

**Nonhazardous  
Solid Waste Management  
And Landfill Capacity**

**2008**

# Introduction

In 2008, Illinois landfills accepted more than 50 million gate cubic yards of solid waste, seven percent less than during 2007.

Of all solid waste landfilled in Illinois in 2008, 12.5 percent, equating to 6.2 million gate cubic yards (1.9 million gate tons) was accepted from 13 other states. We know this because for 17 years (since 1992), Illinois landfill operators have reported these quantities on a quarterly basis to the Illinois EPA. Twenty-two of the 45 landfills (49 percent) accepted waste from other states.

Municipal waste haulers servicing Illinois are not required to report to Illinois EPA how much waste they transport across the borders of Illinois to landfills in other states. Municipal waste haulers are not required to be licensed by the State of Illinois. They may, however, be licensed by a local government, if a hauler licensing ordinance has been enacted in a governmental unit.

## Cost to build landfills requires investments

Developing a landfill requires enormous investments in land and equipment, plus engineering expenses, fees to state and local governments, taxes, typical operating costs and additional dollars set aside for post-closure care. Consideration will need to be made of costs to design, build, permit, operate and conduct post-closure care at a landfill. Ownership of a landfill is a big enterprise.

## Six publicly owned and operated facilities are active in Illinois; landfill capacity increased 10.1 percent

The six publicly owned facilities open in Illinois are owned by the City of Salem; the City of Rochelle; Jointly City and County of Peoria; Knox County, Whiteside County and Will County. Only the City of Salem and Knox County continue to operate their own landfills. The rest of the active landfills accepting waste besides these six, are privately owned and operated.

Capacity remaining at 48 landfills on Jan. 1, 2009, increased 10.1 percent. The amount of more than one billion gate cubic yards of available capacity was up more than 100 million gate cubic yards from data reported a year earlier. This includes one new landfill permitted in Clinton.

## Gate Cubic Yards and Tons

Operators of Illinois landfills are required to report to the Illinois EPA the quantities of waste received during each calendar year. They must also calculate how much capacity remains available for future waste disposal as of January 1st of the following year.

These figures are submitted to the Agency in "gate cubic yards," or the volume of waste entering the landfill's gate. Remaining capacities are expressed as *certified* gate cubic yards, meaning that calculations have been certified as true and accurate by a licensed professional engineer. These figures are found on landfill specification pages in each of seven regional sections in this report.

The term "in-place cubic yards" is used to indicate wastes that have been compressed to a half or a third or a quarter of their original volume, depending on the degree of compaction achieved by the operator.

Gate cubic yards can be difficult to visualize. To aid the reader, we have divided gate cubic yards by an industry standard of 3.3 to achieve approximate tons. In other words, **3.3 gate cubic yards = one gate ton.**

## Illinois EPA Permit Approval for Two New Landfills that Opened in Summer 2009

Region	Landfill	Municipality	Status	Details	Design Airspace (cu. yds.) <sup>1</sup>
Three: Peoria Quad Cities	Atkinson Landfill	Atkinson	Open August 2009	New landfill operational permit issued, 7-24-09	11,600,000
Four: East Central Illinois	Clinton Landfill #3	Clinton	Open 7-14-09	New landfill operational permit issued, 9-30-08	32,014,225
<b>Total</b>					<b>43,614,225</b>

<sup>1</sup> Includes space for waste, intermediate or daily cover (in-place cubic yards).

## Illinois EPA Permit Approval for Expansion of Existing Landfills after Jan. 1, 2009\*

Region	Landfill	Municipality	Status	Details	Design Airspace (cu. yds.) <sup>1</sup>
One: Northwestern Illinois	Rochelle Municipal Landfill No. 2	Rochelle	Pending	Horizontal (50 ac.)	9.2 million
Two: Chicago Metro Area	Laraway RDF	Elwood	Pending	Horizontal	18.2 million
Three: Peoria/Quad Cities	Indian Creek Landfill No. 2	Hopedale	Approved 2-26-09	Vertical and Horizontal expansions (86.11 ac.)	16.1 million
<b>Total</b>					<b>43.5 million</b>

<sup>1</sup> Includes space for waste, intermediate or daily cover (in-place cubic yards). \*Capacity not included in Jan. 1, 2009 figure.

### Landfills are developed cell by cell

Landfills are divided into sections called phases or cells, which are developed as needed, filled systematically so that specific loads of waste can be located weeks or months later, and covered with soil or other materials to prevent the spread of odors and problems with animals.

Trucks arriving at a landfill are inspected for prohibited nonhazardous wastes and for hazardous wastes that state law bans from landfilling including: bulk liquids, landscape wastes, lead acid batteries, potentially infectious medical waste, used motor oil, white good components and whole used tires. Loads are weighed and details about them are recorded. They are then taken to the exposed portion of the active cell, which is known as the working face.

Trucks empty their loads at the working face where specially designed bulldozers spread and compact the waste, crushing it to eliminate air pockets and squeezing it into the smallest space possible.

A ranking of these active facilities found in Appendix A reports the top four active landfills received 37 percent of waste landfilled in Illinois.

### Permanent landfill closings affect local capacity

Several landfills reached their capacity limit and closed their gates during 2006, 2007 and 2008. In Region 2: Settler's Hill RDF, Batavia, ceased accepting waste on Dec. 29, 2006, and was certified closed on Apr. 8, 2008. After the landfill closed, transfer stations opened nearby in Batavia and Elgin. Congress Development Company, Hillside, closed on Jan. 31, 2008.

In Region 3, Tazewell RDF, East Peoria, ceased accepting waste on Dec. 8, 2006, and certified closed on Dec. 13, 2007. A transfer station opened at the closed landfill location in January 2008.

The landfill in Charleston accepted waste into 2009. In Region 4, ERC/Coles County Landfill, Charleston, closed on April 30, 2009, and is now undergoing the closure process.

### Professional Associations and web sites

Illinois Recycling Association

[www.illinoisrecycles.org](http://www.illinoisrecycles.org)

Illinois Counties Solid Waste Mgt. Assoc.

[www.ilcswma.org](http://www.ilcswma.org)

Solid Waste Association of North America

[www.swana.org](http://www.swana.org)

[www.swanaillinois.com](http://www.swanaillinois.com)

### U.S. EPA's Region 5 RCRA hotline in Chicago: 800-621-8431

<http://www.epa.gov/oswer>

### Landfills close, 2006-2008

<u>Landfill</u>	<u>Municipality</u>	<u>Date of Closure</u>
CID RDF #3*	Calumet City/Chicago	12-31-07
Congress Dev. Co.	Hillside	1-31-08
Settler's Hill	Batavia	12-29-06
Tazewell RDF	E. Peoria	12-8-06

\*Site #4 remains open to accept hazardous and special wastes from some customers.

### Landfill closing in 2009:

ERC/Coles County Landfill ceased accepting waste as of 4-30-09.

## Inactive landfills may “temporarily close”

Streator Area Landfill #3, Streator, has a permit application for a horizontal expansion of 4.7 million cubic yards of airspace that is currently under Agency review. The operator chose to temporarily close. On Apr. 28, 2006, the RCS Landfill Inc., Jerseyville, also went inactive, for business reasons and continues inactivity. Saline County Landfill, Harrisburg, also ceased accepting waste on June 7, 2006, and the operator declared to Illinois EPA that it was “temporarily closed,” and still is.

The total number of Illinois landfill operators that reported available capacity to Illinois EPA then, as of Jan. 1, 2009, was 48, but this number includes the three inactive and temporarily closed landfills named above.

## Two landfills permitted to open; Summer 2009

A new facility called Clinton Landfill #3 is located near the currently operating Clinton Landfill #2. Although permitted to operate on Sept. 30, 2008, the site actually opened in July 2009. Its capacity is included in the Jan. 1, 2009 figures as “available”.

Another “new” landfill is actually considered to be a re-opening of a previously active landfill named Henry County Landfill #2. At this site, a lateral expansion of 78.2 acres and a vertical expansion of 45.7 acres was approved by Illinois EPA to develop on Jan. 16, 2004 and to operate on July 24, 2009. The site was re-named for the town it is located in, Atkinson Landfill. Its capacity was not included in the Jan. 1, 2009 figure as “available” capacity. The site actually opened in August 2009.



*ERC/Coles County Landfill ceased accepting waste in April 2009, and a transfer station took its place at the same location, under a different owner/operator.*

## Inactive landfills temporarily closed, 2005-2009

<u>IEPA Region</u>	<u>Landfill*</u>	<u>Date of Inactivity</u>
Region 4	Streator Area LF #3	4-9-05
Region 5	RCS Landfill Inc.	4-28-06
Region 7	Saline Co. LF	6-7-06

\*Still reporting capacity as of Jan. 1, 2009

## Acronyms Used in this Report

AKA	Also known as
CS or CF	Compost site or compost facility
CY or Cu.Yd.	Cubic Yard (may be gate or in-place)
ES	Environmental Services
LF	Landfill
LSW	Landscape waste
MW	Midwest
MRRF	Material Recycling and Recovery Facility
MSL	Mean sea level
PPD/PCD	Pounds per person per day/Pounds per capita per day
RDF	Recycling and Disposal Facility
RTF	Recycling and Transfer Facility
SMO	Significant modification to operate (permit)
TPD	Tons per day
TPY	Tons per year
TS	Transfer station

## New landfills open in Regions 3 and 4

<u>Landfill</u>	<u>Municipality</u>	<u>Opening Date</u>
Atkinson LF*	Atkinson	August 2009
Clinton LF #3	Clinton	7-14-09

\*Capacity not reported as “available” on Jan. 1, 2009

## Two Waste Companies Merge

Republic Industries Inc. (ranked #3) purchased Allied Waste Industries Inc. (ranked #2) on Dec. 5, 2008. Changes in contact persons are noted on the specification pages in each region.

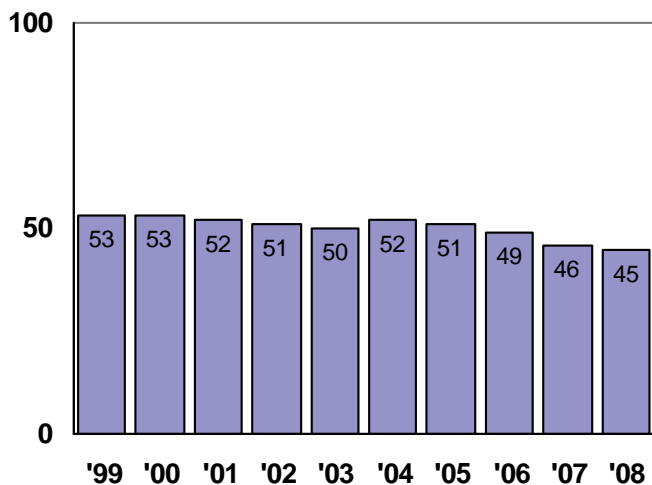
## Regional Capacity Shortages Noted also Fewer Facilities

At the end of each year, Illinois landfill operators calculate how much waste they will be able to accept in the future. This volume is known as remaining or available capacity, and is expressed in gate cubic yards, meaning waste received at the landfill's scalehouse before it is compacted. One industry rule of thumb says 10 gate cubic yards of waste can be compressed into five compacted cubic yards. Obviously, the greater the compaction, the more waste that can be buried.

In 2008, 45 landfills reported accepting more than 50 million gate cubic yards of waste from Illinois counties and 13 other states, besides Illinois. The one billion gate cubic yards of available capacity allows for 22 years of landfill life statewide, though the range varies from 10 years in the Chicago Metropolitan area to 54 years in Southern Illinois.

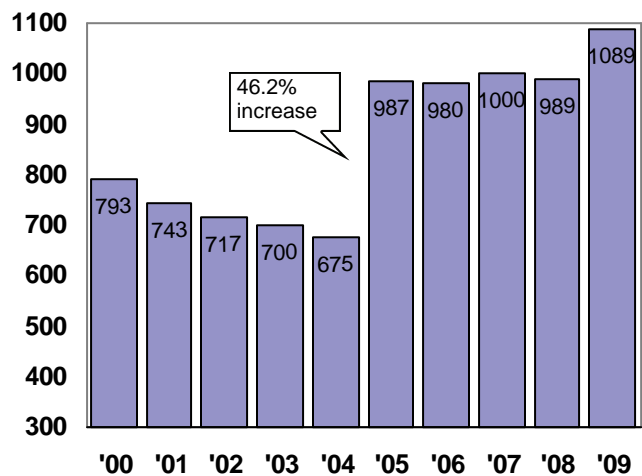
### Tight Regulations Force Closures

Active landfills accepting waste each year



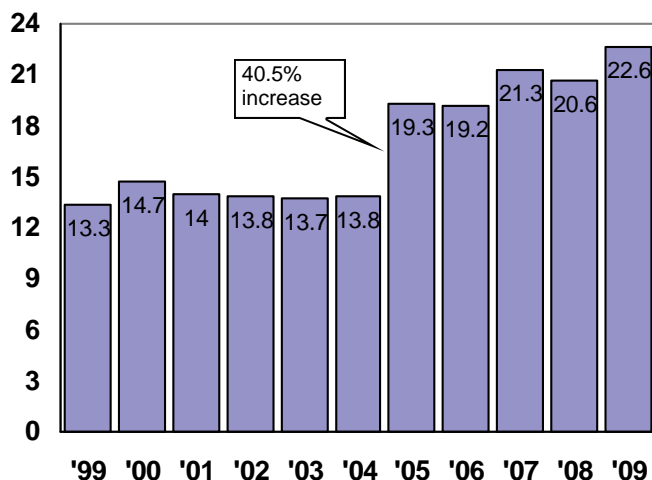
### Pushing Survivors to Build Capacity

Total available landfill space, millions of gate cubic yards



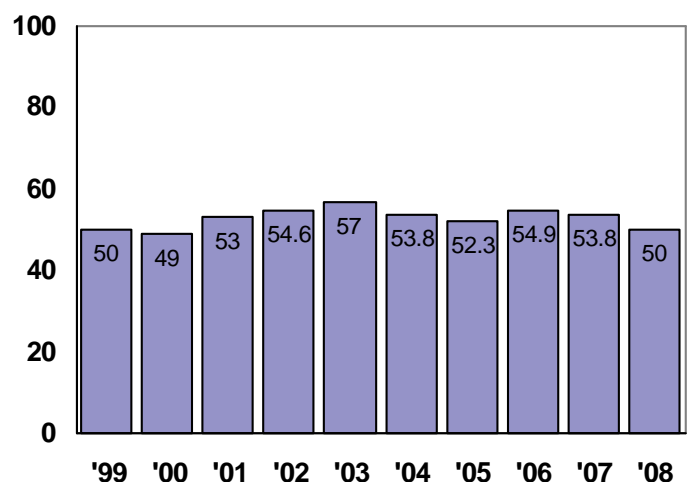
### Average Landfill Capacity Increases

Millions of gate cubic yards



### While Disposal Rates Remained Constant

Wastes landfilled, millions of gate cubic yards

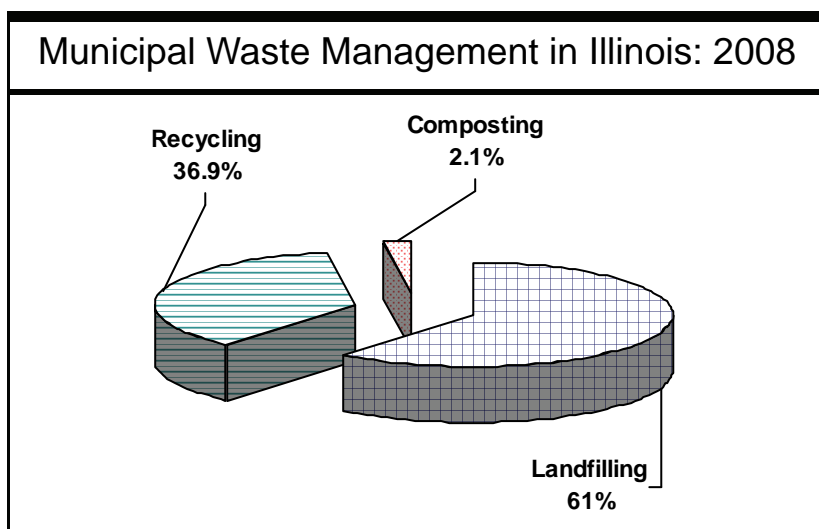


## Municipal waste management in Illinois: 2008

Landfilling continues to play the largest role in the handling of municipal waste in Illinois. It is estimated that 61 percent of the waste stream was landfilled in 2008. Waste data collected from landfill operators (more than 15.1 million gate tons), and compost site operators (497,421 tons), and the amount reported as recycled by local recycling coordinators (9.1 million tons) were added together for a total of 24.8 million tons. Percentages for each category were calculated.

Waste generation, as calculated by recycling coordinators, does not include the amounts of landscape waste land applied on-farm at agronomic rates on seven farms in Illinois and any household management of municipal waste. No waste was burned in commercial municipal waste incinerators in Illinois during 2008.

Municipal waste management in Illinois then computes to the following rates: landfilling: 61 percent; recycling: 36.9 percent and composting: 2.1 percent. These figures are outlined below in a pie chart.



## State of Origin of Wastes Received at Illinois Landfills in 2008<sup>1</sup>

Of all solid waste landfilled in Illinois in 2008, 12.5 percent comes to Illinois from out-of-state. Waste haulers are not required by state law to report how much Illinois waste they transported to landfills in other states or from which counties (in Illinois) waste is transported.

Most states exporting waste to Illinois are neighbors of Illinois and share its borders.

State of Origin	Cu. Yds.	Percent
Missouri	4,931,747	78.9
Iowa	1,011,587	16.2
Indiana	133,326	2.1
Wisconsin	127,605	2.1
Other States <sup>2</sup>	22,953	0.4
Kentucky	20,417	0.3
<b>Total</b>	<b>6,247,635</b>	<b>100%</b>

<sup>1</sup> 22 landfills accepted some waste from other states in 2008.

<sup>2</sup> Other states include: Arkansas, Kansas, Michigan, Minnesota, Mississippi, Nebraska, Oklahoma and Tennessee.

## Illinois Landfills: Waste Accepted in 2008 Versus 2007

Region	Landfills Accepting Waste 2008 <sup>1</sup>	Waste Accepted, Gate Cu. Yds.		Yearly Change		2008 Waste Share of State Total
		2008 <sup>2</sup>	2007 <sup>3</sup>	Cu. Yds.	Percent	
One: Northwestern Illinois	7	15,985,871	14,936,309	+ 1,049,562	+ 7.0	32.0
Two: Chicago Metropolitan	8	9,103,584	13,124,649	- 4,021,065	- 30.6	18.2
Three: Peoria/Quad Cities	8	4,903,367	5,110,644	- 207,277	- 4.1	9.8
Four: East Central Illinois	8	6,775,011	7,914,747	- 1,139,736	- 14.4	13.5
Five: West Central Illinois	4	1,859,265	1,732,396	+ 126,869	+ 7.3	3.7
Six: Metropolitan East St. Louis	5	9,330,866	8,873,337	+ 457,529	+ 5.2	18.7
Seven: Southern Illinois	5	2,045,536	2,090,960	- 45,424	- 2.2	4.1
<b>Totals</b>	<b>45</b>	<b>50,003,500</b>	<b>53,783,042</b>	<b>- 3,779,542</b>	<b>- 7.0</b>	<b>100</b>

<sup>1</sup> Includes facilities that accepted municipal waste for less than one complete calendar year.

<sup>2</sup> Includes 6,247,635 cubic yards of out-of-state waste (12.5% of state total) accepted by 22 Illinois landfills during 2008.

<sup>3</sup> Includes 7,025,215 cubic yards of out-of-state waste (13% of state total) accepted by 24 Illinois landfills during 2007.

## Illinois Landfills: Remaining Capacities Jan. 1, 2009 Versus Jan. 1, 2008

Region	Landfills Reporting Capacity 1-1-09	Reported Capacity, Gate Cu. Yds.		Yearly Change		Capacity Share of State Total
		1-1-09	1-1-08	Gate Cu. Yds.	Percent	
One: Northwestern Illinois	7	274,601,000	223,532,000	+ 51,069,000	+ 22.8	25.2
Two: Chicago Metropolitan	7	88,969,000	94,630,000	- 5,661,000	- 6.0	8.2
Three: Peoria/Quad Cities	8	201,395,000	208,187,000	- 6,792,000	- 3.3	18.5
Four: East Central Illinois	10	226,189,000	150,680,000	+ 75,509,000	+ 50.1	20.8
Five: West Central Illinois	5	43,358,000	47,555,000	- 4,197,000	- 8.8	4.0
Six: Metropolitan East St. Louis	5	144,408,000	150,834,000	- 6,426,000	- 4.3	13.3
Seven: Southern Illinois	6	109,841,000	113,172,000	- 3,331,000	- 2.9	10.1
<b>Totals</b>	<b>48</b>	<b>1,088,761,000</b>	<b>988,590,000</b>	<b>+ 100,171,000</b>	<b>+ 10.1</b>	<b>100</b>

### Expansions Approved: 2007

ADS/McLean Co. Landfill, Bloomington: 14.9 ac. lateral expansion approved on 3-13-07

Laraway RDF, Elwood: vertical expansion of 497,300 cu. yds. approved on 10-30-07

### Expansions Approved: 2008

Rochelle Municipal LF #2, Rochelle  
Winnebago LF, Rockford

### Capacity increase of 10.1 percent documented on Jan. 1, 2009

In a year that brought landfill capacity up by 10.1 percent, two regions reported an increase of capacity. There was more than one hundred million gate cubic yards increase year to year. Region One reported an increase in capacity of 22.8 percent. However, Region 4's capacity increased the most at 50.1 percent. The other five regions reported capacity declines ranging from 2.9 to 8.8 percent. The table above compares landfill remaining capacities in "snapshots" taken on Jan. 1, 2008 and Jan. 1, 2009.

### Chicago's waste affects other region's capacity

Regional waste disposal and landfill capacities are shown on a per capita basis in the table below. There is a moratorium against landfills within Chicago's city limits. Land prices are high in Chicago. Waste generated by Chicago Metropolitan region's population may become problematic for other Illinois counties and nearby states. Capacity available at landfills in at least two adjacent states, Indiana and Wisconsin, may also be affected.

## Waste Disposed and Landfill Capacity Per Capita; Landfill Life Expectancy

Region	Estimated Population	Waste Disposed, Cu. Yds. <sup>1</sup>		Remaining Capacity, Cu. Yds.		Landfill Life Years <sup>2</sup>
		2008	Per Capita	Jan. 1, 2009	Per Capita	
One: Northwestern Illinois	831,447	15,985,871	19.2	274,601,000	330.3	17
Two: Chicago Metropolitan	8,804,304	9,103,584	1.0	88,969,000	10.1	10
Three: Peoria/Quad Cities	760,204	4,903,367	6.5	201,395,000	264.9	41
Four: East Central Illinois	896,723	6,775,011	7.6	226,189,000	252.2	33
Five: West Central Illinois	562,537	1,859,265	3.3	43,358,000	77.1	23
Six: Metropolitan East St. Louis	726,998	9,330,866	12.8	144,408,000	198.6	15
Seven: Southern Illinois	436,670	2,045,536	4.7	109,841,000	251.5	54
<b>Totals</b>	<b>13,018,883</b>	<b>50,003,500</b>	<b>3.8</b>	<b>1,088,761,000</b>	<b>83.6</b>	<b>22</b>

<sup>1</sup> Amounts are reported in gate cubic yards.

<sup>2</sup> Landfill life in years means remaining capacity divided by waste disposed. Tells how long a region may be served by local landfills at current disposal rates, barring capacity adjustments, until capacity is depleted.

## National Solid Waste Management Figures for 2007 Reported by U.S. EPA <sup>1</sup>

Number of municipal solid waste landfills in the US (2006)		1,754		
Average number of landfills per state			35	
	<b>Million Tons</b>		<b>Percent</b>	<b>PPD <sup>2</sup></b>
Waste generated	254.1		100%	4.62
Waste recycled and composted	85.0		33.4%	1.54
Waste recycled	63.3		24.9%	1.15
Waste composted	21.7		8.5%	0.39
Waste landfilled and combusted	169.1		66.6%	3.38
Waste landfilled	137.2		54%	2.5
Waste combusted	31.9		12.6%	0.58

<sup>1</sup> Source: *Municipal Solid Waste in the United States: 2007 Facts & Figures*, U.S. EPA Office of Solid Waste and Emergency Response, Nov. 2008

### National municipal waste data is available for 2007

National solid waste data published in November 2008 from a U.S. EPA report called *Municipal Solid Waste in the United States: 2007 Facts & Figures* said that nationwide 54 percent of solid waste was landfilled; 24.9 percent was recycled; 12.6 percent was incinerated; and 8.5 percent was composted. The report is found on-line at <http://www.epa.gov/epawaste/nonhaz/municipal/msw99.htm>.

This report contains information about waste generation and is published every other year. It categorizes the municipal solid waste stream by waste type.



Source reduction of waste means using an item such as this used tire for another use before final disposal. Here, a sweet potato vine is growing in a used tire next to a vegetable garden near Harrisburg.

### Municipal Waste Management Plans and Plan Updates

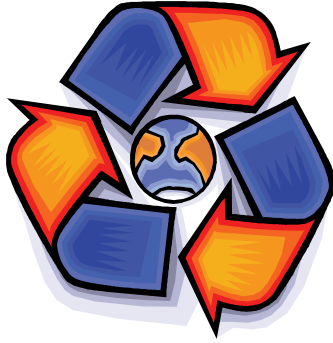
The Solid Waste Planning and Recycling Act requires all Illinois counties and the City of Chicago to develop, adopt and implement 20-year municipal waste management plans.

Every five years, each update must identify changes in planning areas, evaluate progress in the plan implementation and, if necessary, revise plan recommendations and goals. A county also has the option of updating its solid waste generation data. The plan is then submitted to Illinois EPA for review and comment.

See **Appendix D** for more information.

### Urban and rural local recycling efforts

Much of Illinois is rural and located some distance from recycling markets. However, in most of the heavily populated counties in the Chicago Metropolitan and Metropolitan East St. Louis areas, markets for recyclable materials are readily available.



### In Illinois, recycling information is county-based

County leadership designate solid waste coordinators who are asked each year to voluntarily answer an Illinois EPA survey and to provide a checklist of items that can be recycled. Fifty-two entities responded in 2008, for a 49 percent response rate.

In Illinois, all 102 counties and the City of Chicago are required under the Solid Waste Planning and Recycling Act to be responsible for solid waste management issues within their jurisdiction and to set local recycling goals.

### Municipal Waste Generated & Recycled

Region	Estimated Population	Waste Generated		Waste Recycled	
		Tons	PCD <sup>1</sup>	Tons	Percent
One: Northwestern Illinois	831,447	864,996	5.7	196,126	22.7
Two: Chicago Metropolitan	8,804,304	18,290,445	11.4	7,706,168	42.1
Three: Peoria/Quad Cities	760,204	979,200	7.1	291,214	29.7
Four: East Central Illinois	896,723	1,250,747	7.6	452,415	36.2
Five: West Central Illinois	562,537	1,015,123	9.9	228,126	22.5
Six: Metropolitan East St. Louis	726,998	665,118	5.0	224,347	33.7
Seven: Southern Illinois	436,670	375,465	4.7	59,869	15.9
<b>Total</b>	<b>13,018,883</b>	<b>23,441,094</b>	<b>9.9</b>	<b>9,158,265</b>	<b>39.1</b>

<sup>1</sup> PCD = Pounds per capita per day.

### Recycling Related Links

Links available for the following at <http://www.illinoisrecycles.com>

Illinois EPA's Household Hazardous Waste Collection Information

Illinois EPA's Partners for Waste Paint Solutions

Illinois EPA's Waste Tire Collection Information

Industrial Material Exchange Service

Illinois Counties Solid Waste Management Association  
<http://www.ilcswma.org>

Illinois Department of Agriculture's Agrichemical Container Recycling Information  
<http://www.agr.state.il.us/Environment/recycle.html>

Illinois Recycling Association  
<http://www.illinoisrecycles.org>

### Municipal waste is being recycled at a respectable rate

Illinois EPA relies on local governmental staff members to collect information concerning municipal waste generation and recycling. Municipal waste haulers who are licensed locally may be more willing to provide recycling and other waste generation data to local governmental staff who ask for it. However, not all haulers are licensed locally. None are licensed at the state level.

Under state law, counties and the City of Chicago municipal waste management plans must have a local goal that 25 percent of the municipal waste stream be recycled, if markets exist for the recyclable material.

In 2008, local recycling coordinators voluntarily reported to Illinois EPA that more than 9.1 million tons of municipal waste were recycled (see Appendix E). The State's recycling rate then, is at 39.1 percent.

### Municipal Waste Management Plans and Plan Updates

Questions should be directed to the appropriate local administrator listed in Appendix C. Due dates for submitting these updates to Illinois EPA are located in Appendix D. Appendix E reports the most current municipal waste generation and recycling data available.

## Waste may be “transferred” for further consolidation

In 2008, 68 of the 105 active transfer stations voluntarily reported handling more than 7.9 million tons of municipal waste, or 52.4 percent of the waste landfilled statewide.

The list of transfer stations below includes those that accepted waste for less than a complete year and those that transfer landscape waste only. All of these are inspected regularly by environmental inspectors.

### Transfer Stations: Waste Handled in 2008

Region <sup>1</sup>	Facilities	Tons
One: Northwestern Illinois	6	111,484
Two: Chicago Metropolitan	73	7,357,618
Three: Peoria/Quad Cities	5	93,979
Four: East Central Illinois	9	117,286
Five: West Central Illinois	3	95,384
Six: Metropolitan East St. Louis	4	30,951
Seven: Southern Illinois	5	136,797
<b>Total</b>	<b>105</b>	<b>7,943,499</b>

<sup>1</sup> Each region contains active sites that did not voluntarily report amounts of waste accepted.

Over the next decade, the number of transfer stations can be expected to increase, as will the amount of waste they will handle. The picture below shows activity at the Massac County Transfer, Metropolis, that opened under a new operator on Sept. 12, 2007.



## Alternative means of “disposal”

Municipal solid waste is the term used to describe the wastes discarded by America’s households, stores, offices, factories, restaurants, schools and other institutions. “Discarded” most often, to people, means disposed in Agency-permitted landfills. However, waste is also handled through other alternative means of solid waste management, such as recycling and composting, after it is collected by municipal waste haulers.

## Green Cleaning Schools Act information

The Green Cleaning Schools Act (Public Act 095-0084) became effective August 13, 2007, making Illinois the second state (after New York) to require the purchase and use of environmentally sensitive cleaning supplies in elementary and secondary schools with 50 or more students. The purpose of the Act is to protect school building occupants by improving indoor air quality and reducing harmful exposure to chemicals in cleaning products.

Find out more about the Green Cleaning Schools Act, at <http://www2.illinois.gov/green/Pages/Schools.aspx>

Questions regarding the Act or the guidelines and specifications should be directed to:

Eric Heineman  
Office of Governor Pat Quinn  
Phone: 312/814-5220.

## Composting increased by 24 percent in 2008

Landscape wastes have been banned from disposal in Illinois landfills since July 1, 1990. Twenty-eight (28) percent of the landscape waste collected in 2008 was managed at the top two compost sites: 1) Thelen Sand & Gravel Site #1, Antioch, and 2) BFI Modern Landfill Facility Compost Site #2, Belleville.

In 2008, the State's 39 compost facilities altogether processed 497,421 tons of landscape waste, a 24 percent increase from 2007's total of 401,127 tons handled at 40 sites.

Seventeen (43 percent) of the State's compost sites are located in the Chicago Metropolitan area. Six compost sites are located in the Metropolitan East St. Louis area. Clinton County Compost Site, opened in Centralia on Mar. 7, 2007. Land and Lakes Quarry Compost, Romeoville, opened for business on Mar. 4, 2008.



*There can be order in the chaos that is waste management. These long windrows of useful compost made from unwanted landscape waste are located at Thelen Sand & Gravel #1 Compost Facility, Antioch.*

### Compost Facilities: Waste Handled in 2008

Region	Active Facilities	Tons
One: Northwestern Illinois	4	54,074
Two: Chicago Metropolitan*	17	295,651
Three: Peoria/Quad Cities	5	22,732
Four: East Central Illinois	4	23,234
Five: West Central Illinois	1	195
Six: Metropolitan East St. Louis	6	99,144
Seven: Southern Illinois	2	2,391
<b>Total</b>	<b>39</b>	<b>497,421</b>

\*Includes one new facility in 2008

### Six facilities in Illinois are permitted to accept organic materials for composting:

Region	Site Name	City
One	Rare Earth Diversified Services	Walnut
Two	Thelen Sand & Gravel #3	Antioch
	Dumoulin Farm	Hampshire
Four	Eldon Steidinger Farm	Strawn
	Illinois State University Farm Compost	Lexington
Five	Cargill Meat Solutions	Beardstown

### Land application of landscape waste at seven farms

An increasing amount of landscape waste may also be managed by land application in Illinois in accordance with Section 21(q)(2) of the (Illinois) Environmental Protection Act. Application must not exceed 20 tons per acre per year. The Agency has knowledge of seven farms throughout Illinois that accepted landscape waste for land application in 2008. However, reporting of this data to the Agency is not required.

## Permitting requirements of Illinois EPA's Bureau of Land

New landfills or landfill expansions can only be built after the Bureau of Land issues a permit. A Bureau of Air permit for a landfill identified as a potential new source of air pollution must also be obtained. The Bureau of Water may regulate the surface water management plans for the facility.

An initial completeness review of a permit application normally takes 30 days. If omissions are found, the application is rejected as incomplete. The applicant then has 35 days to provide additional information to make an application complete. Once an application is found to be complete, technical reviews are conducted.

## Approval or denial of Bureau of Land permit applications

During the review period, comments are solicited from Bureau of Land's Regional Office, Groundwater Assistance Unit and the Solid Waste Unit. After review of the application, the addenda, and comments from public officials, the general public and the regional office, final action is ready to be taken.

If the reviewers have found the application to completely adhere to applicable environmental regulations, the permit is approved with special conditions. If the application is deficient, the Permit Section denies the permit.

Rather than sending out a formal denial letter, the reviewer prepares a draft denial letter which explains the areas in the application that are deficient. The applicant has a choice of either providing some additional information in the form of an addendum to the original application or asking the reviewer for a formal denial that could be appealed to the Illinois Pollution Control Board. Additional information is usually provided by the applicant. Approval or denial of a permit application for a new facility or expansion takes 180 days, unless an extension is granted.

If the permit is denied, an owner/operator could submit a new application, appeal the Agency's denial of the permit through the Illinois Pollution Control Board or they could abandon the project. Most applicants choose to submit a new application, starting the 180 day process over again.

Permits for landfills contain detailed requirements for the design, construction, capacity and operation of the landfills. They also contain stringent requirements for monitoring the groundwater beneath and around the landfill to detect releases from the landfill that would adversely impact the quality of the groundwater. Finally, the permit contains detailed requirements to properly "close" the landfill once it has been filled to permitted capacity and to provide for proper care of the landfill after it has been closed.

Periodically, the owner/operator of a landfill must modify the facility's permit prior to changing facility plans or procedures. These modifications may address many things, including changes in

## How to Check Status of Bureau of Land Permit Applications on the Internet

Permit application forms are found on-line at <http://www.epa.state.il.us/land/forms>.

Once the Agency receives a permit application, the Bureau of Land, Permit Section (Section), proceeds with their review. One of the databases available to everyone on the Internet is the Solid Waste Unit's web database search. With this database, one can determine the status of permit applications that have been submitted, and who the permit reviewers are and how to contact them.

A Solid Waste Unit web database search located at <http://epadata.epa.state.il.us/land/solidwaste> is designed to inform the public about applications submitted, or permits obtained from the Bureau of Land (BOL). The Section issues permits for the management of non-hazardous waste at landfills, transfer stations, compost and waste storage, treatment, processing and recovery facilities. On the search results page, the log number is linked to a brief description of the application. The main identifiers for applications are:

1. any part of the BOL name of the site
2. the closest city to the site or
3. the county where the facility is located.

Choose search method from "Active" or "Inactive" applications:

"Active" means an application is pending for the site. "Inactive" means that there are no applications currently pending, but there may be applications for which the Section has taken final action (issued, denied or withdrawn).

Further searches may be made by city, county or site name.

For more help in using this database search, contact the BOL Permit Reviewer on call at 217-524-3300. ♦

## **Financial Assurance Requirements**

Funding for landfill closure, post-closure maintenance and corrective action must be provided by the landfill owners and operators, ensuring costs are not borne by taxpayers. Many different mechanisms are available to help landfill owners prove now that they will be able to pay later.

Financial assurance mechanisms for landfill closure and long-term care fall into three broad categories: cash-in-hand, trust funds or escrow accounts; third-party insurance, including letters of credit and surety bonds; and various types of self-insurance. Self-insurance can include a financial test, a guarantee by a parent corporation or government entity, or deferred funding in the form of pledge of revenues. The state can further determine which mechanisms are allowable for publicly and privately owned landfills and how landfill owners and operators must provide accounting.

Closure and long-term cost estimates are revisited annually for active and closed landfills. For those which closed under Part 807 regulations, review takes place every two years. Costs are updated based upon the remaining post-closure care period and adjusted for inflation. The funds available must be adequate to cover the projected costs.

For more information about Illinois regulations regarding financial assurance for landfills, contact Brian White, Bureau of Land, at 217-785-8604. ♦

construction and/or operational practices; construction of cells within the permitted landfill boundaries; and groundwater monitoring issues. (These applications have a 90-day review period.)

### **More recent permit actions noted in tables**

This report documents significant permit actions. However, only those permit actions which change the items mentioned in the “Facility Facts” section of the landfill specification pages are acknowledged. Footnotes on each facility specification page show permit actions made during 2006, 2007 and 2008. A table entitled “Illinois EPA Permit Approval for Two New Landfills that Opened in summer 2009” is found on page one. There is also a table on page two entitled “Illinois EPA Permit Approval for Expansion of Existing Landfills after Jan. 1, 2009”, that presents more details about vertical or horizontal (lateral) expansions more recently approved.

### **Closure and post-closure care period**

Once a landfill has received its permitted volume of waste, it must be “closed” in accordance with an approved plan and with Illinois landfill regulations. Proper closure of a landfill includes establishing a proper grading plan to allow for precipitation to run off the landfill; constructing a final cover over the waste to minimize the amount of precipitation that can infiltrate the landfill; establishing a vegetative cover system over the final cover system to minimize erosion; and finalizing the gas and leachate management systems to ensure that gas and leachate generated in the landfill after the landfill is closed are properly managed. Closure activities, depending on the site, may include: capping the landfill; installing monitoring devices if they are not already in place; providing topsoil, seeding and mulching as necessary; and possibly converting the land for follow-up use.

After a landfill has been properly closed and approved by the Illinois EPA, the minimum post-closure care period is 30 years. Proper post-closure care includes maintaining the vegetative cover to ensure it does not erode; monitoring the groundwater to ensure there have been no releases due to the landfill; and removing the gas and leachate generated in the landfill to ensure that they do not have adverse impacts on the area surrounding the landfill.

Routine post-closure care continues for at least 30 years after the landfill closure certification is approved and includes maintaining the surface cover; monitoring gas produced; flaring or collecting any gas; monitoring, pumping and transporting any leachate; and monitoring groundwater. Cost estimates for both closure and post-closure care must be based on an engineering estimate of the cost for a third party to perform the necessary work and maintenance. Financial assurance is also required for corrective action measures, such as remediation of groundwater contamination.

## **U.S. EPA's Landfill Methane Outreach Program (LMOP)**

U.S. EPA has also established a voluntary program to reduce methane emissions from landfills. This program, known as the Landfill Methane Outreach Program (LMOP), (<http://www.epa.gov/lmop>) works with companies, utilities, and communities to encourage the use of landfill gas for energy.

This voluntary assistance program helps to reduce methane emissions from landfills by encouraging the recovery and use of landfill gas as an energy resource. LMOP forms partnerships with communities, landfill owners, utilities, power marketers, states, project developers, tribes and non-profit organizations to overcome barriers to project development by helping them assess project feasibility, find financing, and market the benefits of project development to the community. U.S. EPA launched LMOP to encourage productive use of this resource as part of its commitment to reduce greenhouse gas emissions under the United Nations Framework Convention on Climate Change.

For more information about LMOP projects in Illinois, contact Swarupa Ganguli at U.S. EPA's Washington, D.C. headquarters 202/343-9232 or e-mail to [ganguli.swarupa@epa.gov](mailto:ganguli.swarupa@epa.gov)

## **Nonhazardous Solid Waste Management and Landfill Capacity in Illinois: 22nd Annual Report (2008)**

Section 4 of the Illinois Solid Waste Management Act requires the Agency to “publish a report regarding the projected disposal capacity available for solid waste in sanitary landfills. . . . Such reports shall present the data on an appropriate regional basis. . . [and] shall include an assessment of the life expectancy of each site.”

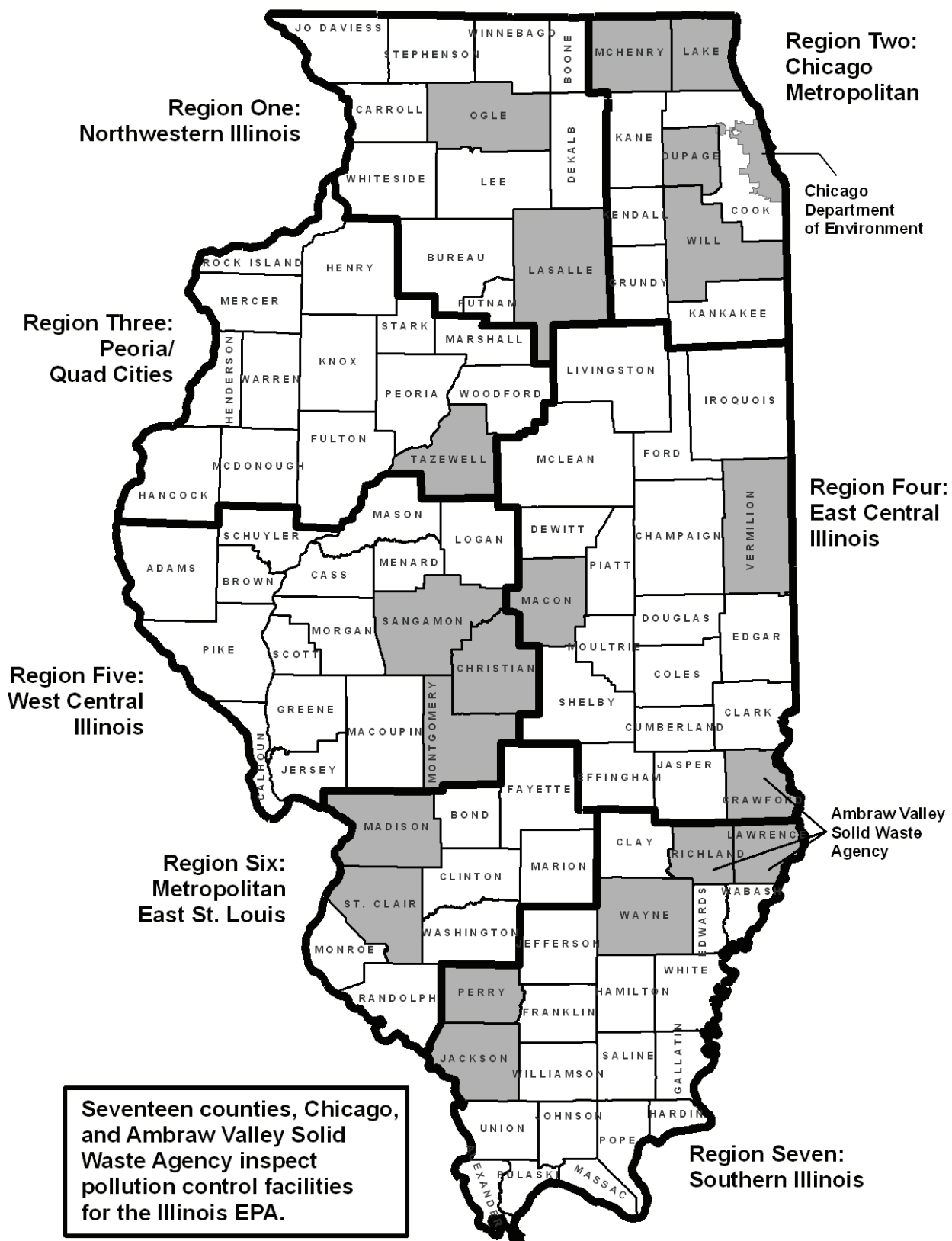
This legislative mandate explains why the main body of this report is organized by seven Illinois EPA administrative regions, and why landfill capacity and life expectancy are emphasized in nearby tables and charts, and in text, tables, map symbology and landfill specification pages in the regional sections.

### **Conclusion**

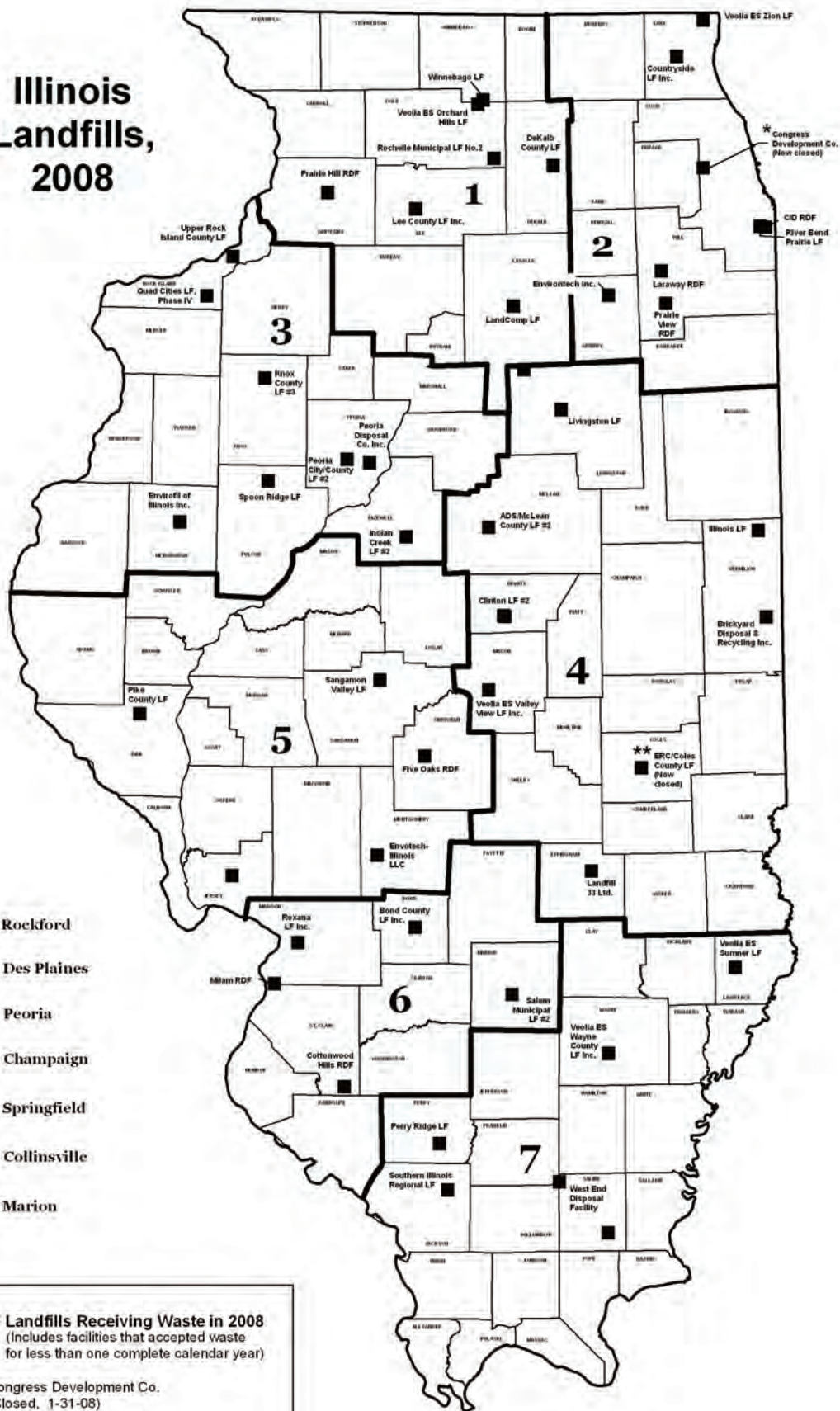
For more details about solid waste management throughout the seven Illinois EPA administrative regions of Illinois, see the body of the document on pages R1.1 through R7.17.

The seven administrative regions are Region 1: Northwestern Illinois; Region 2: Chicago Metropolitan; Region 3: Peoria/Quad Cities; Region 4: East Central Illinois; Region 5: West Central Illinois; Region 6: Metropolitan East St. Louis and Region 7: Southern Illinois. ◆◆

**Local Agencies Delegated to Inspect Pollution Control Facilities for the Illinois EPA**



# Illinois Landfills, 2008



- 1 Region 1 Rockford
- 2 Region 2 Des Plaines
- 3 Region 3 Peoria
- 4 Region 4 Champaign
- 5 Region 5 Springfield
- 6 Region 6 Collinsville
- 7 Region 7 Marion

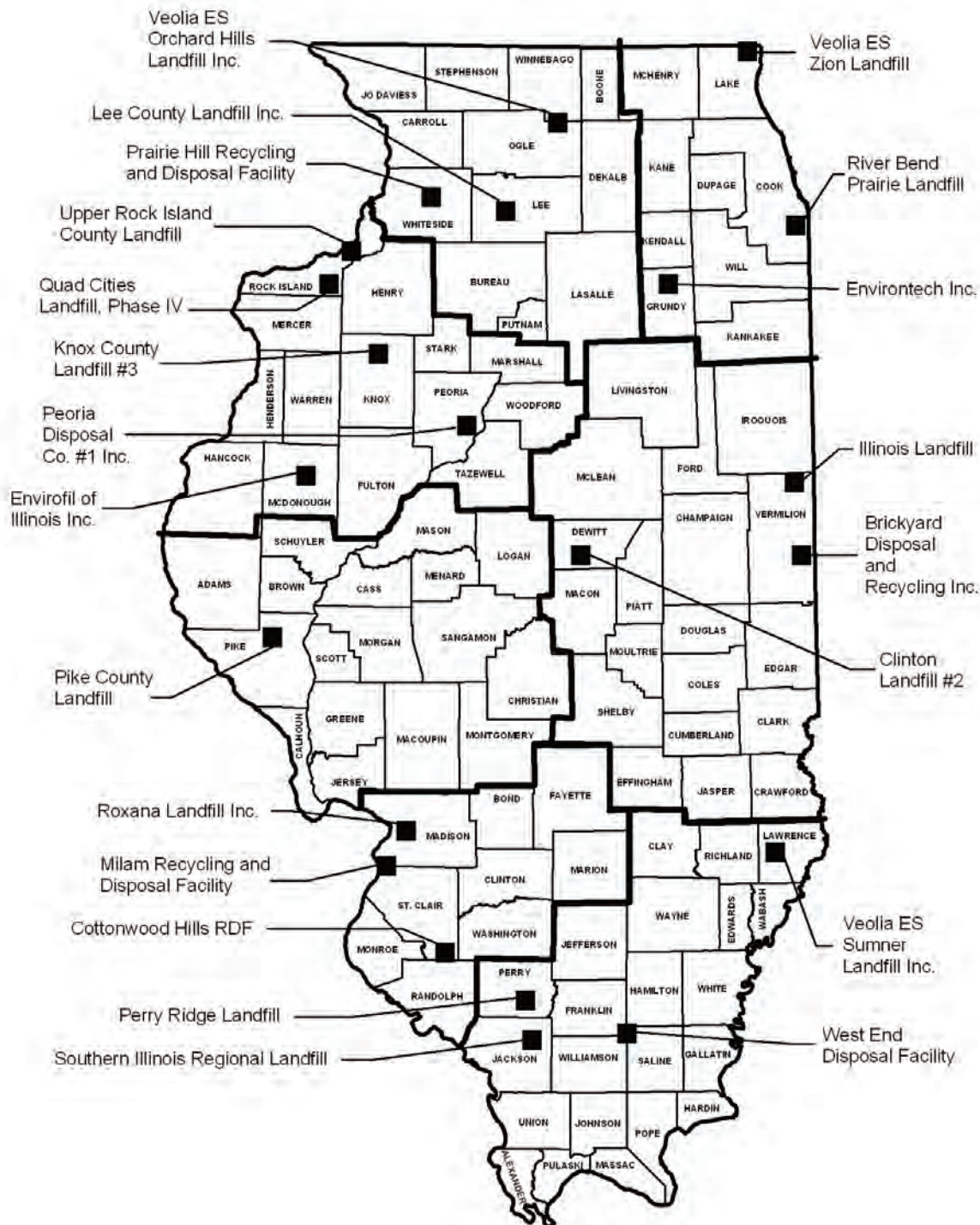
45 Landfills Receiving Waste in 2008  
 (Includes facilities that accepted waste for less than one complete calendar year)

\* Congress Development Co.  
 (Closed, 1-31-08)

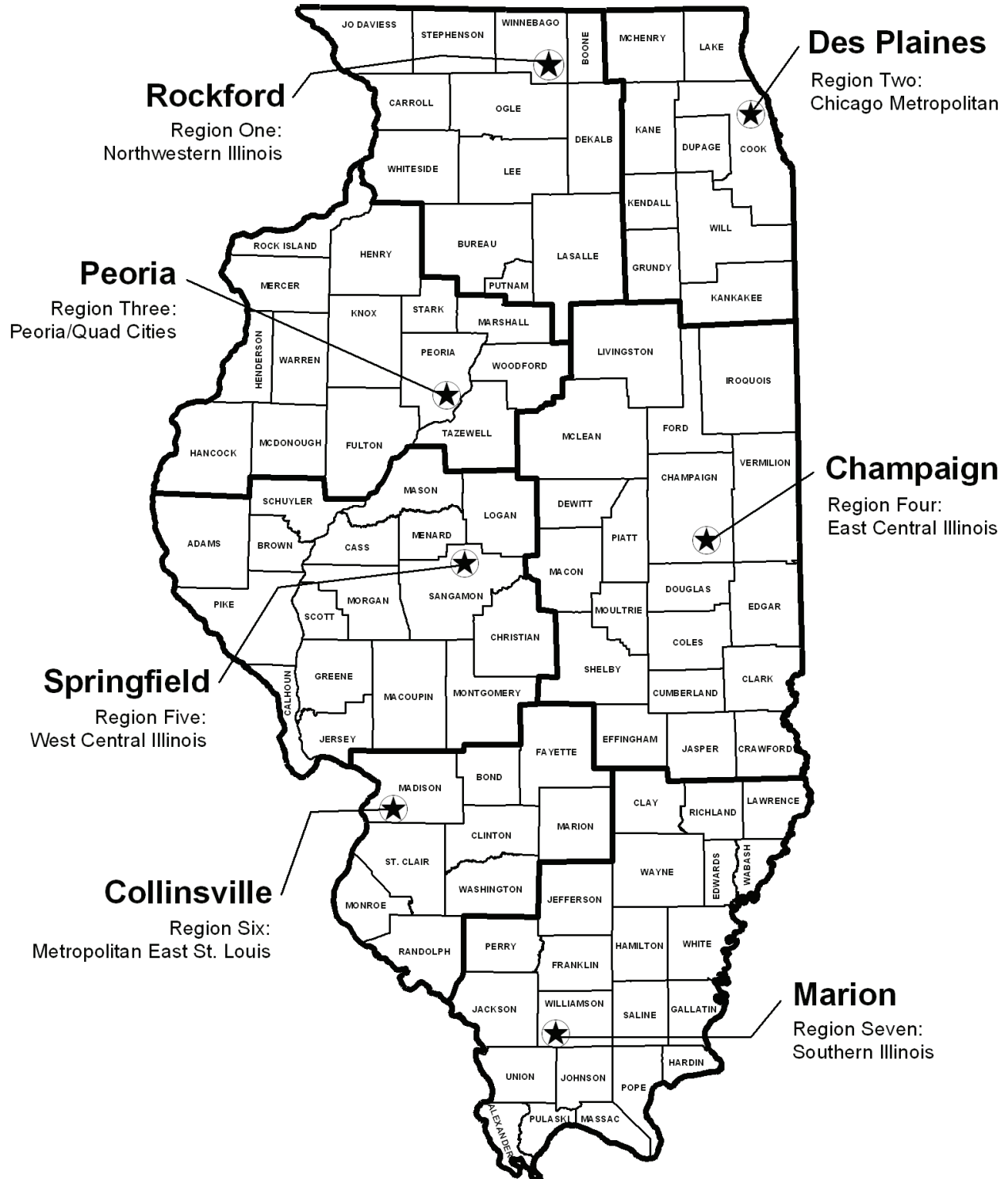
\*\* ERC/Coles County Landfill  
 (Closed, 4-30-09)

# Twenty-two Illinois Landfills Receiving Waste from Thirteen Other States in 2008

The States of Origin for the twenty-two (22) landfills accepting waste are: Arkansas, Iowa, Indiana, Kansas, Kentucky, Michigan, Missouri, Minnesota, Mississippi, Nebraska, Oklahoma, Tennessee and Wisconsin



# Illinois Environmental Protection Agency Administrative Regions



**Regional offices are located in Rockford, Des Plaines, Peoria, Champaign, Springfield, Collinsville and Marion**