KANE COUNTY

SOLID WASTE MANAGEMENT PLAN

FIVE YEAR UPDATE

May 2004

Prepared by the
Kane County Department of Environmental Management
Geneva, Illinois

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

All Illinois counties are required by state law to plan for the management of solid waste generated within the county for a 20 year planning period. Counties must update their plans every five years.

Kane County's first Solid Waste Management Plan was adopted in 1992. Major recommendations of that plan included: (1) a 47% recycling goal; (2) expansion of permitted capacity at Settler's Hill landfill in Geneva; and (3) initiation of a site selection process for a future landfill facility.

The expansion of Settler's Hill was approved by the County Board in 1994 and finalized in 1997. A study to identify preferred sites for a new landfill was completed in August 1995. Following review of that study, the County Board adopted Resolution 95-247 which states, in part, that: "The Kane County Board will not pursue the acquisition of property, the development of, or siting approval for a new landfill facility in Kane County."

The first five-year Plan Update was adopted in March 1998. This Update continued a strong emphasis on waste reduction and recycling, found that adequate landfill capacity existed in the state of Illinois to meet the County's long-term disposal needs, and recommended that a series of waste transfer stations owned and/or operated by the private sector be encouraged to access this existing landfill capacity.

Solid Waste Quantities

From 2000 to 2020, the County's population is projected to increase from 404,119 to 552,034, approximately 37 percent. Following this growth, the amount of solid waste generated within Kane County is expected to increase from 613,000 tons per year in 2001 to 822,000 tons per year in 2020.

Current Waste Management System

All solid waste management in Kane County is provided by private companies. 12 separate companies were issued annual waste hauling licenses in 2002, but an estimated 80 percent of the solid waste in Kane County is collected by three publicly-owned companies: BFI Waste Systems, Onyx Waste Services, and Waste Management West.

The estimated amount of solid waste recycled in Kane County has increased from 44,664 tons (9.1% of the waste stream) in 1989 to 262,737 tons (42.9% of the waste stream) in 2001.

The non-recycled portion of the county's solid waste is landfilled at Settler's Hill landfill in Geneva (scheduled for closure by December 2006), or transferred to landfills in Lee, Livingston, and Ogle counties.

There is currently only one permitted transfer station in Kane County, at a location west of Geneva, owned and operated by Waste Management Inc. Some of the County's waste is shipped through the DuKane transfer station located in West Chicago.

Several other local transfer stations have been proposed. A facility was proposed by Waste Management Inc. near South Elgin in 2002, but siting approval was denied by the County Board. Three other transfer stations have recently been proposed within the Cities of West Chicago, Batavia and Elgin.

In spite of the trend toward transfer of waste to distant landfills, prices have remained competitive in both the residential and commercial sectors. Tipping fees at northern Illinois landfills are highly competitive, and the numerous waste haulers operating in Kane County also ensures that a high level of competition exists.

Since all solid waste in Kane County is collected, recycled, or transferred/landfilled by private companies, sufficient competition among the private sector serves to control price increases, and also maintains high quality of service in both the residential and commercial sectors.

Recycling

Recycling has been an important element in both the 1992 Kane County Solid Waste Management Plan and the 1997 plan update. In 2001, 43 percent of the solid waste in Kane County was recycled. This level of recycling has been achieved as a result of high levels of cooperation from municipalities, the private sector, and the general public.

This Plan Update includes ten separate recommendations designed to maximize, to the extent practically and economically feasible, the amount of solid waste generated within the County which is recycled.

Alternative Technologies

As part of the planning process for the original plan and the first five-year update, Kane County conducted extensive studies of non-landfill technologies, including incineration and mixed waste composting. Midwestern market economics have concentrated the flow of solid waste to large, regional-scale landfills. In this environment, non-landfill technologies do not present a viable alternative. The County will continue to monitor technological developments and market conditions for non-landfill waste management approaches.

Landfilling

Statewide, 14 years of landfill capacity remained at the end of 2001, a significant increase from the 9 years of capacity available in 1992. Competition among existing landfills has helped to control increases in waste disposal costs in our marketplace. This competition is anticipated to continue into the future

Adequate landfill capacity appears to exist in northern Illinois to meet the disposal needs for non-recyclable waste generated within Kane County. This Plan Update recommends that the County continues the policy established by Resolution 95-247 which states, in part, that: "The Kane County Board will not pursue the acquisition of property, the development of, or siting approval for a new landfill facility in Kane County."

Waste Transfer

Transfer stations are a viable means for meeting the future solid waste disposal needs of residents and businesses. A network of transfer stations operated by different waste haulers will serve to create sufficient competition in the private sector to ensure competitive pricing and high service quality in both the residential and commercial sectors.

Kane County does not intend to pursue the development of a County-owned transfer station. Rather, the County will rely on private sector proposals to develop a transfer station network in response to market demand.

To insure that sufficient information is presented on any proposed transfer stations, and that siting applications comply with statutory requirements, the County has identified a set of minimum requirements for any future transfer station proposals.

CHAPTER 1 - INTRODUCTION AND BACKGROUND

The Illinois Solid Waste Planning and Recycling Act (415 ILCS 15/1 et seq) requires all Illinois counties to plan for the management of solid waste generated within the county for a 20 year planning period. Counties must update their plans every five years.

Each county plan must contain several provisions, including: (1) a description of the volume of solid waste generated within the County and projections of waste generated over the next 20 years; (2) a description of current and proposed facilities for the management of solid waste; (3) an evaluation of proposed facilities and programs; and (4) a recycling program designed to recycle 25 percent of the waste generated within the planning area.

County solid waste plans must also conform with the waste management hierarchy, listed in descending order of preference, established as State policy in the Illinois Solid Waste Management Act (415 ILCS 20/1 et seq):

(1) volume reduction at the source
(2) recycling and reuse
(3) combustion with energy recovery or for volume reduction
(4) disposal in landfill facilities

1992 Kane County Solid Waste Management Plan

On November 10, 1992, the Kane County Board adopted the County's first Solid Waste Management Plan. Major recommendations of that plan included: (1) a 47% recycling goal; (2) expansion of permitted capacity at Settler's Hill landfill in Geneva; and (3) initiation of a site selection process for a future landfill facility.

The County Board approved an expansion of Settler's Hill landfill in 1994. This approval was appealed to the Illinois Pollution Control Board. The County Board's decision to approve the expansion was upheld in September 1997. A subsequent agreement (County Board Resolution 97-269) between Kane County, the City of Geneva, and Waste Management of Illinois, Inc. (WMI) states that (1) Settler's Hill will permanently close on or before December 31, 2006; (2) WMI is prohibited from operating any waste incineration, waste transfer or composting facilities at Settler's Hill; and (3) WMI shall not seek permitting for any other landfill or transfer station site within Geneva Township.

A study to identify preferred sites for a new landfill was completed in August 1995. Following review of that study, in September 1995, the County Board adopted Resolution 95-247 which states in part: "The Kane County Board will not pursue the acquisition of property, the development of, or siting approval for a new landfill facility in Kane County".

This resolution also stated that in a subsequent Solid Waste Management Plan revision, "reduction, reuse, and recycling of solid waste is to be given primary importance. Alternate technologies for the disposal of solid waste are to be given a fair and unbiased review".

1997 Plan Update

In 1996, the County commissioned Andrews Environmental Engineering, Inc. to conduct a feasibility analysis of alternative technologies for municipal solid waste management. The technologies evaluated were mixed waste composting, separate collection and composting of food waste, waste-to-energy, and advanced recycling.

The study found that none of these approaches would eliminate the need for a landfill; all would require a complex site selection process; all would be susceptible to the impact of waste flow control; and that tipping fees would be substantially higher than landfill tipping fees.

The 1997 Plan Update was adopted by the Kane County Board on March 10, 1998. This Update continued a strong emphasis on waste reduction and recycling, found that adequate landfill capacity existed in the state of Illinois to meet the County's long-term disposal needs, and recommended that a series of waste transfer stations owned and/or operated by the private sector be encouraged to access this existing landfill capacity.

2003 Plan Update

The next five-year plan update was initiated in 2002 by the Kane County Department of Environmental Management. However, in June 2002, the County received an application for siting approval for a transfer station at the Woodland Landfill near South Elgin. The planning process was put on hold, pending the outcome of this siting application. The Kane County Board denied the application on December 10, 2002.

CHAPTER 2 - SOLID WASTE NEEDS ASSESSMENT

Introduction

This chapter describes the current system for managing solid waste in Kane County, quantifies the amount of solid waste generation, and describes recycling and waste reduction, waste transfer, and disposal practices.

Demographic Trends

A primary variable affecting the amount of solid waste in Kane County is the growth in population, households, and employment. Table 2.1 shows Kane County's population and projections by township for the period 2000-2030, and an extrapolation to 2024 for the 20 year planning period. During this 20 year period, the County's population is projected to increase from 404,119 to 634,705, an increase of 57 percent. Table 2.2 presents the most recent data available for Kane County's population by municipality.

The impact of this population growth is significant on the County's waste management infrastructure because it continues to increase the demand for managing the recyclables and solid waste generated within the County.

Table 2.1 Kane County Township Population

Township	2000 Population	2024 Forecast	2030 Forecast
Aurora	115,553	120,380	121,587
Batavia	30,137	37,047	38,775
Big Rock	1,938	2,281	2,367
Blackberry	6,071	20,409	23,993
Burlington	1,834	13,293	16,158
Campton	14,072	24,756	27,427
Dundee	53,207	68,797	72,695
Elgin	90,384	111,595	116,898
Geneva	23,268	28,514	29,825
Hampshire	4,793	17,575	20,771
Kaneville	1,292	1,711	1,816
Plato	4,018	36,140	44,170
Rutland	3,959	33,145	40,442
St. Charles	42,051	53,556	56,432
Sugar Grove	9,595	62,137	75,272
Virgil	1,947	3,368	3,723
Kane County Total	404,119	634,705	692,351

Sources: U.S. Census Bureau, Northeastern Illinois Planning Commission

Waste Generation

The 1992 Plan developed a comprehensive analysis of the waste generated within the County, based on landfill data, waste hauler reports, and landfill gate surveys. Beginning in 1994, licensed waste haulers have been required to provide annual reports on the quantity of solid waste and recyclable material collected in the County.

TABLE 2.2 Population Trends in Kane County, 1990 – 2020

Municipality	1990 Population	2000 Population	2020 Forecast	2000 – 2020 % Change
Algonquin*	1,469	5,022	9,353	+86%
Aurora*	84,861	100,290	113,809	+13%
Barrington Hills*	151	97	1,179	+1,115%
Bartlett*	11	2	4	+100%
Batavia	17,076	23,866	25,940	+9%
Burlington	400	452	652	+44%
Carpentersville	23,049	30,586	37,080	+21%
East Dundee	2,718	2,948	4,722	+60%
Elburn	1,275	2,756	6,216	+126%
Elgin *	61,610	74,013	109,212	+48%
Geneva	12,625	19,515	25,459	+30%
Gilberts	987	1,279	7,186	+462%
Hampshire	1,843	2,900	5,143	+77%
Huntley*	0	1,107	18,469	+1,568%
Lily Lake	542	825	1,818	+120%
Maple Park*	637	652	817	+25%
Montgomery*	3,902	3,855	8,842	+129%
North Aurora	6,010	10,585	18,000	+70%
Pingree Grove	138	124	266	+115%
St. Charles	22,610	27,727	39,452	+42%
Sleepy Hollow	3,241	3,553	5,384	+52%
South Elgin	7,474	16,100	28,717	+78%
Sugar Grove	2,005	3,909	11,613	+197%
Virgil	319	266	453	+70%
Wayne*	804	834	2,690	+223%
West Dundee	3,728	5,428	8,805	+62%
Unincorporated Areas	57,986	65,428	60,753	-7%
County Totals	317,471	404,119	552,034	+37%

*Note: * Kane County portion only.*
Sources: U.S. Census Bureau, Northeastern Illinois Planning Commission

Each year, waste volume reported by haulers is compared with waste generation data from the 1992 Plan. For the years 1994 – 2001, variances between reported volumes and Plan data have ranged from 0.7% to 22.5%. In 5 of the 8 years, the variance was less than 8 percent.

In the three years with the highest variances, questionable data was received from large waste haulers. The information received in these years was significantly out of line with that received in previous and subsequent years. Reasons for these discrepancies include internal reorganizations with staff reassignments, and large municipal contracts which changed contractors in mid-year.

The trend over the eight year period has been reported volumes of 1.275 percent less than Plan volumes. Over that period, population has increased at a rate greater than assumed in the original Plan.

The original generation data in the 1992 Plan corresponded with a generation rate of 8.40 pounds of solid waste per capita per day (pcd). The 1992 Plan assumed that per capita Generation would increase by 0.34% per year until the year 2000, when the rate would slow and remain constant. A close analysis of population and reported waste volumes for the year 2000 found that the actual per capita generation rate was 8.16 pcd, rather than the 8.72 pcd rate projected in the original Plan.

To ensure the most accurate possible projections of solid waste generation volumes over the next 20 year planning period, this plan update recommends that future projections be based on updated population data (provided by the U.S. Census Bureau and the Northeastern Illinois Planning Commission), and a revised generation rate of 8.16 pounds per capita per day. The revised waste generation estimates are presented in Table 2.3.

The 1992 Plan estimated waste volumes for the residential, commercial, and construction sectors, based on hauler reports and landfill gate surveys. No subsequent data has been developed to show any change from the original sector data. This plan update recommends that the sector data, as shown in Figure 2.1, remain unchanged.

Figure 2.1 Waste Generation, by Sector

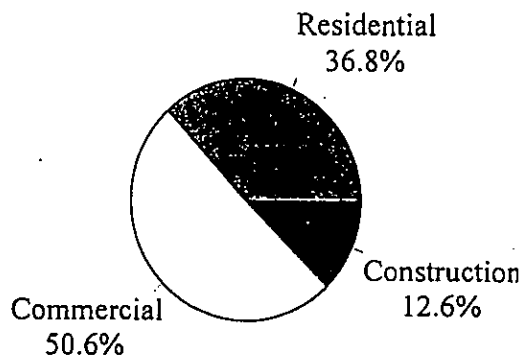


Table 2.3 TOTAL WASTE GENERATION		
Year	Population	Total Waste (tons)
2001	413,727	616,122
2002	423,335	630,430
2003	432,943	644,739
2004	442,551	659,047
2005	452,159	673,355
2006	461,767	687,663
2007	471,375	701,972
2008	480,983	716,280
2009	490,591	730,588
2010	500,199	744,896
2011	509,807	759,205
2012	519,415	773,513
2013	529,023	787,821
2014	538,631	802,129
2015	548,239	816,438
2016	557,847	830,746
2017	567,455	845,054
2018	577,063	859,362
2019	586,671	873,670
2020	596,279	887,979
2021	605,887	902,287
2022	615,495	916,595
2023	625,103	930,903
2024	634,711	945,212

Current Solid Waste Management System

Solid Waste Collection

All solid waste collection in Kane County is provided by private companies. Kane County licenses all waste haulers using two or more trucks to collect waste within the County (Kane County Code, Section 11.108, et.seq.).

In January 2003, 12 separate companies were issued annual waste hauling licenses. Some of the companies provide a full range of service, including residential, commercial, and construction service. Some only provide roll-off dumpster service.

The local waste collection industry is highly competitive. Bid requests issued for municipal contracts typically elicit 4-6 qualified proposals.

An estimated 80% of the solid waste in Kane County is collected by three publicly-owned companies: BFI Waste Systems, Onyx Waste Services, and Waste Management West.

Table 2.4 Municipally Contracted Haulers

Unit of Government	Contracted Hauler
Aurora, City of	BFI - Aurora
Batavia, City of	Onyx Waste Services
Carpentersville, Village of	Waste Management West
East Dundee, Village of	BFI - Elgin
Elburn, Village of	Waste Management West
Elgin, City of	Waste Management West
Geneva, City of	BFI - Aurora
Gilberts, Village of	ARC Disposal & Recycling
Hampshire, Village of	Waste Management West
Maple Park, Village of	Waste Management West
Montgomery, Village of	BFI - Aurora
North Aurora, Village of	Waste Management
Sleepy Hollow, Village of	Crown Recycling & Waste Services
St. Charles, City of	Onyx Waste Services
Sugar Grove, Village of	Waste Management West
West Dundee, Village of	BFI - Elgin
Campton Township	Waste Management West
Plato Township	Waste Management West
Virgil Township	Northern Illinois Disposal
Mill Creek Special Service Area	BFI - Aurora

Note: all information as of January 2003

Recycling

Recycling activity in Kane County underwent tremendous growth, beginning in the late 1980s. Prior to that time, recycling consisted of scrap metal, large stores recycling their cardboard boxes, a few drop-off locations for the public, and paper drives by scouting and church groups.

Residential curbside collection of recyclables began in 1989 in the municipalities of East Dundee, Sleepy Hollow, and St. Charles. By 1993, all municipalities were providing curbside service to their single-family residents.

The 1992 Plan adopted a countywide recycling goal of 47.3% by 2000. The 1997 Plan Update set the recycling goal at 52% by 2003.

To address recycling opportunities for residents of unincorporated areas and multi-family dwellings, the Kane County Board adopted a mandatory recycling ordinance in 1994 (Kane County Code, Section 11-108, et.seq.). This ordinance requires that licensed haulers must provide collection of recyclables from all dwelling units they service.

In 1995, the Kane County Board amended its mandatory recycling ordinance to include recycling from commercial establishments. Beginning in 1996, commercial establishments have been required to recycle the two largest recyclable items in their waste stream.

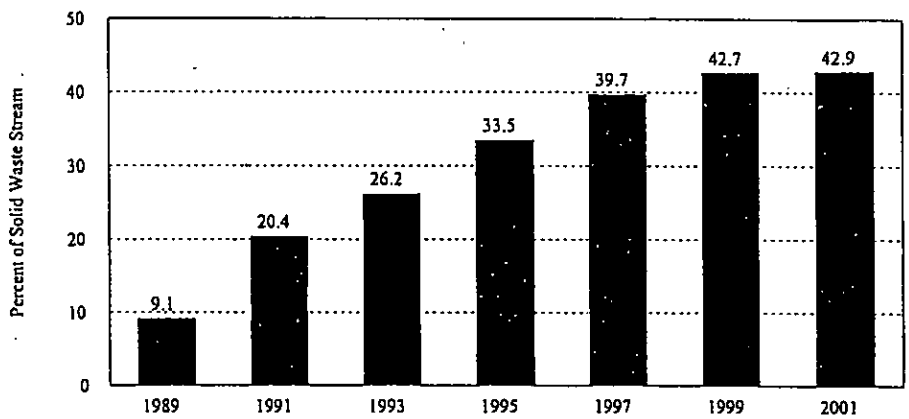
As shown in Figure 2.2, the amount of solid waste recycled in Kane County has increased from 9.1% of the waste stream (44,664 tons) in 1989 to 42.9% of the waste stream (262,737 tons) in 2001. The County conducts an annual survey of licensed waste/recycling haulers and other recycling businesses to determine recycling volumes.

Recyclable materials in Kane County are collected and processed entirely by the private sector. Private companies operate all residential curbside recycling programs and provide recycling service for multi-family dwellings. The recyclables collected in this system are usually transferred to a regional processing facility, where the materials are sorted and shipped to end-use markets.

Many commercial establishments use their waste hauler to also provide recycling service. Some larger establishments deal directly with regional recycling companies to collect and recycle their recyclables, which may include metals, paper, plastics, pallets, or wood

There are presently five recycling drop-off centers located in the county. These locations accept a residential menu of recyclable material and are typically used by residents in unincorporated areas, multi-family residents, and small businesses. There are six private recycling centers that focus on metals recycling.

Figure 2.2 Annual Recycling Rates



Landscape waste was banned from disposal in Illinois landfills in 1990. In each municipality, this material is collected by contracted haulers. In some locations, city and township crews conduct separate collection programs for leaves or brush. Private landscaping services are employed by a significant portion of residents and commercial establishments.

There are no permitted landscape waste composting facilities in Kane County. A significant amount of the collected landscape waste is land-applied on farms in Kane County and neighboring counties. Landscape waste is also direct-hauled or transferred to permitted composting facilities in neighboring counties.

Disposal

All of the non-recyclable solid waste collected within Kane County is disposed in landfills. Only one operating landfill remains in Kane County, Settler's Hill landfill in Geneva, which is owned by the County and operated under contract by Waste Management Inc. Settler's Hill is scheduled to stop taking waste on or before December 31, 2006.

An estimated 60 percent of the solid waste in Kane County is direct-hauled to Settler's Hill. The remainder is taken to transfer stations and then taken to landfills in Lee, Livingston, and Ogle Counties.

Waste Transfer

With the closure of many landfills in the Chicago metropolitan area, there has been a significant increase in the use of transfer stations to facilitate the transportation of solid waste to more distant landfills. Tipping fees at northern Illinois landfills are highly competitive. Where possible, haulers will transport their waste to a landfill owned by their company, to internalize all revenue.

There is currently only one permitted transfer station in Kane County, at a location west of Geneva, owned and operated by Waste Management Inc. Some of the County's waste is shipped through the DuKane transfer station located in West Chicago.

Several other local transfer stations have been proposed. A facility was proposed by Waste Management Inc. near South Elgin in 2002, but siting approval was denied by the County Board. Three other transfer stations have been proposed within the Cities of West Chicago, Batavia and Elgin.

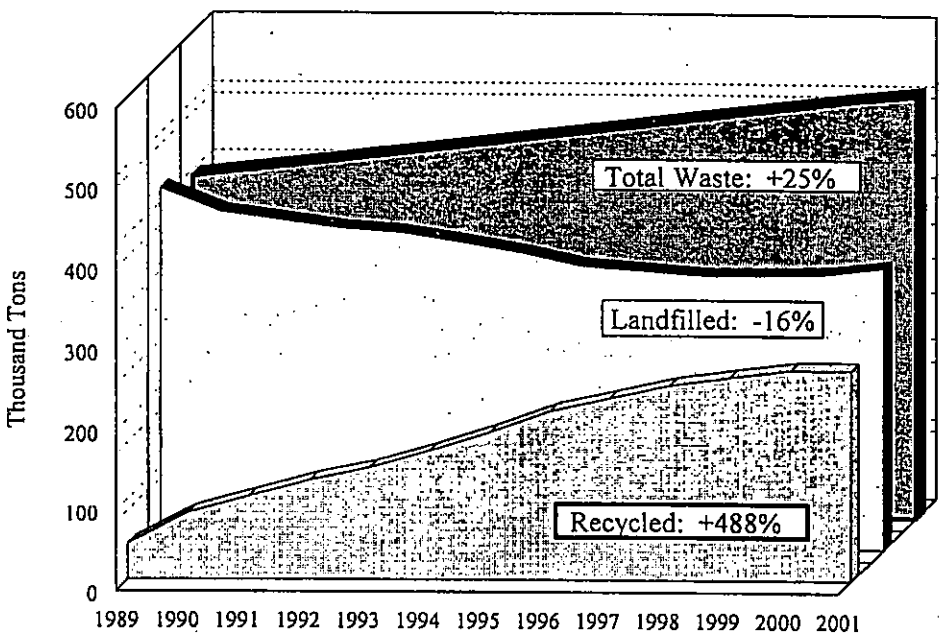
Transfer of waste for disposal in distant landfills does not automatically lead to increased costs. As a case in point, the City of Geneva (home of Settlers Hill landfill), requested bids for its residential waste and recycling contract in 2003. The lowest bid was received

by Onyx Waste Services, Inc., who does not use Settlers Hill, but transfers its waste to further landfills.

Definition of Need

While recycling efforts have significantly reduced the volume of solid waste requiring disposal, continued population growth will create an increased need for disposal of the non-recyclable portion of the waste stream.

Figure 2.3 - Change in Solid Waste Amounts, 1989-2001



Since all solid waste in Kane County is collected, recycled, or transferred/landfilled by private companies, the greatest need is to ensure sufficient competition among the private sector. Competition serves to control price increases, and also maintains high quality of service in both the residential and commercial sectors.

Historically, proposed waste facilities (both transfer stations and landfills) have demonstrated need in the siting approval process by using estimated waste generation rates from solid waste plans within the defined area of service to determine the total need. The maximum capacity of any existing transfer stations and/or landfills is then subtracted to determine the need for the proposed facility.

This approach has two flaws: (1) it creates a "first-come, first-served" situation. As a case in point, the City of West Chicago hosts the DuKane transfer station, which is operating at approximately 60 percent of full capacity. A second transfer station has been proposed by a different company and was heavily challenged, in part because of the unused but available capacity at the first transfer station. (2) It ignores market forces, especially important in areas such as Kane County where solid waste is managed solely by the private sector.

This plan finds that need for additional waste management capacity in Kane County should be based primarily on the need to maintain and increase competition within the private sector marketplace.

CHAPTER 3 - RECYCLING AND WASTE REDUCTION

Introduction

Recycling has been an important element in both the 1992 Kane County Solid Waste Management Plan and the 1997 plan update. The 1992 plan set a countywide recycling goal of 47 percent of the waste stream. The 1997 plan update increased the county's recycling goal to 52 percent. The Illinois Solid Waste Planning and Recycling Act requires that county solid waste plans include a 25 percent recycling goal.

In 2001, 43 percent of the solid waste in Kane County was recycled. This level of recycling has been achieved as a result of high levels of cooperation from municipalities, the private sector, and the general public.

Waste Reduction

Waste reduction is identified as the most preferred method of solid waste management in the Illinois Solid Waste Management Act. Waste reduction requires significant behavioral change by consumers. Through its educational programs, Kane County has attempted to encourage consumer behavior to change purchasing habits to reduce waste. However, public response to waste reduction messages has been difficult to measure.

Landscape waste management is one area in which waste reduction efforts have occurred. After landscape waste was banned from Illinois landfills in 1990, many homeowners began leaving their grass clippings on their lawns. Mulching features have since become standard on most lawn mowing equipment. Many residents also turned to backyard composting as a method to reduce the volume of landscape waste requiring collection.

Another approach to waste reduction that has proven successful is the implementation of volume-based billing programs by municipalities. This approach provides generators with a direct financial incentive to reduce and recycle as much of their waste stream as possible. Five municipalities (Aurora, Batavia, Geneva, North Aurora, and St. Charles) have full volume-based billing for residential solid waste collection. Two other municipalities (Elgin and Montgomery) have modified volume-based programs.

Recommendation 3.1

Continue to support and encourage the implementation of volume-based collection programs throughout the County.

RESIDENTIAL SECTOR

All municipalities in the County that contract for garbage service also provide curbside recycling service for their single-family residents. Weekly set-out rates, as reported by haulers, ranges from 75 to 94 percent. The amount of recyclables collected in these programs averages 69.4 pounds per household per month.

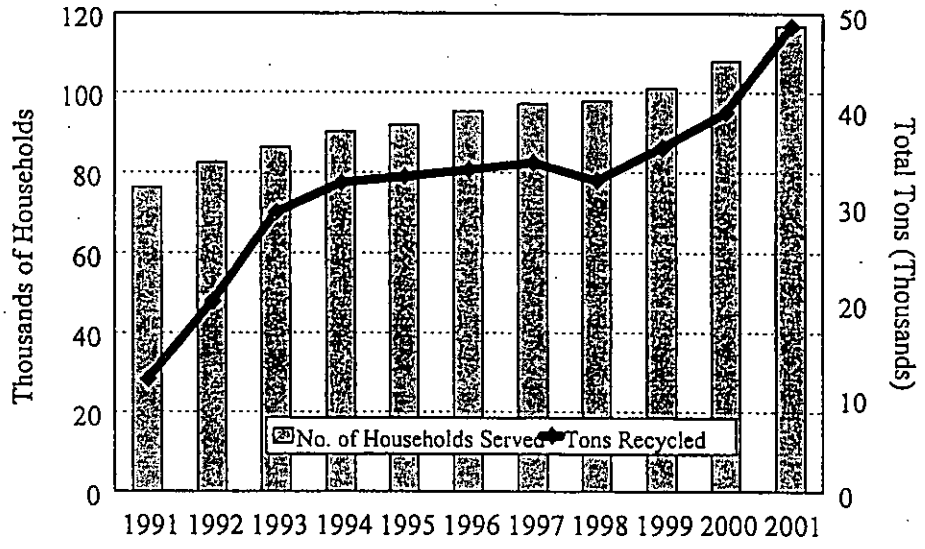
All municipal curbside programs have similar menus of accepted materials, including newspapers, magazines, mixed paper, chipboard, cardboard, aluminum and steel cans, glass containers, and plastic containers marked with #1, #2, #3, #4, #5, and #7 codes.

When these programs were initiated, residents were provided with a single recycling bin, usually about 14 gallons in size. Some towns have since upgraded to an 18 gallon bin. However, even that size is typically insufficient for the weekly recyclables from many households. A common curbside scene is an odd assortment of the original bin along with 2-3 other containers to hold all the items for recycling.

In 2001, the City of Elgin provided residents with 64 gallon wheeled carts for their recyclables. In the first three months of use, the volume of recyclables collected in the City increased by more than 40 percent.

Figure 3-1 Residential Recycling Trends

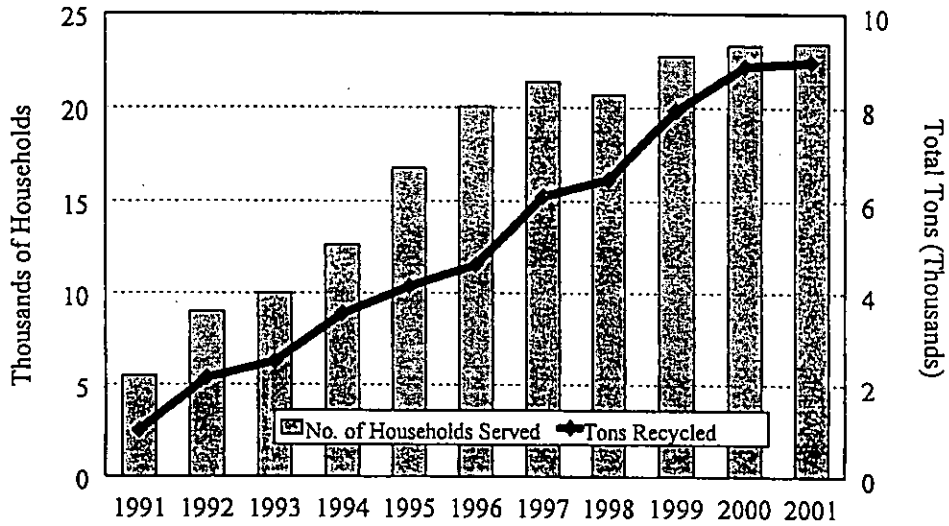
Municipal Programs



In unincorporated areas, the County's recycling ordinance requires that all haulers provide recycling service to all of their residential customers. In practice, some 90 percent of unincorporated homes have recycling service.

Weekly set-out rates, as reported by haulers, ranges from 70 to 90 percent. The yield of rural curbside collection was 50.2 pounds per household per month in 2001, slightly lower than the municipal rate.

Figure 3-2 Residential Recycling Trends
Unincorporated Areas



Municipal refuse contracts typically cover residential dwellings containing 1-4 units. Larger multifamily buildings contract privately for refuse service. The County's recycling ordinance requires haulers to provide recycling service for these building, and also requires building owners to provide recycling service for their residents.

Recycling in multi-family buildings is consistently more problematic than for single-family residences. Recycling containers are often filled with garbage if the garbage dumpster is full. High turnover rates among tenants make education an on-going concern. Only an estimated 50 percent of multi-family buildings currently have functioning recycling service.

Five recycling drop off facilities are located around the County, operated by private companies. These facilities are typically used by multi-family residents, small businesses, and rural residents without garbage service. The volume of recyclable material collected at these locations is negligible when compared with the volume from curbside programs.

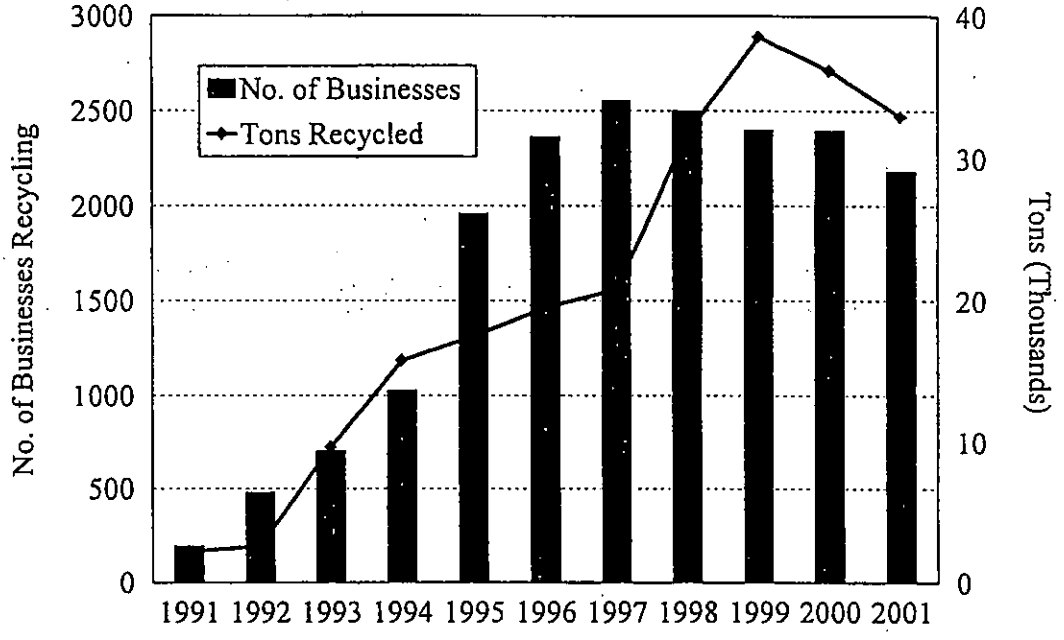
Recommendation 3.2
The County should encourage municipalities to increase the size of recycling bins when renewing or bidding refuse/recycling contracts.

Recommendation 3.3
The County should increase enforcement of its recycling ordinance to increase recycling opportunities in multi-family buildings.

COMMERCIAL SECTOR

Commercial and institutional establishments generate 50 percent of all solid waste generated in Kane County. The composition of commercial waste is quite different from residential waste and can vary significantly among different establishments. The commercial waste stream does contain large amounts of recyclable material, including paper, cardboard, pallets, etc.

Figure 3-3 Commercial Recycling Trends



The Kane County recycling ordinance requires all commercial establishments to recycle the two largest recyclable materials in their waste stream. In the first two years after this requirement was adopted in 1996, countywide compliance was estimated at 70 to 80 percent. Since then, however, it is believed that compliance rates have dropped to about 50 percent of all establishments.

Recommendation 3.4

The County should increase enforcement of its recycling ordinance to increase the volume of recycling in commercial establishments.

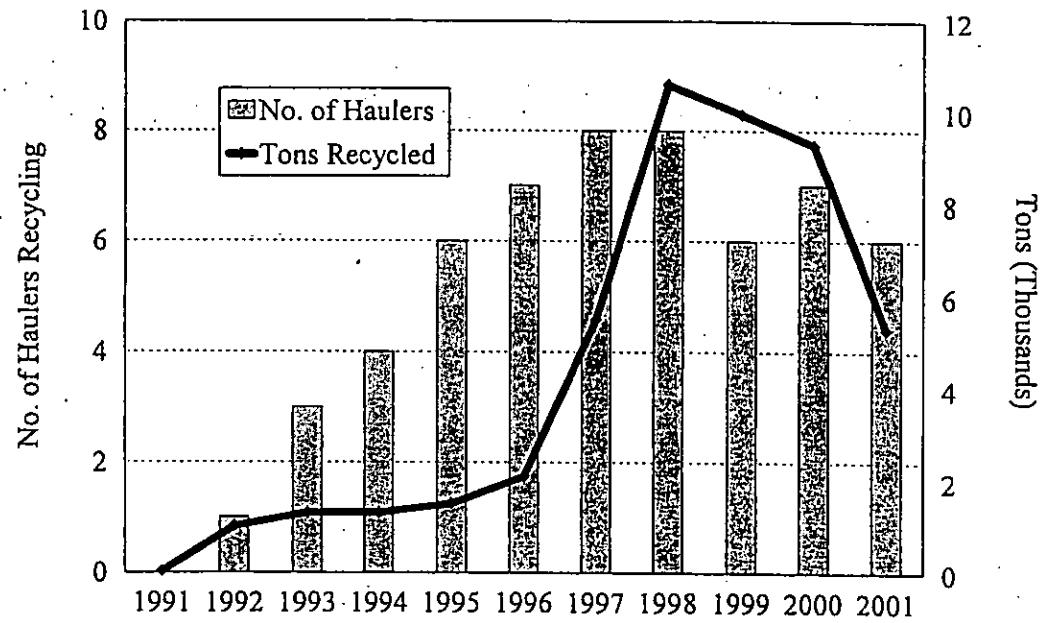
CONSTRUCTION SECTOR

This sector generates an estimated 12.6 percent of the total Kane County waste stream. Construction waste includes large quantities of cardboard and wood, and smaller quantities of other recyclable materials, such as metals and plastics.

Recycling on construction sites is often problematic, with contamination being a typical problem. A common recycling approach is to place a second dumpster for recyclables on the job-site. However, a situation similar to that in multi-family buildings often occurs. When the garbage dumpster is full, garbage is placed in the recycling container, rather than placing it on the ground. The situation is complicated by the variety of sub-contractors who work at each job site.

There have been some successful recycling efforts in this sector, particularly with scrap wood. Several nearby markets for waste wood have opened in recent years. These operations charge a competitive tipping fee and produce mulch for landscaping and recreational applications.

Figure 3-4 Construction Recycling Trends



Recycling activity in this sector has been market-driven. Increased distances to disposal sites and increased disposal tipping fees will lead to increased recycling on construction sites.

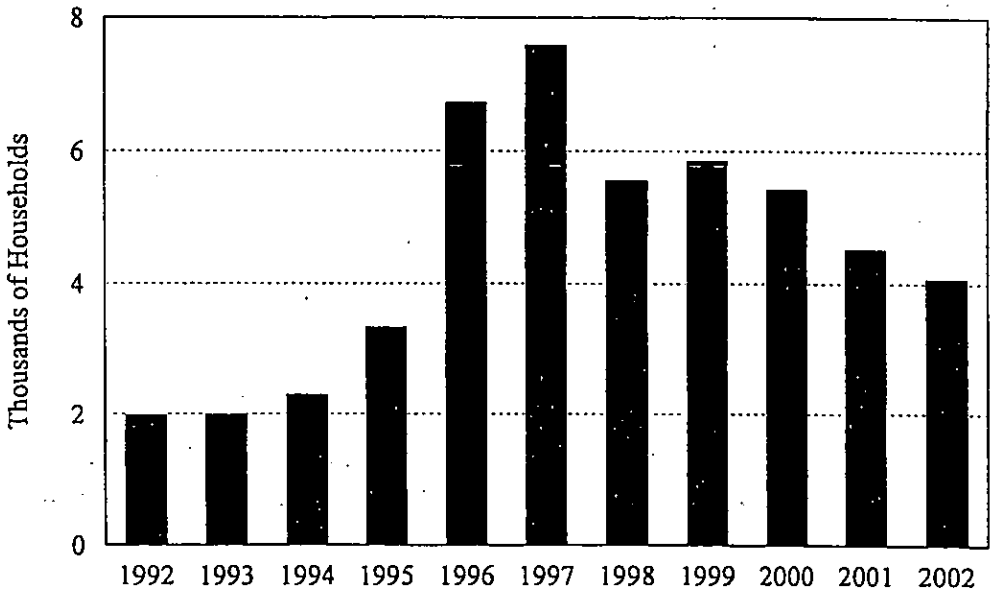
Recommendation 3.5

Continue to monitor and encourage the development of private sector programs and markets for construction waste.

HOUSEHOLD HAZARDOUS WASTE

Both the 1992 Plan and the 1997 Plan Update included recommendations for the development of convenient and effective programs to divert household hazardous wastes (HHW) from landfills. Since 1992, the County has used several different approaches for the management of this material.

Figure 3-5 Participation in Household Hazardous Waste Programs



One-Day Collection Events

Kane County has worked with the Illinois Environmental Protection Agency (IEPA) to offer one-day collection events for residents. From 1992 through 2002, 17 of these events have been conducted at various locations. The 17 one-day events have been attended by 23,074 residents and diverted 4,660 drums of material from landfills.

In 1995, the County began a financial cost-share with the IEPA for these events. A peak of three annual events were held in 1996 and 1997. However, reductions in state funding have since limited these events to one per year. Beginning in 2000, the Cities of Batavia, Geneva, and St. Charles have provided funding support for the annual collection event in their area.

Used Motor Oil

The County began conducting separate drop-off days for used motor oil in 1994, in an effort to divert this material from the more-expensive HHW collections. At that time, there were no private businesses in the County that would accept used oil from the public at no charge. From 1994 – 2002, the County conducted 54 one-day collection events, which were attended by 11,560 people and collected some 151,550 gallons of used oil.

Several municipalities have established programs to offer more convenient oil collection options to their residents. The cities of Aurora and Elgin accept used motor oil at the recycling drop-off centers operated under their refuse contracts. In the cities of Batavia and St. Charles, used motor oil is collected curbside by their contracted haulers.

By 2002, 8 private businesses had begun accepted used motor oil from the public at no charge. With the development of municipal and private sector options, the County has reduced the frequency of its used oil collection events.

Latex Paint Recycling

Paint is the most common material collected through HHW programs. In 1993, the County initiated a latex paint re-use program, in conjunction with five local hardware/paint stores. In addition, from 1996 – 98, latex paint was accepted at a used motor oil collection at the Dial Corporation in Montgomery. The leftover latex paint was blended into neutral colors and donated to local non-profit organizations.

From 1993 – 1999, this program accepted latex paint from some 1,700 residents. However, the program was discontinued due to high staff turnover in the participating stores and the difficulty in educating the public that only usable latex paint was acceptable.

Permanent Facility

In 1996, the City of Naperville and the IEPA opened Illinois' first permanent drop-off facility for HHW. The location of this facility is convenient to many residents in the southern portion of Kane County.

Beginning in 1998, Kane County has entered into an agreement with the City of Naperville to provide financial support for the operation of this facility. From 1998 – 2002, an average of 1,703 Kane County residents per year have used this facility.

Pick-up Service

In an effort to provide more convenient HHW service to residents of northern Kane County, the County and the City of Elgin contracted with Curbside, Inc. in 1999 to provide an HHW pickup service for Elgin residents. In 2000, this service was expanded to other northern portions of the County, including South Elgin, Elgin Township, Dundee Township, Gilberts, and Hampshire. From 1999 – 2002, an average of 627 households per year have used this service.

Household Batteries

The County also conducts a program to collect and recycle used household batteries to divert heavy metals including cadmium, lead, and mercury from the waste stream. Battery recycling began in 1995 with a drop-off location in Plato Township. Additional drop off points have been established in Elgin Township and St. Charles. From 1995 – 2002, 40,285 pounds of batteries have been recycled by these efforts, serving an estimated 8,841 residents. Small, household batteries are also accepted in the curbside recycling programs in 12 municipalities.

Recommendation 3.6

Continue to conduct and enhance programs to provide convenient options to the general public for proper handling of household hazardous waste.

OTHER MATERIALS

Landscape Waste

Landscape waste was banned from Illinois landfills in 1990. Separate collection of this material is provided by municipalities, townships, and private businesses. The collected material is either chipped, land-applied on farmland, or composted at permitted facilities.

Appliances

Used appliances, also known as "white goods", have been banned from Illinois landfills since 1994. All local waste haulers have made arrangements with subcontractors for the separate collection of white goods from residential customers.

Tires

Used tires have been banned from Illinois landfills since 1995. Retailers are required to take back used tires when new tires are purchased. In addition, many tire retailers will accept extra used tires for a small fee. The County has conducted occasional free tire drop-off days as a convenience to residents.

Recommendation 3.7
Continue to monitor the operation of programs for the collection and processing of landscape waste, appliances, and tires to ensure that effective programs are in place for the proper handling of these materials.

Electronics

Obsolete consumer electronic equipment, such as computers and televisions, has been identified as items which should be diverted from disposal because of the quantity and the toxicity of some components. Private sector recycling capabilities have been developed for this material. The nature of these items is such that separation of components to allow recycling is an expensive process. Discussions have begun on the national level about instituting an up-front recycling fee at the time of consumer purchase.

The County has conducted ten one-day collection events for used electronic equipment since 2000. These events have attracted a total of 3,289 participants and collected about 540,000 pounds of material. Participation has increased significantly each year.

Books

Hard and soft-bound books cannot be recycled in existing residential recycling programs, because of the bindings. However, recycling markets do exist for books, as long as they

are collected and shipped separately. The County conducted a pilot book recycling event in early 2003, where some 220 residents brought in over 11,000 books.

Recommendation 3.8

Continue to conduct and enhance programs to provide convenient options to the general public for recycling of used books and electronic equipment.

Recycling in Public Places

An increasing number of beverages are consumed away from the home or workplace - in vehicles, at sporting events, etc. Viable recycling opportunities do not exist for these beverage containers. In fact, the recycling rate for single-use plastic bottles and aluminum cans has declined in recent years because of this situation.

Another reason why this is important is the public perception of recycling in general. The public receives a mixed message about the importance of recycling when they are urged to recycle at home, at school, and at the workplace, but find that in other situations, no recycling service is available. Public receptacles also provide an ongoing and visible general reminder to recycle.

Recycling receptacles placed in public locations tend to experience high levels of contamination, usually due to the lack of adjacent waste receptacles or insufficient signage. Public recycling has been successful in a few Illinois locations, notably downtown Oak Park, Chicago "el" stations, and the Rockford Park District. Successful programs require well-designed (and typically expensive) receptacles, as well as high levels of maintenance and oversight.

Another approach to this situation is to encourage the public to take their beverage containers and other recyclables home and recycle them there. This approach is not always practical and can be viewed as a hardship.

Recommendation 3.9

The County should explore potential public recycling methods and develop opportunities for recycling beverage containers and other materials in public places.

EDUCATION PROGRAMS

Public Education

Public education is critical to the continued success of recycling programs, especially in areas such as Kane County which are experiencing high rates of population growth and turnover in existing homes. Important educational messages include reminders of

what materials can (and cannot) be recycled, the benefits of recycling, and results of current recycling programs.

The County publishes an annual guide to local recycling programs, which is distributed countywide. Program information is posted on the Kane County website, and press releases are issued for individual collection events. In addition, program information is distributed to all local governments and waste haulers, which has resulted in an established referral network, where recycling inquiries are forwarded to the County.

School Programs

Schools are an important setting for establishing recycling habits at an early age. The County has conducted a variety of school programs designed to increase the level of recycling in schools, and to inform students and staff about the importance of recycling at school, at home, and in the workplace.

Recommendation 3.10

Continue public education efforts to support local recycling programs and continue to offer programs to support in-school recycling efforts and increase recycling awareness in local schools.

RECYCLING GOALS

Previous plans established recycling goals of 47 percent (1992) and 52 percent (1997). These arbitrary numbers were established for planning purposes and to measure progress.

The hierarchy of preferred waste management practices contained in to the Illinois Solid Waste Management Act identifies waste reduction and recycling as the preferred methods for managing solid waste in Illinois. Recycling reduces the amount of land used for permanent waste disposal and reduces risks of groundwater contamination. When compared with the manufacture of products using virgin resources, recycled material reduces air and water pollution and energy consumption in manufacturing processes.

Rather than a numerical goal, the County should develop programs to maximize, to the extent practically and economically feasible, the amount of solid waste generated within the County which is recycled.

CHAPTER 4 - INCINERATION AND ALTERNATIVE TECHOLOGIES

During the planning process for both the 1992 plan and the 1997 Plan Update, non-landfill technologies were extensively studied. Both studies found that no alternative approaches would eliminate the need for a landfill; all would require a complex site selection process; all would be susceptible to the impact of waste flow control (or lack of control); and that tipping fees would be substantially higher than landfill tipping fees.

The County has continued to monitor developments in the solid waste management field in Illinois and throughout the Midwest. There are currently no operating waste-to-energy incinerators in Illinois and no new incinerators or mixed-waste composting facilities have been built in the Midwest for the past several years. No other technologies appear to be market-ready or cost-competitive at this time.

Midwestern market economics have concentrated the flow of solid waste to large, regional-scale landfills. In this environment, non-landfill technologies do not present a viable alternative.

Recommendation 4.1

Continue to monitor technological developments and market conditions for non-landfill waste management approaches such as waste-to-energy incineration and mixed-waste composting.

CHAPTER 5 - LANDFILLING

Background

Since the 1960's, the majority of solid waste generated within Kane County has been disposed in landfills in St. Charles and Geneva Townships. In unincorporated St. Charles Township, near the Village of South Elgin, the Elgin Landfill accepted waste from 1961 to 1973, and the Tri-County Landfill operated from 1968 to 1976. The adjacent Woodland Landfill, owned and operated by Waste Management of Illinois, Inc., accepted waste from 1976 through November 2002.

In unincorporated Geneva Township, the Midway Landfill accepted waste from 1967 to 1982. In 1982, Settler's Hill Landfill, which is owned by the County and operated by Waste Management of Illinois Inc., began accepting waste.

Beginning in the mid-1990's, solid waste generated in Kane County began to be shipped to out-of-county landfills, in a response to market conditions. The major publicly-owned waste companies began to transport the waste they collected to landfills they owned, to maximize internal revenue. Transfer stations also began to facilitate the movement of waste.

For example, Speedway Disposal (since acquired by Waste Management Inc.) transported municipal waste collected in the City of Geneva to the Lee County Landfill in Dixon, where tipping fees were lower than at Settler's Hill in Geneva. The DuKane Transfer Station in West Chicago, opened in 1999, allowed BFI Waste Systems to begin transferring local waste to its Orchard Hills Landfill in Ogle County.

Status of Settler's Hill Landfill

Settler's Hill Landfill is located in unincorporated Geneva Township, north of Fabyan Parkway and west of Kirk Road. This facility is owned by Kane County and operated under contract by Waste Management of Illinois, Inc. Currently, the majority of waste disposed at Settler's Hill is delivered by Waste Management, with smaller amounts from locally-based independent haulers. Settler's Hill will permanently close on or before December 31, 2006.

Settler's Hill had a permitted remaining capacity of approximately 3,920,000 cubic yards (in place) on January 1, 2003. It is likely that, based on current intake rates, the facility will be filled to capacity and cease accepting waste in December 2006. However, the exact closure date will be dictated by market conditions and waste receipts at the facility.

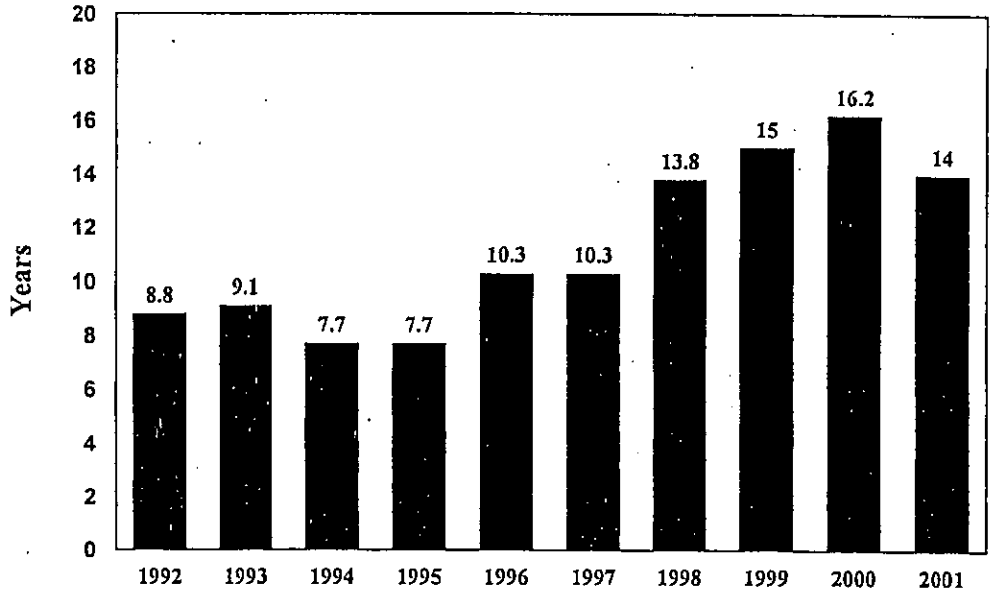
Projected Landfill Capacity for Kane County Waste

As was noted in Chapter 1, the County has determined that it will not pursue the development of new landfill capacity in Kane County, but rather will rely upon the private sector to dispose of waste outside the County once Settler's Hill closes. It is apparent that the County will have to rely solely on out-of-county disposal facilities beginning on or before the year 2007. With the closure of Woodland landfill, and the pending closure of Settlers in 2006, the County will need to monitor out-of-county landfill capacity closely.

The Illinois EPA produces an annual report on landfill capacity in Illinois. As of December 31, 2001, there existed 743 million cubic yards of available capacity in 52 Illinois landfills. This remaining capacity is more than double the 361 million cubic yards of landfill capacity that was available in 1992. This increased landfill capacity is the result of expansions of existing landfills and the development of new landfills.

The IEPA also reports the total years of remaining landfill capacity, calculated by dividing the amount of permitted landfill capacity in Illinois by the annual amount of waste disposed in Illinois. As shown in Figure 5.1, 14 years of landfill capacity remained at the end of 2001, a significant increase from the 9 years of capacity available in 1992.

Figure 5.1 - Remaining Landfill Capacity in Illinois
(years)



The three major waste haulers in Kane County all have access to northern Illinois landfills that are controlled by their respective companies. The linkage between haulers and landfills will ensure that the solid waste industry in Kane County will remain competitive for both the residential and commercial sectors.

Table 5.1 lists five landfills that are expected to receive waste from Kane County after the closure of Settler's Hill. The Prairie View landfill in Will County is currently being developed and will be limited to receiving waste from Will County and border communities, including the City of Aurora.

Table 5.1 Selected Landfills for Kane County Solid Waste

Landfill	Location	Operator
Lee County Landfill	Dixon	Allied Waste Industries
Livingston Landfill	Pontiac	Allied Waste Industries
Orchard Hills	Ogle County	Onyx Waste Systems
Prairie Hill RDF	Whiteside County	Waste Management
Prairie View Landfill	Will County	Waste Management

Note: Allied Waste Industries is the parent of BFI Waste Systems

It is important to note that competition from these large landfills has kept waste disposal costs in check in our marketplace. Because of the large capacities remaining at most of the landfills listed above, this competition is anticipated to continue into the future.

In summary, adequate landfill capacity appears to exist in northern Illinois to meet the disposal needs for non-recyclable waste generated within Kane County.

Future Landfill Capacity in Kane County

This plan reaffirms County Board Resolution 95-247, declaring the solid waste policy of Kane County which states, in part, "The siting of a new sanitary landfill within the County is not to be considered as an acceptable option in any such revised plan."

CHAPTER 6 - WASTE TRANSFER

Background

In the mid-1990's, a portion of the solid waste generated within Kane County was beginning to be transferred to out-of county landfills. This trend occurred as the result of market-based decisions by local waste haulers.

There is currently one permitted transfer station in Kane County, the Speedway Disposal Transfer Station, (now owned and operated by Waste Management, Inc.), which was permitted in 1991. The DuKane transfer station in West Chicago opened in 1999 and handles some waste from Kane County.

Several transfer stations have been recently proposed in Kane County. In June 2002, the County received an application for siting approval from Waste Management of Illinois, Inc. for a transfer station at the Woodland Landfill near South Elgin. That application was denied by the Kane County on December 10, 2002.

The City of Batavia has initiated steps to develop a transfer station within its municipal boundaries. The City has selected Onyx Waste Services as the future operator of the facility, which could become operational in the next 1-2 years. (The local siting approval for this facility is being conducted during the development of this plan update). The City of Elgin has received a proposal for a transfer station which would be located in Cook County but which could serve much of Kane County.

The 1997 Plan Update recommended that the County allow the private sector to develop transfer station network as it deems appropriate. Statewide there are approximately 80 transfer stations, more than half of which are located in the Chicago metropolitan region.

Transfer Station Concept

A transfer station is a site or facility that accepts waste for temporary storage or consolidation and further transfer to a waste disposal, treatment or storage facility. No waste is buried or otherwise permanently disposed at a transfer station.

Transfer stations enable more efficient transport of waste over long distances. Refuse collection vehicles typically have a payload of 8 – 10 tons. Transfer vehicles typically have a payload of 20-25 tons of refuse. The capital and operating costs for a packer vehicle are significantly greater than for a transfer vehicle. Because they have greater payloads and lower capital and operating costs, it is more economical to haul waste over long distances in transfer vehicles than in collection vehicles.

The savings in transportation costs must be weighed against the cost to build and operate the transfer station. Although circumstances vary from area to area, a general industry rule of thumb is that a transfer station and transfer haul of waste become more

economical than direct haul of waste in collection vehicles once the one-way haul distance to the disposal facility exceeds about 15 miles.

Since transfer stations necessarily involve a significant level of truck traffic, these facilities are commonly located in areas of industrial land use. In Kane County, most industrial land uses are found within municipal boundaries, making it more likely that suitable locations for future transfer stations would be found in municipally incorporated areas.

Regulatory Framework

Waste transfer stations are defined as "pollution control facilities" under the Illinois Environmental Protection Act and must secure local siting approval as well as Illinois EPA permit approval. If a transfer station is proposed to be located in unincorporated Kane County, the County is vested with siting authority. If a transfer station is proposed to be located solely within an incorporated area, the municipality is the appropriate siting authority.

Section 39.2 of the Illinois Environmental Protection Act governs the local siting process. In order to receive local siting approval, transfer stations must demonstrate compliance with nine separate criteria:

I. The facility is necessary to accommodate the waste needs of the area it is intended to serve;
II. The facility is so designed, located and proposed to be operated that the public health, safety and welfare will be protected;
III. The facility is located so as to minimize incompatibility with the character of the surrounding area and to minimize the effect on the value of the surrounding property;
IV. The facility is located outside the boundary of the 100 year floodplain or the site is flood-proofed;
V. The plan of operations for the facility is designed to minimize the danger to the surrounding area from fire, spills, or other operational accidents;
VI. The traffic patterns to or from the facility are so designed as to minimize the impact on existing traffic flows;
VII. If the facility will be treating, storing or disposing of hazardous waste, an emergency response plan exists for the facility which includes notification, containment and evacuation procedures to be used in case of an accidental release;
VIII. If the facility is to be located in a county where the county board has adopted a solid waste management plan consistent with the planning requirements of the Local Solid Waste Disposal Act or the Solid Waste Planning and recycling Act, the facility is consistent with that plan; and
IX. If the facility will be located within a regulated recharge area, any applicable requirements specified by the Board for such areas have been met.

In addition, the siting authority shall consider as evidence the previous operating experience and past record of convictions or admissions of violations of the applicant (and any subsidiary, parent corporation, or subsidiary of the parent corporation) in the field of solid waste management when considering the second and fifth criterion above. This is often referred to as the tenth criteria.

The County Board (or other appropriate municipal body) has 180 days from the day an application for local siting approval is filed to approve or reject the application. During that period, the County Boards must hold at least one public hearing on the application, and consider comments received or postmarked not later than 30 days following the last public hearing date. Upon receiving siting approval, permitting from the IEPA is required.

Kane County has adopted a local siting ordinance (Kane County Code, Chapter 11, Article V) to implement the requirements of Section 39.2. This ordinance specifies the types of information that applicants for local siting approval must provide, and describes the procedures for conducting the public hearings and the review process.

Transfer stations which are used exclusively for landscape waste, and at which landscape waste is not stored for more than 24 hours, are exempt from the Section 39.2 process. Such facilities must obtain zoning approval, however, as well as IEPA permit approval.

Upon receiving local siting approval, a facility is required to obtain development and operating permits from the Illinois EPA. Transfer stations may also require additional approvals such as stormwater permits, building permits, and occupancy permits. After they are constructed and commence operations, transfer stations are inspected by the Illinois EPA.

Kane County Transfer Program

The County views transfer stations as a viable alternative for meeting the future solid waste disposal needs of its residents and businesses. Kane County does not intend to pursue the development of a County-owned transfer station. Rather, the County will rely on private sector proposals to develop a transfer station network in response to market demand. A network of transfer stations operated by different waste haulers will serve to create sufficient competition in the private sector to ensure competitive pricing and high service quality in both the residential and commercial sectors.

The County may assist municipalities and waste haulers in their efforts to identify potential transfer station site locations. To ensure optimal transfer station site locations are identified and examined, the County's GIS Technologies Department may also provide specific GIS data to waste haulers to assist with this investigation (this information has already been provided to municipalities). Any GIS data provided would

be restricted to this specific purpose under an agreement with the GIS Technologies Department.

Kane County wishes to ensure that sufficient information is presented on proposed transfer stations, and that siting applications comply with statutory requirements to include "sufficient details" demonstrating compliance with the nine criteria of Section 39.2. Applications for local siting approval for any transfer station to be located anywhere in Kane County shall contain at a minimum the information detailed within the outline shown in Figure 6.1.

Unless a siting application contains all the information as defined and required in Figure 6.1, the application is incomplete and does not contain the necessary information for the siting authority to adequately review and objectively rule on the proposed facility. Any siting application filed within Kane County which does not contain all of the information identified in Figure 6.1 is inconsistent with the County's Solid Waste Management Plan, and therefore inconsistent with criterion 9 of Section 39.2 of the Illinois Environmental Protection Act.

FIGURE 6.1 - REQUIRED CONTENT OF APPLICATIONS FOR LOCAL SITING APPROVAL OF TRANSFER STATIONS TO BE LOCATED WITHIN KANE COUNTY

I. The facility is necessary to accommodate the waste needs of the area it is intended to serve;
   a. Introduction
   b. Economic benefits of facility
   c. Service area identification *
   d. Demographics of service area
   e. Waste generation rates of service area
   f. Existing waste disposal network for service area
   g. Competition in the waste market of service area.
   h. Conclusion, signed by professional expert

II. The facility is so designed, located and proposed to be operated that the public health, safety and welfare will be protected;

   a. Introduction
   b. Site legal and general description*
      i. Survey plat with existing structures*
      ii. Identification of property owners
      iii. Existing topography of site (minimum two foot contours)*
      iv. Title search of property
   c. Existing conditions of site and adjacent properties*
      i. Historical property uses

FIGURE 6.1 - (continued)

d. Location Standards
   i. Residential properties*
   ii. Floodplain limits*
   iii. Archaeologic study
   iv. Airport study
   v. Groundwater study
   vi. Endangered species study
   vii. List covenants recorded with the property deed
   viii. Identification of wetlands on property

e. Site Design
   i. Entrance*
   ii. Landscaping plan*
   iii. Access roads and interior traffic circulation*
   iv. Security measures to be implemented
   v. Weigh station location and design*
   vi. Parking on site*
   vii. Vehicle stacking procedures*
   viii. Utilities on site*
   ix. Office structures
   x. Transfer station structure and detailed floor plan*
   xi. Water supply, water capacity, and facility's water requirements
   xii. Stormwater management measures
      1. 100 year, 24 hour design
      2. Basin design and release rate
      3. Sediment control measures
      4. Erosion control measures (on-site and off-site)
      5. Drainage flow off-site*
      6. Site location on USES 7.5 minute quadrangle map

f. Operations
   i. Hours of operation
   ii. Quantity of wastes accepted
   iii. Anticipated quantities of waste received by waste type
   iv. Identification of acceptable waste types
   v. Waste screening procedures
   vi. Waste transfer operational plan*
   vii. Overnight storage of waste on site
   viii. Waste volume throughput analysis
   ix. Identification of disposal sites and permits
   x. Identification of proposed railroad activities
   xi. Recycling activities on site

FIGURE 6.1 - (continued)

xii. Equipment requirements
xiii. Facility cleaning procedures
xiv. Load checking program
xv. Traffic pattern (on-site)*
xvi. Facility for employees
xvii. Fueling procedures
xviii. Litter control
xix. Vector control procedures
xx. Indoor air quality
xxi. Outdoor air quality
xxii. Odor control procedures
xxiii. Noise control procedures
xxiv. Training personnel
xxv. Fire control protection
xxvi. Lockout/tagout procedures
xxvii. Insurance coverage
xxviii. Record keeping procedures
1. Daily tonnage receipts by waste type
2. In-county daily tonnage receipts
3. All regulatory correspondence
4. All environmental and regulatory inspections
5. Wastewater generation and disposal records
6. Load inspection and load discrepancy records
7. Accident records

xxix. Wastewater Generation and handling
1. Wastewater generation calculations
2. Wastewater storage procedures
3. Wastewater disposal/treatment procedures

xxx. Operational Contingency Plans
1. Equipment failure
2. Interruption of utility service
3. Inclement weather

xxxi. Proposed life of facility
xxxii. Final Closure
1. Waste removal
2. Equipment removal
3. Equipment cleaning
4. Cost estimate
5. Schedule

g. Operator Information and Experience
i. Articles of Incorporation
ii. Audited financial statements
iii. Transfer station experience within Illinois

FIGURE 6.1 - (continued)

iv. Summary of all transfer station violations in Illinois
v. Transfer station experience outside Illinois
vi. Resume of facility manager

h. Conclusion, signed by professional expert

III. The facility is located so as to minimize incompatibility with the character of the surrounding area and to minimize the effect on the value of the surrounding property

a. Introduction
b. Land use/zoning/planning study
   i. Site zoning
   ii. Adjacent and surrounding zoning*
   iii. Adjacent and surrounding land uses*
   iv. Landscape plan*
   v. Setbacks*
   vi. Conformity with the Kane County 2030 Land Resource Management Plan
c. Real Estate Impact Study
   i. Proposed improvements
   ii. Chicago metropolitan area data and Kane County area data
   iii. Transfer site area study
   iv. Property value impact study
d. Conclusions, signed by professional expert

IV. The facility is located outside the boundary of the 100 year floodplain or the site is flood-proofed

a. Introduction
b. Location of 100 year floodplain*
c. Conclusion, signed by professional expert

V. The plan of operations for the facility is designed to minimize the danger to the surrounding area from fire, spills, or other operational accidents

a. Introduction
b. Fire prevention measures
c. Spill prevention measures
d. Accident prevention/risk management
e. Operational contingency plan
f. Conclusion, signed by professional expert

VI. The traffic patterns to or from the facility are so designed as to minimize the impact on existing traffic flows;

a. Introduction
b. Methodology used

FIGURE 6.1 - (continued)

i. Traffic characteristics of the facility
ii. Traffic assignment and analysis
iii. Roadway and site access requirements

c. Site Accessibility
   i. Site location*
   ii. Area roadways*
   iii. Proposed roadway improvements*
   iv. Existing traffic volumes
d. Develop traffic characteristics
   i. Directional distribution
   ii. Estimated site traffic generation
   iii. Future growth
e. Accident history of key intersections to and from facility
f. Traffic impact analysis
   i. Site access
g. Identification of routing to disposal facility
h. Gap study
i. Conclusion, signed by professional expert.

VII. If the facility will be treating, storing or disposing of hazardous waste, an emergency response plan exists for the facility which includes notification, containment and evacuation procedures to be used in case of an accidental release
   a. Introduction
   b. Emergency response plan
   c. Conclusion, signed by professional expert

VIII. If the facility is to be located in a county where the county board has adopted a solid waste management plan consistent with the planning requirements of the Local Solid Waste Disposal Act or the Solid Waste Planning and recycling Act, the facility is consistent with that plan
   a. Introduction
   b. Benefits of facility
   c. Consistency with the solid waste plan
   d. Conclusion, signed by professional expert

IX. If the facility will be located within a regulated recharge area, any applicable requirements specified by the Board for such areas have been met
   a. Introduction
   b. Location of regulated recharge
   c. Conclusion, signed by professional expert.

Note: * denotes that a graphic presentation or figure is required within the text.

APPENDIX A

PUBLIC COMMENT

A public hearing to receive comments on this proposed solid waste management plan was held on March 18, 2004. No oral or written testimony was received at that meeting.

Two written comments were received and are included on the following pages of this appendix.

COUNTY OF KANE

COUNTY BOARD

Dan Walter – District 16
545 Medford Dr.
South Elgin, Illinois 60177
Phone: (847) 508-1440

County Government Center
719 Batavia Avenue
Geneva, Illinois 60134-3011
Phone: (630) 232-5930
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March 16, 2004

Memo: Solid Waste Plan Update Comments
From: Dan Walter
County Board District 16

I agree that our solid waste plan should continue to recognize transfer stations as the means by which waste will be most effectively channeled for recycling or disposal. Further, I support providing pertinent GIS data to companies considering the siting of a solid waste transfer facility in Kane County. Doing so should assist them in identifying potentially compatible land use and transportation corridors. However, in no way can that assistance be construed to mean we are relieving any applicant from full compliance with our Solid Waste Plan and the mandated siting criteria.

I cannot agree however, with the suggestion made that we approve the siting of more transfer stations than are needed in order to foster market competition. One of the nine state-mandated siting criteria requires the applicant to *prove that need exists*. The applicant must comply with those criteria and such comments only serve to suggest otherwise. While the existing process is somewhat arduous, it is the process we must follow.

I also support the further consideration of joint intergovernmental efforts to accomplish our solid waste objectives such as those undertaken with the City of Batavia.

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March 22, 2004

Mr. Tim Harbaugh, Director
Kane County Department of Environmental Management
719 Batavia Avenue
Geneva, IL 60134

Subject: Comments on Five Year Update to County Plan

Dear Mr. Harbaugh:

The following comments are submitted regarding the draft Kane County Solid Waste Management Plan, Five Year Update, dated December 2003.

1. Executive Summary, Page i:

Following this growth, the amount of solid waste generated within Kane County is expected to increase from ~~411,000~~ 613,000 tons per year in 2001 to ~~552,000~~ 822.000 tons per year in 2020 (based on growth in population only).

2. Executive Summary, Page i:

The estimated amount of solid waste recycled in Kane County has increased from 44,664 tons (9.1 % of the waste stream) in 1989 to 262,737 tons (42.9 % of the waste stream) in 2001.

3. Executive Summary, Page ii:

~~In spite of the trend toward transfer of waste to distant landfills, prices have remained competitive in both the residential and commercial sectors. Tipping fees at northern Illinois landfills are highly competitive, and the numerous waste haulers operating in Kane County also ensures that a high level of competition exists.~~

The trend toward transfer of waste will enable multiple regional landfills to be accessed in a cost effective manner. This will provide competition for disposal costs and help to offset greater costs that otherwise might be incurred in utilizing more distant landfills.

4. Executive Summary, Page ii:

~~Statewide, 14 years of landfill capacity remained at the end of 2001, a significant increase from the 9 years of capacity available in 1992.~~ For the term of this update it appears that landfill capacity in Northern Illinois is sufficient to meet the disposal needs for the non-recyclable waste generated in Kane County. Regional landfill capacity will need to be tracked as part of future plan updates. Competition among landfills has helped to control increases in ~~kept~~ disposal costs ~~in check~~ in our marketplace. ~~This competition is anticipated to continue into the future.~~

~~Adequate landfill capacity appears to exist in northern Illinois to meet the disposal needs for non-recyclable waste generated within Kane County.~~ This Plan Update recommends that the County continues the policy established by Resolution 95-247 which states, in part, that: "The Kane County Board will not pursue the acquisition of property, the development of, or the siting approval for a new landfill facility in Kane County."

5. Chapter 2 – Solid Waste Needs Assessment, Page 5:

Insert the following sentences at the end of the first paragraph:

However, hauler reported quantities of waste disposed have varied significantly during this period. For example, in 2002 the haulers reported landfilling 221,070. In 2003 they reported landfilling 398,160 tons, a difference of 80%

Recommendation 2.1

Based on the variability of the hauler reported data, especially with respect to waste disposed, the County will evaluate its data collection efforts and make appropriate changes in the hauler survey process. The County finds that trends in waste generation, recycling and disposal is an area for continued research.

6. Chapter 2 – Solid Waste Needs Assessment, Page 8.

Insert the following sentence after the fifth paragraph:

The landscape waste component of the recycling totals shown in Figure 2.2 is based on estimates of the total amount of landscape waste generated (as per the Kane County Solid Waste Management Plan). The estimate is based on the assumed percentage of landscape waste in the waste stream, and includes landscape waste managed on-site by homeowners and businesses, and collected and composted.

7. Chapter 2 – Solid Waste Needs Assessment, Page 10.

Insert the following sentences after the fourth paragraph:

The recycled quantities shown in Figure 2.3 are based on hauler reported quantities of recyclables collected, hauler reported quantities of landscape waste collected, and County

estimates of landscape waste managed on-site by residents and businesses. Landfilled quantities were estimated by subtracting recycled quantities from estimated waste generation. As noted before, landfill quantities as reported by haulers have varied significantly over the past ten years.

8. Chapter 2 – Solid Waste Needs Assessment, Page 11.

This Plan finds that need for additional waste management capacity ~~in~~ to serve Kane County should be based primarily on the need to maintain and increase competition within the private sector marketplace.

9. Chapter 5 – Landfilling, Page 23.

The major publicly-owned waste companies began to transport the waste they collected to regional landfills, ~~they owned, to maximize internal revenue.~~ Transfer stations ~~also~~ began to facilitate the movement of waste to these more distant landfills.

Very truly yours,

Shaw EMCON/OWT

Phillip P. Kowalski
Principal Planner

Walter S. Willis
Senior Planner