	43.0	4.4	18.94%	8.58%
Wood Waste	10.4	3.1	0.9	0.3	0.38%	0.50%
Textiles	79.1	14.9	6.6	1.2	2.90%	2.41%
Diapers	105.6	13.7	8.8	1.1	3.87%	2.21%
Other Organics	146.7	17.2	12.2	1.4	5.38%	2.78%
ORGANIC TOTALS	858.0	102.0	71.5	8.5	31.48%	16.48%
Fines	50.6	9.8	4.2	0.8	1.86%	1.58%
Other Inorganics	64.4	8.7	5.4	0.7	2.36%	1.41%
INORGANIC TOTALS	115.0	18.5	9.6	1.5	4.22%	2.99%
OTHER WASTE	16.0	1.0	1.3	0.1	0.59%	0.16%
GRAND TOTAL	2725.1	619.0	227.1	51.6	100.00%	100.00%

TABLE 19-4

SORT #3

Sort Conditions

The third sort was conducted September 22-24, 1997. The same location was used for sort activities as the previous sort. The weather rainy and cold. The maximum number of samples were not gathered due unfavorable weather conditions.

Statistics	
Estimated MSW (lbs) Collected by Site During Sampling Period	310,031
Total Sample Weight (lbs)	2167.6
Significance Test Results	.000
Number of Samples Collected	9

OTHER WASTE CATEGORIES			
Over-the-counter Medication (OTC)	3	Beauty/Hygiene Aerosol Products	2
Prescription Medication (Rx)	0	Household Cleaning Aerosol Products	0
Beauty/Hygiene Products	10	Gardening/Yard Care Products	0
Household Cleaning Products	2	Pet Groom Products	0
Sharps/Blades	1	Disposable Razors	9
Syringes	0	Alkaline Batteries	8
Hardware/Shop Products	1	Automobile Maintenance/Cleaning Products	0
Aerosol Cans	2		
Miscellaneous items: 1 bottle of hair permanent solution, 1 package of fire crackers.			
Total Weight (lb): 6.25			
Total Volume (cubic ft.): 0.3			

**CENTRAL MISSOURI LANDFILL (SEDALIA)
SORT # 3**

Sample #	Sample Size		Composition		Recycling Activities	Collection Location
	Weight	Volume	Res.	Comm.		
1	203.6	45.3	90%	10%	Drop-off	Sedalia
2	251.1	43.2	10%	90%	None	Four Seasons Village
3	270.2	42.8	90%	10%	None	Georgetown
4	273.7	45.8	90%	10%	Drop-off	Sedalia
5	236.9	35.7	90%	10%	Drop-off	California
6	212.7	37.6	100%	0%	Drop-off	Sedalia
7	232.8	51.9	100%	0%	None	Dover
8	244.1	42.4	100%	0%	None	Dover
9	242.4	43.4	90%	10%	Lake of the Ozarks	Dover
TOTALS	2161.4	388.1				
AVERAGE	240.1556	43.1	84%	16%		

TABLE 19-5

CENTRAL MISSOURI LANDFILL (SEDALIA)

SORT # 3

CATEGORY	TOTALS		AVERAGE		PERCENTAGE	
	wt.	vol.	wt.	vol.	Pct. by wt.	Pct. by vol.
Cardboard	125.1	39.7	13.9	4.4	5.77%	10.22%
Newsprint	147.4	20.7	16.4	2.3	6.80%	5.33%
Magazines	92.8	7.0	10.3	0.8	4.28%	1.80%
High Grade	65.5	11.3	7.3	1.3	3.02%	2.91%
Mixed	331.2	65.5	36.8	7.3	15.28%	16.87%
PAPER TOTALS	762.0	144.2	84.7	16.0	35.15%	37.13%
Clear	63.3	3.4	7.0	0.4	2.92%	0.88%
Brown	28.3	2.0	3.1	0.2	1.30%	0.52%
Green	9.0	0.8	1.0	0.1	0.41%	0.21%
Other	10.6	1.2	1.2	0.1	0.49%	0.31%
GLASS TOTALS	111.0	7.4	12.3	0.8	5.12%	1.91%
Alum. Cans	48.4	20.9	5.4	2.3	2.23%	5.38%
Other Alum	16.5	3.9	1.8	0.4	0.76%	1.00%
Non ferrous	1.0	0.1	0.1	0.0	0.05%	0.03%
Food Cans	64.8	12.1	7.2	1.3	2.99%	3.12%
Ferrous	26.8	3.6	3.0	0.4	1.24%	0.93%
Oil Filters	0.0	0.0	0.0	0.0	0.00%	0.00%
METAL TOTALS	157.5	40.6	17.5	4.5	7.26%	10.46%
PET # 1	28.8	14.8	3.2	1.6	1.33%	3.81%
HDPE # 2	53.5	26.4	5.9	2.9	2.47%	6.80%
Film	78.3	34.8	8.7	3.9	3.61%	8.95%
Other Plastic	110.3	42.5	12.3	4.7	5.09%	10.94%
PLASTIC TOTALS	270.8	118.5	30.1	13.2	12.49%	30.50%
Food Waste	518.0	37.5	57.6	4.2	23.90%	9.66%
Wood Waste	10.0	1.2	1.1	0.1	0.46%	0.31%
Textiles	78.1	13.3	8.7	1.5	3.60%	3.43%
Diapers	66.0	6.2	7.3	0.7	3.04%	1.60%
Other Organics	47.8	7.1	5.3	0.8	2.20%	1.83%
ORGANIC TOTALS	719.8	65.3	80.0	7.3	33.21%	16.82%
Fines	93.8	7.0	10.4	0.8	4.33%	1.80%
Other Inorganics	46.7	5.1	5.2	0.6	2.15%	1.31%
INORGANIC TOTALS	140.5	12.1	15.6	1.3	6.48%	3.12%
OTHER WASTE	6.2	0.3	0.7	0.03	0.29%	0.07%
GRAND TOTAL	2167.6	388.3	240.8	43.1	100.00%	100.00%

TABLE 19-6

SORT SUMMARY

Seasonal variations

- Food waste was higher in the third sort than in the first and second sort. Many routes on the third sort were fast food and commercial routes.
- The percentage for diapers was a little larger than the norm.
- Metal totals dropped in the second round (especially ferrous food cans). This could be due to people eating out more during the summer.

Sort results

- Chart 19-1 graphically compares the three seasonal sort results and shows the average waste composition, by major category, for Sedalia.
- The sample data for all Sedalia waste sorts are listed on Table 19-7.
- The sort results for Sedalia are listed on Table 19-8.
- The summary of statistical relevance for the Sedalia sorts is located on page 308.
- The total for all “other wastes” found during the Sedalia sorts is on page 308.

All weights are in pounds and volumes are listed in cubic feet.

Comparisons of the Sedalia’s waste stream to previous studies and other communities can be found in Chapter 24.

SEDALIA RESULTS BY WEIGHT

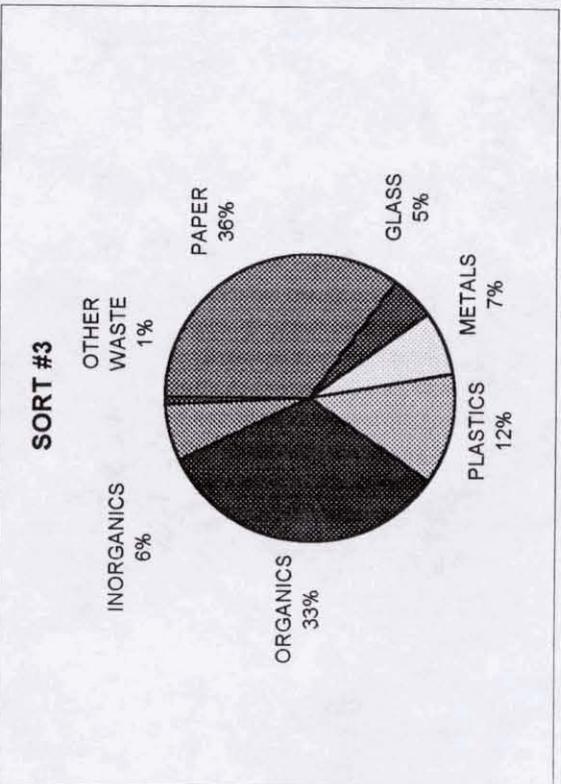
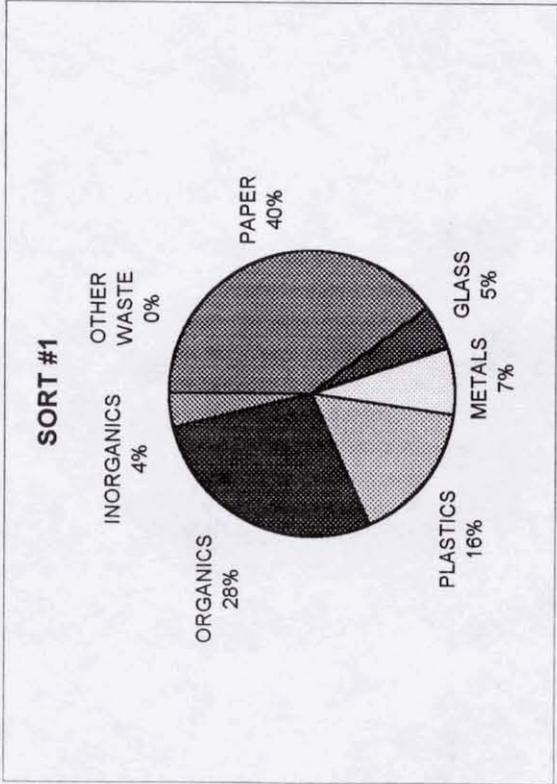
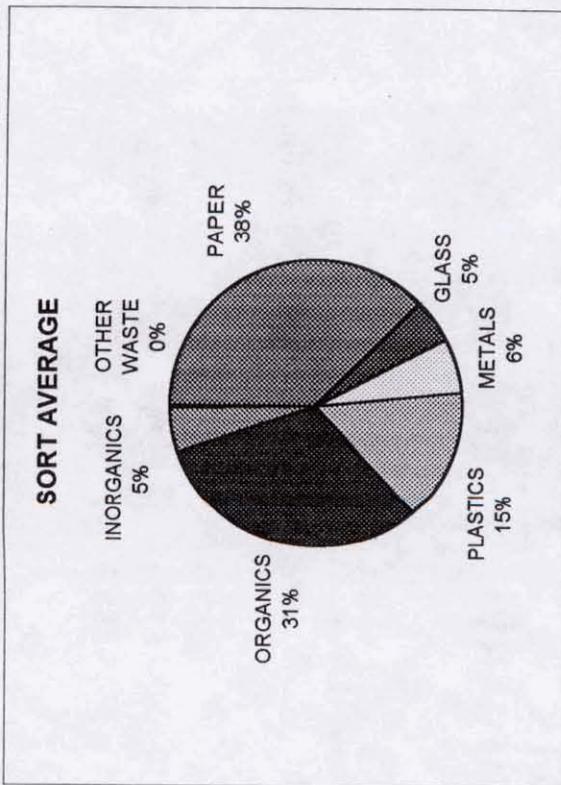
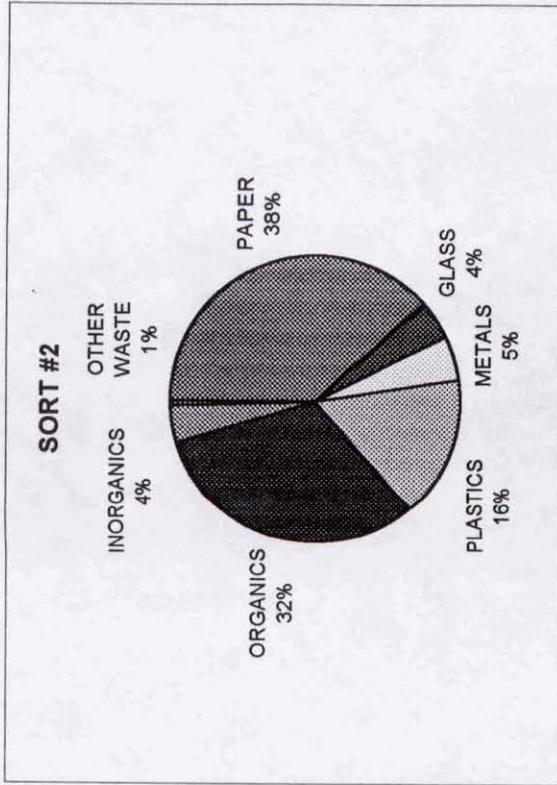


CHART 19-1

**SEDALIA
SAMPLE SUMMARY**

Sort #	Dates	Number of Samples	Sample Size		Composition	
			Weight	Volume	Residential	Commercial
1	3/6-3/7	8	1299.6	288.9	70%	30%
2	5/21-5/22	12	2725.1	619.0	55%	45%
3	9/22-9/24	9	2161.4	388.1	84%	16%
TOTALS		29.0	6186.1	1296.0	70%	30%
AVERAGE		9.7	2062.0	432.0	70%	30%

TABLE 19-7

CATEGORY	SEDALIA						SUMMARY	
	SORT # 1		SORT # 2		SORT # 3		AVERAGE	
	WT.	VOL.	WT.	VOL.	WT.	VOL.	WT.	VOL.
Cardboard	8.4%	14.5%	9.4%	12.7%	5.8%	10.2%	7.9%	12.4%
Newsprint	6.3%	5.1%	5.3%	4.4%	6.8%	5.3%	6.0%	4.8%
Magazines	3.7%	1.6%	3.5%	1.8%	4.3%	1.8%	3.8%	1.8%
High Grade	5.3%	4.4%	4.4%	5.7%	3.0%	2.9%	4.1%	4.6%
Mixed	15.9%	15.0%	15.8%	19.6%	15.3%	16.9%	15.7%	17.7%
PAPER TOTALS	39.7%	40.5%	38.4%	44.2%	35.2%	37.1%	37.5%	41.3%
Clear	2.5%	1.1%	3.0%	0.8%	2.9%	0.9%	2.9%	0.9%
Brown	1.6%	0.6%	1.0%	0.4%	1.3%	0.5%	1.2%	0.5%
Green	0.7%	0.3%	0.1%	0.0%	0.4%	0.2%	0.3%	0.2%
Other	0.2%	0.1%	0.2%	0.1%	0.5%	0.3%	0.3%	0.2%
GLASS TOTALS	5.0%	2.2%	4.2%	1.4%	5.1%	1.9%	4.7%	1.7%
Alum. Cans	1.9%	2.7%	1.2%	2.3%	2.2%	5.4%	1.7%	3.3%
Other Alum	0.8%	0.8%	0.5%	0.6%	0.8%	1.0%	0.6%	0.8%
Non ferrous	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%
Food Cans	4.0%	3.9%	2.5%	2.3%	3.0%	3.1%	3.0%	2.9%
Ferrous	0.8%	0.3%	0.6%	0.2%	1.2%	0.9%	0.9%	0.5%
Oil Filters	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
METAL TOTALS	7.4%	7.6%	4.9%	5.5%	7.3%	10.5%	6.2%	7.5%
PET # 1	2.0%	4.8%	1.2%	2.7%	1.3%	3.8%	1.4%	3.5%
HDPE # 2	2.2%	5.4%	1.5%	4.0%	2.5%	6.8%	2.0%	5.1%
Film	2.6%	7.8%	5.2%	7.6%	3.6%	9.0%	4.1%	8.0%
Other Plastic	9.4%	16.3%	8.3%	14.9%	5.1%	10.9%	7.4%	14.0%
PLASTIC TOTALS	16.2%	34.3%	16.2%	29.2%	12.5%	30.5%	14.9%	30.7%
Food Waste	17.9%	7.4%	18.9%	8.6%	23.9%	9.7%	20.4%	8.6%
Wood Waste	0.3%	0.6%	0.4%	0.5%	0.5%	0.3%	0.4%	0.5%
Textiles	3.0%	2.8%	2.9%	2.4%	3.6%	3.4%	3.2%	2.8%
Diapers	5.2%	2.0%	3.9%	2.2%	3.0%	1.6%	3.9%	2.0%
Other Organics	1.3%	0.9%	5.4%	2.8%	2.2%	1.8%	3.4%	2.1%
ORGANIC TOTALS	27.7%	13.7%	31.5%	16.5%	33.2%	16.8%	31.3%	16.0%
Fines	3.4%	1.6%	1.9%	1.6%	4.3%	1.8%	3.0%	1.7%
Other Inorganics	0.5%	0.1%	2.4%	1.4%	2.2%	1.3%	1.9%	1.1%
INORGANIC TOTALS	3.9%	1.7%	4.2%	3.0%	6.5%	3.1%	4.9%	2.7%
OTHER WASTE	0.1%	0.1%	0.6%	0.2%	0.9%	0.2%	0.4%	0.1%
SORT TOTALS	100%							

TABLE 19-8

Sedalia Statistical Summary	
Estimated MSW (lbs) Collected by Site During Sampling Period	930,093
Total Sample Weight (lbs)	6192.5
Significance Test Results	.000
Number of Samples Collected	29
Mean Sample (lbs) and Confidence Interval (95%)	212.74 (+/-) 17.74

Sedalia "Other Waste" Summary			
Over-the-counter Medication (OTC)	5	Beauty/Hygiene Aerosol Products	2
Prescription Medication (Rx)	8	Household Cleaning Aerosol Products	1
Beauty/Hygiene Products	14	Gardening/Yard Care Products	2
Household Cleaning Products	3	Pet Groom Products	2
Sharps/Blades	23	Disposable Razors	11
Syringes	6	Alkaline Batteries	30
Hardware/Shop Products	1	Automobile Maintenance/Cleaning Products	1
Aerosol Cans	8		
Miscellaneous items: 1 full bingo ink blotter, 1 IV with saline solution (no needle) 1 container of bubble humidifier, 1 package of instant hot compress, 1 marker, 1 set of water colors, 1 container of acrylic enamel, 1 bottle of hair permanent solution, 1 package of firecrackers.			
Total Weight (lb): 30.25			
Total Volume (cubic ft.): 1.5			