

Maple Hill Landfill

The Maple Hill Landfill is located in Macon County, approximately 5 miles west of Macon, MO. It is owned and operated by Superior Waste Services Inc. The disposal facility is permitted to accept all municipal solid waste (MSW) and some Other wastes such as asbestos, contaminated soils and waste water treatment sludge.

The Maple Hill Landfill accepted 48,274 tons in 1996, 60,331 tons in 1997 and 114,982 tons in 1998. The landfill operation was observed from Monday April 26th through Thursday April 29th, 1999. The weather was cool and rainy for the first three days and was fair on Thursday. Observation took place from 7 AM till 4:30 PM on the above dates. The composition of the waste was predictable and therefore the observation period was shortened from five days down to four days. During the four-day observation period 221 trucks, delivered 1,757 tons of waste to the landfill. The landfill staff felt the material received during the observation period was typical of material received year round. They occasionally receive small quantities of asbestos and contaminated soil but those quantities are statistically nil and during sunnier weather there is usually more construction and demolition waste.

All loads could be classified visually, Drivers were asked about the generation point for industrial loads in order to better estimate material types.

The Total Waste Stream - 1,757 tons

The total waste stream was primarily Municipal Solid Waste (MSW). The source of the MSW portion is primarily residential, institutional, and light commercial waste. The MSW was delivered to the landfill in trailers from company owned transfer stations and local packer trucks. Total waste received during the observation period was 1,757 tons. The components of the waste stream were estimated as they were unloaded. These components are listed below.

Waste Stream Components

MSW	Const.	Demo	Industrial	Other
77.8%	0.8%	8.3%	10.8%	2.3%
1367 tons	14 tons	146 tons	189 tons	41 tons

Municipal Solid Waste - 1,367 Tons

Municipal Solid Waste (MSW) accounted for 78% of the total waste stream. MSW materials were not estimated during the observation period because the items are very small and normally contained within plastic bags. However, MSW was sorted and recorded at 19 landfills and transfer stations as part of this study in 1996 and 97. The Maple Hill Landfill was one of those 19 sites. During the two waste sorts at this facility, 24 samples weighing an average of 241

pounds each were hand sorted into six major categories and 26 sub categories. The sorted materials were recorded by weight and volume. Further details are available in the *Missouri Waste Composition Study: Municipal Solid Waste*.

The total MSW received during the observation period was 1,367 tons. The average percentage of each major material category found in the 1996-97 waste sorts at Maple Hill was applied to the tonnage received during the observation period and is displayed below.

Municipal Solid Waste Components

Paper	Glass	Metals	Plastics	Organics	Inorganics
37.3%	5.2%	6.9%	15.1%	32.4%	3.1%
511 tons	71 tons	94 tons	206 tons	443 tons	42 tons

Construction Waste - 14 Tons

Only about 0.8% of the total waste received was from new construction sources. Construction waste loads are typically transported to the landfill in open top roll-off containers, dump trucks, or open trailers. Only five roll-off trucks delivered construction waste during the observation period and they were all relatively light loads.

Total construction waste received during the observation period was 14 tons. The materials within the construction waste stream were estimated as they were unloaded. These estimated materials are listed below.

Construction Waste Components

Wood	Dry Wall	Masonry	Metal	Plas.	Cardbrd	Other
44%	15%	10%	6%	13%	8%	5%
6 tons	2 tons	1 ton	1 ton	2 tons	1 ton	1 ton

Demolition Waste - 146 Tons

About 8% of the total waste was from demolition sources. Demolition waste loads are usually transported to the landfill in open top roll-off containers, dump trucks, or open trailers. Four roofing waste loads were delivered to the landfill by independent contractors and was not mixed with other materials. The remaining demolition loads contained more mixed materials. The other category was primarily wet insulation from the local power plant.

Total demolition waste received during the observation period was 146 tons. The materials within the demolition waste stream were estimated as they were unloaded. These estimated materials are listed below.

The Demolition Waste Component

Wood	Dry Wall	Roof	Masonry	Metal	Carpet	Other
51%	11%	18%	3%	6%	4%	7%
75 tons	16 tons	27 tons	4 tons	8 tons	6 tons	10 tons

Industrial Waste - 189 Tons

About 11% of the total waste was from industrial sources. Food and plastic wastes were significant. Food came from a processing plant in Tenton and the Con Agra plant in Macon. Plastics came from several small manufacturers in the area. Rubber was in the form of a fluffy type material and came from the tire processor in Macon. The "other" material was primarily a sludge type of material generated by a wire manufacturer.

Total industrial waste received during the observation period was 189 tons. The materials within the industrial waste component were estimated as they were unloaded. These estimated materials are listed below.

The Industrial Waste Component

Cardbrd	Paper	Food	Metal	Wood	Plas.	Tex.	Rbr.	Other
9%	2%	27%	5%	7%	27%	4%	10%	10%
16 tons	4 tons	50 tons	10 tons	13 tons	51 tons	7 tons	19 tons	19 tons

Other Waste - 41 Tons

Other wastes were defined as waste which did not fit into one of the above categories or was handled differently at the landfill (i.e. soil-like materials used for daily cover, asbestos, etc.). Bulky items accounted for a little over half of the other waste. Bulky items include furniture, mattresses, appliances, bicycles, etc. Most of these bulky items were received in transfer trailers. Organic matter (hay and manure) from a local meat processing plant accounted for the rest.

Total other waste received during the observation period was 41 tons. The materials within the other waste stream were estimated as they were unloaded. These estimated materials are listed below.

The Other Waste Component

Bulky Items	Organic Material
52%	48%
21 tons	20 tons

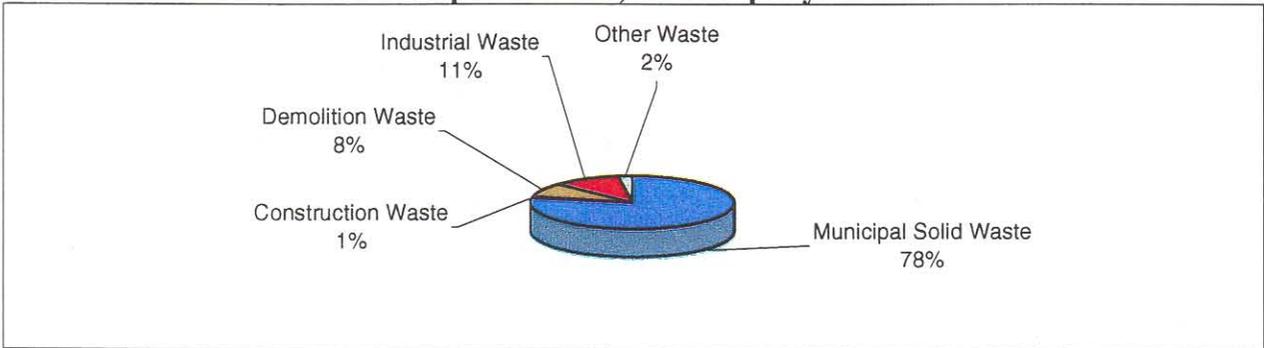
MAPLE HILL LANDFILL

114,982 TONS IN 1998

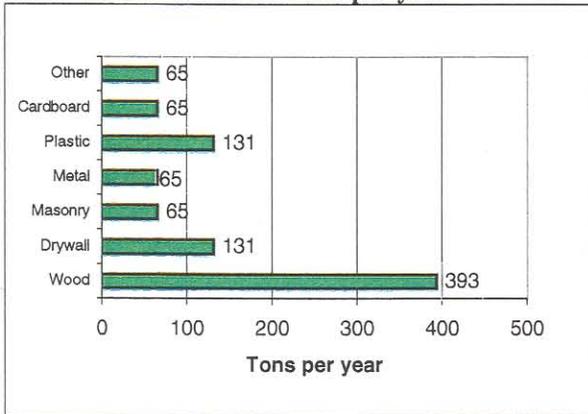
MATERIAL	Tons received during observation period	Percent of each material received	Estimated tonnage received in 1998 based on observation
MSW Component			
Paper	511 Tons	29.1%	33,441 Tons
Glass	71 Tons	4.0%	4,646 Tons
Metals	94 Tons	5.4%	6,152 Tons
Plastics	206 Tons	11.7%	13,481 Tons
Organics	443 Tons	25.2%	28,991 Tons
Inorganics	42 Tons	2.4%	2,749 Tons
TOTAL MSW	1367 Tons	77.8%	89,460 Tons
Construction Waste			
Wood	6 Tons	0.3%	393 Tons
Dry Wall	2 Tons	0.1%	131 Tons
Masonry	1 Tons	0.1%	65 Tons
Metal	1 Tons	0.1%	65 Tons
Plastic	2 Tons	0.1%	131 Tons
Cardboard	1 Tons	0.1%	65 Tons
Other	1 Tons	0.1%	65 Tons
TOTAL CONSTRUCTION	14 Tons	0.8%	916 Tons
Demolition Waste			
Wood	75 Tons	4.3%	4,908 Tons
Dry Wall	16 Tons	0.9%	1,047 Tons
Roofing	27 Tons	1.5%	1,767 Tons
Masonry	4 Tons	0.2%	262 Tons
Metal	8 Tons	0.5%	524 Tons
Carpet	6 Tons	0.3%	393 Tons
Other	10 Tons	0.6%	654 Tons
TOTAL DEMOLITION	146 Tons	8.3%	9,555 Tons
Industrial Waste			
Cardboard	16 Tons	0.9%	1,047 Tons
Paper	4 Tons	0.2%	262 Tons
Food	50 Tons	2.8%	3,272 Tons
Metal	10 Tons	0.6%	654 Tons
Wood	13 Tons	0.7%	851 Tons
Plastic	51 Tons	2.9%	3,338 Tons
Textiles	7 Tons	0.4%	458 Tons
Rubber	19 Tons	1.1%	1,243 Tons
Other	19 Tons	1.1%	1,243 Tons
TOTAL INDUSTRIAL	189 Tons	10.8%	12,369 Tons
Other Wastes			
Bulky Items	21 Tons	1.2%	1,374 Tons
Soil and Inert Materials	0 Tons	0.0%	- Tons
Asbestos	0 Tons	0.0%	- Tons
Organic material	20 Tons	1.1%	1,309 Tons
TOTAL OTHER WASTE	41 Tons	2.3%	2,683 Tons
TOTAL WASTE STREAM	1757 Tons	100%	114,982 Tons

The Maple Hill Landfill

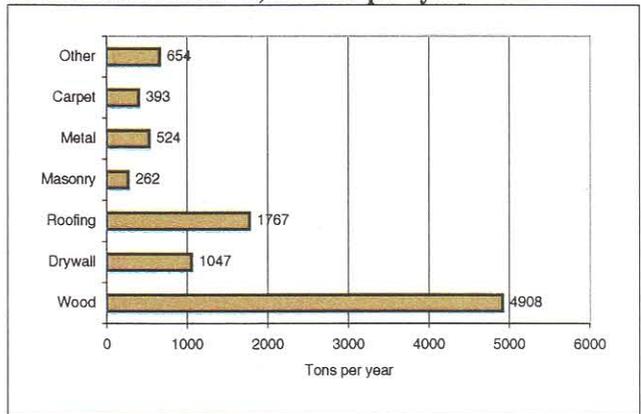
Total Waste Component - 114,982 tons per year



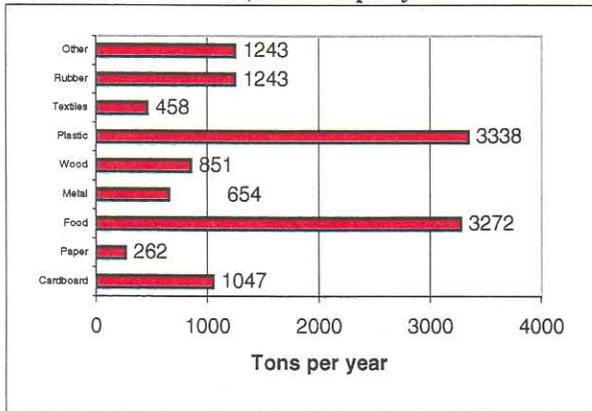
Construction Waste - 916 tons per year



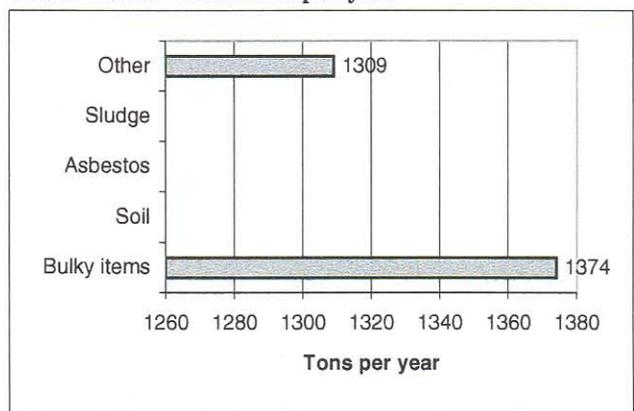
Demolition Waste - 9,555 tons per year



Industrial Waste - 12,369 tons per year



Other Waste - 2,683 tons per year



Maple Hill Waste Components vs Rural and State Averages

