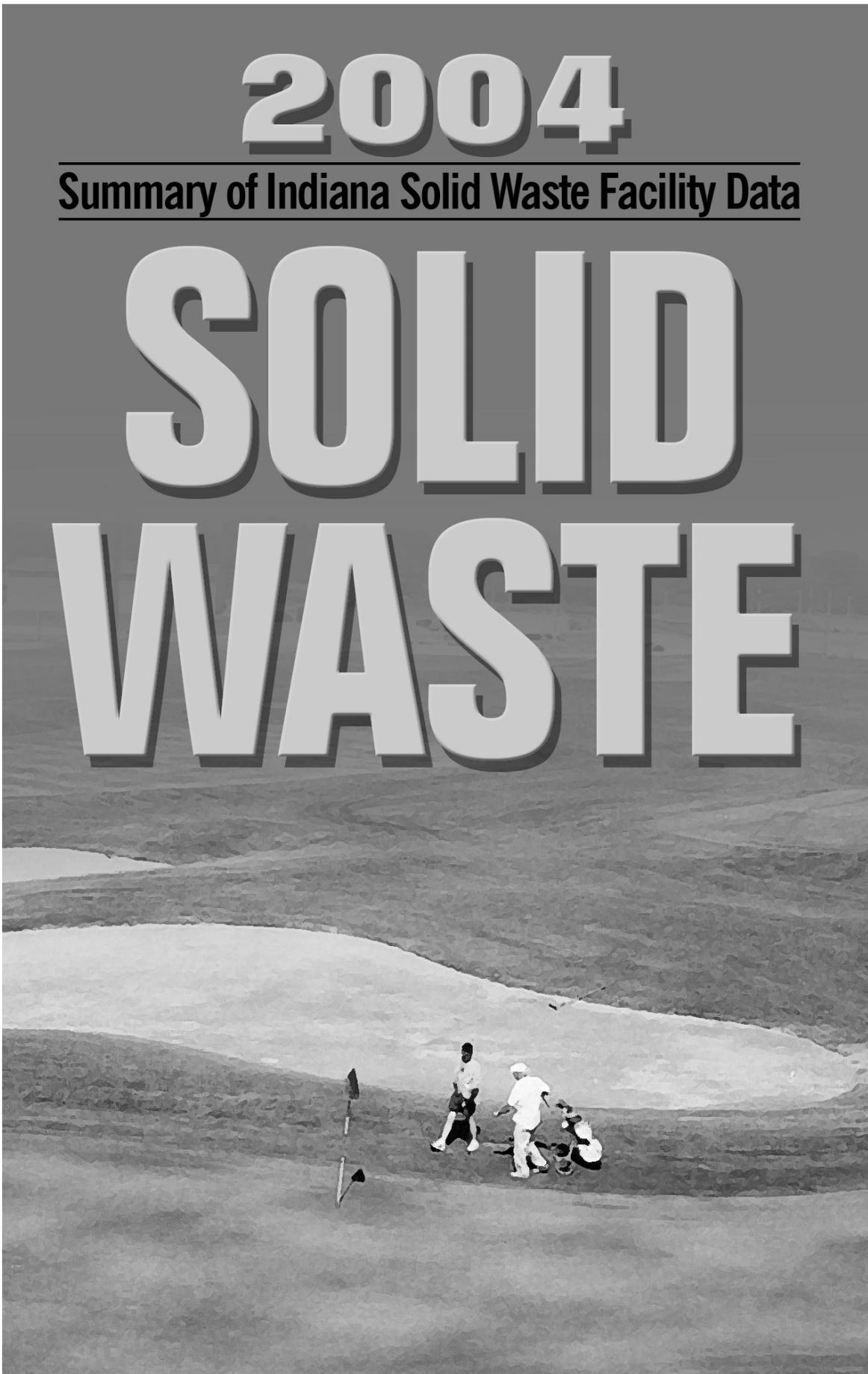


2004

Summary of Indiana Solid Waste Facility Data

SOLID WASTE



The *2004 Summary of Indiana Solid Waste Facility Data* is the thirteenth in the series of annual reports of solid waste facility activities in Indiana. The information is compiled from solid waste facility quarterly reports submitted to the Indiana Department of Environmental Management (IDEM). The IDEM Office of Land Quality publishes the *2004 Summary of Indiana Solid Waste Facility Data* to provide information to the public about solid waste processing and disposal activities in Indiana. This report was prepared by staff of the Facilities Data Analysis Section.

Contributors: Michelle Weddle
Sarah Germann
Tauna Earl

Project Coordinator: Michelle Weddle

Cover Design: Lorie Finch

For additional information, please call the IDEM Office of Land Quality at (317) 233-4624.

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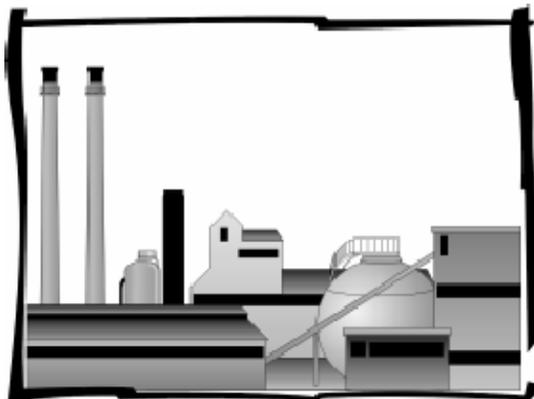
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Introduction

This report is the thirteenth annual summary of Indiana's solid waste facility data. It is intended to provide information about Indiana's solid waste management. The report provides solid waste facility information for 2004 and contains:

- a summary of existing solid waste facilities;
- a summary of the amount, origin, and types of solid waste received at land disposal facilities and processing facilities; and
- a summary of out-of-state waste imports.



This report was compiled from the solid waste facility quarterly reports submitted to IDEM by owners and operators of facilities that manage non-hazardous solid waste. Rules passed by the Solid Waste Management Board require all solid waste land disposal facilities (329 IAC 10-14-1) and processing facilities (329 IAC 11-14-1) to submit information to IDEM on a quarterly basis describing the origin, type, and amount of solid waste received by these facilities. Processing facilities must also report the amounts and destinations of waste transported off-site for recovery or disposal. Reports submitted to IDEM are on file and available for public review.

This report emphasizes graphs, tables, and figures. Discussion text is included only as necessary to guide the reader through the report and to provide a context for the graphs and tables. Several sections that were included in previous releases of this report are not present in this year's report. Much of the information in these sections has been duplicated from year to year and/or is available in other IDEM publications. Table 1 shows how to obtain this information in addition to other information that may interest readers of this report.

Previous reports summarized municipal solid waste (MSW) landfill capacity from amounts reported by facilities or from estimates made by IDEM. Beginning in 1996, landfills were required by regulation to submit contour maps annually based on surveys conducted between October 1 and December 31 of each year. IDEM uses this information to calculate accurate and precise totals for both airspace and waste capacity. See Table 1 for the IDEM contact for MSW landfill capacity data for 1997 through 2004.

Prior to 1996, facilities reported non-municipal waste only as Construction-Demolition Waste and Special/Other Waste. In 1996, IDEM added categories for Special Waste, which included Foundry Wastes and Other Special Wastes, for Coal Ash, and for Flue Gas Desulfurization by-products. Legislation enacted since the beginning of the period covered by the *2000 Summary of Indiana Solid Waste Facility Data* report eliminated Special Waste as a classification. To reflect this, Foundry Wastes, which was previously under Special Waste, is retained as a separate category under its own name. Other Special Wastes is no longer a separate sub-category. Any waste previously classified as Special Waste or Industrial Waste that does not fit any of the existing available categories is reported now under the category Other Waste. Coal Ash and Flue Gas Desulfurization are retained as classifications. Because of the changes in classification types through the years covered by the *2004 Summary of Indiana Solid Waste Facility Data* report, information for disposal by waste type by year will continue to be grouped as municipal waste and non-municipal waste to make comparisons among years meaningful.

Table 1.
Sources of Solid Waste Data

Information Available	Description	Contact
Land disposal facility quarterly reports	Origin, type, and tonnage of solid waste received.*	Michelle Weddle (317)233-4624
Processing facility quarterly reports	Origin, type, and tonnage of solid waste received and destination information.*	Michelle Weddle (317)233-4624
Composting facility annual reports	Type and volume of compost received and processed*	Michelle Weddle (317)233-4624
Transfer station inspection annual reports	Results from inspections of incoming waste.	Marcia Earl (317)308-3016
Waste tire storage facility processors and transporters annual reports	On-site summary of incoming and outgoing tires.	Debby Baker (317)232-0066
Tire dump sites and inspections of waste tire management operations	Information on illegal tire dump sites and progress of clean-up operations.	Anne Weinkauff (317)308-3019
Municipal waste transportation manifests	Waste generation, transportation, and disposal information that accompanies waste from processing facilities for final disposal.	Debby Baker (317)232-0066 or Michelle Weddle (317)233-4624
Indiana MSW landfill disposal capacity reports	Remaining air space and disposal space at Indiana land disposal facilities.	Sarah Germann (317)233-1521
Solid waste management fee reports (IDOR)	Monthly reports showing fees collected for solid waste disposed at final disposal facilities.	Teresa Clark (317)615-2590
Solid waste disposal fee reports (IDEM)	Semi-annual reports showing fees collected for the disposal of specific types of solid waste.	Nick Staller (317)234-3478
Solid waste management district annual reports	Information on district programs and activities.	Monica Hartke-Tarr (317)233-5431
Indiana solid waste diversion information	Calculations of amounts of waste estimated diverted from final disposal by reuse and recycling.*	Michelle Weddle (317)233-4624
Permitted solid waste facilities list	List of permitted solid waste facilities in Indiana.*	Debby Baker (317)232-0066

* Online search and/or data download available at: <http://www.IN.gov/idem/land/sw/index.html>

Solid Waste Data Framework

Several factors must be considered when discussing solid waste disposal in Indiana:

- type and quantity of the waste disposed;
- type and ownership of the facility that received the waste; and
- origin of the waste received.

The following pages give an overview of key concepts necessary for understanding solid waste disposal data.

Solid Waste Types

Solid waste can be categorized broadly as either hazardous waste or non-hazardous waste. This report deals only with **non-hazardous waste**, which can be further broken down into municipal solid waste and all other non-hazardous solid waste. **Municipal solid waste**, or MSW, is any solid waste generated by community activities or the operation of residential or commercial establishments (329 IAC 10-2-115). Prior to 1996, non-hazardous waste that is not MSW was subdivided into **construction-demolition debris**, **special waste**, and **other non-municipal waste types**. In 1996, the categories **foundry**, **coal ash**, and **flue gas desulfurization (FGD) waste** were added to provide more detailed waste information. Legislation enacted since the beginning of the period covered by the *2000 Summary of Indiana Solid Waste Facility Data* report eliminated Special Waste as a classification, as discussed in the **Introduction** to this report. Figure 1 shows the current solid waste categories. Table 2 provides more detailed explanations of these waste types.

Solid Waste Facilities

Solid waste facilities in Indiana fall into two broad permit categories: land disposal facilities and processing facilities. **Land disposal facilities** are subdivided further into four types: municipal solid waste landfills, construction-demolition sites, restricted waste sites (types 1 through 4), and non-municipal solid waste landfills. **Solid waste processing facilities** permitted by IDEM can be incinerators, transfer stations, solid waste balers, solid waste shredders, resource recovery systems, or garbage grinding facilities (329 IAC 11-2-43). Table 3 summarizes the number of permitted solid waste facilities that submitted data reports to IDEM during 2004. Table 4 describes the types of waste each facility type may receive.

● Land Disposal Facilities

Municipal solid waste landfills (MSWLFs) can accept a wide range of solid wastes disposed from residential, commercial, institutional, and industrial sources, except hazardous waste regulated under 329 IAC 3.1. Of the four landfill types, only MSWLFs can accept municipal solid wastes (Table 4).

Construction-demolition sites accept only construction or demolition waste materials (329 IAC 10-9-3).

Figure 1.
Current Solid Waste Categories for Facility Quarterly Reports

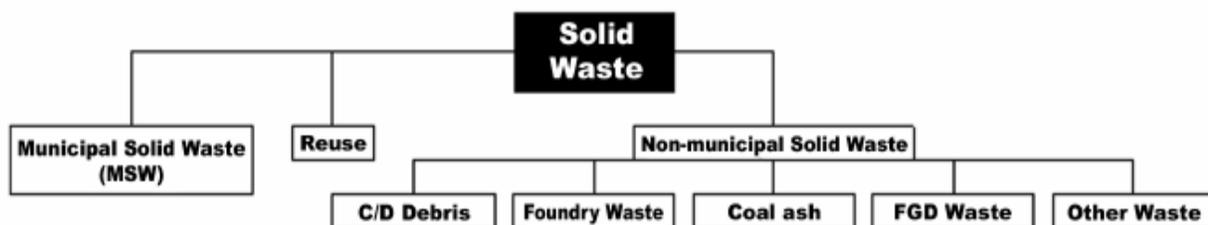


Table 2.
Solid Waste Classification Guide

TYPE	GENERAL CATEGORIES	EXAMPLES	
Municipal Solid Waste (MSW)	Residential - Single- and multi-family units - Other (campgrounds, parks, etc.) Commercial - Retail and wholesale - Service industry Institutional - Prisons, hospitals, schools, and universities - Government sector Industrial non-process - Offices, lunchrooms, restrooms	- Consumer goods - Packaging wastes - Food wastes - Office wastes - Yard trimmings / vegetation - Appliances - Automobile parts - Rinsed pesticide containers - Small animal carcasses - Household medical wastes - Household hazardous wastes (includes oil, batteries, etc.) - CESQG wastes	- Treated infectious wastes - Medical wastes - Waste tires - Used pallets - Cardboard - Furniture - Exempt other wastes (generated by a single generator in quantities less than 100 kilograms per month and disposed of in quantities less than 100 kilograms per shipment)
C/D Debris	Construction / Demolition - Construction industry - Demolition companies	- Untaminated solid waste resulting from the construction, remodeling, repair or demolition of structures (e.g.: scrap lumber, wallboard) - Non-asbestos insulation	- Roofing materials - Plumbing and electrical fixtures - Bricks, concrete, glass
Foundry	Foundry Waste	- Waste sand, slag, sludge, core waste, dust fines, etc.	
Coal Ash	Coal Ash	- Coal ash - Fly ash, bottom ash, etc. - Ash resulting from the combustion of coal	
FGD Waste	Flue Gas Desulfurization Byproducts	- Scrubber / FGD sludge - Pollution control sludge resulting from coal combustion	
Other	Other - Any other non-municipal solid waste not classified as C/D debris, foundry, coal ash, or FGD waste	- Manufacturing process wastes (resins, oxides, non-coal combustion sludge, etc.) - Asbestos-containing wastes - Pollution control, spill cleanup wastes	- Oil / gas/ mining wastes - Incinerator residues - Low-level PCB wastes - Railroad ties
Reuse (landfills only)	Reuse - Waste utilized for construction in a landfill	- Alternate daily cover - Road construction - Landscaping mulch	- Leachate collection system construction

CESQG = conditionally exempt small quantity generator PCB = polychlorinated biphenyl FGD = flue gas desulfurization

Table 3.
Number of Permitted Solid Waste Facilities Operating During 2004

A. Land Disposal Facilities		B. Processing Facilities	
Municipal Solid Waste Landfills	36	Solid Waste Incinerators⁽⁴⁾	3
• Privately Owned	26	• Hospital	1
• Publicly Owned ⁽¹⁾	10	• Municipal	1
		• Industrial ⁽³⁾	1
Construction-Demolition Sites⁽¹⁾	7	Transfer Stations	57
Restricted Waste Sites⁽²⁾	18	• Privately Owned	41
Non-municipal Solid Waste Landfills⁽³⁾	2	• Publicly Owned	16
TOTAL	63	TOTAL	60

⁽¹⁾ Some facilities are captive sites.

⁽²⁾ Most facilities are captive sites.

⁽³⁾ Facilities are captive sites.

⁽⁴⁾ Incinerators designed to accept at least ten tons solid waste or seven tons infectious waste per day.

Table 4.
Types of Land Disposal Facilities and Incinerators

A. Land Disposal Facilities		
Type	Acceptable Wastes	Data reported to IDEM
Municipal Solid Waste Landfill	Municipal waste, construction-demolition debris, other non-municipal wastes	Yes
Construction-Demolition Site	Construction-demolition debris only (unless otherwise approved by IDEM)	Yes
Restricted Waste Site	Non-municipal waste(s) specified in permit	Yes
Non-municipal Solid Waste Landfill	Wastes other than residential and commercial wastes	Yes
B. Incinerators		
Type	Acceptable Wastes	Data reported to IDEM
Large solid waste	Municipal waste, construction-demolition debris, other non-municipal wastes	Yes
Small solid waste ⁽¹⁾	Municipal waste, construction-demolition debris, other non-municipal wastes	No
Large infectious waste	Infectious waste (may also accept certain non-infectious waste)	Yes
Small infectious waste ⁽²⁾	Infectious waste (may also accept certain non-infectious waste)	No

⁽¹⁾ Incinerators designed to accept less than 10 tons per day (329 IAC 11-19-2).

⁽²⁾ Incinerators designed to accept less than 7 tons per day (329 IAC 11-19-2).

Restricted waste sites can accept only materials specified in their landfill permits as determined by the classification criteria in 329 IAC 10-9-4. Coal combustion by-products comprise the largest portion of the waste tonnage disposed at restricted waste sites.

Like restricted waste sites, **non-municipal solid waste landfills** can accept only materials specified in their landfill permits. But non-municipal solid waste landfills have more stringent design standards than restricted waste sites. Most of Indiana's non-municipal solid waste landfills are currently captive facilities and therefore, are not available for public use.

In addition to the facility standards discussed here, each individual site may dispose of other materials not included in the above definitions according to its permit.

● **Processing Facilities**

The term incinerator is defined broadly as an engineered facility designed to burn solid waste under controlled conditions. As Table 4 shows, incinerators in Indiana are categorized and regulated as either solid waste incinerators or infectious waste incinerators.

Solid waste incinerators with a design capacity of at least 10 tons per day and infectious waste incinerators with a design capacity of at least 7 tons per day must obtain a solid waste permit under Indiana solid waste rules 329 IAC 11-9 and 329 IAC 11-17. Other incinerators must notify IDEM and comply with certain operational requirements as stated in 329 IAC 11-19-2 and are deemed to be permitted.

Although incinerators are permitted and regulated under the category of processing facilities, they are considered to be final disposal facilities for planning and disposal fee purposes, as evident in statutory language. The disposal reduction goal language of P.L. 10-1990 also categorizes incineration as a final disposal method.

A **transfer station** is a facility at which solid waste is transferred from a vehicle or container to another vehicle or container for transportation purposes (329 IAC 11-2-47). Transfer stations may manage

materials in other ways according to their individual permits. For example, activities at a permitted transfer station may involve only the consolidation of waste loads for further transport, or may also incorporate some form of materials recovery, during which recyclables are segregated for recycling or reuse.

Tire, paper, and medical waste processing sites also are defined as processing facilities by statute; however, no such facilities were in operation during 2004.

● **Accuracy of Facility Reports**

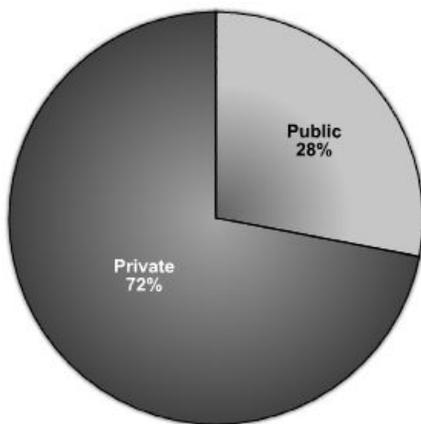
IDEM conservatively estimates that municipal solid waste tonnages may be over-reported by 20 to 40 percent due to some loads of municipal solid waste being mixed with non-municipal solid waste but identified only as municipal solid waste. According to studies in other states, construction-demolition wastes alone can constitute as much as one-third of municipal solid waste. The portion of municipal solid waste that is actually other non-municipal waste is unknown. Because of these uncertainties, caution should be used when attempting to draw conclusions regarding exact amounts of particular waste types.

● Municipal Solid Waste Landfill Ownership

Since the facility quarterly report program began in 1991, more of Indiana MSW landfills have been owned privately than owned publicly (Table 3). Figure 2 shows the percentages of private and public ownership of MSW landfills in 2004.

Most construction-demolition sites and restricted waste sites are privately owned. About seventy-two percent of Indiana's transfer stations and other permitted processing facilities are privately owned.

Figure 2.
Municipal Solid Waste Landfill Ownership by Percent During 2004



Note: For 2004, there are 10 publicly owned facilities and 26 privately owned facilities.

Origin of Waste

Origin of waste can be broken down by state and by county. A discussion of out-of-state waste is provided beginning on page 28.

Determination of the point of origin of waste by county is difficult due to the manner in which waste is collected and transported to landfills. Waste collection vehicles may transport the waste directly to a landfill and the hauler will report to the landfill operator the county of origin. If the waste collection routes include more than one county as points of origin, the hauler is required to report an estimated percentage of waste for each county to the landfill owner/operator. Furthermore, IDEM guidance instructs land disposal facilities to list the origin of waste received from transfer stations as the county in which the transfer station is located. The extent to which this actually occurs, however, is unknown.

Some waste collection vehicles transport waste to a transfer station, where the hauler is required to report the county (or counties) of origin. The waste received at the transfer station may be commingled with waste from other waste collection vehicles. All or part of the commingled waste may then go to one or more landfills, incinerators, transfer stations, or recycling/processing facilities, where the origin typically is reported as being the county in which the transfer station is located. Figure 3 illustrates the variety of paths that waste can take after it is collected.

In summary, the county identified on some quarterly reports may not be the point of origin, but in fact a transfer point for the waste before it is delivered to the landfill. Table 5 lists estimated amounts disposed at Indiana facilities by county of origin.

Figure 3.
Waste Disposal Pathways

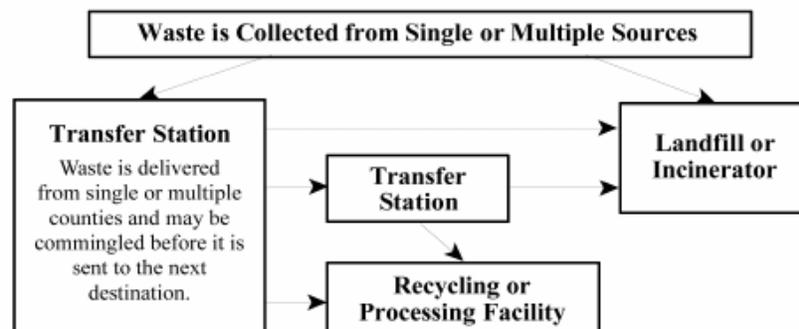


Table 5.
Waste Tons Disposed in Indiana⁽¹⁾, by Estimated County of Origin

County	1996	1997	1998	1999	2000	2001	2002	2003	2004
Adams	82,755	49,022	46,997	46,647	35,183	31,835	36,833	47,406	49,534
Allen	497,446	550,552	528,523	532,067	563,565	529,213	475,877	493,847	495,951
Bartholomew	160,957	173,275	168,594	170,936	168,640	138,449	144,879	103,590	91,640
Benton	1,844	1,900	2,199	2,429	1,768	2,342	2,179	1,949	1,191
Blackford	24,642	27,374	48,542	30,049	18,025	15,813	17,597	31,461	24,582
Boone	76,167	82,072	66,424	88,067	79,787	67,908	82,369	69,514	66,930
Brown	5,475	5,318	4,320	7,414	5,680	5,009	4,240	5,563	6,041
Carroll	20,003	23,776	19,773	22,294	21,530	24,437	21,492	20,820	18,698
Cass	44,121	43,908	52,297	46,347	44,244	58,014	44,333	49,415	48,479
Clark	84,029	89,442	95,526	81,612	98,511	89,357	79,744	73,544	88,358
Clay	19,986	22,152	22,960	27,370	28,258	19,236	22,715	23,013	26,429
Clinton	102,352	47,383	45,816	40,673	49,343	48,602	48,716	45,607	51,854
Crawford	2,108	2,040	5,744	4,716	1,412	1,299	1,361	1,223	1,861
Daviess	26,375	27,404	30,214	26,620	33,003	24,943	23,028	27,316	24,477
DeKalb	134,506	158,921	170,934	130,392	151,427	139,531	152,390	126,868	51,236
Dearborn	1,097	2,230	2,363	2,047	9,124	895	1,555	1,198	509
Decatur	26,493	25,927	26,226	26,186	28,521	31,507	30,840	33,129	30,451
Delaware	153,445	152,903	156,084	126,859	154,664	139,272	154,054	148,748	164,217
Dubois	48,633	41,479	42,606	48,287	57,241	58,420	37,615	43,161	63,088
Elkhart	403,842	418,501	436,867	501,018	413,623	396,569	373,738	384,136	408,603
Fayette	15,214	15,240	11,949	17,294	17,493	17,969	19,224	20,820	19,907
Floyd	75,227	67,047	55,835	58,657	56,326	49,136	32,263	29,586	25,370
County	1996	1997	1998	1999	2000	2001	2002	2003	2004
Fountain	58,611	80,733	58,391	44,248	44,952	54,349	55,323	52,168	71,542
Franklin	4,526	5,235	4,104	4,300	5,468	7,804	6,532	5,562	6,071
Fulton	25,720	30,168	45,105	50,356	39,723	34,502	25,096	27,309	32,553
Gibson	674,664	868,292	1,743,917	945,627	1,038,734	1,102,377	1,212,387	1,001,323	1,026,286
Grant	75,684	89,656	83,442	104,116	86,924	91,298	82,840	80,030	81,485
Greene	25,107	18,448	20,543	23,605	24,112	21,758	25,024	27,281	26,566
Hamilton	132,530	155,769	232,712	261,592	168,933	164,178	197,831	231,298	265,622
Hancock	48,941	100,261	110,809	115,518	120,722	103,938	121,638	116,343	89,672
Harrison	115	24	112	314	473	1,825	3,080	28,817	2,582
Hendricks	151,369	130,399	126,982	141,111	151,346	144,364	190,277	216,369	242,244
Henry	101,482	92,410	94,261	76,231	62,868	65,101	66,298	62,376	71,183
Howard	145,134	158,536	169,044	157,698	188,929	161,842	140,215	147,439	103,928
Huntington	49,907	39,284	38,921	38,263	41,292	62,478	61,618	44,952	42,924
Jackson	69,183	55,372	57,475	55,609	59,808	58,622	61,142	54,063	63,712
Jasper	441,459	142,311	159,756	166,873	168,003	163,210	174,913	181,972	176,349
Jay	21,791	22,599	54,742	47,752	23,032	25,997	32,009	28,084	21,768
Jefferson	200,642	95,900	63,526	69,832	126,774	111,541	144,881	105,274	114,109
Jennings	16,903	18,747	21,175	20,760	19,987	23,374	21,987	22,190	22,400
Johnson	100,369	155,967	155,694	149,403	161,435	176,820	186,809	197,351	178,716
Knox	40,287	68,449	53,088	52,723	60,216	67,999	56,611	61,158	65,694
Kosciusko	223,056	243,412	241,978	232,641	226,065	203,843	177,684	227,711	190,608
Lagrange	25,069	26,265	50,329	35,700	32,846	36,015	38,842	31,973	1,179,381
Lake	910,783	769,061	930,599	1,115,650	1,100,952	1,099,149	1,112,574	1,034,327	100,504
La Porte	140,152	149,638	134,509	124,388	128,926	110,455	141,069	115,806	35,459
Lawrence	42,217	46,633	39,565	36,273	57,211	72,008	49,951	62,595	85,099

County	1996	1997	1998	1999	2000	2001	2002	2003	2004
Madison	180,448	182,565	173,774	176,554	171,067	187,423	169,789	185,259	174,710
Marion	1,409,899	1,432,887	1,341,364	1,446,384	1,556,981	1,722,697	1,621,430	1,893,804	1,874,188
Marshall	73,941	81,075	91,128	97,866	97,969	83,882	87,323	81,106	88,344
Martin	7,798	7,898	16,886	19,298	14,916	15,899	18,136	13,020	19,644
Miami	28,231	28,471	32,925	41,634	42,320	43,549	37,493	39,547	44,758
Monroe	114,993	128,903	137,838	134,706	137,420	141,150	147,720	172,384	156,988
Montgomery	47,743	78,910	158,463	234,947	168,214	81,208	170,940	211,258	226,916
Morgan	49,670	41,391	49,879	49,548	65,400	58,946	60,120	63,295	43,167
Newton	18,355	17,910	13,727	12,638	12,616	13,313	11,907	14,777	16,256
Noble	47,762	82,792	140,173	113,300	114,368	97,152	86,829	90,233	95,305
Ohio	118	67	51	357	250	65	53	44	75
Orange	15,814	17,750	18,034	14,938	19,162	19,457	17,902	16,746	19,099
Owen	13,598	13,791	8,131	8,436	9,817	10,894	14,026	8,320	9,961
Parke	9,567	16,589	11,682	8,887	11,278	11,050	9,494	8,199	9,444
Perry	3,806	45,736	77,801	130,014	152,844	143,950	166,205	164,654	181,933
Pike	387,362	605,544	520,868	101,361	18,273	17,701	18,299	13,199	18,106
Porter	80,347	78,998	80,199	95,070	106,677	107,780	93,501	83,851	85,197
Posey	380,047	441,333	437,653	378,171	288,486	304,732	297,264	253,299	286,909
Pulaski	9,260	7,654	8,283	7,401	6,443	7,239	8,768	6,935	6,246
Putnam	36,454	30,472	28,944	29,539	36,378	37,544	33,995	38,407	34,017
Randolph	29,113	30,653	34,377	30,899	24,829	45,917	26,942	28,748	26,521
Ripley	12,872	13,219	12,123	12,952	11,593	8,610	12,237	13,869	12,550
Rush	30,802	20,262	30,453	36,719	26,615	25,008	26,713	29,382	31,259
County	1996	1997	1998	1999	2000	2001	2002	2003	2004
Scott	18,640	20,225	21,502	23,583	24,788	20,684	20,778	21,767	201,008
Shelby	84,071	100,964	100,517	104,384	113,831	106,111	111,123	95,409	20,493
Spencer	46,680	15,702	203,585	145,984	207,722	240,580	178,226	216,862	70,773
St. Joseph	241,115	253,189	232,307	200,874	217,838	207,146	176,815	190,566	221,719
Starke	14,544	14,593	11,985	9,294	8,203	5,888	7,672	9,015	9,806
Steuben	24,392	21,593	19,600	26,263	26,925	27,857	28,580	24,108	29,561
Sullivan	1,008,275	1,016,140	948,650	905,662	948,941	923,428	865,330	870,591	792,373
Switzerland	1,026	1,953	1,768	1,988	1,239	2,880	4,479	4,138	598
Tippecanoe	240,651	176,748	187,132	164,502	204,184	201,480	208,180	203,302	193,763
Tipton	13,039	14,092	12,267	16,906	12,555	13,843	16,417	15,613	39,548
Union	1,734	1,124	482	1,537	2,168	2,253	2,525	3,090	2,333
Vanderburgh	237,839	242,216	239,678	249,633	252,567	270,480	265,421	279,354	290,034
Vermillion	46,740	36,429	37,872	35,210	36,423	29,642	30,882	36,621	41,667
Vigo	213,793	202,182	206,839	229,081	212,474	191,523	188,441	190,323	195,937
Wabash	207,042	233,976	274,892	256,013	215,805	231,323	179,477	152,034	172,079
Warren	371	96	280	1,299	416	235	1,988	162	52
Warrick	42,168	45,379	49,245	45,359	43,342	53,035	51,009	59,265	46,442
Washington	19,364	18,189	20,782	19,949	28,020	32,517	23,174	24,476	32,805
Wayne	90,740	87,538	94,227	87,871	80,310	81,963	76,149	89,016	94,325
Wells	30,126	28,472	31,396	25,950	21,800	20,652	19,688	23,282	27,161
White	32,240	32,436	29,958	26,294	28,709	27,874	27,163	25,987	32,368
Whitley	28,341	16,540	10,354	14,770	21,797	17,238	26,293	26,430	25,326

⁽¹⁾ Note: The information in Table 5 reflects the amount of waste from each county that was disposed of in an Indiana final disposal facility, either by direct haul or through an Indiana transfer station. It does not include waste disposed out-of-state, which explains the low amounts reported for counties near state lines. 1994 and 1995 data can be viewed in the 2002 and 2003 Solid Waste Annual Reports respectively.

Solid Waste Land Disposal Facilities

The data in this annual summary reflect the information provided in the solid waste facility quarterly reports submitted to IDEM. There may be some differences between the numbers published in this summary report and previously published annual reports. These differences are due primarily to improvements in the data quality checks made by IDEM Office of Land Quality.

Table 6 displays the amount of solid waste disposed at Indiana land disposal facilities by each reported waste type during 2004. Figure 4 displays this information by landfill type, and Figure 5 by waste

Figure 4.
Disposal of Solid Waste by Landfill Type During 2004

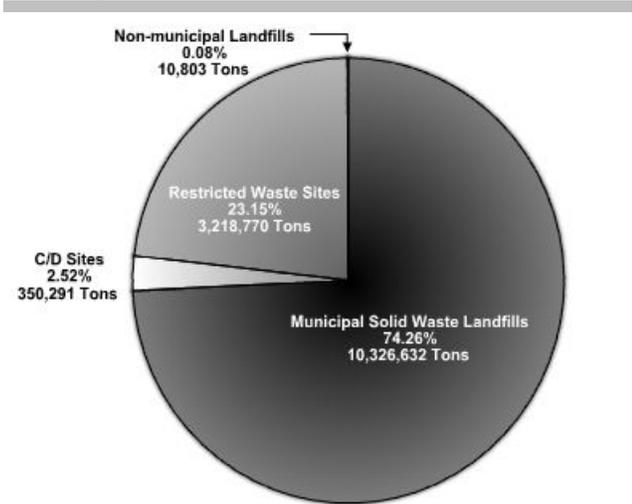
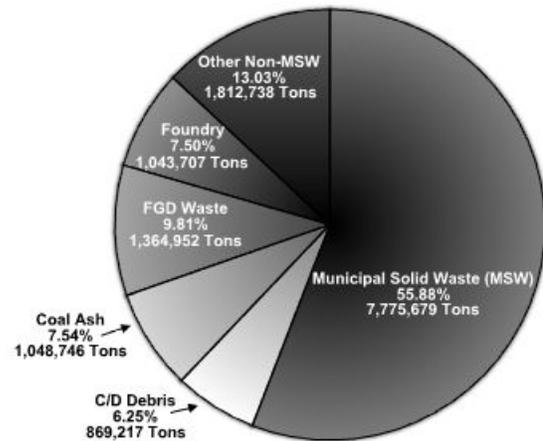


Figure 5.
Disposal of Solid Waste by Waste Type During 2004



type, both as percentages of total. Table 7 displays totals of solid waste disposed at Indiana land disposal facilities from 1996 through 2004 for municipal waste and all other waste types grouped as non-municipal waste. Table 8 shows the same information as Table 7 but excludes direct imports to Indiana landfills. Due to reporting limitations, waste originating outside Indiana that is brought into the state through an in-state transfer station and disposed in an Indiana landfill cannot be excluded from the quantities in Table 8. Figure 6 shows the municipal waste, non-municipal waste, and total disposal figures for all landfills in Tables 7 and 8 in graph form to more clearly depict disposal trends year-to-year.

Waste received at solid waste incinerators is discussed on page 25 in the chapter on processing facilities.

Table 6.
Disposal of Solid Waste by Landfill Type and Waste Type During 2004

Waste Type	Tons of Waste Disposed					All Landfills
	Municipal Solid Waste Landfills	Construction/ Demolition Sites	Restricted Waste Sites	Non-municipal Solid Waste Landfills		
Municipal	7,767,135	0	0	0	0	7,767,135
C/D Debris	518,265	350,291	662	0	0	869,217
Coal Ash	2,338	0	1,046,408	0	0	1,048,746
FGD Waste	2	0	1,364,950	0	0	1,364,952
Foundry	254,186	0	789,521	0	0	1,043,707
Other NonMSW	1,784,707	0	17,228	10,803	0	1,812,738
TOTAL	10,326,632	350,291	3,218,770	10,803	0	13,906,496

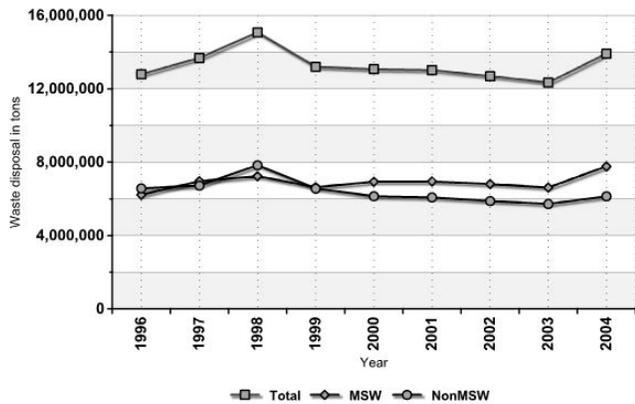
Table 7.
Annual Disposal at Solid Waste Land Disposal
Facilities by Landfill Type and Waste Type

(Includes waste imports to Indiana)

Landfill Type	Waste Type	Tons of Waste Disposed								
		1996	1997	1998	1999	2000	2001	2002	2003	2004
Municipal Solid Waste Landfills	MSW	6,217,748	6,959,493	7,233,635	6,634,100	6,928,077	6,937,485	6,804,633	6,617,491	7,767,135
	NonMSW	2,506,843	2,757,504	2,901,949	2,821,091	2,331,200	2,328,151	2,098,482	2,262,761	2,559,497
	TOTAL	8,724,591	9,716,997	10,135,584	9,455,191	9,259,277	9,265,636	8,903,115	8,880,252	10,326,632
Construction /Demolition Sites	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	212,453	187,725	195,723	229,010	146,536	127,680	118,664	170,149	350,291
	TOTAL	212,453	187,725	195,723	229,010	146,536	127,680	118,664	170,149	350,291
Restricted Waste Sites	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	3,824,287	3,740,680	4,689,484	3,438,190	3,525,067	3,551,753	3,547,708	3,263,520	3,218,770
	TOTAL	3,824,287	3,740,680	4,689,484	3,438,190	3,525,067	3,551,753	3,547,708	3,263,520	3,218,770
Non-municipal Solid Waste Landfills	MSW	579	0	0	0	0	4,381	0	0	0
	NonMSW	28,271	34,016	41,264	71,131	140,201	70,468	117,284	22,568	10,803
	TOTAL	28,850	34,016	41,264	71,131	140,201	74,849	117,284	22,568	10,803
All Landfills	MSW	6,218,327	6,959,493	7,233,635	6,634,100	6,928,077	6,941,866	6,804,633	6,617,491	7,767,135
	NonMSW	6,571,854	6,719,925	7,828,420	6,559,422	6,143,004	6,078,052	5,882,138	5,718,998	6,139,360
	TOTAL	12,790,181	13,679,418	15,062,055	13,193,522	13,071,081	13,019,918	12,686,771	12,336,489	13,906,496

Figure 6.
Annual Disposal at All Solid Waste Land Disposal Facilities

(Includes waste imports to Indiana)



(Excludes direct imports to Indiana landfills)

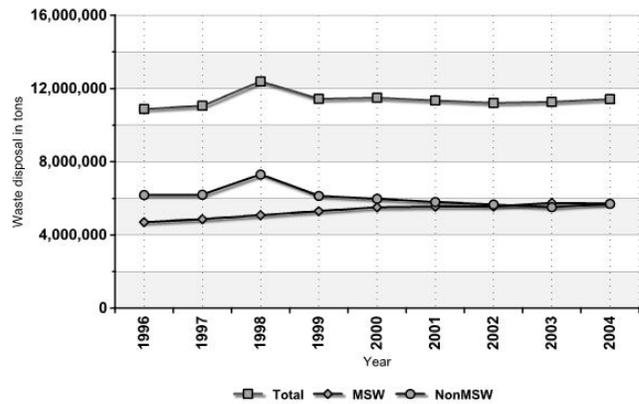


Table 8.
Annual Disposal at Solid Waste Land Disposal
Facilities by Landfill Type and Waste Type

(Excludes direct imports to Indiana landfills)

Landfill Type	Waste Type	Tons of Waste Disposed								
		1996	1997	1998	1999	2000	2001	2002	2003	2004
Municipal Solid Waste Landfills	MSW	4,696,297	4,858,656	5,080,056	5,297,116	5,515,530	5,546,617	5,555,518	5,754,129	5,719,373
	NonMSW	2,195,206	2,275,083	2,407,182	2,439,624	2,166,705	2,053,755	1,902,596	2,127,281	2,350,077
	TOTAL	6,891,503	7,133,739	7,487,238	7,736,740	7,682,235	7,600,372	7,458,114	7,881,410	8,069,450
Construction /Demolition Sites	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	135,055	148,257	166,489	205,432	144,976	126,264	97,236	105,576	124,275
	TOTAL	135,055	148,257	166,489	205,432	144,976	126,264	97,236	105,576	124,275
Restricted Waste Sites	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	3,824,287	3,740,680	4,689,484	3,438,190	3,525,067	3,551,753	3,547,708	3,263,521	3,218,770
	TOTAL	3,824,287	3,740,680	4,689,484	3,438,190	3,525,067	3,551,753	3,547,708	3,263,521	3,218,770
Non-municipal Solid Waste Landfills	MSW	579	0	0	0	0	4,381	0	0	0
	NonMSW	28,271	34,016	38,860	49,300	139,966	67,739	112,793	22,568	10,803
	TOTAL	28,850	34,016	38,860	49,300	139,966	72,120	112,793	22,568	10,803
All Landfills	MSW	4,696,876	4,858,656	5,080,056	5,297,116	5,515,530	5,550,998	5,555,518	5,754,129	5,719,373
	NonMSW	6,182,819	6,198,036	7,302,015	6,132,546	5,976,714	5,799,511	5,660,333	5,518,946	5,703,925
	TOTAL	10,879,695	11,056,692	12,382,071	11,429,662	11,492,244	11,350,509	11,215,851	11,273,075	11,423,298

Municipal Solid Waste Landfills

Most questions about land disposal facilities deal primarily with municipal solid waste (MSW) landfills. MSW landfills receive waste materials from residences, businesses, institutions, and industries. As a result of the wide range of waste types these landfills receive, they are built to more stringent landfill design criteria than, for example, a construction-demolition site that accepts only construction-demolition wastes. Figure 7 breaks down the amounts disposed at MSW landfills by waste type shown in Table 6 as a percentage of total.

Figure 7.
Disposal of Solid Waste at Municipal Solid Waste Landfills by Waste Type During 2004

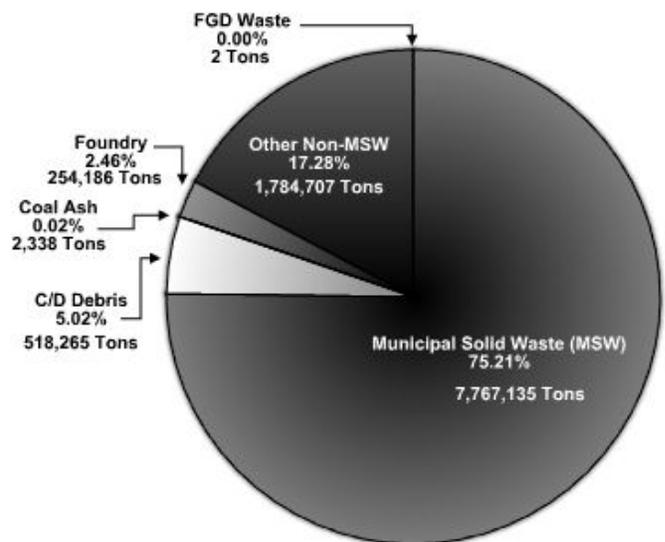
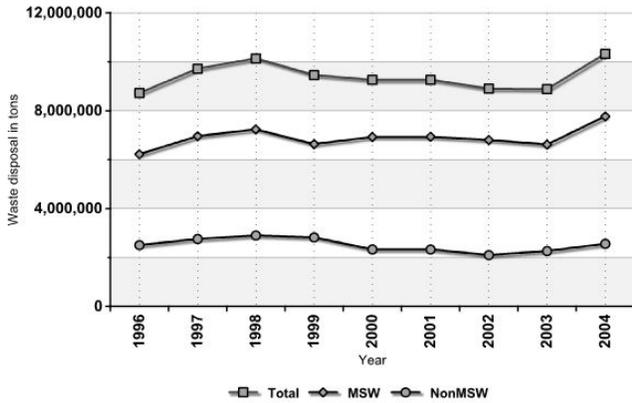


Figure 8.
Annual Disposal at Municipal Solid Waste Landfills

(Includes waste imports to Indiana)



(Excludes direct imports to Indiana landfills)

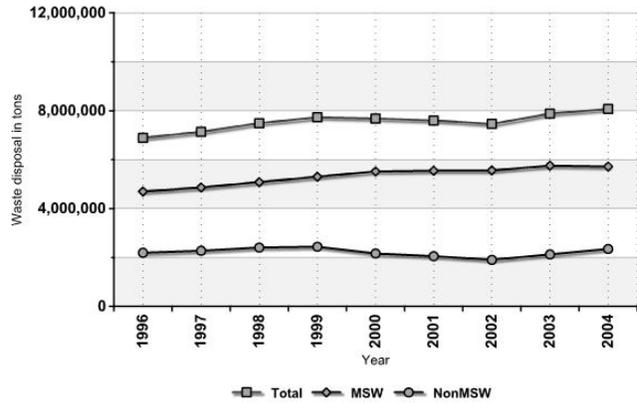


Figure 8 shows the municipal waste, non-municipal waste, and total disposal figures for MSW landfills in Tables 7 and 8 in graph form, similarly to Figure 6, which shows this for all landfills. Again, this is to more clearly depict disposal trends year-to-year.

Figure 9 shows the disposal of out-of-state waste vs. Indiana waste at MSW landfills. A more detailed discussion of out-of-state waste is provided beginning on page 28.

Figure 9.
Annual Disposal at Municipal Solid Waste Landfills by Waste Origin

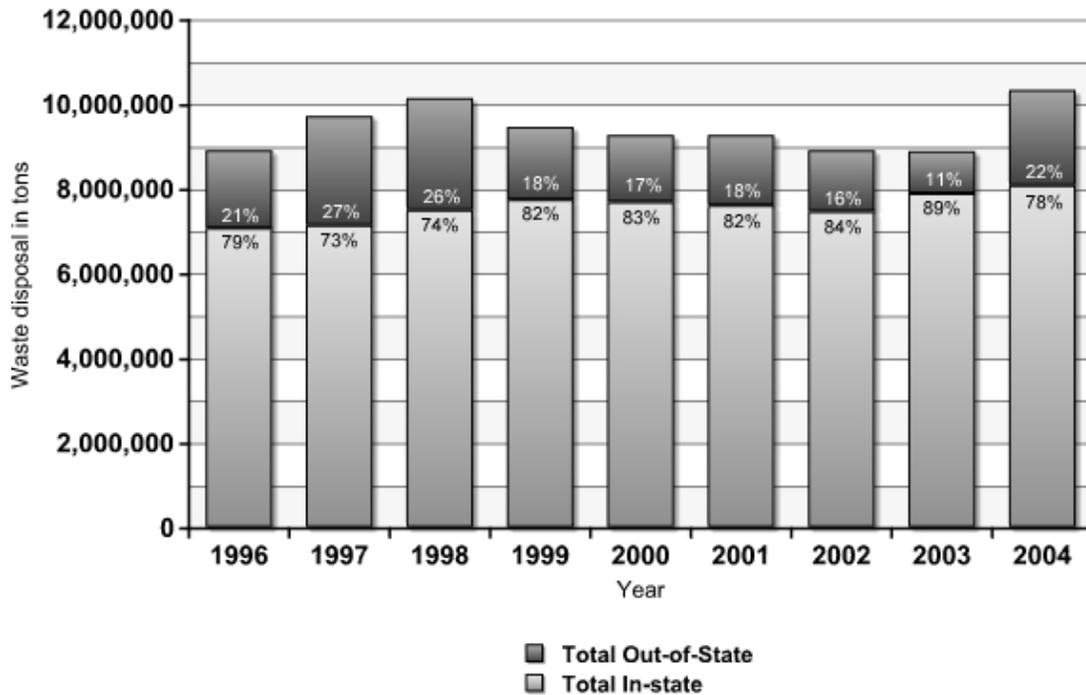


Figure 10 shows the distribution of disposal among MSW landfills. Note that 39% (or 14) of MSW landfills accepted less than 100,000 tons of solid waste.

Figure 10.
Distribution of Disposal at Municipal Solid Waste Landfills During 2004

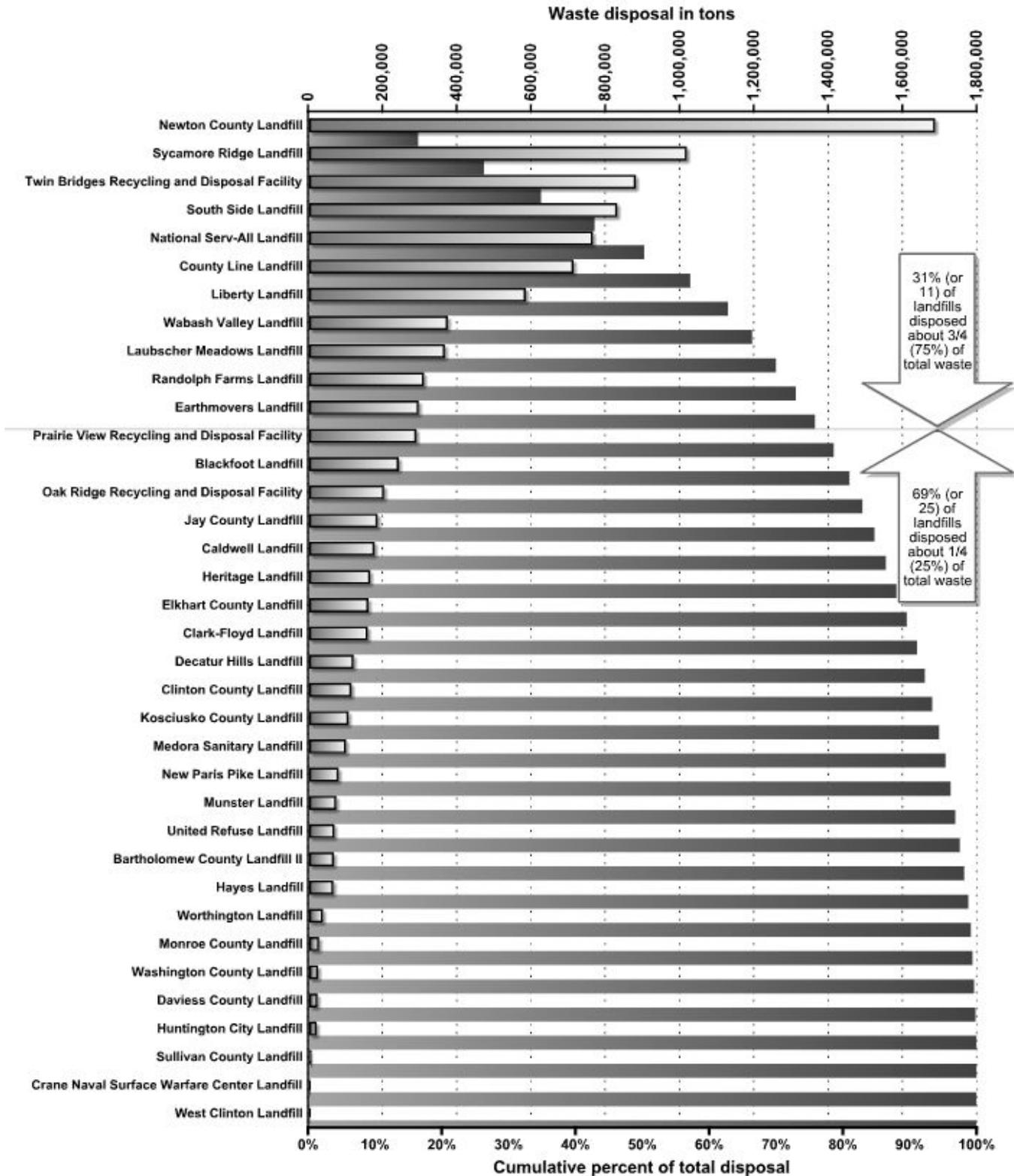


Table 9 summarizes total disposal at individual MSW landfills during 2004. More detailed disposal data for all solid waste disposal facilities is given at the end of this report in “2004 Solid Waste Facility Profiles.”

Table 9.
Total Disposal at Municipal Solid Waste Landfills During 2004

County Location of Facility	Facility Name	Waste Disposal (Tons)	Number of Operating Days	Disposal per Operating Day (Tons)
Allen	National Serv-All Landfill	764,021	296	2,581
Allen	United Refuse Landfill	68,265	176	388
Bartholomew	Bartholomew County Landfill II	66,776	307	218
Cass	Oak Ridge Recycling and Disposal Facility	202,166	258	784
Clark	Clark-Floyd Landfill	158,062	298	530
Clinton	Clinton County Landfill	114,336	306	374
Daviess	Daviess County Landfill	22,466	300	75
Decatur	Decatur Hills Landfill	119,956	307	391
Elkhart	Earthmovers Landfill	295,287	258	1,145
Elkhart	Elkhart County Landfill	159,839	291	549
Fulton	County Line Landfill	712,180	297	2,398
Greene	Worthington Landfill	37,086	154	241
Hendricks	Twin Bridges Recycling and Disposal Facility	879,665	258	3,410
Henry	Hayes Landfill	65,536	307	213
Huntington	Huntington City Landfill	20,238	269	75
Jackson	Medora Sanitary Landfill	99,307	306	325
Jay	Jay County Landfill	184,634	258	716
Kosciusko	Kosciusko County Landfill	106,176	261	407
Lake	Munster Landfill	73,313	144	509
Marion	South Side Landfill	829,918	312	2,660
Martin	Crane Naval Surface Warfare Center Landfill	2,042	248	8
Monroe	Monroe County Landfill	26,968	241	112
Newton	Newton County Landfill	1,685,838	309	5,456
Pike	Blackfoot Landfill	241,596	310	779
Putnam	Heritage Landfill	164,521	261	630
Randolph	Randolph Farms Landfill	309,204	311	994
St. Joseph	Prairie View Recycling and Disposal Facility	289,116	258	1,121
Shelby	Caldwell Landfill	176,521	366	482
Sullivan	Sullivan County Landfill	6,088	255	24
Vanderburgh	Laubscher Meadows Landfill	365,785	308	1,188
Vermillion	West Clinton Landfill	1,468	305	5
Vigo	Sycamore Ridge Landfill	1,017,203	305	3,335
Wabash	Wabash Valley Landfill	373,573	309	1,209
Washington	Washington County Landfill	24,302	304	80
Wayne	New Paris Pike Landfill	79,444	248	320
White	Liberty Landfill	583,737	258	2,263
Total for all Municipal Solid Waste Landfills		10,326,632		

Other Solid Waste Land Disposal Facilities

● Construction-Demolition Sites

Construction-demolition sites receive only construction and demolition waste as described in Table 2. As shown in Figure 11, these sites did not receive a significant amount of out-of-state waste until 1996, when the amount of out-of-state waste increased from 5 to 36 percent of total receipts. Percentages of out-of-state waste received by construction-demolition sites returned to their pre-1996 levels in 2000 and 2001 but increased again thereafter. Table 10 provides a listing of the construction-demolition landfills and the total amount of waste each facility received in 2004. In 2004 the total disposal at the Lake County C/D Site increased significantly from the previous year, increasing the total annual disposal at Construction-Demolition Sites (Figure 11). A total of 223,521 tons disposed at this site (Table 10) originated from Cook County, Illinois where there was a landfill closing at the end of 2003.



Figure 11.
Annual Disposal at Construction-Demolition Sites by Waste Origin

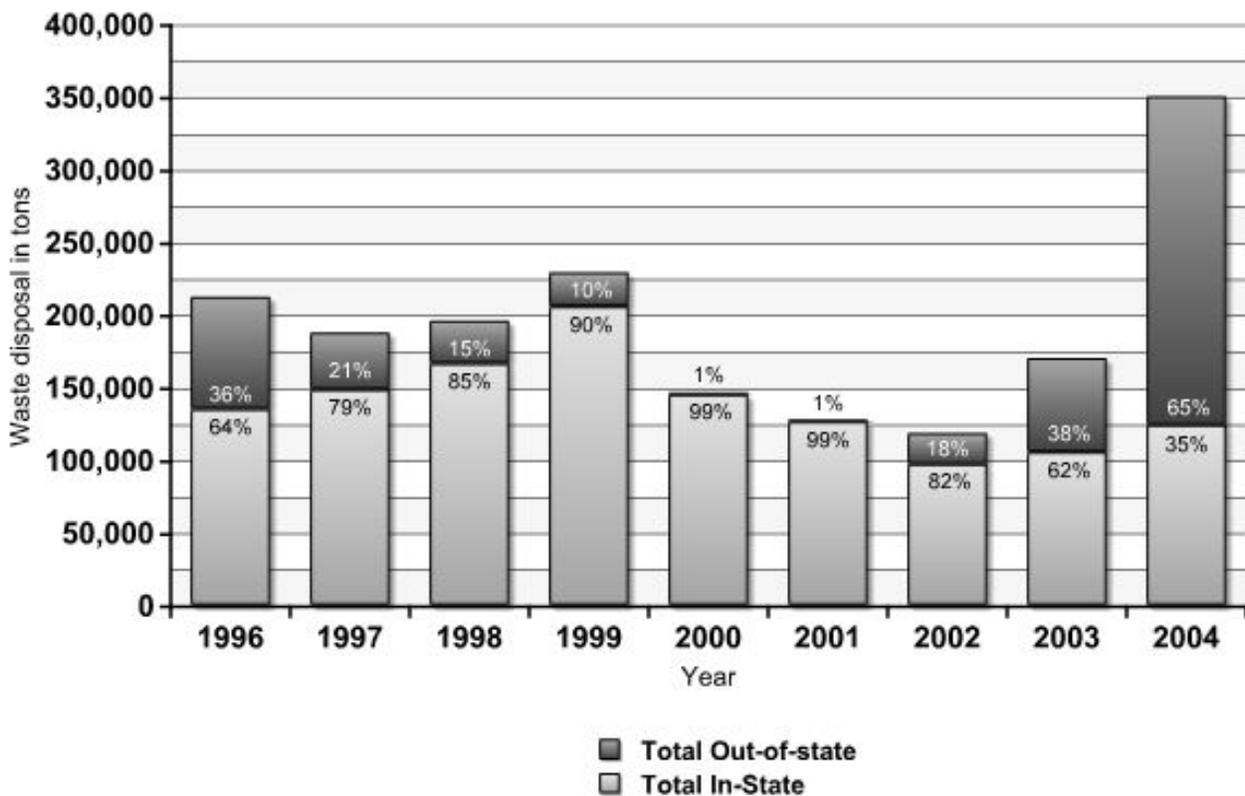


Table 10.

Total Disposal at Construction-Demolition Sites During 2004⁽¹⁾

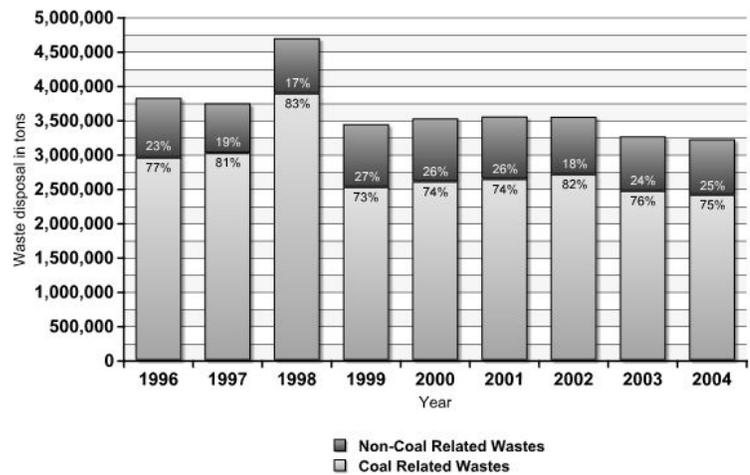
County Location of Facility	Facility Name	Waste Disposal in Tons
Allen	M & M C/D Site	721
Elkhart	Warner & Sons Inc. C/D Site	8,399
Lake	Lake County C/D Site	270,807
Martin	Crane Naval Surface Warfare Center C/D Site	4,684
Pike	Velpen Solid C/D Site	20,655
Posey	Springfield Environmental C/D Site	29,603
Vermillion	West Clinton II C/D Site	15,422
Total for All Construction-Demolition Sites:		350,291

(1) Industrial Removal C/D Site closed in 2003 and Monroe County SWMD C/D Site temporarily closed in 2003.

● Restricted Waste Sites

Restricted waste sites also receive a limited range of wastes, as specified in their facility permits. Most sites are ash, sludge, or foundry monofills. Coal combustion wastes from power plants accounted for 75 percent of the total tonnage disposed at restricted waste sites in 2004 (Figure 12). Note that prior to 1996, coal combustion wastes were not individually reported waste types on the solid waste facility quarterly reporting program. Before 1996, the amount of coal-related wastes disposed was estimated based on the amount of waste received at specific types of restricted waste sites related to coal combustion.

Figure 12. Annual Disposal at Restricted Waste Sites by Waste Type



The total waste disposed each year in restricted waste sites is much larger than the amount received at construction-demolition sites, although not as large as the amount of waste received by municipal solid waste landfills (Figure 4).

No restricted waste sites have reported receiving out-of-state waste since 1991. Table 11 provides a listing of the restricted waste sites and the total amount of waste each facility received during 2004.

Table 11.
Total Disposal at Restricted Waste Sites During 2004⁽¹⁾

County Location of Facility	Facility Name	Waste Disposal in Tons
Bartholomew	City Garage Site RWS 3	662
Fountain	Harrison Steel Cast RWS 3	70,952
Gibson	Gibson Station Scrubber RWS 2	993,108
Jasper	R M Schahfer Generating Station RWS 1	155,424
Jefferson	Clifty Creek Coal Ash Disposal RWS 3	89,709
Knox	Scepter RWS 1	20,072
Kosciusko	Dalton Foundry RWS 3	88,936
Lake	U.S. Steel - Gary Works RW 1	345,971
Lawrence	Lehigh Portland Cement Co RWS 1	17,216
Noble	Dalton Corp. Kendallville Mfg. Fac. Monofill RWS 3	36,935
Perry	Waupaca Foundry RWS 3	174,205
Pike	IPL Petersburg Generating Station RWS 3	6,050
Posey	SIGECO Filter Cake Disposal RWS 3	193,797
Spencer	Rockport Plant Ash RWS 2	191,966
Sullivan	Merom Station RWS 2	781,316
Wabash	Ford Meter Box RWS 3	2,702
Wabash	Wabash Alloys RWS 1	49,749
Total for All Restricted Waste Sites:		3,218,770

(1) Auburn Foundry RWS 3 and Yard 520 RWS 3 closed in 2003

● **Non-municipal Solid Waste Landfills**

The 1996 rules introduced the terms municipal solid waste (MSW) landfill and non-municipal solid waste (Non-MSW) landfill, which have been used throughout this report. In previous reports, Non-MSW landfills were grouped with MSW landfills under the general heading of “sanitary landfills.” MSW landfills were discussed earlier in this section.

Historically there have been only a few Non-MSW landfills in Indiana, all captive facilities, not available for public use. Non-MSW landfills receive any type of waste described in Table 2 except MSW, pursuant to the specifications of their permits. Table 12 provides a detail of the Non-MSW landfill operating in 2004 and the total amount of waste it received.

Table 12.
Total Disposal at Non-municipal Solid Waste Landfills During 2004

County Location of Facility	Facility Name	Waste Disposal in Tons
Monroe	Dillman Road Waste Water Treatment Plant Landfill	10,803
Total for All Non-municipal Landfills:		10,803

Solid Waste Processing Facilities

Solid waste processing facilities include:

- solid waste incinerators;
- transfer stations; and
- other processing facilities.

Table 13 displays the amount of solid waste received by permitted Indiana incinerators (excluding small-capacity incinerators) and transfer stations by each reported waste type during 2004. Table 14 displays similar information from 1996 through 2004 for municipal and non-municipal waste. More detailed data for all solid waste processing facilities is given at the end of this report in “2004 Solid Waste Facility Profiles.” Other processing facilities are discussed later in this section.

Table 13.
Solid Waste Received by Processing Facilities by Waste Type During 2004

Waste Type	Tons of Waste Received	
	Incinerators ⁽¹⁾	Transfer Stations
Municipal	647,911	2,879,650
C/D	0	508,016
Coal Ash	0	0
FGD Waste	0	0
Foundry	0	0
Other Non-MSW	36,095	35,728
TOTAL	684,007	3,423,394

⁽¹⁾ Does not include small-capacity incinerators receiving less than 10 tons/day of solid waste or 7 tons/day of infectious waste.

Table 14.
Annual Amount of Solid Waste Received by Processing Facility Type and Waste Type

(Includes waste imports to Indiana)

Facility Type	Waste Type	Tons of Waste Received								
		1996	1997	1998	1999	2000	2001	2002	2003	2004
Incinerators ⁽¹⁾	MSW	689,859	681,147	670,380	669,718	632,880	636,072	646,621	697,634	647,911
	NonMSW	22,839	28,183	25,552	27,901	28,672	30,274	41,591	24,704	36,095
	TOTAL	712,698	709,330	695,932	697,619	661,552	666,346	688,212	722,338	684,007
Transfer Stations	MSW	1,434,712	1,523,836	1,753,009	1,935,432	2,230,153	2,282,366	2,384,806	2,544,071	2,879,650
	NonMSW	291,183	404,897	476,100	474,227	499,069	470,251	482,556	517,690	543,744
	TOTAL	1,725,895	1,928,733	2,229,109	2,409,659	2,729,222	2,752,617	2,867,362	3,061,761	3,423,394

⁽¹⁾ Does not include small-capacity incinerators receiving less than 10 tons/day of solid waste or 7 tons/day of infectious waste.

Solid Waste Incinerators

For reporting and permitting purposes, solid waste incinerators are regarded as processing facilities. For solid waste planning and fee purposes, incinerators are considered final disposal facilities. Table 15 provides a list of the permitted solid waste incinerators that operated in 2004 and the total amount of solid waste received by these facilities. The list does not include the small-capacity incinerators in Indiana that are not required to report to IDEM.

Annually, Covanta Energy Indianapolis Resource Recovery Facility receives roughly five percent of the total tonnage of waste either land disposed or incinerated in Indiana. From the waste received by Covanta during 2004, there was about 179,526 tons of ash produced and delivered to the Southside Landfill for disposal. The ash produced is equivalent to about 26 percent of the waste received at Covanta.

Table 15.
Total Waste Received by Incinerators During 2004

County Location of Facility	Facility Name	Waste Received in Tons
Marion	Indianapolis Resource Recovery Facility	679,825
Marion	Wishard Memorial Hospital Infectious Waste Incinerator	229
Posey	General Electric Ultem Thermal Oxidizer System	3,952
Total for All Incinerators		684,007

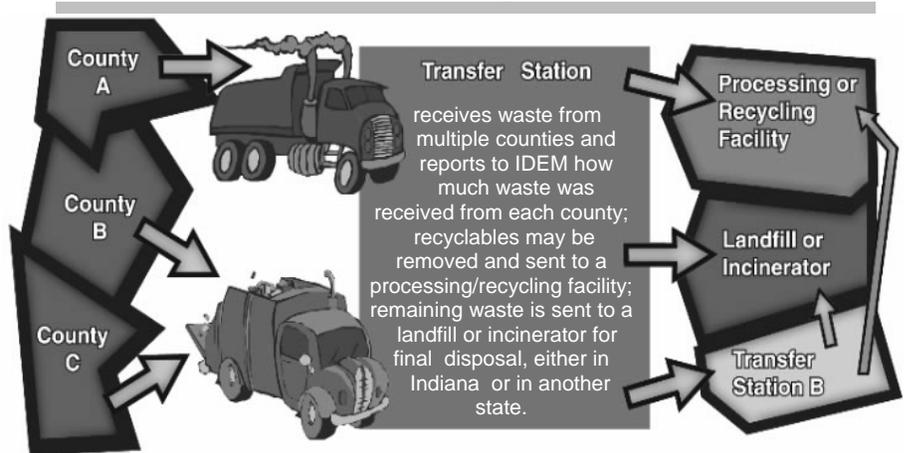
Transfer Stations

Transfer stations are facilities that allow waste from individual collection vehicles to be offloaded and then reloaded into larger vehicles for transport to final disposal facilities. Some transfer stations recover recyclable materials and send them to processing or recycling facilities.

The accountability for differences in incoming and outgoing waste at transfer stations has improved over the years. Although for the first few years of quarterly reporting there was no mechanism to track such differences, reporting forms were improved to include materials recovery. Facilities are also required to submit written explanations if the difference between incoming and outgoing tonnage totals is due to a reason other than materials recovery. In most instances, these differences are the result of materials recovery or differences in volume-to-tons conversions.

As discussed on page 11, it is difficult to track the true origin of waste. Waste collection vehicles may

Figure 13.
Transfer Station Waste Management



transport their waste directly to a landfill or they may take it to a transfer station. A landfill receiving waste from a transfer station documents it as originating from the county in which the transfer station is located, regardless of whether any of the waste was generated in that county. The issue is further complicated when the transfer station receives waste from two or more counties, mixes the loads in a central location, removes various recyclables, then transports the waste to two or more landfills, another transfer station and/or a recycling facility. Figure 13 illustrates how the tonnage received from the counties may be known, but the waste sent for final disposal or processing may not directly identify the point of origin.

Table 16.
Destination of Waste Sent from Transfer Stations for Final Disposal

Year	Total Tons Sent to All Facilities	To Indiana Facilities		To Out-of-State Facilities	
		Tonnage	% of Total	Tonnage	% of Total
1996	1,639,145	1,468,074	89.6	171,071	10.4
1997	1,835,145	1,629,723	88.8	205,422	11.2
1998	2,131,526	1,917,838	90.0	213,688	10.0
1999	2,317,959	2,059,268	88.8	258,691	11.2
2000	2,577,813	2,268,754	88.0	309,059	12.0
2001	2,638,995	2,303,805	87.3	335,190	12.7
2002	2,737,515	2,377,746	86.9	359,770	13.1
2003	2,869,329	2,488,397	86.7	380,932	13.3
2004	3,175,236	2,673,932	84.2	501,304	15.8

Quarterly reports from transfer stations currently provide the only source of systematic information on the amount of waste exported by Indiana. Table 16 shows the amount of waste sent out-of-state from transfer stations as compared with the amount of waste sent to Indiana final disposal facilities from 1996 to 2004. Figure 14 shows a more detailed breakdown of the destination information for 2004. This information does not provide a complete picture of Indiana waste exports because the totals in Table 16 are based only on information obtained from processing facility quarterly reports. The amount of waste hauled directly from an Indiana residence or business to an out-of-state destination is not adequately known due to reporting limitations.

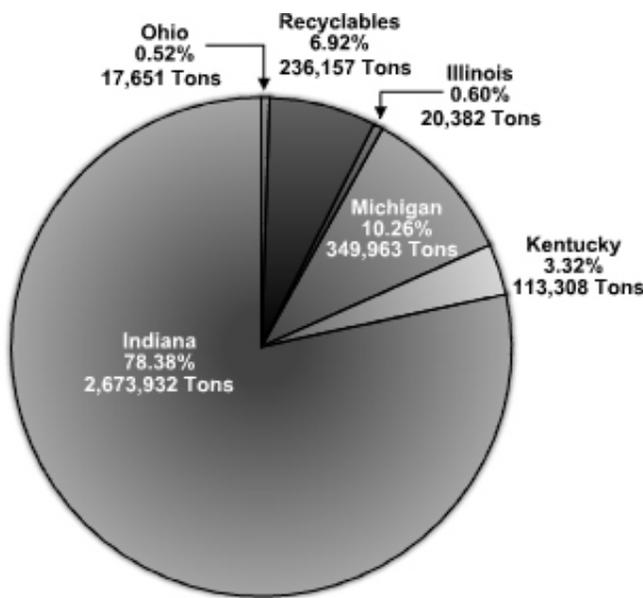
More detailed data for transfer stations is given at the end of this report in “2004 Solid Waste Facility Profiles.”

Other Processing Facilities

Other processing facilities permitted by IDEM could include paper and medical waste processing facilities. None of the facilities operating during 2004 are classified under this category.

IDEM issues permits to any solid waste processing facility upon which is located a solid waste incinerator, transfer station, solid waste baler, solid waste shredder, resource recovery system, or garbage grinding facility (as defined in 329 IAC 11-2-43, unless excluded by 329 IAC 11-3-1).

Figure 14.
Destination of Waste Sent from Transfer Stations During 2004



Out-of-State Waste

Solid waste imported from out-of-state sources can be received at landfills, incinerators, or transfer stations. Historically, the predominant states of origin for solid waste imports have been the four states contiguous to Indiana (Illinois, Michigan, Ohio, and Kentucky). In 1999, no waste was received from East Coast states and commonwealths for the first time since the implementation of facility quarterly reports. Less than 700 tons were received from New Jersey and Virginia in 2000, and about 17 tons were received from New Jersey, Georgia, and Puerto Rico combined in 2001. In 2002, 17 tons were received from East Coast states and 584 tons were received from California.

Out-of-state waste received by Indiana facilities increased by 32 percent from 1996 to 1998 to their highest level since totals were reported (over 2.7 million tons). In 1999, out-of-state waste receipts decreased by about one million tons and stayed steady through 2002. In 2003, out-of-state waste decreased again, accounting for 9 percent of the waste disposed at all of Indiana’s disposal facilities and 13 percent of the waste disposed in MSW landfills. 2004 waste imports increased, accounting for 18 percent of the waste disposed at all of Indiana’s disposal facilities and 25 percent of the waste disposed in MSW landfills. This is more than double the 2003 imports. The increase has been determined to be due to a landfill that closed at the end of 2003 in Cook County, Illinois.

Figure 15.
Annual Waste Imports by Region of Origin

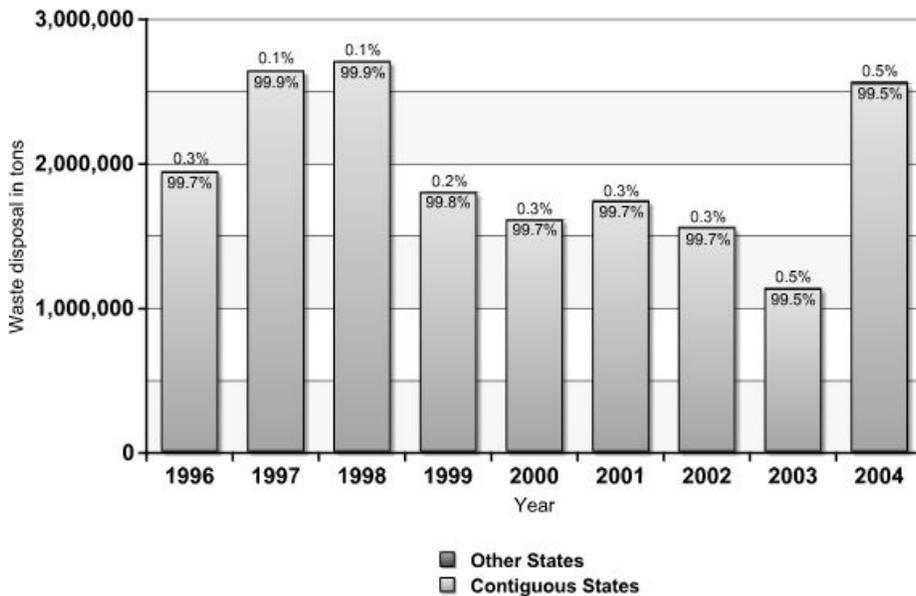


Table 17 details the state origin and amount of out-of-state waste received at Indiana solid waste facilities during 2004. Figure 16 shows this information from 1996 through 2004. Illinois has been historically the largest source of waste imported to Indiana. In 2004,

Illinois waste accounted for 85 percent of the out-of-state waste received by Indiana solid waste facilities. Ninety-seven percent of that waste came from the Chicago area.

Table 17.
Out-of-State Waste Received During 2004⁽¹⁾

Total Tons: 2,563,561					
State	Tons Received	State	Tons Received	State	Tons Received
County Name		County Name		County Name	
Illinois	2,179,642	Ohio (cont'd)		Missouri	1,267
Adams	24	Van Wert	15,633	Audrain	23
Champaign	13	Warren	615	Clay	61
Clark	504	Williams	143	Franklin	18
Clay	32	Wood	210	Jackson	489
Cook	2,113,791	Kentucky	135,075	Macon	11
Crawford	10,949	Boone	1,611	Platte	16
De Kalb	2,396	Breckinridge	9	St. Charles	173
Du Page	366	Clark	65	St. Louis	376
Edgar	18,461	Daviess	436	St Louis City	101
Edwards	1	Franklin	42	California	927
Effingham	134	Hardin	567	Alameda	676
Iroquois	125	Henderson	75,382	Los Angeles	28
Kane	39	Henry	1,563	Riverside	223
Kankakee	21,253	Jefferson	54,162	Virginia	840
Lake	54	Jessamine	135	Newport News	519
Lawrence	6,611	Kenton	5	Richmond City	321
Livingston	292	Lewis	13	West Virginia	571
Macon	1	Marshall	10	Putnam	571
Madison	145	McLean	12	Massachusetts	245
Marion	49	Montgomery	6	Suffolk	245
Montgomery	54	Muhlenberg	6	Texas	199
Ogle	1	Pulaski	11	Dallas	128
St. Clair	71	Scott	899	Denton	2
Tazewell	19	Webster	4	Galveston	5
Vermilion	814	Whitley	138	Harris	4
Wabash	1,404	Michigan	84,547	Orange	60
Will	2,037	Berrien	887	Utah	182
Winnebago	2	Branch	81,280	Salt Lake	182
Ohio	151,297	Cass	1,984	New Hampshire	162
Allen	202	Clinton	3	Merrimack	162
Auglaize	385	Jackson	13	Pennsylvania	68
Champaign	469	Macomb	6	Lehigh	52
Clinton	47	St. Joseph	369	Montgomery	16
Cuyahoga	241	Van Buren	5	Kansas	66
Darke	10,533	Arkansas	3,257	Doniphan	66
Defiance	5	Saline	3,257	Louisiana	35
Franklin	106	Iowa	2,393	Bossier	8
Greene	1	Johnson	2,291	Morehouse	20
Hamilton	2,623	Lee	39	St. Landry	7
Mercer	12,467	Polk	63	Minnesota	32
Miami	98,143	Wisconsin	1,380	Fillmore	13
Montgomery	63	Waukesha	1,380	Hennepin	19
Ottawa	71	Tennessee	1,336	Mississippi	18
Paulding	246	Hamilton	7	De Soto	3
Preble	66	Lawrence	32	Washington	15
Putnam	15	Obion	20	Arizona	14
Richland	6	Shelby	1,258	Maricopa	14
Shelby	8,996	Tipton	19	New York	9
Summit	13			Suffolk	9

⁽¹⁾ About 13,349 tons were sent back to out-of-state facilities by Indiana transfer stations.

Figure 16.
Annual Waste Imports by State of Origin

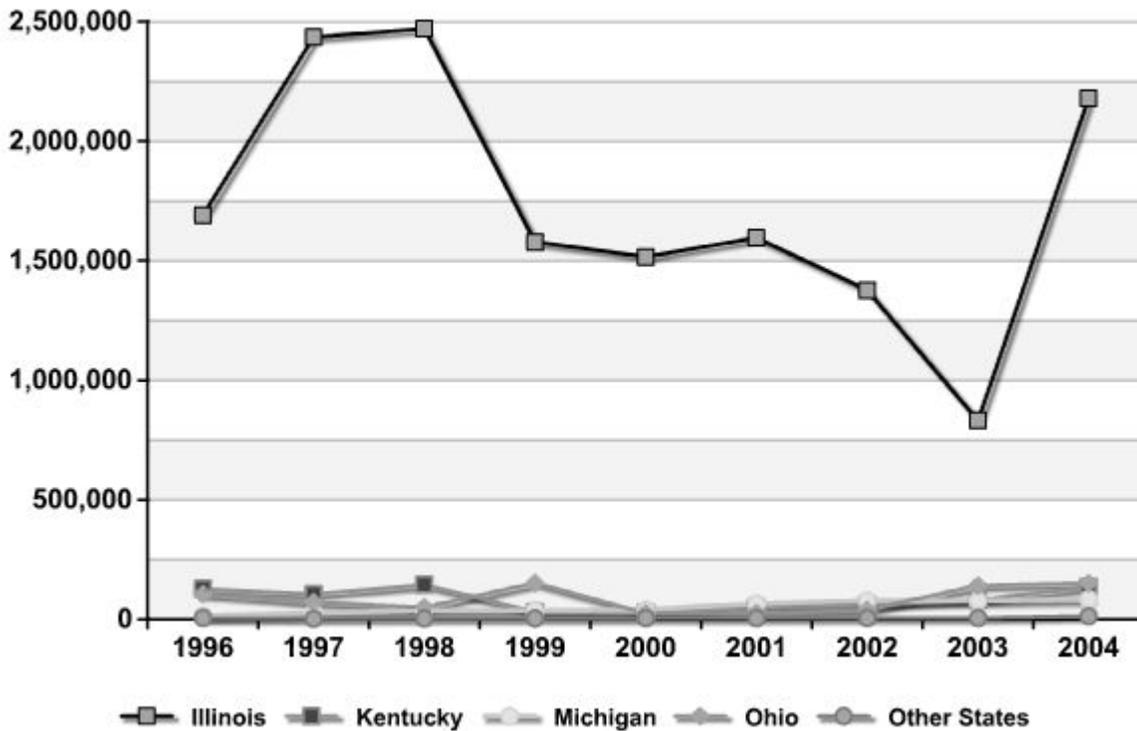


Table 18 displays the amount of out-of-state waste received by Indiana’s permitted solid waste facilities by each reported waste type during 2004. Table 19 displays similar information from 1996 through 2004 for municipal and non-municipal waste. MSW landfills have consistently received most of the waste imported from other states.

Table 18.
Amount of Out-of-State Waste Received by Solid Waste Facilities by Facility Type and Waste Type During 2004

Waste Type	Tons of Waste Received				
	Municipal Solid Waste Landfills	Construction/ Demolition Sites	Incinerators	Transfer Stations	All Facilities
Municipal	2,047,762	0	1,723	48,605	2,098,090
C/D	36,464	226,016	0	4,721	267,201
Foundry	4,972	0	0	0	4,972
Coal Ash	0	0	0	0	0
FGD Waste	2	0	0	0	2
Other Non-MSW	167,981	0	25,315	0	193,296
Total	2,257,182	226,016	27,038	53,326	2,563,561

Figure 17 shows that municipal solid waste historically has accounted for the largest percentage of waste imports. However, non-municipal waste imports increased considerably between 1995 and 1998. This increase might have been due to imports of waste materials to be used as alternative daily cover by landfills. Alternative daily cover amounts were not included as waste in this report since 1999.

Figure 17.
Annual Amount of Out-of-State Waste Received by Solid Waste Facilities

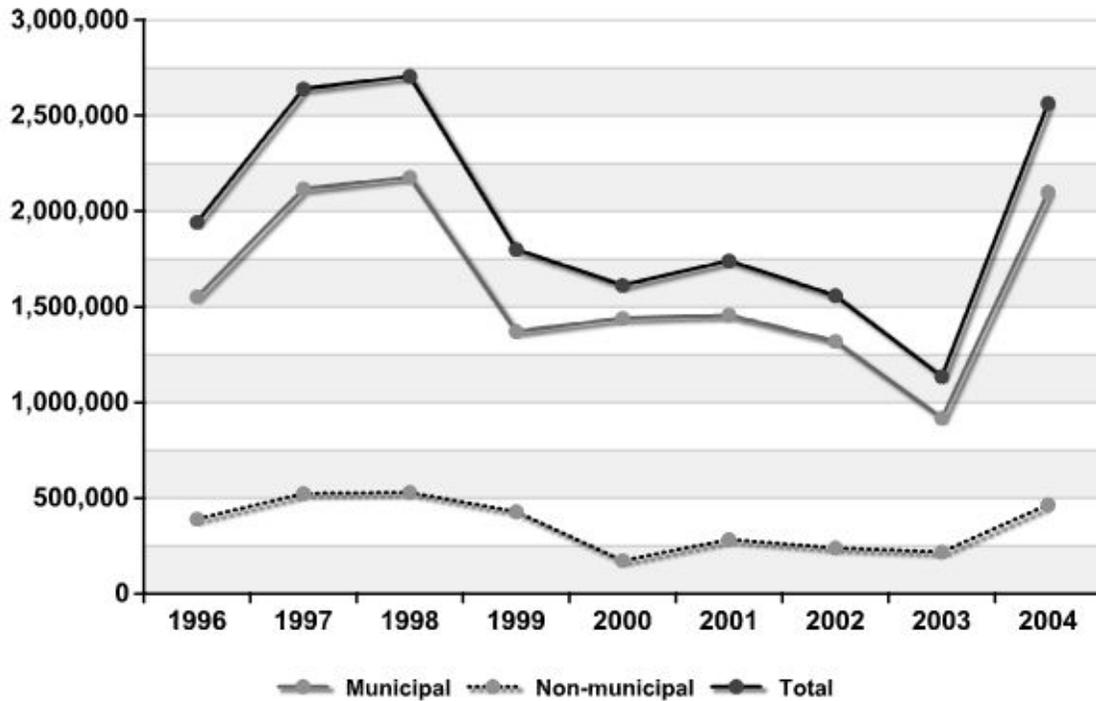


Table 19.

Annual Amount of Out-of-State Waste Received by Solid Waste Facilities by Facility Type and Waste Type

Landfill Type	Waste Type	Tons of Waste Disposed								
		1996	1997	1998	1999	2000	2001	2002	2003	2004
Municipal Solid Waste Landfills ⁽¹⁾	MSW	1,521,451	2,100,837	2,153,579	1,336,984	1,412,547	1,390,868	1,249,114	863,363	2,047,762
	NonMSW	311,637	482,421	494,767	381,467	164,495	274,396	195,887	135,480	209,420
	TOTAL	1,833,088	2,583,258	2,648,346	1,718,451	1,577,042	1,665,264	1,445,001	998,843	2,257,182
Construction/Demolition Sites	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	77,398	39,468	29,234	23,578	1,560	1,416	21,428	64,573	226,016
	TOTAL	77,398	39,468	29,234	23,578	1,560	1,416	21,428	64,573	226,016
Non-Municipal Solid Waste Landfill	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	0	0	2,404	21,831	235	2,729	4,491	0	0
	TOTAL	0	0	2,404	21,831	235	2,729	4,491	0	0
Incinerators (nonhospital)	MSW	7,777	5,228	5,488	11,603	9,851	11,815	1,345	211	1,723
	NonMSW	599	855	1,505	1,303	1,396	897	14,451	16,410	25,315
	TOTAL	8,376	6,083	6,993	12,906	11,247	12,712	15,796	16,621	27,038
Transfer Stations ⁽²⁾	MSW	22,673	10,448	17,988	22,520	17,093	54,016	69,136	54,104	48,605
	NonMSW	604	519	737	683	4,724	3,641	2,078	736	4,721
	TOTAL	23,277	10,967	18,725	23,203	21,817	57,657	71,214	54,840	53,326
All Facilities	MSW	1,551,901	2,116,513	2,177,055	1,371,107	1,439,491	1,456,699	1,319,595	917,679	2,098,090
	NonMSW	390,238	523,263	528,647	428,862	172,410	283,079	238,335	217,199	465,471
	TOTAL	1,942,139	2,639,776	2,705,702	1,799,969	1,611,901	1,739,778	1,557,930	1,134,878	2,563,561

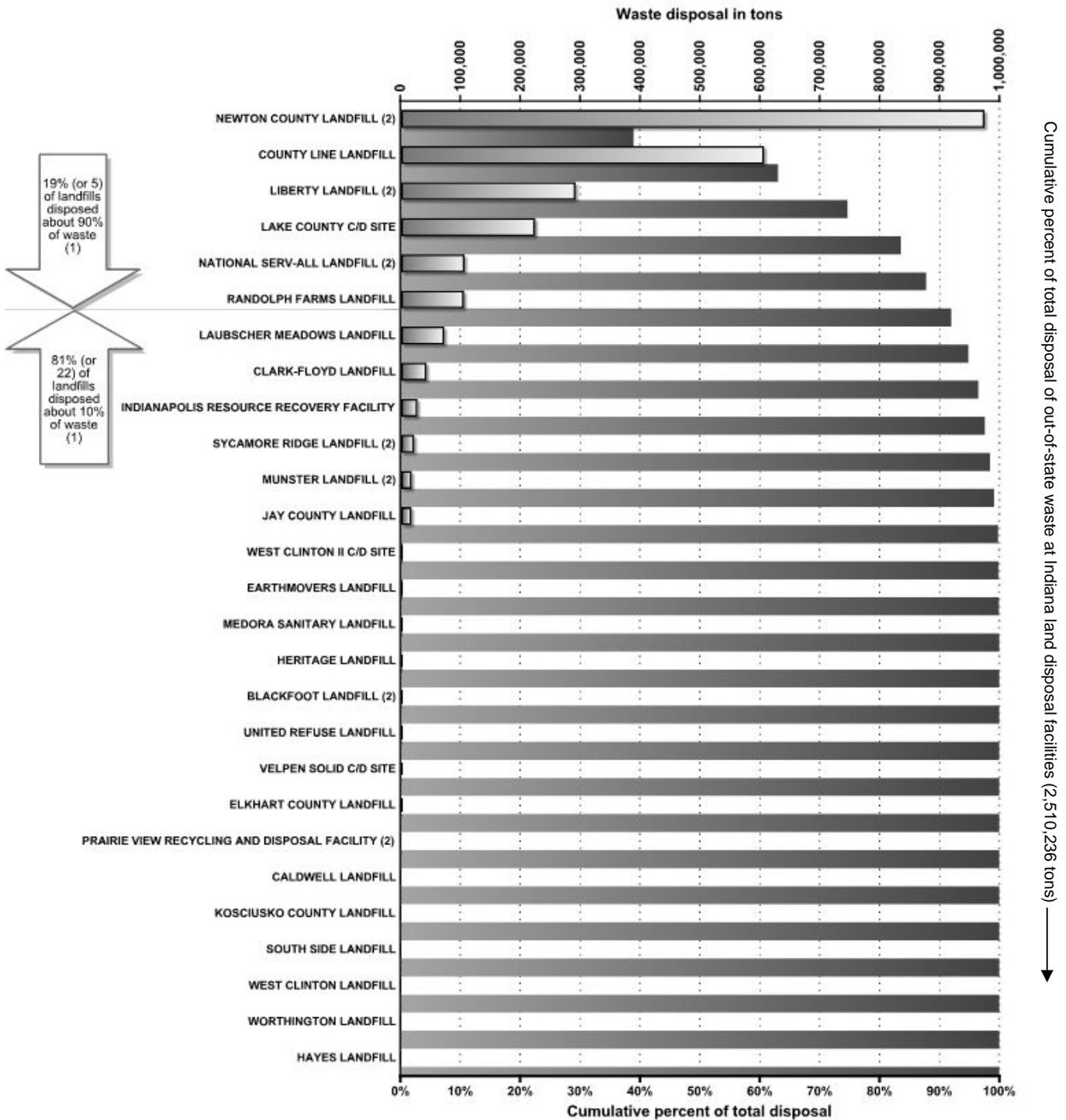
⁽¹⁾ This reflects only out-of-state waste shipped directly to MSW landfills. Most of the out-of-state waste received by transfer stations was sent to Indiana MSW landfills for final disposal. However, these MSW landfills reported the origin of this out-of-state waste as the county in which the transfer station was located, rather than the state in which the waste originated, in accordance with IDEM guidance.

⁽²⁾ Between 1991 and 1996, the majority of this waste was sent to Indiana final disposal facilities. In 1997, 30% of out-of-state waste received by Indiana facilities was sent to either MI or KY facilities for disposal. In 1998, 45% was sent out-of-state for disposal, mostly to MI or KY. Transfer station exports began decreasing in 1999, and continued until 2001, when 3% (about 1,888 tons) of out-of-state waste received was sent to other states, mostly KY, but also MI and OH. 2002 exports increased to over 20% (about 14,382 tons); however, all this increase was due to one transfer station in Clark County. Again, over 97% of exports went to KY and the remainder went to MI and OH. 2003 exports by transfer stations comprised just over 14% of out-of-state waste (7,799 tons). Again, over 90% of this was from the Clark County transfer station, sent to Kentucky, with the remainder sent to Michigan and Ohio. 2004 exports increased to 25% (about 13,349 tons) with 88% of the waste from Clark County transfer station being sent to Kentucky and the remainder going to Illinois, Michigan, and Ohio.

Figure 18 shows the distribution of the disposal of out-of-state waste among Indiana solid waste facilities. Of the 27 facilities that received out-of-state waste during 2004, five (19%) disposed of 90%

of that waste. Ninety-five percent of the imported waste received by these five facilities was from Illinois. The other 22 facilities (81%) disposed of the remaining 10% of the imported waste.

Figure 18.
Distribution of Disposal of Out-of-State Waste Disposed at Indiana Solid Waste Facilities During 2004



(1) Percentages in the text boxes exclude facilities not taking out-of-state waste. Therefore, they do not correspond exactly with percentages in Figure 10.

(2) This landfill received out-of-state waste from Indiana transfer station(s).

Table 20 summarizes the annual amount of out-of-state waste received by Indiana's solid waste facilities during 2004. Table 21 provides a detailed look at the amount of waste that these facilities received from each state.

Although Indiana imports a considerable amount of solid waste, it also exports waste, primarily to

contiguous states. A brief discussion of waste exports was provided in the previous section on solid waste processing facilities (see page 27).

"2004 Solid Waste Facility Profiles" at the end of this report provides more detailed summaries of waste imports to landfills, incinerators, and transfer stations.

Table 20.
Total Out-of-State Waste Received by Facility During 2004

County Location of Facility	Facility Name	Type of Facility	Tons of Out-of-State Waste Received
Allen	National Serv-All Landfill	MSW Landfill	105,789
Allen	United Refuse Landfill	MSW Landfill	609
Clark	Bi-Co Transfer Station	Transfer Station	11,755
Clark	Clark-Floyd Landfill	MSW Landfill	42,118
Dekalb	Merritt Processing Facility	Transfer Station	111
Elkhart	Earthmovers Landfill	MSW Landfill	1,752
Elkhart	Elkhart County Landfill	MSW Landfill	381
Fulton	County Line Landfill	MSW Landfill	605,664
Greene	Worthington Landfill	MSW Landfill	19
Henry	Hayes Landfill	MSW Landfill	5
Jackson	Medora Sanitary Landfill	MSW Landfill	1,035
Jay	Jay County Landfill	MSW Landfill	16,951
Knox	Jamax Transfer Station	Transfer Station	14,718
Kosciusko	Kosciusko County Landfill	MSW Landfill	114
Lagrange	Scott Resource Recovery And Transfer Facility	Transfer Station	271
Lake	Illiana Transfer #1	Transfer Station	21,305
Lake	Lake County C/D Site	Construction/Demolition Site	223,521
Lake	Munster Landfill	MSW Landfill	17,347
Lake	Waste Management Of NW Indiana Transfer Station	Transfer Station	541
La Porte	Waste Management Of Laporte Transfer Station	Transfer Station	43
Marion	Indianapolis Resource Recovery Facility	Incinerator	27,038
Marion	South Side Landfill	MSW Landfill	42
Newton	Newton County Landfill	MSW Landfill	974,026
Noble	Kendallville Iron And Metal Transfer Station	Transfer Station	20
Pike	Blackfoot Landfill	MSW Landfill	650
Pike	Velpen Solid C/D Site	Construction/Demolition Site	433
Porter	Able Disposal Recycling & Transfer Station	Transfer Station	877
Putnam	Heritage Landfill	MSW Landfill	1,011
Randolph	Randolph Farms Landfill	MSW Landfill	104,772
St. Joseph	Prairie View Recycling And Disposal Facility	MSW Landfill	178
Shelby	Caldwell Landfill	MSW Landfill	158
Vanderburgh	Laubscher Meadows Landfill	MSW Landfill	71,977
Vanderburgh	Materials Recycling And Transfer Station	Transfer Station	2,925
Vermillion	West Clinton Ii C/D Site	Construction/Demolition Site	2,062
Vermillion	West Clinton Landfill	MSW Landfill	39
Vigo	Sycamore Ridge Landfill	MSW Landfill	21,540
Warren	Tri-County Transfer Station	Transfer Station	760
White	Liberty Landfill	MSW Landfill	291,005
Total for All Facilities			2,563,561

Table 21.

Out-of-State Waste Received by Indiana Solid Waste Facilities During 2004

County	Facility Name	Facility Type	/-----Contiguous States-----/				Other States	Total Tons	% of Tons
			IL	KY	MI	OH			
Allen	National Serv-All Landfill	MSW Landfill	92		80,913	24,784		105,789	4.1%
Allen	United Refuse Landfill	MSW Landfill			410	199		609	0.0%
Clark	Bi-Co Transfer Station	Transfer Station		11,755				11,755	0.5%
Clark	Clark-Floyd Landfill	MSW Landfill		42,118				42,118	1.6%
Dekalb	Merritt Processing Facility	Transfer Station				111		111	0.0%
Elkhart	Earthmovers Landfill	MSW Landfill			1,752			1,752	0.1%
Elkhart	Elkhart County Landfill	MSW Landfill			381			381	0.0%
Fulton	County Line Landfill	MSW Landfill	605,664					605,664	23.6%
Greene	Worthington Landfill	MSW Landfill	19					19	0.0%
Henry	Hayes Landfill	MSW Landfill				5		5	0.0%
Jackson	Medora Sanitary Landfill	MSW Landfill	13	611		411		1,035	0.0%
Jay	Jay County Landfill	MSW Landfill				16,951		16,951	0.7%
Knox	Jamax Transfer Station	Transfer Station	14,718					14,718	0.6%
Kosciusko	Kosciusko County Landfill	MSW Landfill			114			114	0.0%
Lagrange	Scott Resource Recovery and Transfer Facility	Transfer Station			271			271	0.0%
Lake	Illiana Transfer #1	Transfer Station	21,305					21,305	0.8%
Lake	Lake County C/D Site	Construction/ Demolition Site	223,521					223,521	8.7%
Lake	Munster Landfill	MSW Landfill	17,347					17,347	0.7%
Lake	Waste Management Of NW Indiana Transfer Station	Transfer Station	541					541	0.0%
La Porte	Waste Management Of Laporte Transfer Station	Transfer Station			43			43	0.0%
Marion	South Side Landfill	MSW Landfill	42					42	0.0%
Marion	Indianapolis Resource Recovery Facility	Incinerator	6,115	4,579	6	3,972	12,366	27,038	1.1%
Newton	Newton County Landfill	MSW Landfill	974,026					974,026	38.0%
Noble	Kendallville Iron and Metal Transfer Station	Transfer Station			5	15		20	0.0%
Pike	Blackfoot Landfill	MSW Landfill	75	575				650	0.0%
Pike	Velpen Solid C/D Site	Construction/ Demolition Site		433				433	0.0%
Porter	Able Disposal Recycling & Transfer Station	Transfer Station	406		471			877	0.0%
Putnam	Heritage Landfill	MSW Landfill	439	103	3	77	389	1,011	0.0%
Randolph	Randolph Farms Landfill	MSW Landfill				104,772		104,772	4.1%
St. Joseph	Prairie View Recycling and Disposal Facility	MSW Landfill			178			178	0.0%
Shelby	Caldwell Landfill	MSW Landfill	145	13				158	0.0%
Vanderburgh	Laubscher Meadows Landfill	MSW Landfill		71,977				71,977	2.8%
Vanderburgh	Materials Recycling and Transfer Station	Transfer Station	14	2,911				2,925	0.1%
Vermillion	West Clinton II C/D Site	Construction/ Demolition Site	2,062					2,062	0.1%
Vermillion	West Clinton Landfill	MSW Landfill	39					39	0.0%
Vigo	Sycamore Ridge Landfill	MSW Landfill	21,295				245	21,540	0.8%
Warren	Tri-County Transfer Station	Transfer Station	760					760	0.0%
White	Liberty Landfill	MSW Landfill	291,005					291,005	11.4%
Total for All Facilities			2,179,642	135,075	84,547	151,297	13,000	2,563,561	

Figure 19.
Origin of Waste Disposed and Incinerated in Indiana During 2004

Total Waste Disposed and Incinerated in Indiana	
Number of Final Disposal Facilities	Tons
64	14,590,502



Total Waste Received from Indiana Sources			Total Waste Received from Out-of-State ⁽¹⁾		
Number of Final Disposal Facilities	Tons	% of Total Waste	Number of Final Disposal Facilities	Tons	% of Total Waste
64	12,080,267	82.80%	25	2,510,236	17.20%

Total Waste Received from Contiguous States			
Number of Final Disposal Facilities	Tons	% of OOSW ⁽²⁾	
27	2,497,236	99.48%	
Illinois			
 Number of Final Disposal Facilities Receiving Waste	Tons	% of OOSW ⁽²⁾	
16	2,141,898	85.33%	
Kentucky			
 Number of Final Disposal Facilities Receiving Waste	Tons	% of OOSW ⁽²⁾	
8	120,410	4.80%	
Michigan			
 Number of Final Disposal Facilities Receiving Waste	Tons	% of OOSW ⁽²⁾	
8	83,757	3.34%	
Ohio			
 Number of Final Disposal Facilities Receiving Waste	Tons	% of OOSW ⁽²⁾	
8	151,171	6.02%	

Total Waste Received from Non-contiguous States			
Number of Final Disposal Facilities	Tons	% of OOSW ⁽²⁾	
3	13,000	0.52%	
Midwest States			
Number of Final Disposal Facilities Receiving Waste	Tons	% of OOSW ⁽²⁾	
2	5,137	0.20%	
Other States			
Number of Final Disposal Facilities Receiving Waste	Tons	% of OOSW ⁽²⁾	
3	7,863	0.31%	

⁽¹⁾ Excludes an estimated **13,349** tons of out-of-state waste received by Indiana transfer stations to out-of-state final disposal facilities.

⁽²⁾ OOSW means Out-of-State Waste.