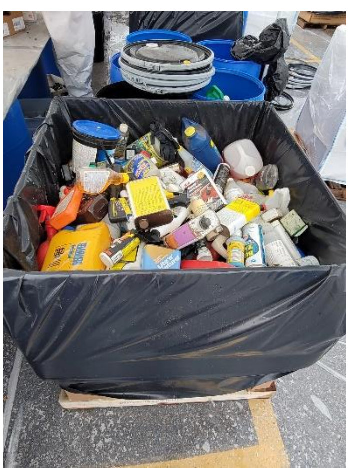
McHenry County Solid Waste Plan 2022-2031



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The 2022-2031 Solid Waste Plan update was prepared by McHenry County Department of Health**.**

Agency Staff

Melissa H. Adamson, Public Health Administrator
Patricia Nomm, Director of Environmental Health
Kristy Hecke, Field Staff Supervisor
Kelli Boeckmann, Solid Waste Manager

Technical Assistance with the Solid Waste Plan update was provided by:

Delta Institute, 35 E. Wacker, Ste 1760, Chicago, IL 60601
https://delta-institute.org/

Input provided by:

McHenry County Solid Waste Advisory Committee

Scott Kuykendall- McHenry County Water Resources Specialist
Kim Hankins- McHenry County College Sustainability Coordinator
Dan Volkers- McHenry County Farm Bureau
Barb Day- Environmental Defenders of McHenry County
Vaughn Kuevschner- Waste Management
Sandi Rusher-Village of Spring Grove

Waste Reduction Committee of the Environmental Defenders of McHenry County

Members: Cecilia Carman, Michelle Muryn, Zak Dolezal, Ashley Lange, Annette Parrent, Claire Hodges, Kari Gassman

McHenry County Solid Waste Plan Update
2022-2032
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A. Executive Summary

The Illinois Solid Waste Planning and Recycling Act of 1988 requires each county to develop a waste management plan to manage the municipal solid waste generated within its borders. McHenry County adopted its first Solid Waste Management Plan in 1992 and has since adopted updates in 1997, 2002, 2007 and 2012.

The 2022 Solid Waste Management Plan follows the new Materials Management Advisory Committee, Subcommittee on Local Government Support, County Solid Waste Plan Update Template as provided in the July 1, 2021 Illinois Materials Management Advisory Committee Report to the General Assembly.

The Solid Waste Manager, within the Division of the Environmental Health, is responsible for updating and implementing the McHenry County Solid Waste Plan. The 2022 Solid Waste Plan update was developed with input from the McHenry County Solid Waste Advisory Committee, the Waste Reduction Committee of the Environmental Defenders of McHenry County, and Delta Institute, an environmental consulting firm contracted by the McHenry County Department of Health. Delta Institute provided data relating to landfill capacity, new and trending technologies and relevant solid waste legislation. The Solid Waste Advisory Committee membership includes a municipal solid waste hauler, a municipal representative, the MCC Sustainability Coordinator, a Farm Bureau representative, a representative from the Environmental Defenders of McHenry County and the McHenry County Water Resources Specialist. The Waste Reduction Committee of the Environmental Defenders shared information obtained through their Sustainability Summit for municipalities, schools, and other food establishments that was incorporated into the plan update. The Solid Waste Manager reached out to local townships and municipalities to solicit comments, concerns, recommendations and information on future projects for inclusion in the update.

Twenty-eight (28) of the thirty-four (34) goals and objectives outlined in the 2012 Solid Waste Plan were fully or partially implemented. The target overall recycling rate was 45%, and the target goal for the pounds per capita per day (PCD) of waste disposed was 3.57. As a result of the implementation of the majority of the goals and objectives, the average overall recycling rate was 39.8%, with a range of 33% to 46%. This exceeds the minimum state recycling rate of 25%. The average PCD of waste generated was 6.91 with a range of 5.84 to 7.47.

McHenry County does not have an active sanitary landfill. Therefore, all solid waste that is created in McHenry County is transported out of the county. Solid waste from McHenry County is transferred to five (5) different landfills; four (4) in Illinois and one (1) in Wisconsin. An assessment of current landfill capacity to serve the Northern Illinois area was completed by Delta Institute. Currently there is approximately nine (9) years of landfill capacity in the Chicago Metropolitan area, and approximately 22 years of landfill capacity in Northwestern Illinois. Southern Wisconsin has seven (7) landfills; five (5) have an estimated remaining life of less than ten (10) years. Four (4) of these five (5) landfills are in the process of expansion projects to provide additional longevity.

McHenry County does have a significant waste management infrastructure including one (1) municipal solid waste transfer station, five (5) landscape waste transfer stations, one (1) landscape waste composting facility, three (3) construction and demolition waste processing centers, and three (3) beneficial use determination sites (BUDS). In addition, several of the townships offer recycling drop-off locations for their residents; the Environmental Defenders of McHenry County have three (3) Styrofoam collection points in the county, and there are numerous other recycling and reuse oriented businesses located within the county. McHenry County Department of Health has a partnership with Elgin Recycling to assure access to electronics recycling for all county residents through a permanent drop-off location and four (4) single day collection events annually.

The residential sector represents the largest portion (average of 43.88%) of McHenry County's total solid waste stream and is the most consistent of the three (3) solid waste sectors The commercial/industrial/institutional and the construction and demolition debris sectors are much more variable, and it is more difficult to obtain accurate data for these sectors. The combined data from these three (3) solid waste streams is utilized to calculate the overall recycling rates. The commercial/industrial and construction and demolition debris sectors combined represent over half of the waste generated in the county. Therefore, underreported or inaccurate data in these sectors significantly impacts the overall recycling rate.

The 2021 Solid Waste Plan Template incorporates a new standard for calculating landfilled versus diverted solid waste streams. Where previous reports relied on recycling rates, the new format is focused on diversion rates. These rates will include credit for additional waste streams that are not technically recycled but are diverted from landfill disposal through re-use or repurposed use (i.e. waste to energy).

The State of Illinois has established the following target goals for diversions rates: 40% by 2025; 45% by 2030; and 50% by 2035.

McHenry County will meet or exceed these diversion goals by focusing on traditional and non-traditional recycling and diversion efforts and building on the solid waste infrastructure currently in place in and around McHenry County. There will be a focus on expanding partnerships and collaborations to improve the identification of non-traditional and/or unregulated recyclers in order to increase the voluntary reporting of their waste recycling and diversion activities. Staff will continue to explore the potential to expand franchised solid waste services to include new areas to be served and/or additional items that should be included in standard franchise agreements (electronics, organics, HHW, etc.) The Solid Waste Manager will support and promote initiatives to reduce food waste and the diversion of food waste and other organics from landfills. The Solid Waste Manager will work with the Community Development Division and other partners to identify and obtain grant funding where possible, to sponsor waste audits, and pilot programs like Don't Trash Glass in our commercial, industrial and institutional facilities. The Solid Waste Program will continue to improve its web-based information to include additional resource material and an ongoing progress report on the status of diversion rates, and established goals and objectives.

A. Current Plan Implementation Status

Implementation Status of 2012 Solid Waste Plan

2012 Solid Waste Plan Recommendations and Goals	Implementation Status
Policy	
McHenry County should continue the coordinated county-wide approach to the management and disposal of all nonhazardous solid waste generated within McHenry County, including the management of recyclable and recoverable materials. An increased emphasis should be placed on non-residential solid waste including commercial, industrial waste and construction and demolition debris.	Implemented
Highlights- Met with multiple municipalities regarding commercial recycling and potential for commercial solid waste franchise agreements. Worked with Emergency Management Agency and Illinois Environmental Protection Agency on disposal of disaster debris guidance that was shared with surrounding counties. Solid Waste Program sponsors multiple recycling events annually that are open to all McHenry County residents. Collaborated with the Environmental Defenders of McHenry County to host a Sustainability Summit open to all food establishment, schools and municipalities in McHenry County.	
Challenges- Requires voluntary participation from commercial, industrial and institutional facilities. These partnerships must be improved.	

Administrative	
Establish a standing Solid Waste Advisory Committee, with broad based representation, to meet quarterly to discuss and provide input on the implementation of the recommendations in the Solid Waste Plan.	Implemented
Highlights- Committee was formed in 2013 and2014. 2-4 meetings were held each year from 2014-2018. By-laws were updated to expand member terms to 3 years. Committee has had broad representation from different sectors, including local government, municipal solid waste haulers, farm bureau, environmental groups, educators, etc.	
Challenges- Retaining committee members can be challenging due to career changes and other commitments.	

Maintain and Expand collection of data on recycling activity in McHenry County. Identify significant recycling data points that reflect changes in recycling activity in McHenry County and develop programming that fosters increased diversion of recyclable materials.	Implemented
Highlights- Additional recycling facilities have begun operating in the county. The recycling infrastructure includes composting facilities, asphalt shingle recycling facilities, and General Construction and Demolition Debris processing facilities. Data from the franchised solid waste areas have shown better recycling rate in comparison to the overall he residential recycling rate for the county.	
Challenges- It is challenging to identify and collect data from the non-regulated recycling facilities in the county. We rely on voluntary cooperation and it is likely that we are not capturing the total volume of materials that are actually recycled.	

Update the Annual Waste Hauler Survey to monthly or quarterly data collection.	Implemented
Highlights- Updated the Municipal Waste Hauler Licensing Ordinance to require submittal of a semiannual reports from the licensed municipal solid waste haulers. These reports include the amounts and types of municipal solid waste collected and landfilled by them.	
Challenges: A program to allow online submittal of reports in the required format with software that will calculate the rates would greatly speed the process of understanding the current recycling rates.	

Convert the Annual Waste Hauler Survey from paper submission to electronic data collection.	Partially Implemented
Highlights-Designed and implemented. fillable semi-annual report forms for the municipal waste haulers.	
Challenges- A program to allow online submittal of reports in the required format with software that will calculate the rates would greatly speed the process of understanding the current recycling rates. Fillable, online forms are not available for non-regulated facilities to obtain their recycling data. Due to consistent changes in personal at these facilities, staff could not maintain updated list of accurate email addresses.	

Evaluate the potential to collect waste composition data from Licensed Municipal Solid Waste Haulers.	Not Implemented
Highlights- Waste composition data was updated in the Illinois Commodity/Waste Generation and Characterization Study Update in 2015. The study was made possible through grant funding by the Illinois Department of Commerce and Economic Opportunity and partnerships with the Illinois Recycling Association.	
Challenges- Landfills and material recovery facilities do not maintain separate data by county of origin. Municipal solid waste haulers do not provide this level of detail with their reported numbers.	

Continue to expand the number of collectors and recyclers that provide accurate information on recycling/disposal rates to the Solid Waste Manager.	Partially Implemented
Highlights- Annually, the voluntary recycling survey and reporting form is mailed to every recycling facility that has been identified by the Solid Waste Manager.	
Challenges- There is no process to identify every non-regulated recycling facility that opens or closes in the county. The survey is voluntary, and response rates are inconsistent year to year. There is no mechanism to evaluate the accuracy of the data that is reported.	

Public Outreach and Education	
Provide leadership and support to municipalities and other entities in McHenry County seeking to improve overall waste management. Provide model documents such as franchised solid waste removal agreements, best management practices and other guidance.	Implemented
Highlights- Outreach to villages, municipalities, townships to share solid waste information regarding special recycling events, impactful legislation, or regulation. The Solid Waste Manager provided support and information to townships on solid waste franchise agreements (Nunda and Algonquin) that were evaluating the potential to implement township wide solid waste franchise agreements. Information is made available on the Department's website. Promoted zero waste strategies for residential and commercial / institutional sectors through participation in development of the annual McHenry County Green Guide. The Solid Waste Manager participated as a panel speaker at commercial recycling forums. The Solid Waste Manager participated on the Board of Directors for the Illinois Recycling Association. Historically, the annual McHenry County Green Awards recognize waste reduction and recycling efforts of individuals, businesses, institutions, and organizations. The Solid Waste Program provided letters of support for grant applications to support solid waste projects. The Solid Waste Manager provides written or verbal input and feedback to state solid waste organizations and partner groups such as ILCSWMA, IRA, Illinois Task force on the Advancement of Recyclable Materials, Illinois Food Scrap Collation and SWANA. The Solid Waste Program routinely provides information and interactive educational booths at the McHenry County Fair, McHenry County Conservation District Earth Day Festival, local farmer's markets, and the McHenry County College Green Living Expo. Promotional items, with solid waste messaging, are distributed at educational outreach events.	
Challenges- Need to expand participation in events that may not attract individuals who are already committed to recycling and other solid waste initiatives.	

Revise current website to provide at a minimum: o Waste Hauler Specific Information o Recycling Information for Residents o Regulatory Information o Best Management Practices for municipalities, businesses, and institutions o Residential Service Information o Information should include requirements, links to annual survey, events and opportunities, relevant ordinances, model contracts, flyers and other tools, franchise information.	Implemented
Highlights- Significant improvement has been made to the Solid Waste Program website in terms of types of information and timeliness of the information provided.	
Challenges- Until recently, the Division of Environmental Health did not have a staff member with the necessary skill set and time available to devote website improvement.	

Continue to support and partner with the McHenry County Schools Environmental Education Program (MCSEEP) to provide quality solid waste education to school aged children in McHenry County.	Implemented
Highlights- The Solid Waste Program partnered with MCSEEP to provided electronics recycling education to nearly 22,000 students grades K-8 regarding our cultural use of household electronic devices. The Solid Waste Program has also partnered with Environmental Defenders of McHenry County and Chicago Logistics to facilitate a Styrofoam recycling challenge in the schools. Solid Waste Program staff also worked with MCSEEP at the Youth Groundwater festivals and most recently at the Sustainability Summit offered to schools, food facilities, and local governments by the Environmental Defenders of McHenry County.	
Challenges- The Solid Waste Manager needs to continue to identify opportunities to partner on solid waste management education for all age levels.	

Incorporate new information technologies in promotional efforts (i.e. social media, websites, email services, etc.).	Implemented
Highlights- The Community Information Coordinator for the Department of Health and other community partners (local units of government, MCC, MCSEEP, organizations, Chambers of Commerce, etc.) assist with public information and education outreach to promote events, programs and information using several modes of communication including flyers, newsletters, websites, press releases, social media, electronic roadway signs, billboards etc. The Solid Waste Manager participated in an interview with WBBM Chicago radio regarding holiday light recycling.	
Challenges- This is an ongoing process. The Solid Waste Manager needs to continue to identify both traditional and non-traditional methods of communication to ensure that messages reach all interested parties.	

Develop partnerships with the business community, solid waste haulers, institutions, service and professional organizations, and governmental entities to expand the outreach potential for focused educational efforts.	Implemented
Highlights: The Solid Waste Manager is a member of the Environmental Defenders of McHenry County and participates on the Waste Reduction Committee. The Solid Waste Manager is also a member of the Illinois Counties Solid Waste Management Association, the Illinois Recycling Association/Foundation, and the Solid Waste Association of North America. The Solid Waste Manager toured Midwest Organics facility to learn about their composting processes. The Solid Waste Program routinely partners with the Environmental Defenders of McHenry County to provide multiple recycling opportunities to the public annually. As a member of the Waste Reduction Committee, the Solid Waste Manager participated in development of the Sustainability Summit that focused on reduction of food waste at schools and food establishments and the inclusion of food waste collection in municipal solid waste contracts. The Solid Waste Manager routinely participates in projects with the McHenry County College Sustainability Center including the annual update of the McHenry County Green Guide.	
Challenges- The Solid Waste Manager needs to continue to build relationships with the business community and other representatives in the commercial sector.	

Encourage municipalities, townships and civic groups throughout McHenry County to continue to advertise events and programs on their websites, in community newsletters, and e-list bulletin announcements to provide information to their residents.	Implemented
Highlights: The Solid Waste Manager routinely works with the Department's Community Information Coordinator to provide press releases. The Solid Waste Manager routinely communication with solid waste partners via phone and email. Participation in the development of The McHenry County Green Guide offers multiple opportunities to expand relationships with Community Partners.	

Challenges: The Solid Waste Manager needs to continue to identify and foster new partnerships to ensure that all residents have access to current information regarding recycling options and upcoming events. One of these opportunities may be the McHenry County Council of Governments (MCCOG).

Establish quarterly meeting series for municipal leaders, property managers, waste haulers and recyclers to share best management practices. Utilize business forums hosted in conjunction with Chambers of Commerce to provide opportunities to help businesses to effectively manage waste.	Not Implemented
Highlights: The Solid Waste Manager is in routine communication with these entities and has participated in several municipal forums regarding recycling, food waste and sustainability. Quarterly meetings were not established.	
Challenges: Scheduling conflicts and variable levels of interest in participation resulted in a failure to schedule quarterly meetings.	

Continue to provide McHenry County Green Awards to highlight innovative or exemplary solid waste management by businesses, organizations or institutions.	Implemented
Highlight: The McHenry County Solid Waste Committee has annually solicited and reviewed applications for the McHenry County Green Awards to recognize the innovative waste reduction and recycling efforts of individuals, businesses, institutions and organizations.	
Challenges: Over the years, the Committee has often received nominations for the same initiatives; it has been difficult to solicit nominations for new initiatives.	

Continue to support the publication of the McHenry County Green Guide.	Implemented
Highlights- The Solid Waste Program continues to support the annual development and publication of the McHenry County Green Guide. The Solid Waste Manager provides information on annual recycling events and provides articles on specific solid waste topics as requested.	
Challenges: None	

Legislative Initiatives	
Where appropriate support legislative initiatives of groups such as SWANA, Illinois Product Stewardship Institute working group and Illinois Recycling Association to support legislation that shifts the onus to manufacturers of items with significant end of life management costs from local governments.	Implemented
Highlights- The Solid Waste Manager was elected to the Illinois Recycling Association Board of Directors and is a member of the Solid Waste Association of North America (SWANA) and Illinois Counties Solid Waste Management Association (ILCSWMA). This allows the Solid Waste Manager to remain up to date on current and emerging solid waste issues. As appropriate, the Solid Waste Manager supports the initiatives of these organizations through letters of support or offering comments on pending programs (i.e. K-12 Recycling Grant Program).	

Engage the Task Force on Advancement of Materials Recycling to monitor any recommended changes to Solid Waste Planning for counties, funding opportunities, and new Illinois solid waste initiatives.	Partially Implemented
Highlights: A final report of recommended changes was presented to the governor in 2015. The Solid Waste Manager did offer input and comment to the Task Force on the recommended changes. A new task force was formed in 2019	

called the Material Management Advisory Committee. The Material Management Advisory Committee has provided a new template for County Solid Waste plans to provide consistency and a mechanism to compare solid waste plans across the state.
Challenges: Comments were not solicited from local solid waste program managers on the 2021 update.

Review the Municipal Waste Hauler Licensing Ordinance, Residential Recycling Ordinance, and Pollution Control Facility Siting Ordinances for potential updates and changes that may minimize barriers to recycling.	Implemented
Highlights: These Ordinances are reviewed by staff annually. The Municipal Waste Hauler Licensing Ordinance was last amended in 2014.	
Challenges: The Ordinances should be reviewed by the Solid Waste Advisory Committee to identify whether there are any unintended barriers to recycling and diversion of solid waste.	

Finance and Waste-based Economic Development	
McHenry County should monitor and apply to federal, state and local sources for grants to be used for solid waste programming when such funding is consistent with the goals of the plan.	Implemented
Highlights: The Solid Waste Manager applied for and the Solid Waste Program was awarded Illinois Environmental Protection Agency Electronic Products Recycling & Reuse Grant for billboard ads to educate residents on electronics recycling. The Solid Waste Manager provides letters of support to solid waste partners for grant funding that is consistent with plan goals (Illinois Environmental Council K-12 Recycling Grant Program).	
Challenges: The Solid Waste Manager needs to work with existing county partners (Community Development Division of the Department of Planning & Development) to assist in identifying grant opportunities and opportunities to partner with other departments or entities on similar projects.	

Work with Department of Planning and Development and municipalities to evaluate the potential to develop a deconstruction ordinance to require demolition contractors to recycle a specified percentage by weight of construction materials for demolition projects and to require that a specified percentage from residential projects is diverted for reuse.	Not Implemented
Highlights- Discussions were begun between the Department of Planning and Development and the Department of Health but no formal proposal for a deconstruction ordinance was developed for consideration by the McHenry County Board.	

Encourage contiguous businesses to pursue shared service agreements with solid waste haulers to enable smaller businesses to afford higher quality services that maximize recycling opportunities.	Partially Implemented
Highlights: The Environmental Defenders of McHenry County partnered with a municipal solid waste hauler and received grant funding for a commercial cardboard recycling project at shared businesses & smaller businesses. By separating the cardboard from the waste, businesses could reduce the frequency of pick-ups resulting in a cost savings. The 2022 Sustainability Summit provided information encouraging businesses to buy in bulk and divide supplies for better pricing. Businesses were encouraged to leverage route density (multiple businesses utilizing the same hauler) to reduce costs.	

Challenges: This is a voluntary process. The Solid Waste Manager needs to continue to evaluate and implement the best forum and format for getting these types of recommendations to commercial/industrial/institutional partners.

Consider strategic partnership with workforce development partners and McHenry County Community College to provide deconstruction training.	Not Implemented
Highlights- Discussions were started with the Sustainability Center at McHenry County College regarding the potential to create a partnership to provide deconstruction training. Formal program not developed.	
Challenges: Since the deconstruction ordinance was not implemented, this was given a low priority.	

Work with Department of Planning & Development and Economic Development Groups to identify potential partners in salvage store business, second hand or vintage retailers to accept and sell deconstruction materials.	Not Implemented
Highlights:	
Challenges: This is part of the ongoing challenges associate with obtaining voluntary data from some of the non-traditional recyclers. This objective will be carried over into the updated plan.	

Recycling	
Encourage all McHenry County municipalities to establish volume-based pricing in solid waste franchise agreements.	Implemented
Highlights: The Solid Waste Manager routinely shared experiences and the service components of the McHenry County franchised solid waste agreements with several municipalities as part of their contract renewal process. The result was that residents did receive larger recycling carts and expanded solid waste removal services. The solid waste franchise program information is available on the Department's webpage to use as a model.	
Challenges: McHenry County is not directly involved in the process of implementing renewing municipal solid waste contracts. The Solid Waste Manager should actively reach out to municipal partners and have an understanding of the general services offered in each municipality.	

Work closely with municipalities to identify solid waste programming successes and potential model programs that can be shared with others such as curbside recycling, composting, household hazardous waste disposal and electronic recycling.	Partially Implemented
Highlights: The Solid Waste Program has provided a model for a Request for Proposal and program specifications to assist local townships with creating franchised solid waste removal services within their jurisdictions. Multiple municipalities had curbside electronic recycling added to their contracts.	
Challenges: McHenry County is not directly involved in the process of implementing renewing municipal solid waste contracts. The Solid Waste Manager should actively reach out to municipal partners and have an understanding of the general services offered in each municipality.	

Encourage commercial and industrial establishments, institutions, governmental agencies and other nonresidential entities to participate in source reduction activities and to provide street side recycling wherever waste containers are located.	Implemented
Highlights: The Solid Waste Manager met with several municipalities regarding commercial recycling and the feasibility of providing mixed recycling containers in public spaces. The Solid waste Manager facilitated a partnership with the Glass Packing Institute, Glass King and Thelen's Sand and Gravel for a location to stage commercial glass recycling. The Solid Waste manager worked with County Administration to provide exterior, mixed recycling bins at	

McHenry County Government buildings. A recycling bin grant opportunity was shared with municipalities, municipal waste haulers and schools to encourage increasing the recycling infrastructure. The Solid Waste Manager worked closely with McHenry County Fair officials to implement the first recycling program at the McHenry County Fair.
Challenges: This is a voluntary process. The Solid Waste Manager needs to continue to evaluate and implement the best forum and format for getting these types of recommendations to commercial/industrial/institutional partners.

Depending on availability of funds and priorities, further the development of source reduction programs, special events and recycling for items including tires, electronics, batteries, plastic bags, etc.	Implemented
Highlights: The Solid Waste Program hosts multiple county-wide, comprehensive recycling events annually. Electronics, alkaline batteries, used tires, Styrofoam, fluorescent bulbs, textiles, plastic film, paper documents, eyeglasses, and latex paint were collected for recycling, reuse or diversion. Two (2) Household Hazardous Waste Events were facilitated by the Solid Waste Program. A total of 1263 tons of materials and 410 -55-gallon drums of HHW were collected from 2012-2021.	
Challenges: Requests are received routinely for recycling events for a variety of materials. Staff prioritizes the expenditure of the available funds to best meet the current needs of the community.	

Encourage the development of programs to increase the collection of residential organics and composting of organic material including landscape waste, food scrap and livestock waste.	Partially Implemented
Highlights: The Solid Waste Manager met with several municipalities regarding commercial recycling. A change to the regulations regarding landscape waste composting on farms has made on-farm composting more achievable. When livestock waste management violations are documented, Department staff provides on-farm composting options. Regulations related to collection and storage of off-waste were relaxed to allow single day household compostable waste collection. McHenry County has hosted one day organics composting events (pumpkins and organic fall decorations). One of the McHenry County franchised solid waste removal programs offered food scraps recycling with the landscape waste for composting at a permitted organics composting facility. Discussions have taken place with McHenry County Fair officials about the potential to collect organics and food scraps for on-site generated composting as part of the Conservation World tent activities.	
Challenges: Organics collection for composting requires the cooperation of the municipal solid waste haulers. This service is currently available on a limited basis based upon the infrastructure to collect and transport the material.	

Landfilling	
Maintain contact with landfills in Region 1, Region 2 and southeastern Wisconsin to request landfill-based information for waste originating in McHenry County.	Not Implemented
Highlights: None	
Challenges: Landfills do not collect or calculate county specific data. Material Recovery Facilities (MRFs) cannot accurately differentiate the county of origin for the incoming recyclable materials.	

Household Hazardous Waste	
Identify mechanisms to assure Household Hazardous Waste Collection opportunities independent of IEPA funds.	Partially Implemented
Highlights: Local law enforcement agencies and multiple pharmacies offer drug takeback programs. Due to the cost of providing an unlimited household hazardous waste collection event, McHenry County does not have an obvious source of funding to provide routine events. There are 4 existing, permanent household hazardous waste collection	

facilities within a 45 – 60-minute drive of McHenry County that are free of charge and available to all Illinois residents. The Solid Waste Manager routinely advertises these sites and provides information to residents on the website, via phone consultations, email and at recycling events. 2 HHW events, sponsored by IEPA were held in McHenry County in 2021 and 2022. The Solid Waste Manager has been approached by IEPA staff regarding the potential for McHenry County to be an annual single day collection location.
Challenges: The Solid Waste Manager has not been able to identify any alternative funding for annual, household hazardous waste collection events that are not sponsored by the IEPA.

Encourage and support municipalities and other agencies or entities in the establishment and maintenance of supplemental Household Hazardous Waste Collection programs including Partner for Paint, fluorescent lamps, waste oil, etc.	Implemented
Highlights: Algonquin, Nunda and McHenry Townships work with third party vendors to provide paint collection for their township residents. The Solid Waste Program has provided multiple single day paint collections for all county residents. The Environmental Defenders of McHenry County collect fluorescent bulbs routinely at single day collection events open to all county residents.	
Challenges: The Partners for Waste Paint Solution program is not active in Northern Illinois. Cost of HHW collection and disposal is the greatest challenge, which limits opportunities.	

Continue to provide residents with information on the four (4) permanent household hazardous collection sites in Northern Illinois, which are open to all Illinois residents.	Implemented
Highlights: The Solid Waste Manager regularly provides residents with information regarding the permanent HHW collection sites, via the McHenry County Green Guide, flyers at educational events, phone calls and emails.	
Challenges: Residents sometimes object to utilizing out of county facilities due to the distance.	

Franchised Solid Waste Services	
Evaluate the extent to which municipal solid waste franchising should be implemented in unincorporated areas of McHenry County.	Implemented
Highlights: McHenry County currently facilitates franchised solid waste removal programs in two (2) area of the county. In 2017, franchised solid waste services were expanded to include all of unincorporated McHenry Township (7100 households). In 2015 Nunda Township implemented a township wide, comprehensive solid waste removal program for all of their residents. The Solid Waste Manager provided example documents and supporting information to Nunda Township during their contract process and has provided similar materials to Algonquin Township, who is currently considering the potential to hold a referendum regarding solid waste removal services for all Algonquin Township residents.	
Challenges: Further investigation is required regarding the viability of offering comprehensive solid waste removal services in other parts of unincorporated McHenry County. The western half of the county presents additional logistic challenges because the properties tend to be larger and not as densely populated.	

B. Existing Infrastructure Report

McHenry County Department of Health contracted with Delta Institute (Delta) to perform an analysis of landfill capacity in and around Northern Illinois, Southern Wisconsin, and Northwestern Indiana. See the report below.

Landfill Capacity and Expansion Analysis

Delta performed a capacity analysis for landfills located 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]

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/

[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*

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
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
McHenry County
West Bend
Watertown
Madison
Milwaukee
Muskegon
Holland
Janesville
Racine
Kenosha
Waukegan
Freeport
Rockford
Crystal Lake
Hoffman Estates
Evanston
Chicago
Sterling
Illinois
Aurora
Michigan City
South Bend
Goshen
Gary
Tinley Park
Joliet
Indiana
Kankakee
Kokomo
Lafayette
Danville
Champaign
Indianapolis
Terre Haute
Esri, HERE, Garmin, NGA, USGS, NPS

Additional Infrastructure Utilized in and Around McHenry County

Since 1987 McHenry County has maintained a delegation agreement with the Illinois Environmental Protection Agency (Illinois EPA) for enforcement of non-hazardous solid waste activities. Department staff conducts regular inspections of Illinois EPA permitted solid waste management facilities operating in McHenry County. This is to ensure solid waste management facilities are operating within their Illinois EPA approved permit provisions and the McHenry County Public Health Ordinance. There are no active sanitary landfills operating in McHenry County. However, there are currently fourteen (14) other Illinois EPA permitted solid waste management facilities including one (1) closed sanitary landfill; three (3) asphalt shingle recycling facilities which have received Beneficial Use Determinations; one (1) municipal solid waste transfer station; five (5) landscape waste transfer stations; one (1) landscape waste composting facility and three (3) general construction and demolition debris processing centers. There are two (2) solid waste facilities (general construction and demolition debris processing centers) with development permits from the Illinois EPA. There are also numerous recycling and reuse oriented businesses, institutions and organizations.

In addition to inspecting IEPA permitted facilities, Environmental Health staff responds to complaints of mismanagement of non-hazardous solid waste on behalf of the IEPA, and to ensure compliance with the Environmental Protection Act and Public Health Ordinance for McHenry County.

There are multiple other solid waste facilities adjacent to or near McHenry County that are available to county residents, solid waste haulers, and/or businesses and institutions.

McHenry County has an adequate infrastructure for effective solid waste management. See below.

a. Material Recovery Facilities (MRF)

1. **Waste Management MRF**, 30869 N Route 83, Grayslake
2. **Waste Management of Illinois**, 6120 River Rd Hodgkins
3. **LRS Northbrook MRF**, 2300 Carlson Dr, Northbrook

b. Transfer Stations

Municipal Solid Waste Transfer Station

Transfer stations are structures and/or processing facilities where regional solid waste collection vehicles deposit waste to be further transported for end disposal in municipal sanitary landfills, waste-to-energy facilities, or material recovery facilities. The solid waste is transferred onto larger and separately designated vehicles designed to travel longer distances and haul the waste to its final destinations.

1. **Virginia Road Municipal Waste Transfer Facility**
    - Virginia Road Municipal Waste Transfer Facility is located in Crystal Lake, Illinois. The Virginia Road Transfer Station began operating in December 2009 and accepts municipal solid waste and recyclable materials.
    - This facility has a maximum process capacity of 1,000 tons per day.
2. **Groot Industries- North,** 201 Porter Dr, Round Lake Park
3. **Waste Management/Bluff City Transfer Station,** 1225 Gifford Rd, Elgin

Landscape Waste Transfer Stations

Illinois Public Act 90-0266 permanently banned disposal of landscape waste in Illinois landfills. The landscape waste landfill ban was enacted largely due to diminishing landfill capacities in Illinois. This ban has helped to successfully reduce landscape waste composition in sanitary landfills. Additionally, the ban resulted in the creation of additional markets for landscape waste composting facilities.

Currently, there are five (5) Illinois EPA permitted landscape waste transfer stations in McHenry County.

1. **Waste Management North McHenry**
    - Waste Management is located in McHenry, Illinois, and began operations in 1998.
    - Waste Management has been inactive since approximately 2004.

2. **Woodstock Yardwaste Collection Site**
    - Woodstock Yardwaste is located in Woodstock, Illinois, and has been in operation since 1993.
    - Woodstock Yardwaste only accepts landscape waste generated within the City of Woodstock.
    - The City of Woodstock's Department of Public Works collects an estimated 4,000 – 5,000 cubic yards of landscape waste per year.
3. **Petersen Pit Landscape Waste Transfer Station**
    - Peterson Pit is located in Lakemoor, Illinois, and has been in operation since 2011.
    - Petersen Pit accepts landscape waste from the general public, landscape waste service operators and municipal solid waste haulers for further transfer to approved landscape waste composting facilities.
    - This facility has a capacity of 1,500 cubic yards of landscape waste per day.
4. **Virginia Road Landscape Waste Transfer Station**
    - Virginia Road is located in Crystal Lake, Illinois, and has been in operation since 2021.
    - Virginia Road accepts landscape waste from the general public, landscape waste service operators and municipal solid waste haulers for further transfer to approved landscape waste composting facilities.
    - This facility has a capacity of 1,050 cubic yards of landscape waste per day.
5. **Solon Road Landscape Waste Transfer Station**
    - Solon Road is located in Richmond, Illinois, and been in operation since 2021.
    - Solon Road accepts landscape waste from Landscape Construction Corporation only.
    - This facility has a capacity of 180 tons of landscape waste per day.

c. Construction & Demolition (C&D) Facilities

Construction and demolition debris includes non-hazardous and uncontaminated materials that result from construction, demolition, and remodeling/repair work on structures and facilities. Construction and demolition recycling facilities generally accept most common, non-hazardous building materials, including bricks, concrete and other masonry materials; soil; rock; wood, including non-hazardous painted, treated, and coated wood and wood products; wall coverings; plaster; drywall; plumbing fixtures; non-asbestos insulation; roofing shingles and other roof coverings; reclaimed or other asphalt pavement; glass; plastics that are not sealed in a manner that conceals waste; electrical wiring and components containing no hazardous substances; and corrugated cardboard, piping or metals incidental to any of those materials and other related, commercial grade building components.

1. **Lowe Enterprises C&D Material Processing Facility**
    - Lowe Enterprises is located in Cary, Illinois. Lowe Enterprises is a large-scale general construction and demolition debris recycling processing facility in McHenry County.
    - Lows has been permitted to operate since 2012.
    - Lowe Enterprises has a maximum process capacity of 1600 tons of construction and demolition debris per operating day.
2. **Southwind RAS I C&D Material Processing Facility**
    - Southwind RAS I is located in Lake in the Hills, Illinois and has been in operation since 2015.
    - Southwind has a maximum process capacity of 400 tons of asphalt shingles per operating day.
3. **Reliable Recycling C&D Material Processing Facility**
    - Reliable Recycling is located in Holiday Hills, Illinois, and has been in operation since 2018.
    - Reliable Recycling currently only accepts asphalt shingles and clean wood for processing. The facility is developing the site to accept of other general construction and demolition debris in the future.
    - Reliable Recycling has a maximum process capacity of 100 tons of general construction and demotion per operating day.
4. **MBL Recycling**, 630 Hicks Rd, Palatine
5. **Midwest Material Management**, 16N220 Brier Hill Rd, Hampshire
6. **Aurora Recycling Center**, 213 Mettel Rd, Aurora
7. **Taz C & D Recycling**, 5300 S Lawndale Ave, McCook
8. **JKS Ventures Inc**, 3800 W Lake St, Melrose Park

Beneficial Use Determinations

The current policy of the Illinois EPA is to treat materials, such as asphalt shingles, more like traditional recyclables (i.e. paper, plastic, metal, etc.) and offer exemptions from some of the permitting requirements. These types of facilities are relatively new and require Illinois EPA approval. Illinois EPA stipulates the specific conditions and limitations for each facility. Also referred to as Beneficial Use Determination (BUD) facilities, there are currently three such facilities in McHenry County.

1. **Southwind RAS I, LLC**
    - Southwind RAS I is located in Lake in the Hills, Illinois and began operation in 2013.
    - Southwind RAS I accepts asphalt shingles from the general public and contractors for processing into beneficial use material.
    - This facility has a maximum single storage capacity of 47,727 tons of recycled asphalt shingles and unprocessed shingles.
2. **Charles Copley Roofing**
    - Charles Copley Roofing is located in Crystal lake, Illinois and began operation in 2013.
    - This facility only accepts asphalt shingles from Charles Copley Roofing, Inc.
    - Charles Copley Roofing has a maximum single storage capacity of 1,500 tons of recycled asphalt shingles and unprocessed shingles.
3. **Consolidated Materials**
    - Consolidated Materials is located in Crystal lake, Illinois and in 2018
    - Consolidated Materials has suspended acceptance of asphalt shingle at this time due to a limited market for the finished materials.
    - Consolidated Materials has a maximum single storage capacity of 30,000 tons of recycled asphalt shingles and unprocessed shingles.

d. Household Hazardous Waste Collection Facilities

1. **Naperville**, www.naperville.il.us/hhw.aspx
    - 156 Fort Hill Drive, Naperville, DuPage County, Phone: 630-420-6095
2. **Rockford**, Rock River Reclamation District, http://www.knib.org/recycling/green-guide/household-hazardous-waste-site/
    - 3333 Kishwaukee, Rockford, Winnebago County, Phone: 815-987-5570
3. **Chicago**, www.cityofchicago.org/hccrf
    - Goose Island, 1150 North Branch, Chicago, Cook County, Phone: 312-744-3060
4. **Lake County**, The Solid Waste Agency of Lake County (SWALCO) www.swalco.org
    - 1311 N Estes St, Gurnee, Lake County, Phone: 847-336-9340.
5. McHenry County Solid Waste Program is working with Illinois EPA to become an established site for annual, single day HHW collection events.

e. Composting Facilities

Landscape Waste Compost Facilities

Currently, there is one (1) active landscape waste composting facility operating in McHenry County.

1. **Thelen Sand & Gravel Compost Facility**
    - Thelen Sand & Gravel is located in Fox Lake, Illinois, and has been in operation since 1996.
    - The facility that accepts grass clippings, leaves, brush and organics from the general public, landscape service operations and solid waste haulers.
2. **Midwest Organics Recycling**, 29353 N Darrell Rd, McHenry- Lake County
3. **Rock River Valley Compost**, 6200 Baxter Rd, Cherry Valley

f. Recycling Drop off Facilities

1. Algonquin Township Highway Dept, 3702 Us Hwy 14, Crystal Lake (Algonquin Township Residents only)
2. McHenry Township Road District, 3703 N Richmond Rd, Johnsburg (McHenry Township Residents only)
3. Nunda Township Highway Dept, 3518 Bay Rd, Crystal Lake (Nunda Township Residents only)
4. Elgin Recycling, 5114 E Terra Cotta Ave, Crystal Lake
5. Environmental Defenders of McHenry County, Styrofoam Recycling Drop off Locations
   a) Algonquin Township, 3702 Us Hwy 14, Crystal Lake
   b) Village of Algonquin Public Works, 110 Meyer Dr, Algonquin
   c) City of Woodstock Public Works, 326 Washington St, Woodstock
6. Prairieland Drop off Recycling Center,1350 N Old Rand Rd, Wauconda
7. Waste Management Lake County Recycling Center, 30869 N Route 83, Grayslake

g. Scrap Metal Facilities

1. Behr (Alter Metal Recycling), 13914 Washington St, Woodstock
2. Elgin Recycling, 5114 E Terra Cotta Ave, Crystal Lake
3. T&C Metal Co, 378 Prairie St, Crystal Lake
4. Days and Crawford, 304 Briarwood, Crystal Lake

h. Other Facilities

1. VIM Recyclers, 920 Rathbone Ave, Aurora
2. U'S Again- textile recycling, 1555 W Hawthorn Ln, West Chicago
3. Liberty Tire Recycling, 2001 Green Field Rd, Montgomery
4. Freeport Recycling Center, 657 N Van Buren Rd, Freeport
5. Quincy Recycle, 12313 S Lombard Ln, Alsip
6. International Paper, 1225 Bryn Mawr, Itasca
7. Pioneer Fibers, 880 Mark St, Elk Grove Village
8. Mid-American Paper Recycling, 3865 W 41st Street, Chicago
9. Allied Resource and Recovery, 1001 Tesch Ct, Waukesha, WI

C. Waste Generation Assessment

Solid Waste Generation

This section presents the most current solid waste generation, recycling rates and landfill disposal information for McHenry County from 2012 - 2020. Solid waste generation data is collected from licensed municipal solid waste haulers, known recycling entities and other businesses engaged in recycling for the three (3) solid waste sectors: Residential, Commercial/Institutional, and Construction & Demolition.

McHenry County collects semi-annual reports from its licensed municipal solid waste haulers. Haulers are required to provide the tonnage of recycled material, landscape waste, and landfilled municipal solid waste during the reporting period. Semi-annual reporting is required per the McHenry County Municipal Waste Hauler Licensing Ordinance. In addition to the licensed municipal solid waste haulers reports, recyclers and other collectors are surveyed annually to capture the total volume of waste that is recycled and landfilled. Table 6 summarizes solid waste generation in McHenry County for years 2012-2020.

Table 6: Solid Waste Generation for 2012-2020				
Year 2012				
Measured in Tons	Total Recycled	Total Landfilled	Total Waste Generated	Recycling Rate
Residential	44529.70	100607.72	145137.42	**31%**
Commercial and Institutional	58498.43	69541.16	128039.59	**46%**
Construction and Demolition	68769.92	32039.43	100809.35	**68%**
Overall	171798.05	202188.31	373986.36	**46%**
Year 2013				
Measured in Tons	Total Recycled	Total Landfilled	Total Waste Generated	Recycling Rate
Residential	49700.99	98839.42	148540.41	**33%**
Commercial and Institutional	18752.46	81068.80	99821.26	**19%**
Construction and Demolition	41809.76	37196.04	79005.80	**53%**
Overall	110263.21	217104.26	327367.47	**34%**
Year 2014				
Measured in Tons	Total Recycled	Total Landfilled	Total Waste Generated	Recycling Rate
Residential	57614.39	110027.16	167641.55	**34%**
Commercial and Institutional	38103.61	119641.61	157745.22	**24%**
Construction and Demolition	42783.90	49999.23	92783.13	**46%**
Overall	138501.90	279668.00	418169.9	**33%**
Year 2015				
Measured in Tons	Total Recycled	Total Landfilled	Total Waste Generated	Recycling Rate
Residential	61757.84	116553.24	178311.08	**35%**
Commercial and Institutional	30744.82	85301.88	116046.7	**26%**
Construction and Demolition	71048.38	53413.33	124461.71	**57%**
Overall	163551.04	255268.45	418819.49	**39%**
Year 2016				
Measured in Tons	Total Recycled	Total Landfilled	Total Waste Generated	Recycling Rate
Residential	58466.11	119855.99	178322.10	**35%**
Commercial and Institutional	55650.81	76767.97	132418.78	**42%**
Construction and Demolition	39411.74	51610.03	91021.77	**43%**
Overall	153528.65	248233.99	401762.64	**38%**
Year 2017				
Measured in Tons	Total Recycled	Total Landfilled	Total Waste Generated	Recycling Rate
Residential	66302.08	128287.45	194589.53	**34%**
Commercial and Institutional	66182.99	76462.30	142645.29	**46%**
Construction and Demolition	42763.06	49185.86	91948.92	**47%**

Overall	175248.13	253935.61	429183.74	**41%**
Year 2018				
Measured in Tons	Total Recycled	Total Landfilled	Total Waste Generated	Recycling Rate
Residential	50192.74	118026.79	168219.53	**30%**
Commercial and Institutional	69639.05	69619.51	139258.56	**50%**
Construction and Demolition	52287.14	39974.61	92261.75	**57%**
Overall	172118.92	227620.91	399739.83	**43%**
Year 2019				
Measured in Tons	Total Recycled	Total Landfilled	Total Waste Generated	Recycling Rate
Residential	51634.16	119474.18	171108.34	**30%**
Commercial and Institutional	50122.92	57530.84	107653.76	**47%**
Construction and Demolition	33851.38	37125.35	70976.73	**48%**
Overall	135608.46	214130.37	349738.83	**39%**
Year 2020				
Measured in Tons	Total Recycled	Total Landfilled	Total Waste Generated	Recycling Rate
Residential	56403.80	129539.31	185943.11	**30%**
Commercial and Institutional	18734.51	69306.42	88040.93	**21%**
Construction and Demolition	64244.39	40534.09	104778.48	**61%**
overall	139382.70	239379.82	378762.52	**37%**

From 2012-2020, 39% - 49% of McHenry County solid waste was generated from residential households; 20% - 30% of solid waste was generated from commercial facilities; and 23% - 38% of solid waste was generated from construction and demolition activities. The total recycled data includes traditional, non-traditional, and organic recycled materials. The recycled numbers exclude waste materials (i.e. used motor oil, tires, etc.) burned for heating or other purposes (waste to energy).

The charts below depict the amount of solid waste generated by sector:

Table 7: Year 2012 Total Solid Waste Generated by Sector

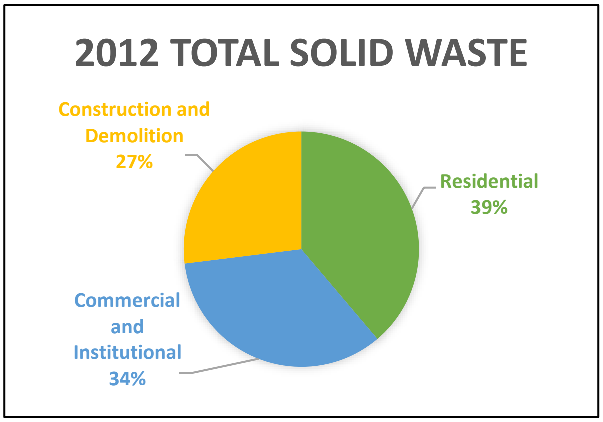


Table 8: Year 2013 Solid Waste Total Generated by Sector

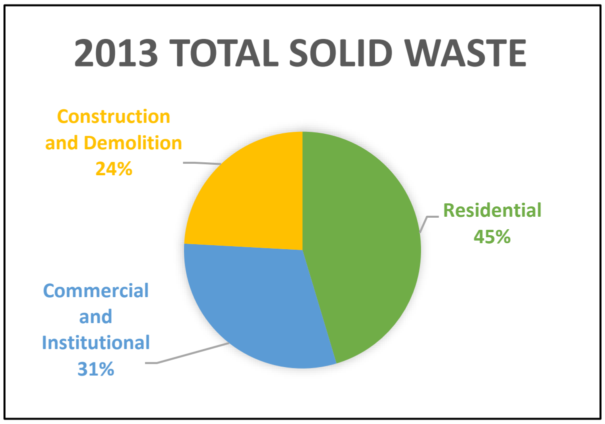


Table 9: Year 2014 Total Solid Waste Generated by Sector

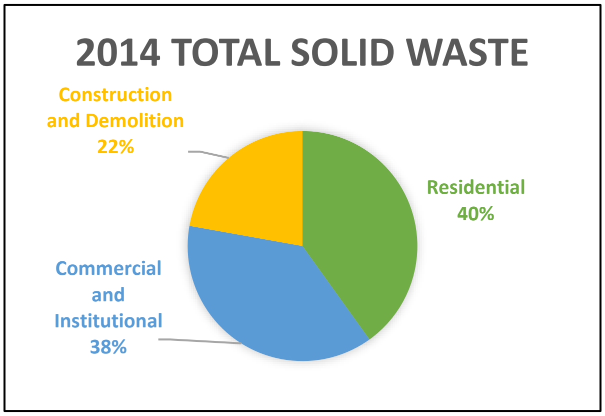


Table 10: Year 2015 Total Solid Waste Generated by Sector

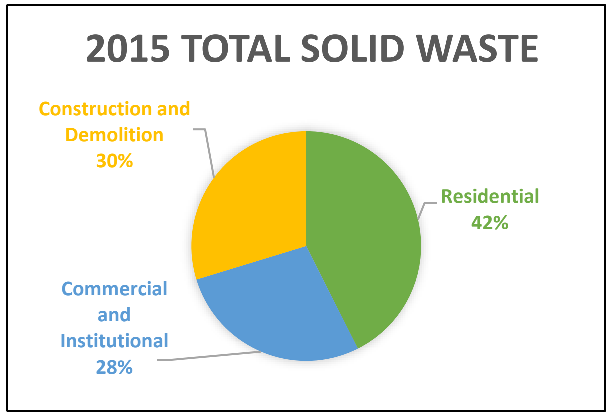


Table 11: Year 2016 Total Solid Waste Generated by Sector

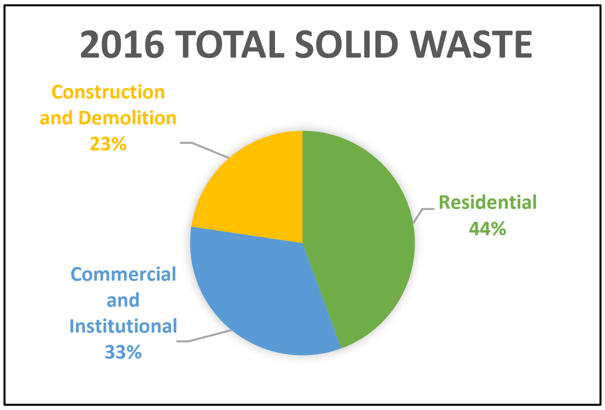


Table 12: Year 2017 Total Solid Waste Generated by Sector

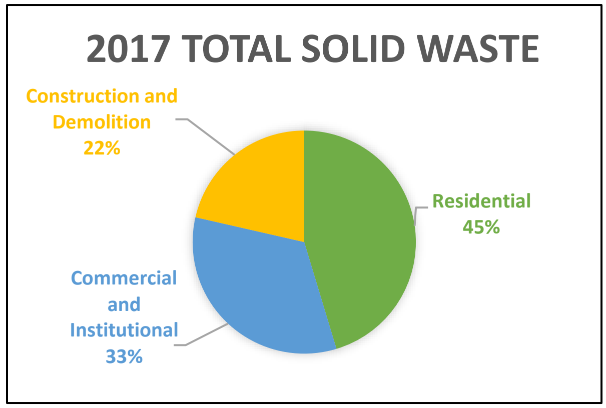


Table 13: Year 2018 total Solid Waste Generated by Sector

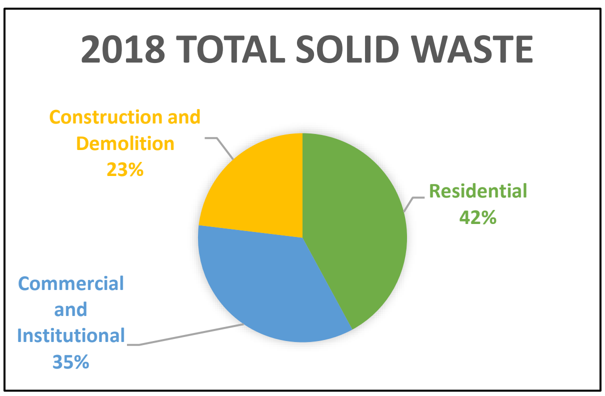


Table 14: Year 2019 total Solid Waste Generated by Sector

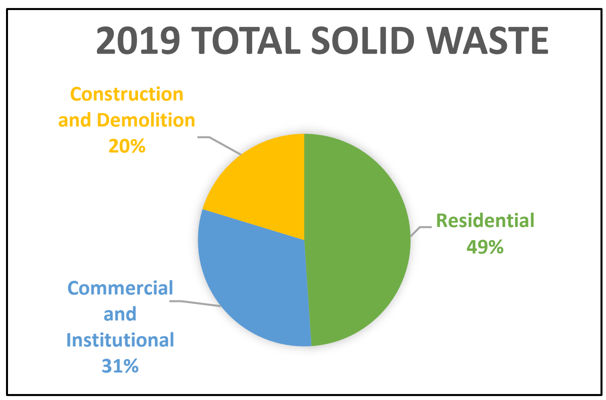
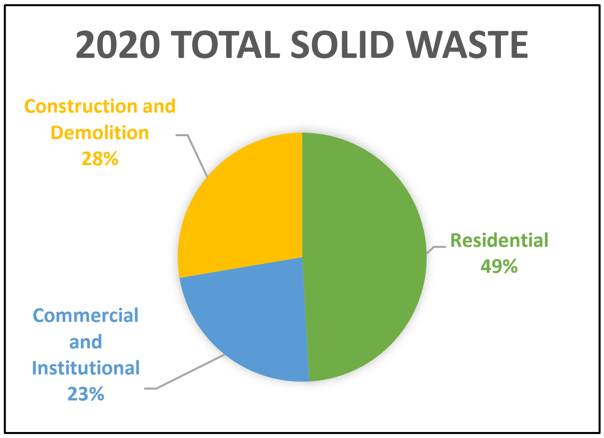


Table 15: Year 2020 total Solid Waste



Residential

The residential sector is the largest portion of McHenry County's total solid waste stream. The residential recycling rate has remained fairly consistent from 2012 – 2020 with a range of 30% to 35% (See Table16).

Table 16: Residential Solid Waste Generation 2012-2020					
Year	Population	Total Waste Generated (tons)	Total Waste Recycled (tons)	Recycling Rate	Total Waste Landfilled (tons)
2012	308,145	145137.42	44529.70	**31%**	100607.72
2013	307,409	148540.41	49700.99	**33%**	98839.42
2014	307,283	167641.55	57614.39	**34%**	110027.16
2015	307343	178311.08	61757.84	**35%**	116553.24
2016	307,004	178322.10	58466.11	**35%**	119855.99
2017	309,122	194589.53	66302.08	**34%**	128287.45
2018	308,570	168219.53	50192.74	**30%**	118026.79
2019	307,774	171108.34	51634.16	**30%**	119474.18
2020	310,229	185943.11	56403.80	**30%**	129539.31

Commercial/ Institutional (Non-Residential)

Commercial/institutional waste consists of solid waste generated by businesses, governmental agencies, and institutions (i.e. schools, hospitals). Commercial/industrial solid waste includes lunchroom and office waste, but excludes special wastes generated by manufacturing or industrial operations. Accurate and complete data for this sector can be difficult to capture. Data may be unreported or under-reported because it may be considered proprietary information. This is particularly difficult with voluntary reporters in this sector. Materials may be shipped to and from large distribution centers, not located in McHenry County. Therefore, McHenry County specific data may be unavailable or unverifiable. See Table 17).

Table 17: Commercial and Institutional Solid Waste Generation				
Year	Total Waste Generated (tons)	Total Waste Recycled (tons)	Recycling Rate	Total Waste Landfilled (tons)
2012	128039.59	58498.43	**46%**	69541.16
2013	99821.26	18752.46	**19%**	81068.80
2014	157745.22	38103.61	**24%**	119641.61

2015	116046.7	30744.82	**26%**	85301.88
2016	132418.78	55650.81	**42%**	76767.97
2017	142645.29	66182.99	**46%**	76462.30
2018	139258.56	69639.05	**50%**	69619.51
2019	107653.76	50122.92	**47%**	57530.84
2020	88040.93	18734.51	**21%**	69306.42

Construction/Demolition
Construction and demolition debris includes non-hazardous and uncontaminated materials that result from construction, demolition, and remodeling/repair work on structures and facilities. From 2012 – 2020 construction and demolition debris comprised 23% to 38% of the total solid waste stream. Over that time period, approximately 50% of the construction and demolition debris was recycled, due to the robust local recycling infrastructure in McHenry County for this sector. It is important to capture accurate numbers in this sector, because the volumes so large, that even a small change impacts the overall county recycling rate significantly.

Table 18: Construction and Demolition Solid Waste Generation				
Year	Total Waste Generated (tons)	Total Waste Recycled (tons)	Recycling Rate	Total Waste Landfilled (tons)
2012	100809.35	68769.92	**68%**	32039.43
2013	79005.80	41809.76	**53%**	37196.04
2014	92783.13	42783.90	**46%**	49999.23
2015	124461.71	71048.38	**57%**	53413.33
2016	91021.77	39411.74	**43%**	51610.03
2017	91948.92	42763.06	**47%**	49185.86
2018	92261.75	52287.14	**57%**	39974.61
2019	70976.73	33851.38	**48%**	37125.35
2020	104778.48	64244.39	**61%**	40534.09

RECYCLING RATE & DISPOSAL RATE
The 2012 Solid Waste Plan established the following target goals
Increase the Overall recycling rate from 35% to 45%; and
Reduce the pounds of waste generated per capita from 4.07 pounds to 3.57 pounds per day

The McHenry County recycling rate data represents pre-material recovery facility processing data reported by licensed municipal waste haulers and other collectors and recyclers. The overall recycling rate is a combination of residential, commercial/institutional, and construction and demolition debris sources' recycling rates. It excludes clean construction & demolition debris (CCDD), oil burned for heating purposes, medications, oil-based paint, used cooking oil and food donations.

In 2012, the Overall Recycling Rate increased to 43%, but the average overall recycling rate from 2012-2020 was 38.9%. The largest factor impacting the overall recycling rate is the difficulty in obtaining consistent, verifiable recycling data from the voluntary annual survey.

Table 19: Recycling Rate by Sector 2012-2022

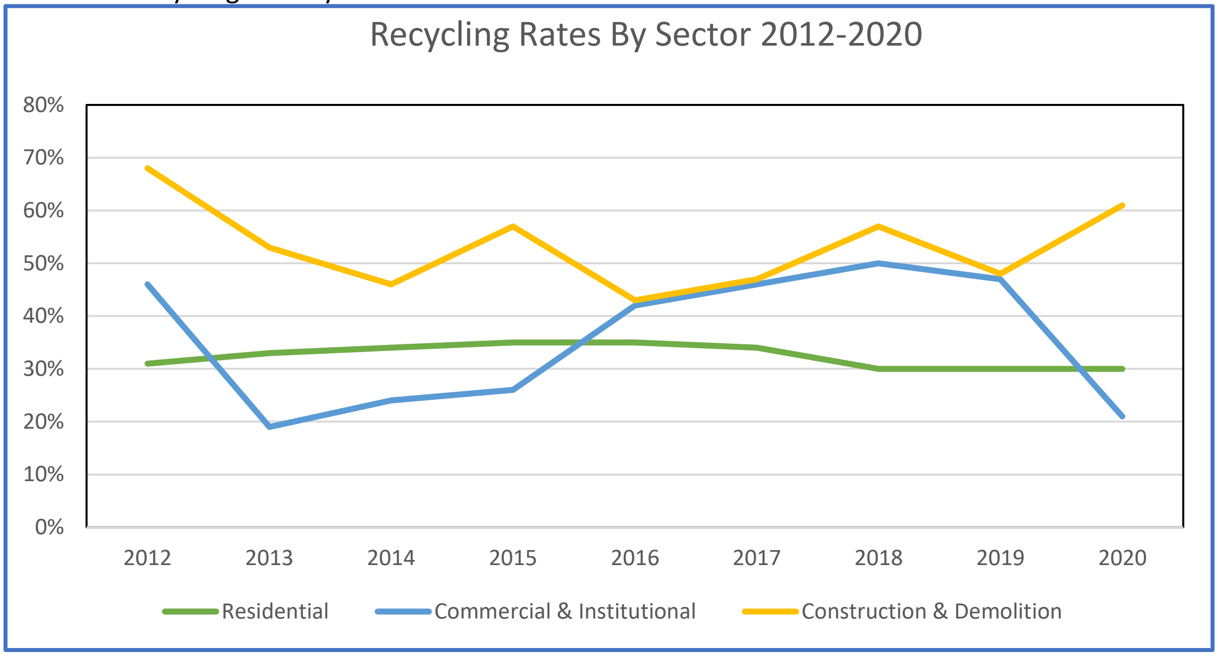
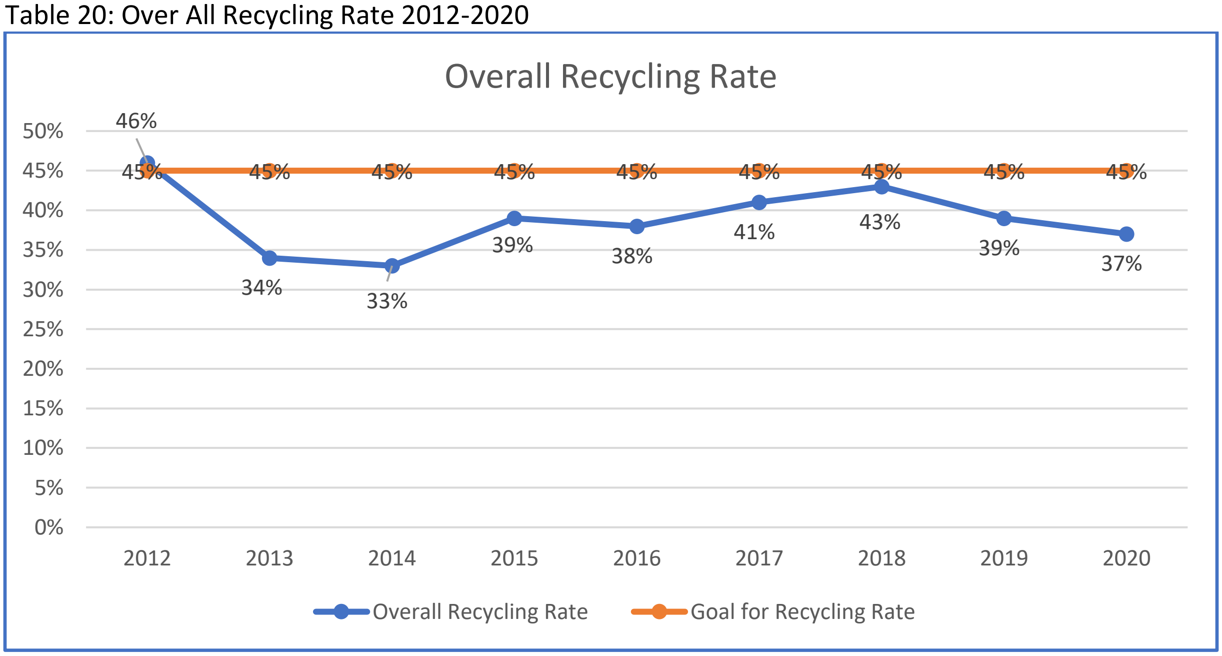


Table 20: Over All Recycling Rate 2012-2020



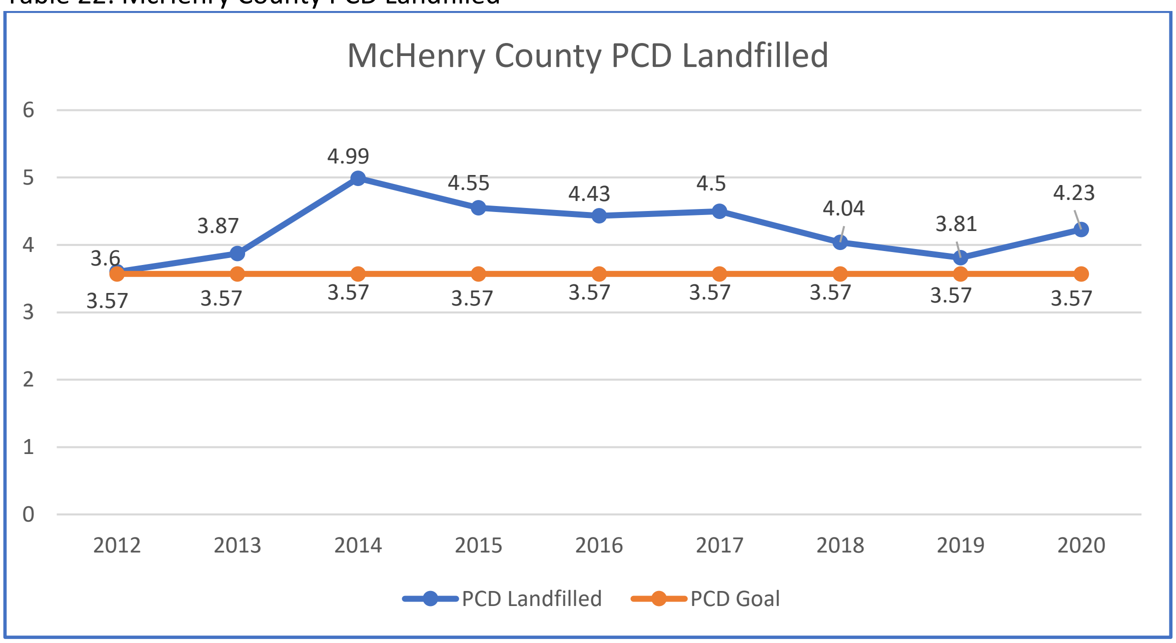
The Pound per Capital per Day (PCD) Disposal Rate is, the amount (pounds) of municipal solid waste that is disposed in a sanitary landfill per person per day. This metric is applied to all of the sectors and helps to quantify source reduction, reuse, and recycling. The same limitations that affect the overall recycling rate (difficulty in obtaining accurate commercial, industrial and institutional data; and the inconsistency of the voluntary survey results) equally impact the pound per capita per day disposal rate.

Over the last 20 years the PCD generation rate for McHenry County has averaged between 5.84 and 7.81, with an average of 6.66, and has remained fairly consistent. Over that time period, the greatest variance is less than 2 pounds per capita per day. Table 21 displays the county's population and PCD for the year.

Table 21: Pounds per Capita per Day (PCD) 2001-2020

Year	McHenry County Population	PCD		Year	McHenry County Population	PCD
2001	268,208	6.30		2011	308,944	6.29
2002	281,165	6.30		2012	308,145	6.65
2003	286,091	6.07		2013	307,409	5.84
2004	296,389	6.20		2014	307,283	7.46
2005	303,990	5.97		2015	307,343	7.47
2006	312,373	6.61		2016	307,004	7.17
2007	315,943	6.49		2017	309,122	7.61
2008	318,641	7.81		2018	308,570	7.10
2009	318,641	6.31		2019	307,774	6.23
2010	308,760	6.70		2020	310,229	6.69

Table 22: McHenry County PCD Landfilled

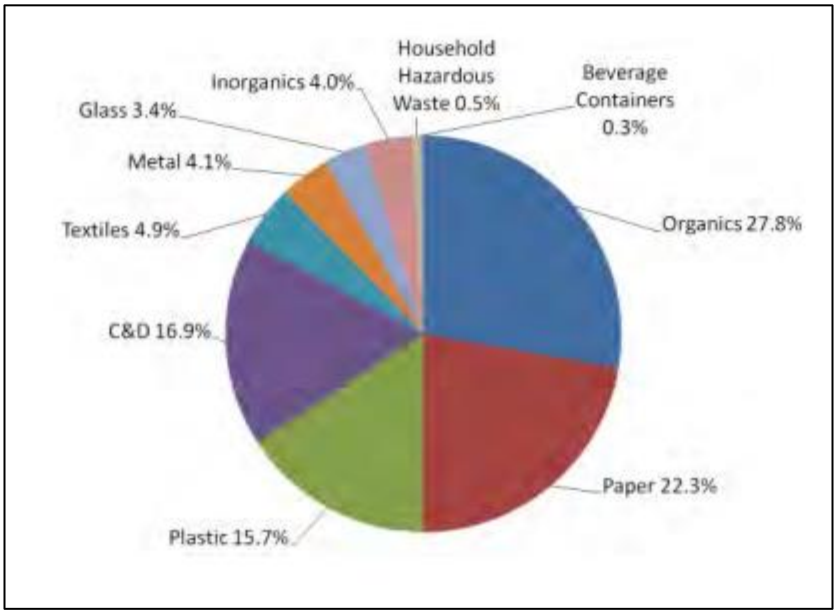


Solid Waste Composition

McHenry County cannot collect solid waste composition data through the normal data collection process. The Illinois Commodity/Waste Generation and Characterization Study Update (March 30, 2015) conducted by the Illinois Recycling Association and Illinois Department of Commerce and Economic Opportunity, provides the most recent data for the types and quantities of materials generated, the generating sectors, the quantities that are potentially recoverable and those quantities that are otherwise disposed within Illinois. That data suggests that the largest category of recoverable

material , is organic material including yard waste, food scraps, animal waste, etc. and represents nearly 28% of all material that is landfilled in the state of Illinois that can be recovered for composting.
The second largest category is paper, which is both compostable and recyclable.

Table:23 Illinois Composition of Landfilled MSW by Material



Source: CDM, Illinois Commodity/Waste Generation and Characterization Study, March 30, 2015 (Page 5; Figure 3 Composition of Landfilled MSW by Material Class)

D. Proposed Material Management Programs

1. List of Diverted Items

Itemized list of materials for which there are locally available collection opportunities

a. Residential curbside recycling- paper, cardboard, plastic, metal, and glass
b. Commercial recycling- paper, glass, metal, cardboard, and plastic
c. Electronics- four single day recycling events and one permanent drop-off facility located in the county
d. Yard waste- available through residential waste services, and yard waste transfer station
e. Food Scraps- ride along curbside programs in some municipalities
f. Clothing/textiles/shoes- donations bins and resale shops
g. Plastic bags- grocery stores and other retailers have take-back bins
h. Polystyrene (Styrofoam)- Environmental Defenders of McHenry County collect polystyrene at the four single day recycle events, and have 3 permanent locations throughout the county
i. Metals-scrap - metal recycling facilities throughout the county
j. Tires and used oil -, local automotive stores and repair shops
k. Other automotive fluids - HHW single day collection event in spring
l. Lead-acid batteries – retail stores that sell batteries, Environmental Defenders of McHenry County
m. Household batteries- MCDH offers annual drop-off of alkaline batteries for the month of January Environmental Defenders of McHenry County collects batteries at the four single day recycling events. Local retailers and Elgin recycling
n. Fluorescent bulbs- local retailers, and the Environmental Defenders of McHenry County at the four single day recycling events
o. Latex Paint- local retailers, several townships, single day paint collection events

p. Oil based paint- HHW single day collection events, 4 permanent HHW collection sites in Northern Illinois
q. White Goods- scrap metal facilities and Habitat for Humanity ReStores
r. Construction and demolition debris- three construction and demolition processing facilities
s. Asphalt shingles -three asphalt recycling sites with Beneficial Use Determination in the county
t. Pharmaceuticals -Police Departments, Walgreens, CVS

2. Traditional

Traditional Materials include materials that are collected from generators, by waste and recycling haulers typically as part of a regular-scheduled service. These materials include residential and commercial curbside single stream recycling, organic waste, solid waste.

Residential curbside recycling is offered as part of all municipal contracts and the county franchise agreements.

a. Current items Recycled
   1) Plastic
   2) Paper/cardboard
   3) Metal
   4) Glass

b. Additional Items to be Diverted:
   1) Paper from the Commercial/Industrial Sector
   2) Paper from residential sector related to cardboard/package from online purchases
   3) Single Use Plastic (retail sector)
   4) Glass originating from food establishments

c. Recycling Goals
   1) Evaluate the potential for additional residential solid waste franchising agreements in areas currently not served by franchise agreements.
   2) Partner and collaborate with commercial/industrial/institutional facilities to identify current best practices and facilitate pilot programs to increase recycling in these sectors and increase reporting of diverted waste from these facilities.
   3) Evaluate existing local regulation (ordinances) to identify any potential, unintended barriers to recycling and diversion opportunities.

d. Recommendation for Traditional Materials
   1) Recognize businesses with green design and/or sustainable practices
   2) Seek funding to contract a consultant to conduct waste audits for commercial/industrial/institutional facilities to identify opportunities for recycling and diversion.
   3) Seek funding to sponsor/promote glass recycling pilot programs in food establishments through the Don’t Trash Glass program.
   4) Promote/support initiatives to reduce use of single use plastics
   5) Continue to facilitate solid waste franchise agreements in unincorporated areas of McHenry County
   6) Work with Algonquin and Grafton townships to assess interest in providing franchised solid waste services for their township residences and assist them to facilitate the process.
   7) Assess participation in curbside recycling in the western half of McHenry County to determine whether additional services are desired and/or feasible.
   8) The Solid Waste Manager will continue to collaborate with local, regional and state stakeholders. If possible, the Solid Waste Manager will expand collaboration to include national partners.

e. Implementation Schedule

Recommendations for Traditional Recycling	Implementation Schedule
Recognize businesses with green design and/or sustainable practices	Year 1
Seek funding to contract a consultant to conduct waste audits for commercial/industrial/institutional facilities to identify opportunities for recycling and diversion.	Year 2
Seek funding to sponsor/promote glass recycling pilot programs in food establishments through the Don't Trash Glass program.	Year 2
Continue to facilitate solid waste franchise agreements in unincorporated areas of McHenry County	Year 1
Work with Algonquin and Grafton townships to assess interest in providing franchised solid waste services for their township residences and assist them to facilitate the process.	Year 1
Assess participation in curbside recycling in the western half of McHenry County to determine whether additional services are desired and/or feasible.	Year 2
The Solid Waste Manager will continue to collaborate with local, regional and state stakeholders. If possible, the Solid Waste Manager will expand collaboration to include national partners.	Year 1

3. Organic

Organic material is any material that is biodegradable and comes from either a plant or animal.
Some of the municipal solid waste haulers offer food scrap collection as part of their services. If these services are offered it is typically as a ride along only during certain months. Waste haulers must offer landscape waste collection as part of their services. Landscape waste collection is an integral part of the McHenry County Solid Waste Franchise programs.

a. Current items recycled
   1. Landscape waste
   2. Residential food scraps (limited number haulers offer in municipal contracts)
   3. Shoes/textiles- Environmental Defenders of McHenry County, local resale stores

b. Additional items to be diverted or focused on
   1. Commercial Food scraps
   2. Residential Food scraps across all contracts
   3. Animal Waste

c. Recycling Goals/recommendations
   1. Explore opportunities to add curbside organics collection to existing/future solid waste franchise contracts
   2. Promote and facilitate a reduction in food waste at schools and food establishments, and explore opportunities for food scrap recycling in school and food establishment settings
   3. Promote on farm composting where appropriate and facilitate animal waste removal to commercial organics composting sites.

d. Recommended strategies
   1. Meet with municipal waste haulers to identify barriers to offering curbside organics collection
   2. Survey solid waste franchise participants to assess interest in curbside recycling of food scraps.
   3. Seek funding opportunities to contract with consultant to conduct voluntary waste audits at schools and food establishments.
   4. Support existing initiatives to reduce food waste in school setting and food establishments.
   5. Sponsor seasonal composting events such as pumpkin collection and Christmas tree composting

6. Partner with Farm Bureau to identify opportunities to communicate with agricultural community regarding composting options.

e. Implementation Schedule

Recommendations for Organic Recycling	Implementation Schedule
Meet with municipal waste haulers to identify barriers to offering curbside organics collection	Year 1
Survey solid waste franchise participants to assess interest in curbside recycling of food scraps.	Year 2
Seek funding opportunities to contract with consultant to conduct voluntary waste audits at schools and food establishments.	Year 2
Support existing initiatives to reduce food waste in school setting and food establishments.	Year 1
Sponsor seasonal composting events such as pumpkin collection and Christmas tree composting	Year 1
Partner with Farm Bureau to identify opportunities to communicate with agricultural community regarding composting options.	Year 2

4. Non-Traditional

Non-traditional material includes materials not typically included in curbside, municipal solid waste collection program. These may include batteries, construction & demolition debris, electronics, bulbs, HHW, textiles, shoes, and tires, etc.

a. Current Items Recycled in McHenry County
1. Alkaline Batteries- McHenry County Department of Health annual events, Environmental Defenders of McHenry County Events, Batteries and Bulbs Plus, Elgin Recycling
2. Working Appliances- Habitat for Humanity Restores, Goodwill
3. Non-working appliances-Behr Metal, Best Buy, Elgin Recycling, municipal solid waste haulers
4. Bulbs- Environmental Defenders of McHenry County, Batteries Plus Bulbs, McHenry Ace Hardware, McHenry and Nunda Townships
5. Books-Environmental Defenders of McHenry County, books stores, local libraries, local thrift stores
6. C&D material- Lowes Enterprise
7. Covered Electronic Devices (CED), Single Day Collection Events sponsored by McHenry County Department of Health, Elgin Recycling, Chicago Logistics, Best Buy, municipal solid waste haulers
8. Document Destruction - Single Day Collection Events sponsored by McHenry County Department of Health, municipalities, other private sectors (real estate offices, banks, Library, etc.)
9. Household Hazardous Waste- Partner with IEPA for single day events, four (4) permanent facilities adjacent to or near McHenry County
10. Latex Paint-Ace Hardware stores, Nunda and McHenry Townships (for their residents only)
11. Oil based Paint-McHenry Township (their residents only), HHW facilities and single day events.
12. Pharmaceuticals -Police Departments, Walgreens, CVS
13. Polystyrene- Environmental Defenders of McHenry County at permanent sites and single day events
14. Shoes/textiles- Environmental Defenders of McHenry County, local resale stores, donation boxes
15. Scrap metal- Elgin Recycling, Behr, C&D Metal
16. Tires/oil- Automotive stores, Farm and Fleet, Nunda Township, Walmart

b. Additional items to be diverted or focused on
1. HHW one day events
2. Paint

3. Tires
4. Medical Sharps
5. Construction and Demolition Debris

c. Recycling goals
1) Evaluate potential to develop a Deconstruction Ordinance for McHenry County
2) Establish McHenry County as a permanent location for annual, single day HHW collection events
3) Identify and develop partnerships with non-traditional recyclers to facilitate consistent accurate voluntary reporting of non-traditional recycling
4) Promote collection of medical sharps by local law enforcement agencies currently accepting pharmaceuticals

d. Recommended strategies
1) Continue to work with Illinois EPA to obtain approval and establish a Memorandum of Understanding to establish McHenry County as a permanent location for annual, single day HHW collection events
2) Promote Construction and Demolition recycling. Encourage McHenry County to include deconstruction requirements in county projects, Work with McHenry County Planning and Development and other partners to develop a draft ordinance
3) Coordinate discussions between Illinois EPA and local law enforcement about opportunities to expand existing pharmaceutical collection sites to include residential medical sharps.
4) Work with McHenry County Solid Waste Advisory Committee to establish a strategy to improve voluntary reporting by non-traditional recyclers.

e. Implementation schedule

Recommendations for Non-Traditional Recycling	Implementation Schedule
Continue to work with Illinois EPA to obtain approval and establish a memorandum of understanding to establish McHenry County as a permanent, annual location for single day HHW collection events.	Year 1
Promote Construction and Demolition recycling. Encourage McHenry County to include deconstruction requirements in county projects, working with McHenry County Planning and Development and other partners to develop draft ordinance	Year 2
Coordinate discussions between Illinois EPA and local law enforcement about opportunities to expand existing pharmaceutical collection sites to include medical sharps from residents.	Year 2
Work with McHenry County Solid Waste Advisory Committee to establish a strategy to improve voluntary reporting by non-traditional recyclers.	Year 2

6. Other Recycling Efforts

Other programs or technologies- waste to energy, anaerobic digesters etc.

a. Not previously tracked
b. Pharmaceuticals, tires, oil, and other products typically converted from waste to energy.
c. Identify, contact and develop partnerships with facilities that collect and/or convert waste materials to energy to include in diversion rates.
d. Work with Solid Waste Advisory Committee and Municipal Solid Waste Haulers and Special Waste Haulers to identify facilities that participate in waste to energy activities (retailers, auto repair, etc.)
e. Year 3

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.

[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

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 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 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.

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[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

[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.

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.

7. **Disposal Efforts**

a) Refer to section C on existing infrastructure for disposal facilities.

b) McHenry County has a Pollution Control Facility Siting Ordinance. The ordinance requires an application and local site approval for the development, construction or expansion of a Pollution Control Facility as defined per the Illinois Environmental Protection Act in unincorporated McHenry County. Local approval must be granted by the McHenry County Board. Pollution Control Facilities located within incorporated areas would obtain their local siting approval from their municipality.

E. Public Education and Outreach

The McHenry County Solid Waste Manager strives to provide solid waste related information and education to county residents through a variety of information networks to promote proper solid waste management, waste reduction, reuse and recycling. Solid waste information is maintained on the Department of Health website, and additional information is relayed to McHenry County residents through press releases, newsletters, flyers, in-person events, emails, phone calls and office conferences and consultations. It is common for other partners such as organizations, schools and local units of government to re- broadcast information and promotions on their own websites. The Solid Waste Program webpage provides links to regulations, McHenry County franchised solid waste removal services, lists of licensed municipal solid waste haulers, household hazardous waste drop-off locations, sharps disposal, upcoming events, recycling facilities, etc. on its website. Other information may be requested directly from the Solid Waste Manager.

[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/

The McHenry County Schools Environmental Education Program (MCSEEP) curriculum and classroom resources for McHenry County schools covering environmental lessons and stewardship on solid waste, resource conservation, and climate change. The program provides STEM education activities in the four disciplines of science, technology, engineering and mathematics correlated to the Next Generation Science Standards. MCSEEP has expanded to provide lessons for grades K-12, home schooled students, pre-k and college aged students.

The McHenry County Solid Waste Manager regularly participates in regional and state-level planning and programming around solid waste management. This occurs through participation in organizations such as the Illinois Counties Solid Waste Management Association (ILCSWMA), Illinois Recycling Foundation (IRF), Illinois Chapter of the Solid Waste Association of North America (IL-SWANA), Illinois Food Scrap Coalition (IFSC), and Illinois Product Stewardship Council (IPSC).

GOAL:

1. To capture, record and publish numbers of website hits, questions received from constituents, media contacts, social media contacts, and other outreach efforts related to solid waste education and activities.
2. To provide a continual progress report on the status of the goals and objectives outlined in the 2022 Solid Waste Plan on the Solid Waste Program webpage.
3. Explore different ways to reach the public with solid waste management messaging such as billboards, radio ads, events, concerts, and promotional items.
4. Develop annual solid waste educational campaign focused on a current solid waste topic or message.
5. Improve the Solid Waste Program webpage to be a comprehensive reference guide for county residents and businesses.

Illinois Environmental Protection Agency-Waste Management- Bureau of Land
https://www2.illinois.gov/epa/topics/waste-management/Pages/default.aspx

Illinois Environmental Protection Agency- Environmental Education
https://www2.illinois.gov/epa/topics/education/Pages/default.aspx

McHenry County Department of Health
www.mcdh.info

Environmental Defenders of McHenry County
https://mcdef.org/

McHenry County College Sustainability Center-Green Guide
https://www.mchenry.edu/green/

MCSEEP
https://www.mchenrycountyil.gov/county-government/departments-j-z/planning-development/mcseep-home

F. Partnership, Policy, and Funding

Partnerships

McHenry County established the McHenry County Solid Waste Advisory Committee in 2014 to create a partnership with local solid waste professionals and solid waste stakeholders who could provide input to the Solid Waste Manager and assist in enhancing the solid waste program. The Committee is comprised of members that represent municipal solid waste haulers, natural resource specialists, food establishment operators or owners, municipal/township representatives, environmental group representatives, educators, agriculturalists, industry/manufacturing representatives, recycling/sustainability specialists, representatives from the general public and the McHenry County Department of Planning and Development. The Solid Waste Manager routinely seeks input from Committee members.

The Solid Waste Manager has actively worked to improve communication between the Solid Waste Program and community stakeholders. The Solid Waste Manager is an active member of the Environmental Defenders of McHenry County, and works with the Waste Reduction Committee. The Environmental Defenders of McHenry County has been an active community organization in McHenry County for more than 50 years. The Environmental Defenders of McHenry County provide additional recycling opportunities at McHenry County single day recycling events by accepting Styrofoam, textiles, fluorescent tube light bulbs, and batteries at each of the events. This relationship reduces duplication of effort and allows mutual support of solid waste initiatives.

The McHenry County Solid Waste Manager regularly participates in regional and state-level planning and programming around solid waste management. This occurs through participation in organizations such as the Illinois Counties Solid Waste Management Association (ILCSWMA), Illinois Recycling Foundation (IRF), Illinois Chapter of the Solid Waste Association of North America (IL-SWANA), Illinois Food Scrap Coalition (IFSC), and Illinois Product Stewardship Council (IPSC). This allows the Solid Waste Manager to remain aware of current trends, opportunities and challenges. If possible, the Solid Waste Manager will expand these partnerships to include national organizations.

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 private sewage disposal 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. Semi-Annually all municipal solid waste haulers are required to submit data on the amount and type of waste collected by them for the previous 6 months. 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 the Environmental Protection Act 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.

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.

EPA published three Requests for Information (RFIs) to obtain feedback from stakeholders to inform the development of each of the new materials management programs funded by the 2021 Bipartisan Infrastructure Law. Several new grant opportunities will be coming available.

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.

Similarly, in 2019, the City of Woodstock passed a retail single-use bag program ordinance. A fee in the amount of ten cents ($0.10) is levied and imposed on each customer for each carryout single-use bag that a retail establishment provides to a customer. Three cents ($0.03) can be retained by the retailer and the other seven cents ($0.07) is deposited into the City of Woodstock's Environmental Management Fund. The City of Woodstock used some of these funds to cover the cost for Woodstock residents to recycle TV's and monitors at two (2) single day electronic recycling events, which was very well received by the Woodstock participants.

Current Financing
The Solid Waste Program for McHenry County is funded through general fund dollars. The general fund supports the position of the Solid Waste Manager and most of the costs associated with implementing the general management activities. These general fund dollars include the licensing fees charged annually to municipal solid waste haulers that operate in McHenry County. Additional funding is provided specifically to facilitate recycling activities for county residents. This additional funding originates from tipping fees from the Virginia Road Municipal Solid Waste Transfer Station.

Goal:

1. Work with the Community Development Division to identify additional funding opportunities for solid waste activities. McHenry County is an Urban County entitlement of Community Development Block Grant (CDBG Program) funding, and therefore is required to comply with the federal statutes codified under 24 CFR Part 91 and 24 CFR Part 570 (Community Planning requirements and the CDBG regulations, respectively). As such, the County has a Community Development division that allows for the development of specific or comprehensive plans for community needs; the ability to utilize CDBG funds, if available, to apply for other federal grant programs; the ability to fund public services that meet community needs; the ability to support the Environmental Health Department in some initiatives contained within the Solid Waste Plan; and, the requirement to collaborate with community partners that support climate change initiatives.

G. Summary of Recommendations

1) Evaluate the potential for additional residential solid waste franchising agreements in areas currently not served by franchise agreements.
2) Partner and collaborate with commercial/industrial/institutional facilities to identify current best practices and facilitate pilot programs to increase recycling in these sectors and increase reporting of diverted waste from these facilities.
3) Evaluate existing local regulation (ordinances) to identify any potential, unintended barriers to recycling and diversion opportunities.
4) Explore opportunities to add curbside organics collection to existing/future solid waste franchise contracts
5) Promote and facilitate a reduction in food waste at schools and food establishments, and explore opportunities for food scrap recycling in school and food establishment settings
6) Promote on-farm composting where appropriate and facilitate animal waste removal to commercial organics composting sites.
7) Evaluate potential to develop a Deconstruction Ordinance for McHenry County

8) Establish McHenry County as a permanent location for Illinois EPA sponsored annual, single day HHW collection events
9) Identify and develop partnerships with non-traditional recyclers to facilitate consistent accurate voluntary reporting of non-traditional recycling
10) Promote collection of medical sharps by local law enforcement agencies currently accepting pharmaceuticals
11) Identify, contact and develop partnerships with facilities that collect and/or convert waste materials to energy to include in county diversion rates.
12) Capture, record and publish numbers of website hits, questions received from constituents, media contacts, social media contacts, and other outreach efforts related to solid waste education and activities.
13) Provide a continual progress report on the status of the goals and objectives outlined in the 2022 Solid Waste Plan on the Solid Waste Program webpage.
14) Explore different ways to reach the public with solid waste management messaging such as billboards, radio ads, events, concerts, and promotional items.
15) Develop annual solid waste educational campaigns focused on a current solid waste topic or message.
16) Improve the Solid Waste Program webpage to be a comprehensive reference guide for county residents and businesses.
17) Work with the Community Development Division to identify additional funding opportunities for solid waste activities.

RESOLUTION

R-202211-51-266

Resolution Authorizing the Adoption of the 2022 McHenry County Solid Waste Plan Update (51)

WHEREAS, The Illinois Solid Waste Planning and Recycling Act of 1988 requires each county to develop a waste management plan to manage the municipal solid waste generated within its borders.; and

WHEREAS, The Solid Waste Manager, within the Division of Environmental Health, is responsible for updating and implementing the McHenry County Solid Waste Plan; and

WHEREAS, The 2022 Solid Waste Plan Update was developed with input from the McHenry County Solid Waste Advisory Committee, the Waste Reduction Committee of the Environmental Defenders of McHenry County, and Delta Institute, an environmental consulting firm contracted by the McHenry County Department of Health; and

WHEREAS, The State of Illinois has established the following target goals for diversions rates: 40% by 2025; 45% by 2030; and 50% by 2035; and

WHEREAS, the 2022 Solid Waste Plan Update outlines the goals, objectives, and strategies to achieve the target goals for diversion rates; and

WHEREAS, it is the recommendation of the Planning, Environment, and Development Committee to adopt the 2022 McHenry County Solid Waste Plan.

NOW, THEREFORE IT BE RESOLVED, that the McHenry County Solid Waste Plan Update is adopted effective November 15, 2022; and

BE IT FURTHER RESOLVED, that the County Clerk is hereby authorized to distribute a certified copy of the Resolution to the County Administrator and the Public Health Administrator.

DATED at Woodstock, Illinois, this 15th day of November, A.D., 2022.

Michael Buehler, Chairman
McHenry County Board

ATTEST:

Joseph J. Tirio, County Clerk

Health-2022-010

STATE OF ILLINOIS)
) SS
COUNTY OF MCHENRY)

I, Joseph J Tirio, County Clerk within and for said County and State aforesaid, do hereby certify the attached to be a true and complete copy of the RESOLUTION AUTHORIZING THE ADOPTION OF THE 2022 MCHENRY COUNTY SOLID WASTE PLAN UPDATE (R-202211-51-266).

WHEREOF I have hereunto subscribed my hand and affixed the official seal of said County, at my office in Woodstock, Illinois this 15th day of November 2022.

Joseph J Tirio

McHenry County Clerk