EXECUTIVE SUMMARY

Landfill Capacity and Expansion Analysis

Delta compiled a list of landfills where McHenry County waste is currently transferred and summarized current and future capacity (within the next five years) for sanitary landfills in Illinois and Wisconsin within an 85-mile distance from McHenry County. Delta also explored current and future capacity for expansion to landfills in Indiana. In addition to the narrative memo, Delta compiled the information in tables, organized by state; contacts at the landfills; and a map showing the locations of the landfills included in this task.

Legislative Activity

Delta documented active federal and state solid waste management laws and regulations, including a summary of requirements and obligations to be met. Delta also surveyed and summarized pending and potential federal and state solid waste management regulations and legislation. Research topics included extended producer responsibility, product stewardship, take-back programs, and other waste streams. Delta also reviewed local ordinances, including the McHenry County Unified Development Code for language pertinent to solid waste management.

Solid Waste Management Trends

Delta examined current and emerging solid waste management trends, on a national, regional, and state level. The trends and innovative approaches explored include:

- Waste reduction and waste diversion of organics/composting
- Construction and demolition debris management
- Waste management strategies for specific activities or users, including:
    - Public events (concerts/sports/fairs)
    - Industrial facilities (factories)
    - Commercial facilities (restaurants/bars, office building)
    - Institutional facilities (schools, jails, churches)
    - Multi-family dwellings
- Ways to implement new approaches, including
    - New technologies
    - Funding sources
    - Educational outreach and marketing

Delta researched these topics and obtained definitions, how they are used (or what applications are used, in the case of the specific activities or users), and when available provided information on incentives, barriers, and real-world examples.

Delta is pleased to continue our partnership with McHenry County by contributing to this SWMP update.

LANDFILL CAPACITY AND EXPANSION ANALYSIS

Delta performed a capacity analysis for landfills in northern Illinois, southern Wisconsin, and northwest Indiana, using data from Illinois Environmental Protection Agency (IEPA), Wisconsin Department of Natural Resources (WDNR), and Indiana Department of Environmental Management (IDEM). Currently, McHenry County waste is transferred to five landfills: Orchard Hills, Winnebago, Countryside, and DeKalb County in Illinois, and Mallard Ridge in Wisconsin.

Research Summary

Illinois

Based on current disposal rates, Illinois' Region 2 has nine years of capacity available; Region 2 includes landfills in 9 northeast and north central counties: Cook, DuPage, Grundy, Kane, Kankakee, Kendall, Lake, McHenry, and Will. Region 1 has 22 years of capacity available; Region 1 includes landfills in 12 northwestern counties: Boone, Bureau, Carroll, DeKalb, Jo Daviess, LaSalle, Lee, Ogle, Putnam, Stephenson, Whiteside, and Winnebago. Data was last reported for 2020.

As of March 2022, there are two applications to Illinois EPA for new landfills, one in Knox County and one in Effingham County. There were no applications for landfill expansion at the time of this publication.

Wisconsin

There are seven active landfills in southeastern Wisconsin; of these seven landfills, five have an estimated remaining life of less than 10 years. Within this group of five landfills, four of them – Mallard Ridge Landfill Inc., WMWI Metro Recycling & Disposal, Emerald Park Landfill, and WMWI Orchard Ridge Recycling & Disposal – are at different stages of expansion, with plans ranging from an additional 6 to 10 million cubic yards. The fifth landfill, Kestrel Ridge, is slated to close in 2023. The other two landfills in Wisconsin have an estimated remaining life of 20 or more years. Data was last reported for 2020. According to WDNR, it is unlikely that a new landfill will be sited in Southeastern Wisconsin in the next five years. The most recently opened new landfill came online in 1994, and the focus for landfill management has shifted towards landfill expansions since then.

Indiana

Landfill capacity for facilities located in northern Indiana and counties in central Indiana, northwest of Marion County, has been identified and included in this report. In 2020, no municipal solid waste landfill in Indiana had accepted waste from McHenry County. As of 2014, there were no active municipal solid waste landfills in Northwestern Indiana (Lake, Porter, and LaPorte counties). IDEM last conducted a landfill capacity analysis for all landfills in 2014; a partial landfill capacity analysis was conducted by IDEM in 2020. Data from both analyses have been included in this document, as well as estimates for the landfills not included in the 2020

IDEM analysis. Since 2014, 6 municipal solid waste landfills in Indiana have received approvals for major modifications. This includes 2 in this analysis' geography: Elkhart County Landfill and Newton County Landfill. The approvals were issued in June 2017 and November 2021, respectively.

The following tables present the most current data available on landfill capacity for the regions noted above. Some variation exists in the metrics reported due to differences in reporting for each state. Unless otherwise stated, all capacity is measured by cubic yards (cy). Contact information for landfills is provided in Table 5.

Table 1: Northern Illinois Landfill Capacity (2020)

County	Facility Name	Years Remaining	Disposal Volume Reported (gate cy*)	Disposal Volume (post-compaction in-place cy)	Capacity Remaining (in-place cy)
IL EPA Region 1					
DeKalb	DeKalb County Landfill	29	2,210,572	850,220	24,420,675
LaSalle	LandComp Landfill	17	995,715	497,858	8,478,610
Lee	Lee County Landfill Inc.	77	774,373	387,187	29,668,114
Ogle	Orchard Hills Landfill	6	8,003,652	1,677,914	10,704,697
Ogle	Rochelle Municipal Landfill No. 2	63	163,610	137,487	8,647,289
Whiteside	Prairie Hill Recycling and Disposal Facility	42	1,050,683	389,142	16,449,116
Winnebago	Winnebago Landfill	16	4,004,711	2,881,087	46,950,825
IL EPA Region 2					
Lake	Countryside Landfill Inc.	5	1,239,495	381,383	1,931,935
Lake	Zion Landfill	8	1,347,090	635,420	5,362,951
Will	Laraway Recycling and Disposal Facility	5	2,234,471	1,241,373	6,671,745
Will	Prairie View Recycling and Disposal Facility	17	3,582,073	838,893	13,990,095

This summary is based on the IEPA 2020 Landfill Capacity Report for reporting period: Jan. 1 to Dec. 31, 2020. Shaded landfills denote landfills currently receiving waste from McHenry County.

** Gate cubic yards refers to volume of waste as it enters the facility.*

https://www2.illinois.gov/epa/topics/waste-management/landfills/landfill-capacity/Documents/landfill-capacity-report-2021.pdf

Table 2: Southern Wisconsin Landfill Capacity (2020)

County	Facility Name	Estimated Remaining Site Life in Years	Initial or Original Capacity (cy)	Capacity as of January 2020 (cy)	Capacity as of January 2021 (cy)
WDNR SE Region					
Kenosha	WMWI Pheasant Run Recycling & Disposal	**	487,000	9,040,800	8,840,000
Milwaukee	WMWI Metro Recycling & Disposal	9	9,653,185	8,970,800	8,116,000
Racine	Kestrel Hawk Landfill	2	5,000,000	96,293	451,000
Walworth	Mallard Ridge Landfill Inc.	3	5,197,000	1,659,734	1,332,937
Waukesha	Emerald Park Landfill	6	3,550,360	5,150,669	4,430,310
Waukesha	WMWI Orchard Ridge Recycling & Disposal	5	5,422,855	5,300,000	4,469,000
WDNR SC Region					
Rock	Janesville City Landfill (New)	20	4,765,000	5,195,237	4,941,340

This summary is based on WDNR 2020 Landfill Tonnage Report for reporting period: Jan. 1 to Dec. 31, 2020. Shaded landfills denote landfills currently receiving waste from McHenry County.

*** WMWI Pheasant Run Recycling & Disposal estimated remaining site life in years was not reported at the time of publishing this data. In 2019, the landfill reported an estimated remaining site life of 53 years.*

https://dnr.wi.gov/topic/Landfills/documents/reports/2019tonnage.pdf

https://dnr.wi.gov/topic/Landfills/documents/reports/2020tonnage.pdf

Table 3: Indiana Landfill Capacity (2014)

County	Facility Name	Years Remaining	Gross Airspace (cy)	Waste Received (tons)	Active and Future Acres	Remaining Capacity (cy)
IDEM Northern Region						
Elkhart	Earthmovers Landfill	7.17	4,004,365	263,179	83.6	2,830,544
Elkhart	Elkhart County Landfill	63.56	13,755,565	115,964	92.9	11,055,319
Fulton	County Line Landfill	86.32	30,946,580	192,254	206.1	24,891,684
Kosciusko	Hoosier Landfill 2	23.72	7,352,308	162,992	65.7	5,798,674
St. Joseph	Prairie View Recycling & Disposal	21.77	11,956,526	279,462	151.4	9,125,038
IDEM Central Region						
Cass	Oak Ridge Recycling & Disposal Facility	8.82	3,786,910	192,424	98.4	2,544,442
Newton	Newton County Landfill	20.37	81,468,029	2,171,190	423.8	66,342,021
White	Liberty Landfill	8.26	19,501,959	1,267,843	155	15,713,246

This summary is based on the Indiana Department of Environmental Management 2014 Indiana Municipal Solid Waste (MSW) Landfill Capacity & Life for reporting period: Jan. 1 to Dec. 31, 2014.

https://www.in.gov/idem/waste/resources/applications-and-forms/solid-waste-reporting/[1]

[1] The 2014 Indiana Municipal Solid Waste (MSW) Landfill Capacity & Life was previously hosted online by IDEM. As of March 2022, this resource is no longer available on IDEM's website. It was available at the following address: *https://www.in.gov/idem/landquality/files/sw_msw_landfill_capacity.pdf*

Table 4: Indiana Landfill Capacity (2022)

County	Facility Name	Years Remaining	Gross Airspace (cy)	Waste Received (tons)	Active and Future Acres	Remaining Capacity (cy)
IDEM Northern Region						
Elkhart	Earthmovers Landfill	*1.7*	*n/a*	*n/a*	*n/a*	*357,977*
Elkhart	Elkhart County Landfill	29.314	14,339,398	257,401	126.9	11,318,378
Fulton	County Line Landfill	31.817	29,497,458	494,649	213.7	23,607,570
Kosciusko	Hoosier Landfill 2	9.367	8,265,038	467,572	66.5	6,569,314
St. Joseph	Prairie View Recycling & Disposal	*12.7*	*n/a*	*n/a*	*n/a*	*5,405,150*
IDEM Central Region						
Cass	Oak Ridge Recycling & Disposal Facility	*2.4*	*n/a*	*n/a*	*n/a*	*551,321*
Newton	Newton County Landfill	*19.6*	*n/a*	*n/a*	*n/a*	*44,322,525*
White	Liberty Landfill	*2.7*	*n/a*	*n/a*	*n/a*	*3,557,177*

This summary is based on IDEM 2020 Indiana Municipal Solid Waste (MSW) Landfill Capacity & Life for reporting period: Jan. 1 to Dec. 31, 2020. In 2020, analysis was conducted for only a select number of facilities including Elkhart County Landfill, County Line Landfill, and Hoosier Landfill 2. Based on the described methodology, Delta Institute estimated the years remaining and remaining capacity for the additional landfills in our geography of interest, shown here in italics.

https://www.in.gov/idem/waste/resources/applications-and-forms/solid-waste-reporting/

Table 5: Landfill Contact Information

County	Facility Name	Address	Phone	Website
IL EPA Region 1				
DeKalb	DeKalb County Landfill	18370 Somonauk Road DeKalb, IL 60115	(815) 758-6906	https://www.wmsolutions.com/locations/details/id/33
LaSalle	LandComp Landfill	2840 E. 13th Road Ottawa, IL 61350	(815) 942-1800	
Lee	Lee County Landfill Inc.	1214 S. Bataan Road Dixon, IL 61021	(815) 288-4607	
Ogle	Orchard Hills Landfill	8290 Highway 251 Davis Junction, IL 61020	(815) 874-9000	https://www.wmsolutions.com/locations/details/id/954
Ogle	Rochelle Municipal Landfill No. 2	6513 S. Mulford Road Rochelle, IL 61068	(815) 384-4251	https://www.wasteconnections.com/rochelle-landfill/
Whiteside	Prairie Hill Recycling and Disposal Facility	18762 Lincoln Road Morrison, IL 61270	(815) 772-7308	https://www.wmsolutions.com/locations/details/id/32
Winnebago	Winnebago Landfill	8403 Lindenwood Road Rockford, IL 61109	(815) 874-4806	https://www.winnebagolandfill.com/
IL EPA Region 2				
Lake	Countryside Landfill Inc.	31725 N. Route 83 Grayslake, IL 60030	(847) 223-2722	https://www.wmsolutions.com/locations/details/id/24
Lake	Zion Landfill	701 Green Bay Road Zion, IL 60099	(847) 599-5921	https://gflenv.com/zion/

Will	Laraway Recycling and Disposal Facility	21233 W. Laraway Rd Joliet, IL 60436	(815) 727-6148	https://www.wmsolutions.com/locations/details/id/286
Will	Prairie View Recycling and Disposal Facility	29755 S. Prairie View Drive Wilmington, IL 60481	(815) 423-5120	https://www.wmsolutions.com/locations/details/id/264
WDNR SE Region				
Kenosha	WMWI Pheasant Run Recycling & Disposal	19414 60th Street Bristol, WI 53104	(262) 857-7956	https://www.wmsolutions.com/locations/details/id/49
Milwaukee	WMWI Metro Recycling & Disposal	10712 S. 124th Street Franklin, WI 53132	(414) 529-6180	https://www.wmsolutions.com/locations/details/id/52
Racine	Kestrel Hawk Landfill	1989 Oakes Road Racine, WI 53406	(262) 884-7080	
Walworth	Mallard Ridge Landfill Inc.	W8470 State Road 11, Delavan, WI 53115	(262) 724-3257	
Waukesha	Emerald Park Landfill	W124 S10629, S 124th St, Muskego, WI 53150	(414) 529-1360	https://www.cityofmuskego.org/542/Emerald-Park-Landfill
Waukesha	WMWI Orchard Ridge Recycling & Disposal	W124 N9355 Boundary Road Menomonee Falls, WI 53051	(262) 250-8758	https://www.wmsolutions.com/locations/details/id/47
WDNR SC Region				
Rock	Janesville City Landfill (New)	525 Black Bridge Road Janesville, WI 53545	(608) 755-3105	https://www.janesvillewi.gov/departments-services/public-works/operations-division/solid-waste-management/sanitary-landfill
IDEM Northern Region				
Elkhart	Earthmovers Landfill	26488 County Road 26 Elkhart, IN 46515	(574) 875-5232	https://www.wmsolutions.com/locations/details/id/37

Elkhart	Elkhart County Landfill	59530 County Road 7 Elkhart, Indiana 46517	(574) 522-2581	https://elkhartcounty.com/en/all-departments/landfill-solid-waste/
Fulton	County Line Landfill	7922 N. Old US Hwy 31 Argos, IN 46501	(574) 223-9610	
Kosciusko	Hoosier Landfill 2	2710 E. 800 South Claypool, IN 46510	(574) 376-2811	https://gflenv.com/hoosier/
St. Joseph	Prairie View Recycling & Disposal	15505 Shively Road Wyatt, IN 46595	(574) 546-4475	https://www.wmsolutions.com/locations/details/id/40
IDEM Central Region				
Cass	Oak Ridge Recycling & Disposal Facility	2905 South, 150 East Logansport, IN 46947	(574) 722-5771	https://www.wmsolutions.com/locations/details/id/42
Hendricks	Twin Bridges Recycling & Disposal	124 Twin Bridges Road Danville, IN 46122	(317) 745-2878	https://www.wmsolutions.com/locations/details/id/41
Newton	Newton County Landfill	2266 East 500 South Road Brook, IN 47922	(219) 394-2808	
White	Liberty Landfill	8635 East State Road 16 Monticello, IN 47960	(574) 278-7139	https://www.wmsolutions.com/locations/details/id/38


McHenry County Solid Waste Management Plan:
Landfill Analysis
West Bend
Watertown
Madison
Milwaukee
Muskegon
Holland
Racine
Janesville
Kenosha
Waukegan
McHenry County
Crystal Lake
Freeport
Rockford
Hoffman Estates
Evanston
Chicago
Aurora
Sterling
Illinois
Michigan City
South Bend
Gary
Tinley Park
Joliet
Goshen
Indiana
Kankakee
Kokomo
Lafayette
Champaign
Danville
Indianapolis
Terre Haute
Legend
Landfills Used by McHenry County
1. Mallard Ridge Landfill Inc.
2. Countryside Landfill Inc.
3. Winnebago Landfill
4. Orchard Hills Landfill
5. DeKalb County Landfill
Other Landfill Locations
6. WMWI Orchard Ridge Recycling & Disposal
7. GFL Emerald Park Landfill
8. WMWI Metro Recycling & Disposal
9. Janesville City Landfill (New)
10. Kestrel Hawk Landfill
11. WMWI Pheasant Run Recycling & Disposal
12. Zion Landfill
13. Rochelle Municipal Landfill No. 2
14. Prairie Hill Recycling & Disposal Facility
15. Lee County Landfill Inc.
16. Laraway Recycling & Disposal Facility
17. LandComp Landfill
18. Prairie View Recycling & Disposal Facility
19. Elkhart County Landfill
20. Earthmovers Landfill
21. Prairie View Recycling & Disposal
22. County Line Landfill
23. Hoosier Landfill 2
24. Newton County Landfill
25. Liberty Landfill
26. Oak Ridge Recycling & Disposal Facility
Esri, HERE, Garmin, NGA, USGS, NPS

LEGISLATIVE ACTIVITY

Current Waste Legislation

McHenry County is subject to legislation at both the Federal and state level. On the Federal level, the flagship legislation is the Resource Conservation and Recovery Act (RCRA), which sets the framework for both hazardous and nonhazardous waste management in the United States. Illinois policies create frameworks for state agencies and local governing bodies, as well as specifying waste products that can be disposed in Illinois landfills. Below are the current federal, state, and local policies concerning waste and materials management.

Federal Legislation	
Resource Conservation and Recovery Act (RCRA) 42 U.S.C. §6901 et seq.	The Resource Conservation and Recovery Act (RCRA) authorizes the US Environmental Protection Agency (EPA) to oversee the management of hazardous waste and creates a framework for the management of non-hazardous waste. In 1984, RCRA was amended to focus on waste minimization and phase out land disposal for hazardous materials. The law has increased EPA's enforcement authority, tightened hazardous materials management standards, and created an underground storage tank (UST) management program. Compliance focuses on waste handling facilities and encourages states to develop comprehensive solid waste management plans.
Bill Emerson Good Samaritan Food Donation Act Public Law No: 104–210	The Bill Emerson Good Samaritan Food Donation Act reduces liability to encourage the donation of food to nonprofit organizations.
Save Our Seas 2.0 Public Law No: 116-224	Save Our Seas 2.0 creates requirements and incentives to reduce marine debris and plastic waste as an amendment to the Marine Debris Act. This extends to inland bodies of water, including navigable waterways and the Great Lakes.
State Legislation	
Environmental Protection Act 415 ILCS 5/1 et seq.	The Environmental Protection Act (EPAct) provides overarching legislation on the protection and restoration of the environment in Illinois. Pertinent to this research, EPAct regulates disposal of waste items and the operation of waste facilities, and it establishes issuance of permits and funds for waste management work. EPAct imposes retail and landfill fees. Amendments to EPAct banned the disposal of yard waste, lead-acid batteries, waste tires, white goods including large appliances and HVAC units, and used oil into landfills.
Solid Waste Management Act/Fund 415 ILCS 20/1 et seq.	The Solid Waste Management Act and Fund establishes a waste management hierarchy from volume reduction at the source to disposal in landfill facilities, and it sets out requirements for recycled commodities. Under this legislation, state-supported colleges are required to develop waste management plans.
Solid Waste Planning and Recycling Act 415 ILCS 15/1 et seq.	The Solid Waste Planning and Recycling Act requires all Illinois counties and the City of Chicago to develop a solid waste management plan. It also requires that 25% of municipal waste generated be recycled.

Mercury Thermostat Collection Act 415 ILCS 98	This act prohibits the disposal of mercury-switch thermostats in landfills. Thermostat manufacturers are required to establish and maintain programs for safe disposal.
Safe Pharmaceutical Disposal Act 210 ILCS 150	This act prohibits disposal of unused medication into public wastewater and septic systems. Municipal and county facilities may collect unused medicine. Pharmaceuticals collected may be disposed of in a drug destruction device as defined by EPAct.
Illinois Composting 415 ILCS 5/3.19	This amendment to EPAct allows for composting of food scraps on a commercial scale without triggering requirements for more heavily regulated landfills, transfer stations, or other pollution control facilities, provided the food scrap composting facility adheres to specific volume, composting method, and location requirements per EPAct.
Construction & Demolition Debris Public Act 96-1416	This amendment to EPAct creates a state tipping fee for construction and demolition (C&D) debris disposal and provides additional standards for materials being accepted at CCDD facilities and uncontaminated soil-only fill sites.
Task Force on the Advancement of Materials Recycling Public Act 097-0853	This amendment to the Solid Waste Management Act/Fund creates a task force to review recycling and solid waste management planning with the goal of expanding waste reduction, recycling, reuse, and composting.
Compost Dropoff Public Act 099-0011	This amendment to EPAct allows collection of organics for composting at temporary and permanent sites operated by a municipality or county.
Food Donations Public Act 099-0552	This amendment to the Illinois Procurement Code prohibits public entities from entering food purchasing contracts if the contract prohibits the public entity from donating food to food banks.
Consumer Electronics Recycling Act (CERA) 415 ILCS 151	The Consumer Electronics Recycling Act (CERA) establishes a system for recycling and reusing of unwanted electronic devices and sets a convenience standard for the minimum number of collection locations in each county.
Bulk Containers Public Act 101-0510	This amendment to the Illinois Food, Drug and Cosmetic Act allows for the use of personal containers for bulk foods at retailers.
State Action on Waste Public Act 101-0074	This amendment to the Solid Waste Planning and Recycling Act requires the state to develop a comprehensive waste plan for the Illinois General Assembly and provides for establishment of recycling at state agencies with specific reduction goals.
Local Ordinances	
Residential Recycling Ordinance	The Residential Recycling Ordinance requires residents of McHenry County to separate recyclable materials from other waste and mandates recycling of common recyclables like plastic, paper, aluminum, cardboard, and glass. This directly impacts recycling efforts countywide; however, currently there is no mechanism to require commercial operations to recycle.
Municipal Waste Haulers Licensing Ordinance	The Municipal Waste Haulers Licensing Ordinance requires licensure of persons or companies in the business of collecting or hauling discarded materials on a continuous and regular basis in McHenry County. Annually, during the license renewal process, all municipal solid waste haulers are required to submit data on the amount and type of waste collected by them for the previous year. This data

	collection allows the county to track recycling and waste generation rates and identify areas that need improvement to expand reuse and recycling initiatives.
Pollution Control Facility Siting Ordinance	The Pollution Control Facility Siting Ordinance requires an application and local site approval for the development, construction or expansion of a Pollution Control Facility as defined per EPAct in unincorporated McHenry County. Local approval must be granted by the McHenry County Board. Facilities located within incorporated areas would obtain their local siting approval from their municipality.
McHenry County Public Health Ordinance	The McHenry County Public Health Ordinance empowers the Health Department to respond to complaints of accumulations of rubbish and garbage and ensure that it is disposed of properly to prevent public health issues.
Unified Development Ordinance Chapter 16.20.100, 16.56	McHenry County's Unified Development Ordinance sets use standards for permanent waste handling facilities within the county and requires waste management practices for temporary land uses.

General Future Legislation

This summary includes pending or proposed legislation as of February 2022. At that time, proposed legislation was focused on materials that contribute to environmental degradation or may negatively impact human health, which would lead to a reshaping of waste streams and material management. There is a push to increase opportunities for waste diversion from landfills, with proposed legislation to increase funding for food waste research and food waste diversion programming, improve and standardize food labeling processes, and create incentives for food recovery efforts.

Federal

The proposed Federal RECOVER and RECYCLE Acts (H.R. 2357 and H.R. 5906 respectively) aim to increase recycling rates through investment, technology, public education, and outreach. Both acts have been introduced to the U.S. House of Representatives.

Federal legislation has also been proposed concerning plastics and products containing per-and polyfluoroalkyl substances (PFAs). Source reduction for plastics and clear labeling for plastic items have been suggested as means of plastic waste management, as well as regulation on packaging to make recycling processes easier. The federal PFAs Action Act of 2021 (H.R.2467) would require PFAs to be classified and handled as a hazardous substance. It has been approved by the U.S. House of Representatives and received by the US Senate, which has referred it to the Senate Committee on Environment and Public Works.

State

Proposed legislation at the state level caters to the specific concerns of Illinois, focusing on food waste, materials disposal, and operations. Two amendments to EPAct aim to reduce food waste, with HB3093 setting a goal of a 50% reduction in food waste generation, and SB0094 streamlining compost sales and processes. Both have been referred to committees. In addition, a proposed amendment to the Local Solid Waste Disposal Act (HB5373) would include food waste diversion in solid waste management plans for local jurisdictions (municipalities, counties, and Municipal Joint Action Agencies).

The Drugs and Sharps Waste Stewardship Act (HB3720) proposes a stewardship program for the safe disposal of drugs and sharps and would require county collection sites. This bill has been referred to the Illinois Rules Committee. Other proposed bills focus on the reuse or recycling of carpet (HB4356), photovoltaic modules (SB3115), lithium-ion batteries (SB3445), and plastics (SB3953). There is also legislation introduced in the Illinois House that would require IEPA to contract with a packaging stewardship organization that would make sure packaging for products comply with all requirements for using readily recyclable materials (HB4258).

The Renters' Right to Recycle Act (HB3985) would require owners of multifamily dwellings to provide recycling services and is under review by the Rules Committee. A proposed amendment to the Disposal of Refuse, Garbage, and Ashes Division of the Illinois Municipal Code (HB0342) would prevent municipalities from entering contracts or franchises under this section of the municipal code exclusively with one provider. It would also prevent contracts where the method of disposition may be anticompetitive or displace competition from commercial location customers. The amendment would also limit home rule powers and makes conforming changes.

Updates on these pieces of legislation can be found on the Illinois General Assembly's online legislation portal.

SOLID WASTE MANAGEMENT TRENDS

Waste Reduction and Waste Diversion of Organics and Composting

In the Chicagoland region and nationally, there is an increased access to alternative ways to manage organic waste, with national composting rates rising from negligible amounts in 1990 to 4.1% in 2018. In the Chicagoland region, a variety of independent compost providers offer services for food scrap pickup. In McHenry County, the municipalities of McHenry, Crystal Lake, and Lake in the Hills offer drop-off and "ride along" services for residents where compost is collected with curbside yard waste pickup. Educational materials can support organics diversion for any organization or household type, ranging from composting opportunities in multifamily dwellings or information on setting up a composting pile on rural properties.

Municipalities and organizations also offer annual events for composting items that are usually purchased around a certain time each year. In 2021, the Village of Cary's Park District hosted a "pumpkin smash" after Halloween, where residents could dispose of unwanted jack-o-lanterns and pumpkins in partnership with the organization SCARCE, keeping pumpkin waste out of landfills. In McHenry County, there are also five sites where Christmas trees can be dropped off for mulching.

Food rescue programs allow for the collection and distribution of unused food that would otherwise be thrown away, usually with a focus on food nearing expiration and small donations or unpredictably timed donations. Organizations like 412 Food Rescue provide food rescue programs on a city-wide level, though smaller operations and volunteer networks can also leverage their resources to recover food.

Construction and Demolition Debris Management

Most construction and demolition (C&D) debris are highly recyclable, with material often considered a resource rather than a waste product. During a construction or demolition project, local ordinances can require a percentage of material be recycled, and certain building certifications like Leadership in Energy and Environmental Design (LEED) set stringent requirements on recycling C&D materials.

Deconstruction, which allows for increased salvage of materials compared to demolition, provides an opportunity to keep additional material out of landfills. This activity includes more delicate building materials like lumber and bricks and can also include appliances and unique architectural features. Deconstruction efforts can be furthered through supporting education and trainings on deconstruction, offering grants for residential deconstruction projects, conducting deconstruction pilots on publicly owned buildings, and offering facilities to store deconstruction materials.

The Illinois Statewide Materials Management Advisory Committee, which includes recycling, composting, materials management, and solid waste professionals, is responsible for investigating current recycling and solid waste practices and making recommendations to the Illinois General Assembly, to help divert waste from Illinois landfills. When produced, these recommendations will also include improvements to contents of county waste management plans. More information is available on this IEPA webpage.

Waste Management Strategies for Specific Cases

Public Events

Though public events can vary in their size and function, there are strategies that can be applied to a host of

different events. In the planning stages, event coordinators can opt for processes that use fewer materials, particularly single-use items. Menus can focus on “handheld” foods like burgers and hot dogs that don’t require silverware, and any printed signs or materials can avoid including dates so that they can be reused in the future. Procurement decisions can focus on rentals and reusable materials. Vendors whose operations align with waste management goals can be used, such as those offering compostable or minimally packaged products. In 2010, the Chicago Cubs worked with multiple organizations to implement their “Real Fans Recycle” program, where fans could discard plastic cups in specially marked bins for recycling and were provided recycled napkins and compostable tableware. Marketing materials or event tickets can be distributed electronically, preventing paper waste. Make sure decisions do not compromise safety or other goals for the event. A venue may be hesitant to give out metal cans or glass bottles at the risk they become projectiles. Rather than pour drinks from cans or bottles into a softer plastic cup, drinks can be served on tap.

During events, containers for different waste streams can be provided, allowing attendees to separate landfill, recycling, and compostable waste. Signage and volunteers stationed throughout the event can help attendees properly sort waste, while using clear bags in containers allows for easy identification of any contamination. The music festival Lollapalooza provides bins for landfill waste, recycling, and composting throughout the event grounds, with volunteers stationed at each collection site to help festivalgoers sort items and provide information on Lollapalooza’s sustainability efforts. Festival organizers sell refillable water bottles and encourage attendees to bring refillable water bottles to reduce plastic bottle waste. County fairs in Adams County, Colorado, Clay County, Iowa, and Knox County, Ohio have implemented recycling bins at their events.

At the conclusion of an event, unused food can be donated if it is safe and legal to do so. The nonprofit Musically Fed works with musicians and event planners to distribute uneaten backstage food to community organizations.

Industrial Facilities

Industrial facilities can create high volumes of waste, both through production operations and through the activities of staff needed to run the operation. Waste from production operations can be minimized via procurement strategies, choosing raw materials with less packaging, or arranging with suppliers to take back packaging after delivery. Finished products can be placed in minimal packaging or in materials that can be easily recycled or composted, such as Amazon’s use of recyclable paper mailers. Facilities can explore opportunities to reuse waste generated during the production process, as some materials from industrial and manufacturing processes can be incorporated in pre-consumer waste.

Staff can be provided with recycling and composting containers, especially within cafeterias, and outfitted with uniforms and personal protective equipment (PPE) that can be washed or cleaned after use rather than single-use items. Monitoring and tracking waste trends allows an industrial operation to understand the impact of their work and share it with clients, who are increasingly demanding information on waste and environmental impacts.

Industrial operations are unique in that their waste products can pose additional risks to the environment and human health. Seeking out alternative materials or chemicals can mitigate these risks, and their use may be dictated by government regulation. For example, the dry-cleaning industry previously used tetrachloroethylene (also known as perchloroethylene) as a dry cleaning solvent. Due to its high toxicity, dry cleaners have altered their practices to replace tetrachloroethylene with less toxic compounds. Tide Cleaners have removed the use of this chemical from all their dry-cleaning operations.

Commercial Facilities

Commercial facilities such as restaurants and bars, retail, and office buildings can implement strategies across their operations to reduce waste. Implementing recycling and composting programs can create infrastructure for both employees and customers to divert waste from landfill. Several restaurants compost food scraps throughout northeastern Illinois, including Duke's Alehouse & Kitchen in Crystal Lake. Procurement processes can focus on minimizing packaging, using pre- or post-consumer waste, and using recyclable and compostable products. Restaurants and groceries can stock only an amount of food that can be used in a short time frame.

Commercial operations can use "opt-in" choices for items like disposable cutlery and straws, napkins, receipts, and bags, where a customer must ask for the item rather than being given it by default. In September 2021, Chicago's city council voted 37-10 to limit disposable cutlery included with takeout meals, with items available upon request. In 2017, a disposable bag tax was implemented in the City.

Institutional Facilities

Institutions can act as leaders in waste management efforts. For example, schools present an opportunity to address high levels of food waste and educate students about recycling and composting activities. Through a partnership between the Solid Waste Agency of Lake County (SWALCO) and the nonprofit Seven Generations Ahead, schools in Lake County are implementing waste reduction efforts in five schools throughout the county while teaching students and staff about waste management practices. These efforts have been modeled after similar programming in Chicago Public Schools, where 14 schools have worked to achieve landfill diversion rates over 85%. Higher education also presents an opportunity for improved waste management as hubs for research, pilot projects, and refine education and engagement strategies both on-campus and beyond. McHenry County College's Sustainability Center has produced recycling resources, operates on-campus composting and an office supply reuse program, and offers a wide range of environmentally minded courses.

Correctional facilities also present opportunities for improved waste management practices. Large-scale food operations can be coupled with composting and food scrap diversion. In 2018, the Lake County Adult Corrections Facility implemented a recycling and composting program in its kitchen. It now diverts 125 tons of material from landfill each year.

Other institutional facilities like government buildings, museums, and churches can incorporate procurement practices, recycling and composting programs, and encourage waste reduction within their operations and in support of the communities they serve. Given their role in communities, institutions can lead by example through their waste management efforts. Both Chicago's Field Museum and Shedd Aquarium have made strong commitments to waste diversion, while the Northern Illinois Conference Eco-Sustainability Task Force works with United Methodist churches to reduce Styrofoam usage and manage resources effectively.

Multifamily Dwellings

Multifamily dwellings present unique challenges for waste management due to the nature of their operations. Many municipalities will not provide waste hauling services to buildings with four or more units, requiring landlords to secure services from private waste haulers and incur additional costs to provide services like recycling and composting. Multifamily dwellings may not have the space or facilities to collect recycling and compost materials or the means to separate waste streams. Multifamily dwellings and rentals often have a higher turnover than single-family homes, requiring clear and repeated education for residents.

If recycling and/or composting is the goal, waste management programs in buildings need appropriate infrastructure to be successful. This infrastructure can include strategies that make disposal easy for residents, such as providing recycling containers alongside all trash containers and clearly labeling them. In buildings with single trash chutes, providing recycling bins at each access point can encourage residents to recycle, and some trash chutes can be retrofitted to manage both landfill and recycling waste. Within individual units, residents may have difficulty finding space to store recyclables or compost. Providing compact, easy-to-manage totes or composting buckets to residents can aid in-unit waste management. Janitorial staffing can also be used to monitor that waste has been properly sorted.

Providing clear signage and educational resources to residents prevents waste stream contamination and helps maintain facilities. New residents may be unfamiliar with local recycling requirements or waste facilities in their building. This situation can also be true for existing residents, especially when dealing with complex waste items like disposable coffee cups that must be separated or materials that have gotten dirty or otherwise contaminated like pizza boxes. Signage can be used to show residents how to keep facilities and operations running smoothly - encouraging residents to tie up trash bags and avoid loose items to prevent odors or pests, dispose items that will clog trash chutes elsewhere, and rinse plastics before recycling. Educational materials and trainings can improve residents' understanding of waste management and encourage them to facilitate waste management best practices in their buildings. The City of Toronto implemented its "3Rs Ambassador Program," providing training and other resources for residents of multifamily dwellings interested in promoting waste reduction in their buildings. Buildings with ambassadors reported a 15% reduction in waste bills and saw anecdotal evidence of less waste stream contamination.

Incentive programs, particularly "pay as you throw" initiatives, can further encourage recycling and composting in multifamily dwellings. When residents pay a flat fee for waste hauling services, they are not incentivized to reduce waste going to landfill. By charging them for waste they are sending to landfill, tenants can be motivated to increase their personal recycling or composting. "Pay as you throw" can be enforced through magnetic key cards or trash tokens to track waste disposal, and tenants can be motivated by reduced waste disposal fees. An administrative department in France created centralized waste disposal areas accessible with magnetic key cards, though the department must find ways to keep these areas cleaner and better maintained.

Emerging Trends

The strategies and tactics used to manage materials evolve according to changes in consumer and regulatory demands, resource constraints, and technological advances. This analysis describes some of the most notable trends that have emerged in recent years with how companies and government agencies educate and attract customers, the technologies they are using to implement materials management operations, and the sources of funding that are available to improve and expand those operations.

Technology

New technologies can help governments and businesses achieve environmental and economic goals by cutting costs, improving diversion rates, and producing commodity goods to re-enter the local market. This re-entry of commodity goods and materials into the economy is a key component of the circular economy, an economic concept that has been defined as "an economy that uses a systems-focused approach and involves industrial processes and economic activities that are restorative or regenerative by design, enable resources used in such processes and activities to maintain their highest value for as long as possible, and aim for the elimination of waste through the superior design of materials, products, and systems (including business models)." In other words, "a circular economy reduces material use, redesigns materials to be less

resource intensive, and recaptures "waste" as a resource to manufacture new materials and products."[2]

Artificial Intelligence

A study[3] published in the Swiss journal MDPI *Resources*, linked here, describes the demonstrated potential for robotics systems using artificial intelligence (AI) technology to improve diversion rates.

Plug and Play, a corporate innovation platform and startup accelerator, has noted that many companies are turning to AI-enabled robotics systems to improve diversion rates and increase competitiveness on the global materials market.

*"*Cameras and high-tech computer systems that are trained to recognize specific objects will guide robots' arms over conveyor belts to reach their target. Oversized fingers with sensors that are attached to the arms are able to snag cans, glass, plastic containers, and any other recyclable items out of the otherwise garbage and place them in their respective bins.

Recycling robots are still assisting humans, but companies have found that they can work two times as fast as humans. Industry leaders have developed robots that can identify different colors, textures, shapes, and sizes of plastic materials and make it easier to sort waste.*"*

A few startups have brought AI-enabled robotics products to market, including:

Company	Description
Amp Robotics	AMP has three different systems in use: AMP Cortex™ Guided by AI, its robots intelligently perform physical tasks of sorting, picking, and placing material. AMP Neuron™ Neuron combines machine vision with deep learning to capture and recognize the unique characteristics of objects within a mixed material stream. AMP Insights™ Data captured by Neuron is made available via AMP Insights, an online data visualization tool.
CleanRobotics	CleanRobotics has created a product called TrashBot, which is an autonomous system that uses robotics, computer vision and artificial intelligence to detect and separate landfill from recyclables.
ZenRobotics	ZenRobotics has two products: the Heavy Picker and the Fast Picker. The Heavy Picker is their strongest robot. It can pick up to 6,000

[2] U.S. Environmental Protection Agency. (2021, November 29). What is a Circular Economy? US EPA. Retrieved March 28, 2022, from https://www.epa.gov/recyclingstrategy/what-circular-economy

[3] Wilts, H.; Garcia, B.R.; Garlito, R.G.; Gómez, L.S.; Prieto, E.G. Artificial Intelligence in the Sorting of Municipal Waste as an Enabler of the Circular Economy. Resources 2021, 10, 28. https://doi.org/10.3390/ resources10040028. https://www.mdpi.com/2079-9276/10/4/28

	pieces of waste in an hour. The Fast Picker can pick up to 4,000 pieces of material per hour and is beneficial for maximizing material recovery.
Greyparrot	Greyparrot has developed waste recognition software to monitor, audit, and sort waste at scale. Using AI-powered computer vision software, Greyparrot automates the measurement of waste streams.
Everest Labs	Everest Labs works to provide cost effective and space efficient robotic and business intelligence solutions. They use in-house recycling expertise, deep data, and evolutionary machine learning to provide business intelligence and automation.

Smart Fleet Technology

Municipalities and companies are modernizing their fleets by purchasing vehicles that use alternative fuels (such as natural gas), installing onboard computers and cameras, and developing mobile apps to optimize materials collection and transport operations. These technologies can help leverage more efficient routing systems, enhance safety, and decrease noise pollution along routes.

While efforts to upgrade vehicle fleets to "smart" status are underway across most industries, leaders in the materials management industry, like Waste Management, Inc., are also making strides toward modernizing their fleets at scale to maximize these benefits.

Another environmental-services company used telematics to reduce maintenance costs across its fleet of more than 10,000 vehicles. Analysis showed that frequent exhaust system failures were driving up maintenance costs. The company found that drivers were ignoring in-cab warnings asking them to adjust their driving to allow diesel-particulate filters (DPFs) to regenerate. When regeneration cycles didn't complete, these filters became clogged, and vehicles had to be taken out of service for repair.[4]

Converting Plastic Waste to Fuel

The American Chemistry Council estimates plastic-to-fuel facilities could create nearly 39,000 jobs and almost $9 billion in economic output in the U.S. The plastic-to-fuel value chain represents a large opportunity to contribute to the circular economy. According to Plug and Play, converting plastic to fuel can be done using two methods: hydrothermal processing and pyrolysis.

A team at Purdue University recently used hydrothermal processing to convert 91 percent of their sample materials into oil. According to Anthropocene Magazine, the "team's preliminary analysis shows the conversion process uses less energy and results in fewer emissions than incinerating polypropylene plastics or mechanically recycling them."

The company BASF has started a project, called ChemCycling™, to advance pyrolysis technology "which turns plastic waste into a secondary raw material called pyrolysis oil." It focuses on "plastic waste that is not recycled mechanically for technological, economic, or ecological reasons. Examples are plastics with

[4] Cordes, C., Gould, R., Tiwari, S., & Zafar, S. (2020, December 16). Driving value from fleet telematics. McKinsey & Company. Retrieved March 28, 2022, from https://www.mckinsey.com/business-functions/operations/our-insights/driving-value-from-fleet-telematics

residues, mixed plastic waste fractions, consisting of different plastic types, which will not be sorted further or used tires which are not recycled otherwise."

Anerobic Digestion

The process of anerobic digestion breaks down materials like animal manure, wastewater biosolids, and food wastes in the absence of oxygen.[5] This technology produces two commodity outputs in the form of biogas and digestate. The U.S. EPA provides a concise overview, available here, of the science and potential applications of anerobic digestion to handle organic waste streams.

This technology has been adopted by the Chicago-based organization Green Era, and it will be incorporated into a new urban farming initiative on the city's South Side. The project is scheduled for completion in March 2022. To learn more about Green Era's $3 million project, click here.

GORE® Cover for Organic Waste Treatment

This technology can be used in the treatment of separated organic waste, biosolids, and municipal solid waste (MSW).[6] The product can be tailored for input volumes ranging from 2,000 tons to more than 200,000 tons per year. It is an aerated system equipped with an oxygen controlled, positively aerated system and an oxygen and temperature monitoring device. This creates ideal composting conditions and traps odors and other emissions such as dust and VOCs. Biological washing and filtration are not necessary. The system is also a stand-alone solution for processing pre-screened MSW. It is also reportedly able to solve odor issues when curing MSW that was initially treated in a tunnel system.

With a pore size of approximately 0,2 µ it is also an effective barrier against spores and microbes. Comparative tests have proved that the system reduces the output of bio-aerosols by more than 99 percent, thus ensuring that plant workers and nearby residents are well protected. As required by law, pathogenic microbes are safely destroyed by the heat generated during the treatment process. With its low emissions (i.e., VOCs, ammonia, dust), GORE Cover technology offers a cost-efficient way of complying with applicable legal regulations.

Extended Producer Responsibility

An emerging strategy in waste management is to incorporate all environmental costs associated with a product, throughout that product's life cycle, into the product's market price. This strategy, called Extended Producer Responsibility (EPR), is getting underway in Illinois, with an EPR working group convening to discuss policy options in the state. At present this effort is being led by SWALCO, and it may be beneficial for McHenry County to engage with this group and determine how this approach can inform or impact future solid waste management planning.

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[5] U.S. Environmental Protection Agency. (2022, March 2). How Does Anaerobic Digestion Work? U.S. EPA. Retrieved March 10, 2022, from https://www.epa.gov/agstar/how-does-anaerobic-digestion-work#:~:text=Anaerobic%20digestion%20is%20a%20process,in%20the%20absence%20of%20oxygen.

[6] Municipal solid waste refers to everyday items we use and then throw away, such as product packaging, grass clippings, furniture, clothing, bottles, food scraps, newspapers, appliances, paint, and batteries. Source: U.S. Environmental Protection Agency. (2016, March 29). Municipal Solid Waste | Wastes | US EPA. EPA's Web Archive. Retrieved March 28, 2022, from https://archive.epa.gov/epawaste/nonhaz/municipal/web/html/

Funding

Grants

As of March 2022, the State of Illinois, via IL EPA and the Department of Commerce and Economic Opportunity (DCEO), does not offer grant funding for materials management activities. However, the federal government is currently administering multiple grant programs that fund materials management activities that decision makers in McHenry County might consider.

EPA Region 5 Sustainable Materials Management program
Total Funding Range: $100,000 - $150,000
Individual Awards Range: $30,000 - $60,000
Q&A: Available here | 2021 News Release: Available here | 2020 News release: Available here

Programs funded by this program for the FY 2021 award cycle will end in October 2022. Applicants must address at least one of the following SMM priorities:

Municipal and/or Industrial Recycling Markets in Region 5

Region 5 is requesting applications for projects that contribute to the development, expansion and/or improved understanding of markets in Region 5 states for municipal and/or industrial recycling.

Preventing Food Loss and Waste Through Source Reduction and/or Food Rescue in Region 5

EPA is requesting applications for projects that use the top two strategies of the Food Waste Hierarchy (Source Reduction and Feeding Hungry People) either individually or in a combination to prevent food loss and waste.

Projects should build on the principles outlined in the Food Recovery Hierarchy and demonstrate progress to reach EPA's 2030 Food Loss and Waste Reduction goal.

USDA Rural Development Solid Waste Management Grants
Application period: October 1 to December 31 each year
Fact Sheet: Available here |FY 2022 Application Guide: Available here
FY 2021 Grant Recipients: Available here

This program reduces or eliminates pollution of water resources by providing funding for organizations that provide technical assistance or training to improve the planning and management of solid waste sites in rural areas or towns with populations of 10,000 or fewer. Funding can be used to:

- Evaluate current landfill conditions to identify threats to water resources.
- Provide technical assistance or training to enhance the operation and maintenance of active landfills.
- Provide technical assistance or training to help communities reduce the amount of solid waste coming into a landfill.
- Provide technical assistance or training to prepare for closure and future use of a landfill site.

Fees and Taxes

Governments may generate revenue by imposing fees or taxes, a portion of which may then be appropriated for waste and materials management-related activities. For example, the City of Chicago

imposed a Checkout Bag Tax which places a $0.07 tax per checkout bag "sold" or used in Chicago. Of this, $0.02 goes to the retailer and $0.05 is paid to the City. More information about Chicago's Checkout Bag Tax is available here. Additionally, the City of Chicago includes a garbage fee on the unified utility bill charged to residents for City-provided water, sewer, garbage, and water-sewer tax charged. More information on Chicago's garbage fee is available here.

Public Outreach and Marketing

Educational Outreach [7]

Midwest states and cities have successfully implemented different types of programs to educate local stakeholders. In Franklin County, Ohio, residents, businesses, and community groups can join GreenSpot, a membership-based program that provides a framework to think about sustainability and a way to log your successes. It provides educational and technical resources to assist households, neighborhoods, businesses, and community groups reach sustainability goals. As of August 2020, program participation reached 20,000 individuals. The program has built and relied upon support from an advisory board that is composed of a broad set of stakeholders including nonprofits and NGOs, academic institutions, local and state government agencies, and private enterprises.

The estimated impact of GreenSpot:

- $13 million saved
- Reduced CO2 emissions by 41 million pounds
- Reduced water consumption by more than 145 million gallons
- Recycled 32 million pounds of material

Another successful educational outreach program, GreenStep Cities, is offered by the Minnesota Pollution Control Agency. It is a voluntary challenge, assistance, and recognition program to help cities achieve their sustainability and quality-of-life goals. To further the program's goals, a set of best management practices (BMPs) were developed by the Minnesota Pollution Control Agency (MPCA) and Foth Consultants, which cities could take to exceed minimum state requirements for solid waste management and recycling.

The program features 29 BMPs that describe 175 specific actions that cities can take to support those practices. Nine organizations comprise the program's steering committee, representing Minnesota state government agencies, and nonprofit organizations. Staff from each of the organizations represented on the steering committee contribute valuable time and expertise to support the goals and activities conducted by the program.

Events

As of March 2022, recycling events to be hosted by the McHenry County Health Department had not been determined. However, multiple recycling events were hosted in 2021, including four general recycling events that resulted in roughly 87,000 pounds of materials recycled by about 1,281 residents. Additionally, five events that recycled alkaline batteries, paper, and household hazardous waste (HHW) were hosted.

Public recycling events provide opportunities to engage residents around recycling and waste reduction efforts led by the County. Event locations and promotional materials can be used to display educational

7 Delta Institute. (2021, November). City of Chicago Solid Waste Strategy: Peer City Profiles. City of Chicago. https://www.chicago.gov/content/dam/city/progs/env/Chicago-Waste-Strategy/Peer-City-Analysis-Report-7.12.21.pdf

signage and other materials. Event staff and volunteers can also be used to speak with residents about the County's efforts to increase diversion rates and prevent the negative environmental and public health impacts resulting from improper disposal of hazardous materials.

The Health Department has also issued the *McHenry County Green Award*, most recently in 2013, to "recognize the daily efforts and activities of our residents, businesses, institutions, and organizations to improve the waste reduction and recycling in McHenry County." Continuing public recognition of efforts to improve recycling rates and provide other services to the community is another approach for the County to engage residents around materials management initiatives.

Engaging residents, businesses, and community groups using a combination of the approaches described above is essential to bolstering public support for new technologies, funding sources, and educational initiatives, all of which contribute to improved materials management outcomes.

More information on these and previous recycling events can be viewed by clicking here. Upcoming recycling events hosted by the McHenry County Health Department are available here.

Marketing

Promoting the available service offerings and initiatives to customers is important to successfully roll out new programs. Exploring opportunities to partner with municipalities, county agencies, and non-profit groups to generate, host, and deliver marketing content to residential, commercial, industrial, and institutional customers can help improve outcomes for materials management programs in McHenry County.

For example, the City of Chicago and its Department of Streets and Sanitation has partnered with Recycle by City to deliver key marketing materials and educational resources to residents, businesses, and community groups. Recycle by City has also successfully partnered with cities representing major metropolitan areas including Austin, Houston, Los Angeles, Philadelphia, Flagstaff and Sedona, Arizona, and West Hollywood and Santa Monica, California.

Its platform helps municipalities deliver information and interactive content to customers at the scale required to meet the needs of a large population using its website and social media channels.

Recycle by City offers customers in Chicago a comprehensive suite of resources including:

- Household recycling guide
- Educational quiz
- Informational briefs
- Pickup schedules and reminders

Social media platforms such as Facebook, Twitter, Instagram, and LinkedIn are also valuable tools that can be used to market service offerings and other programming to businesses and residents. These platforms offer low-cost, most often free, functionality that allows organizations to create and publish engaging content on a regular basis. Facebook is particularly well-suited to implement long-term marketing efforts because of the functionality it provides including the creation of organizational "Pages," which is designed for users to promote events and publish interactive content to engage specific audiences as identified by the account owner. Additionally, organizations can implement a paid approach to marketing via social media using the built-in tools provided by each of these platforms. Facebook's (now Meta) Business Suite is particularly robust in this area. Learn more about it here.