

# McHENRY COUNTY SOLID WASTE STREAM ANALYSIS 2007



*Note: This report contains the most recent data available on solid waste in McHenry County. The 2008 report will not be ready until mid-2009 after the completion of the annual waste haulers licensing process.*

## **Introduction**

Every year, McHenry County gathers data on solid waste and recycling for the purpose of analyzing trends in the solid waste stream. Data for 2007 were collected primarily in conjunction with the licensing of McHenry County waste haulers. Other data came from township road districts and recycling facilities. The following is a summary of that data as well as other solid waste stream developments over the last year.

## **Plans and Ordinance Updates**

In 2007, McHenry County produced the *McHenry County Solid Waste Management Plan 15-Year Update*. This document was prepared pursuant to and in compliance with the *Illinois Solid Waste Planning and Recycling Act* (415 ILCS 15/1 et seq.) requiring that "each county waste management plan shall be updated and reviewed every 5 years." The *15-Year Update* included the latest solid waste and population figures available. Four recommendations were put forth:

1. Increase public awareness of recycling and conservation programs through the monthly "Recycling Roundup" column in the Northwest Herald newspaper.
2. Develop a "green" policies initiative to be adopted by the McHenry County Board that calls for environmentally friendly practices to be employed when feasible by McHenry County Government.
3. Pursue recycling and special waste disposal programs such as Household Hazardous Waste Collections and Used Tire Collections.
4. Create a forum for waste haulers to discuss solid waste issues and work toward greater accuracy and consistency in reporting annual hauling quantities.

Of these four recommendations, all have been acted upon in at least their initial stages. The "Recycling Roundup" column continues to appear every month. The McHenry County Board approved the McHenry County Green Policy, a document brought forward by county employees. A Used Tire Collection was conducted in 2007 while special waste disposal programs continue to be pursued by the department. And, one meeting of waste haulers has already been held to discuss issues.

Also in 2007, the McHenry County Board adopted a new open burning ordinance. Rules for burning landscape waste were revised and enforcement became the responsibility of the Health Department.

## **Economic and Environmental Updates**

Crystal Lake and Waste Management continue to work towards the creation of a waste transfer station to be located on Virginia Road near Illinois Route 31. Under the proposal, up to 1,000 tons of waste materials per day would be transferred within an enclosed building on the site. The waste brought in by garbage trucks would be placed in transfer trailers, which can be transported more efficiently over long distances. Because there are no active landfills in McHenry County, waste generated here is typically hauled greater distances than waste generated in counties with landfills.

## **The 2007 Data**

The majority of data in this report is based on numbers submitted by waste haulers that operate in McHenry County as a part of their annual licensing. Waste haulers are required to provide figures on quantities of discarded materials hauled in McHenry County and to where they are taken. Many haulers do not keep strict records on the specifics of hauled materials. It is not uncommon for reported data to be estimated by a hauler.

Remaining data were submitted by metal recycling facilities and township road district departments, which collect trash from road sides. Some road districts, most notably Algonquin Township Road District, sponsor special collections for items such as paint, tires and Christmas trees.

There was one special collection event in 2007. On June 8 and 9, the McHenry County Fairgrounds in Woodstock was the site of a Used Tire Collection. The collection yielded 6,980 tires, which filled 13 semi-truck trailers. Tires were brought in from 218 households, 13 townships, 4 municipalities and the county. This event was part of an Illinois EPA program that was co-sponsored by the McHenry County Department of Planning and Development and the McHenry County Farm Bureau. Other agencies that made this event possible include the McHenry County Fair Association, the McHenry County Division of Transportation, and several township highway departments.

**Overview of the Solid Waste Stream**

The quantities of materials reported are called “discarded materials” and are comprised of municipal waste, recyclables and compostable materials. In 2007, the reported amount of discarded materials generated in McHenry County was 382,554 tons.

*Solid Waste Stream Overview 2001 – 2007*

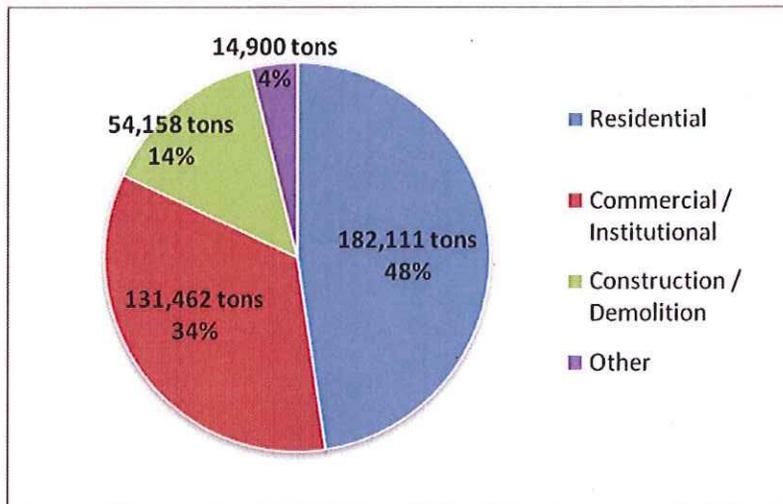
|   | 2001    | 2002    | 2003    | 2004    | 2005                 | 2006    | 2007    |
|---|---------|---------|---------|---------|----------------------|---------|---------|
| <b>Total Discarded Materials<br/>-in tons</b>     | 305,708 | 320,981 | 312,375 | 335,444 | 331,370 <sup>3</sup> | 392,874 | 382,554 |
| <b>Recyclables -in tons<sup>1</sup></b>           | 86,685  | 108,373 | 89,881  | 129,112 | 84,562 <sup>3</sup>  | 81,506  | 96,725  |
| <b>Recycling Rate</b>                             | 28.4%   | 33.8%   | 28.8%   | 38.5%   | 25.5% <sup>3</sup>   | 20.7%   | 25.3%   |
| <b>Population<sup>2</sup></b>                     | 268,208 | 281,165 | 286,091 | 296,389 | 303,990              | 312,373 | 315,943 |
| <b>Discarded Materials<br/>-pounds/person/day</b> | 6.25    | 6.26    | 6.07    | 6.20    | 5.97 <sup>3</sup>    | 6.89    | 6.63    |

1 Beginning in 2003, total recyclables include landscape waste hauled to composting sites  
 2 Estimates from Northeastern Illinois Planning Commission and the U.S. Census Bureau  
 3 Figures revised based on information received 07/2007 from the waste hauler Groot

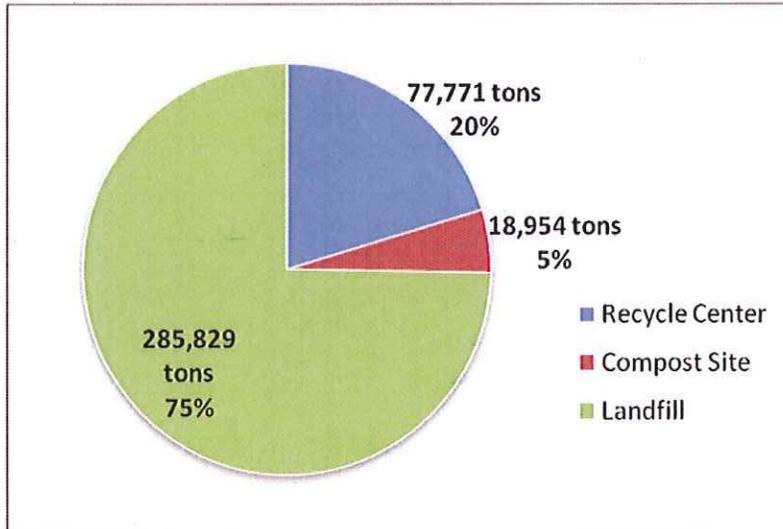
**Solid Waste Generation, Disposal, and Recycling**

Solid waste amounts are reported by source. The pie chart on the left shows quantities generated by the residential, commercial/institutional and construction/demolition sectors. Discarded materials are collected and transported to one of three possible destinations: landfills, recycling centers or composting sites. The destination of discarded materials in McHenry County is shown in the pie chart on the right.

**Where Discarded Materials Were Generated**



**Destination of Discarded Materials**

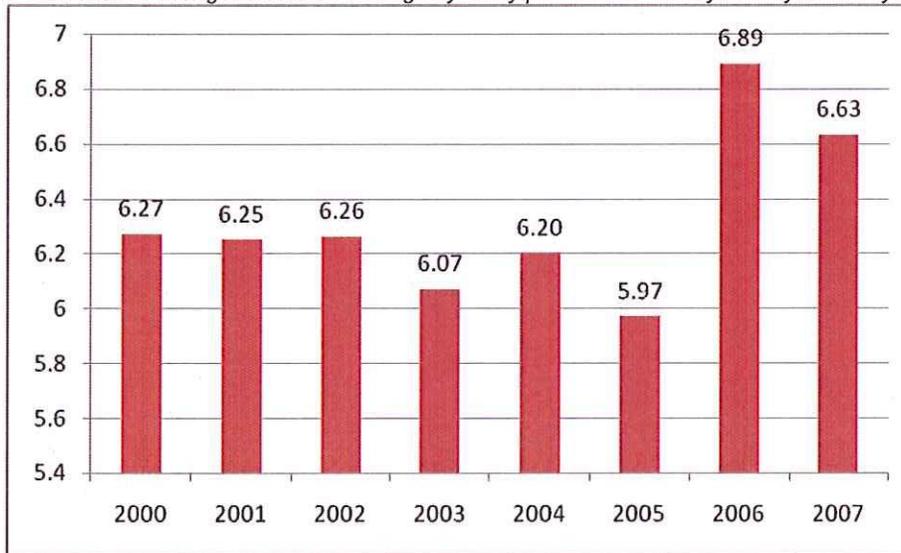


**Discarded Materials (in tons) 2007 by Destination and by Where They Are Generated**

|                         | From Residential | From Commercial/ Institutional | From Construction & Demolition | Other         | Total          |
|-------------------------|------------------|--------------------------------|--------------------------------|---------------|----------------|
| Landfill                | 127,393          | 112,906                        | 45,056                         | 0             | 285,829        |
| Recycling Center / Site | 36,413           | 18,512                         | 8,585                          | 14,812        | 77,771         |
| Composting Site         | 18,305           | 44                             | 517                            | 88            | 18,954         |
| <b>Total</b>            | <b>182,111</b>   | <b>131,462</b>                 | <b>54,158</b>                  | <b>14,900</b> | <b>382,554</b> |

**Discarded Materials in Pounds per Person per Day**

Amount of waste generated on average by every person in McHenry County each day



**Recycling and Recycling Rates**

Recycling rates were up in 2007. The overall rate of 25.3% meets the minimum stated goal of the county and is on par with figures from 2005 and 2003.

**2007 Recycling and Recycling Rate by Generation Source**

| Generation Source              | Discarded Materials in tons | Recyclables in tons* | Recycling Rate |
|--------------------------------|-----------------------------|----------------------|----------------|
| Residential                    | 182,111                     | 54,718               | 30.0%          |
| Commercial/ Institutional      | 131,462                     | 18,555               | 14.1%          |
| Construction & Demolition      | 54,128                      | 9,072                | 16.8%          |
| Other**                        | 14,900                      | 14,812               | 99.4%          |
| <b>Total / Overall Average</b> | <b>382,554</b>              | <b>96,725</b>        | <b>25.3%</b>   |

\* includes landscape waste that was recycled at composting sites

\*\* includes waste collected by townships, recyclers, and other special collections

**Trend of Recycling Rates 2003-2007 by Generation Source**

| Source of Discarded Materials | Percent of Total Discarded Materials Recycled* |              |              |              |              |
|-------------------------------|--|--------------|--------------|--------------|--------------|
|                               | 2003   | 2004         | 2005**       | 2006         | 2007         |
| Residential                   | 35.7%  | 45.0%        | 34.4%        | 26.2%        | 30.0%        |
| Commercial / Institutional    | 22.2%  | 21.3%        | 16.0%        | 13.7%        | 14.1%        |
| Construction / Demolition     | 6.3%   | 47.6%        | 9.3%         | 13.1%        | 16.8%        |
| Other***                      | n/a  | n/a          | n/a          | 99.7%        | 99.4%        |
| <b>Overall Average</b>        | <b>28.8%</b>                                   | <b>38.5%</b> | <b>25.5%</b> | <b>20.7%</b> | <b>25.3%</b> |

\* includes landscape waste that was recycled at composting sites

\*\* 2005 figures revised based on information received 07/2007 from the waste hauler Groot

\*\*\* includes waste collected by townships, recyclers, and other special collections (prior to 2006 this data was combined with other totals)

**Total Discarded Materials by Generation Source 2001-2007**

| Source of Discarded Materials | Total Discarded Materials by Source |                |                |                |                |                |
|-------------------------------|-------------------------------------|----------------|----------------|----------------|----------------|----------------|
|                               | 2002                                | 2003           | 2004           | 2005**         | 2006           | 2007           |
| Residential                   | 210,224                             | 182,870        | 146,714        | 183,957        | 183,588        | 182,111        |
| Commercial / Institutional    | 88,735                              | 103,901        | 106,335        | 116,851        | 137,337        | 131,462        |
| Construction / Demolition     | 22,022                              | 25,604         | 82,395         | 30,939         | 65,824         | 54,128         |
| Other*                        | n/a                                 | n/a            | n/a            | n/a            | 6,124          | 14,812         |
| <b>Totals</b>                 | <b>320,981</b>                      | <b>312,375</b> | <b>335,444</b> | <b>331,747</b> | <b>392,873</b> | <b>382,554</b> |

\* includes waste collected by townships, recyclers, and other special collections (prior to 2006, this data was combined with other totals)

\*\* 2005 figures revised based on information received 07/2007 from the waste hauler Groot

Of the 39 waste haulers operating in McHenry County in 2007, seven offered regularly-scheduled residential waste collection. These seven were responsible for the transport of 99% of all residential waste generated in the county and each have contracts with McHenry County communities.

**Comparison of Recycling Rates by Haulers that Offer Regular Residential Service**

| Primary Residential Waste Haulers | 2005                   |                            | 2006                   |                            | 2007                   |                            |
|-----------------------------------|------------------------|----------------------------|------------------------|----------------------------|------------------------|----------------------------|
|                                   | Overall Recycling Rate | Residential Recycling Rate | Overall Recycling Rate | Residential Recycling Rate | Overall Recycling Rate | Residential Recycling Rate |
| ARC                               | 20.3%                  | 33.0%                      | 19.1%                  | 32.1%                      | 14.5%                  | 20.6%                      |
| Groot/Crown                       | 20.4%*                 | 46.2%*                     | 22.3%                  | 45.2%                      | 31.3%                  | 37.1%                      |
| Hebron Disposal                   | 10.6%                  | 22.7%                      | 10.4%                  | 25.2%                      | 11.0%                  | 26.0%                      |
| Jensen Disposal                   | 24.0%                  | 28.9%                      | 26.2%                  | 28.9%                      | 27.6%                  | 29.7%                      |
| Marengo Disposal                  | 19.2%                  | 23.7%                      | 19.3%                  | 24.2%                      | 19.6%                  | 24.7%                      |
| Waste Management -North           | 44.1%                  | 62.8%                      | 16.2%                  | 32.5%                      | 20.4%                  | 39.7%                      |
| Waste Management -West            | 16.7%                  | 18.9%                      | 27.6%                  | 30.7%                      | 30.0%                  | 30.0%                      |

\* Figures revised based on information received 07/2007 from the waste hauler Groot

**Communities with Waste Hauler Contracts for 2007**

|                        |   |
|------------------------|---|
| ARC                    | Lake in the Hills, Trout Valley   |
| Groot/Crown            | Prairie Grove, Spring Grove, Cary   |
| Hebron Disposal        | Hebron  |
| Jensen Disposal        | Richmond, Lakemoor  |
| Marengo Disposal       | Bull Valley, Crystal Lake, Harvard, Lakewood, Marengo, Woodstock, Wonder Lake, Union, City of McHenry       |
| Waste Management North | Algonquin, Island Lake, Johnsburg, Fox River Grove, Holiday Hills, Oakwood Hills, Ringwood, Port Barrington |
| Waste Management West  | Del Webb / Sun City   |

### ***Observations and Analysis***

The *Illinois Solid Waste Planning and Recycling Act* calls for each county waste management plan to be designed to recycle 25% of the municipal waste it generates. It is a stated goal of the *McHenry County Residential Recycling Ordinance* that McHenry County achieves and/or exceeds state goals. After a dip in 2006, the county's rate is once again meeting that goal coming in at 25.3%. Recycling rates were up in every sector in 2007.