Illinois Materials Management Advisory Committee Report to the General Assembly

I. Introduction

A) Executive Summary

On July 12, 2019, Governor J.B. Pritzker signed House Bill 3068[1], which created the Materials Management Advisory Committee (the Committee). The Committee was directed to accomplish an ambitious collection of goals, chief among which was to establish achievable landfill diversion goals for 2025, 2030, and 2035. To achieve that end, the Committee was tasked with evaluating the existing state of waste, recycling and organics management opportunities in Illinois, educational opportunities to enhance landfill diversion, surveying the waste management and materials management infrastructure in Illinois, evaluating the existing markets for materials diverted from Illinois landfills, and providing units of local government tools to simplify the process for satisfying statutory requirements related to materials management planning and reporting.

The Committee is comprised of members from an expansive range of professional backgrounds, each of whom represents unique public policy interests related to materials management in Illinois. These members are:

Position	**Member**
Member representing a municipality with a population of more than 1,000,000	Christopher Sauve
Member representing a county with a population of more than 1,000,000	Deborah Stone
Member representing counties with a population of at least 200,000 but not more than 1,000,000	Walter Willis, co-chair
Member representing a county with a population of at least 200,000 but not more than 1,000,000	Jennifer Jarland
Member representing a county with a population of at least 85,000 but not more than 200,000	Susan Monte
Member representing a county with a population of at least 85,000 but not more than 200,000	Karen Raithel[2]/Adena Rivas
Member representing a county with a population of less than 85,0000	Kerri Gale
Member representing a county with a population of less than 85,0000	Sarah Mummel

[1] Public Act 101-0074
[2] Ms. Raithel resigned her position in November 2020.

Member representing the solid waste industry	Lisa Disbrow
Member representing the solid waste industry	John Pausma
Member representing the recycling industry	Kris Kaar
Member representing the recycling industry	Josh Connell
Member representing providers of general construction and demolition debris recycling services	Brian Holcomb
Member representing providers of general construction and demolition debris recycling services	Eve Pytel[3]/Ron Tazelaar
Member representing environmental interest groups	Kay McKeen
Member representing environmental interest groups	Shantanu Pai
Member representing manufacturers in the state	Donovan Griffith, co-chair
Member representing retailers in the state	Alec Laird
Member representing retailers in the state	Danielle Wood[4]
Member representing producers of compost in the state	Charlie Murphy
Member representing producers of compost in the state	Mary Margaret Cowhey
Member representing producers of end products generated through recycling	Michael Westerfield
Member representing producers of end products generated through recycling	Lynn Dyer
Member representing producers of end products generated through recycling	Amy Girlich[5]

The Committee met on seventeen occasions, with the first meeting occurring on February 21, 2020 at Illinois EPA headquarters in Springfield. Unfortunately thereafter, the spread of the novel coronavirus COVID-19 profoundly restricted the viability of face-to-face meetings. In response and in accordance with Executive Order 2020-04,[6] the Committee adopted a resolution to authorize remote attendance, in accordance with Section 7(d) of the Illinois Open Meetings Act.[7] Consequently, all remaining meetings were held via electronic means. Each of the Committee meetings was facilitated by Illinois EPA Waste Reduction and Compliance Section Manager James Jennings and followed a printed agenda that identified the subject matters to be addressed during the

[3] Ms. Pytel resigned her position in April 2020.
[4] Ms. Wood resigned her position in May 2020; despite the Committee's best efforts, a replacement member could not be identified.
[5] Ms. Girlich resigned her position in October 2020; despite the Committee's best efforts, a replacement member could not be identified.
[6] Among other things, this Executive Order temporarily lifted the Open Meetings Act requirement that a quorum of voting members of a public body be physically present in the same location for a meeting to occur.
[7] 5 ILCS 120/7(d).

meeting. These meetings involved robust discussions of the issues included in the agenda, as well as presentations from Committee members and guest speakers.

At its initial meeting, the Committee determined the necessary elements of this report could be best achieved by organizing the Committee into subcommittees that focused on specific subject matters. This subcommittee platform mirrors the structure designed for the United States Environmental Protection Agency's America Recycles Day initiative.

Each subcommittee was co-chaired by a Committee member and Illinois EPA employee. The subcommittees and co-chairs were:

Subcommittee	**Co-chairs**
Education and Outreach	Kay McKeen and Donald Buis
Infrastructure	Walter Willis and Sunil Suthar
Market Development	Lisa Disbrow and James Jennings
Measurement	Shantanu Pai and Suzanne Boring
Local Government Support	Jennifer Jarland and Jessica Miller

Each subcommittee authored a scope of work constructed to accomplish the Committee's objectives that were within that subcommittee's area of expertise. These scopes of work were each approved by the Committee. Like the Committee, each subcommittee met monthly with all meetings held remotely. Each subcommittee meeting followed a printed agenda designed to meaningfully progress toward realizing the goals set forth in the relevant scope of work. During these meetings, Committee members and guest presenters shared information and addressed questions related to the Committee's statutory directives. Committee members discussed these matters extensively during these meetings.

The Committee was required to author this report to the General Assembly summarizing its activities, relaying relevant solid waste and materials management data, and providing recommendations to enhance materials management opportunities in Illinois. In accordance with this directive, the Illinois EPA submits this report, including all findings and recommendations, to the General Assembly.

B) Recommendations

During this Committee's work, numerous formal recommendations were presented for consideration and adoption. Copies of the formal recommendations are included with this report. The recommendations are intended to meaningfully enhance the volume of material diverted from Illinois landfills and include:

- Establishing statewide landfill diversion targets of 40% by 2025, 45% by 2030, and 50% by 2035;

- Employing a stratified approach to strategically target materials for diversion from Illinois landfills;
- Increasing the statewide support from existing funding and without additional revenue for materials management programs by as much as $3.375 million per State Fiscal Year by State Fiscal Year 2027;[8]
- Creating a Statewide Market Development Advisory Board to review and approve viable public and private sector diversion projects to receive state support;
- Appropriating funding to support the statewide recycling and composting infrastructure grant programs;
- Enhancing the level of state support for household hazardous waste collections;
- Developing and continuing to support a statewide materials management marketing and education campaign;
- Developing sophisticated data management systems within state government to track and map landfill diversion opportunities available to the public; and
- Adopting a consistent and simplified statewide approach to local government solid waste and materials management planning and reporting.

These items, including information related to the votes to adopt the recommendations, are discussed in greater detail in this report.

C) Acknowledgements

Each of the Committee members is commended for their significant investment of time and effort in the work of this Committee. This commitment was particularly remarkable given the complications inherent in furthering this work while absorbing the personal and professional difficulties catalyzed by the COVID-19 pandemic. Each member was tasked with fastidiously evaluating a range of technical and policy matters, many of which were highly complex. The membership exceptionally represented their constituent groups. The results of the members' efforts are a testament to their dedication to the State of Illinois and will serve as a meaningful tool for policy makers and professionals in the future.

The Committee is particularly grateful to the following Illinois EPA employees who devoted enormous energy toward accomplishing the Committee's goals:

- Suzanne Boring
- Donald Buis
- Brooke Ferree
- Ukanno Foxworth
- Allison Fry
- Caleb Froidcoeur
- Rebecca Jayne
- Cassandra Metz
- Jessica Miller
- Sunil Suthar

[8] Additional information regarding the proposed funding is included in Table XX.

- Brock Titlow

The Committee also thanks the following non-committee members who presented or were otherwise actively involved in crafting this Report:

- Scott Cassell, Product Stewardship Institute
- Christina Seibert, APTIM
- Andrea Dierich, DuPage County
- Sydney Harris, Product Stewardship Institute
- Jenny Hinton, Peoria Disposal Company
- Joy Hinz, DuPage County
- Marta Keane, Will County
- Benjamin Krumstock, Illinois Food Scrap Coalition
- Liz Kunkle, Go Green Illinois
- Wilson Mora, City of Chicago
- Rose Naseef, SCARCE
- Katie Neary, Lakeshore Recycling Services
- Dave Van Vooren, Solid Waste Agency of North Cook County

II. Background

Public Act 97-853 (HB 4986 - May), which was signed into law in July 2012 and took effect in January 2013, created the "Task Force on the Advancement of Materials Recycling," with the purpose of reviewing the current status of recycling and solid waste management in Illinois. That task force consisted of 21 members from a variety of stakeholder groups with interests related to waste management public policy. The task force considered county recycling and waste management planning; current and potential policies and strategies for waste reduction, reuse, recycling, and composting; funding for oversight and regulation (at the State and local levels) of waste management activities; funding for support (at the State and local levels) for the advancement of waste reduction, reuse, recycling, and composting efforts, as well as proper household hazardous waste management; the extent to which materials with economic value were lost to landfilling; and recommendations to reduce such losses through waste reduction and to maximize the productive use of these valuable materials through reuse, recycling, and composting. The final report of that task force was presented to Governor Pat Quinn and the 98th Illinois General Assembly in January of 2015. The primary approved recommendations included in that report a broadly outlined below. Complete, specific recommendations and their rationale can be found in the 2015 task force report.

- **Revision of the Illinois Solid Waste Management Hierarchy.** The task force suggested amendments to the IL Solid Waste Management Act to reflect the preferred waste management hierarchy, in descending order of preference, as 1) reduce 2) reuse 3) recycling 4) compost/biological treatment 5) recover energy, and 6) dispose.
- **Require more purchasing by the state of environmentally preferable products and supplies.** Amend 30 ILCS 500/45-20 Recycled Materials and 30 ILCS 500/45-26

Environmentally Preferable Procurement codes to assist in providing direction to State agencies for the purchasing of recycled-content goods.

- **Product Stewardship Labeling.** The task force found that Section 6a of the Illinois Solid Waste Management Act referred only to labels that would indicate recyclability, the presence of recycled content, or both for containers. They recommended expansion of the legislative language to include such labelling for "other consumer products which are claimed to be recyclable by a product manufacturer." The task force also noted that, when referring to development and implementation a public awareness campaign to encourage consumers to look for and buy products that are recyclable or made with recyclable materials, this legislation failed to reference products that were compostable or biodegradable. They suggested appropriate revision of the legislative language to include those types of products.
- **Amend state law to establish a more convenient statewide Household Hazardous Waste (HHW) collection system.** This recommendation involved amending Section 22.55 of the Environmental Protection Act to require establishment of a convenient statewide collection infrastructure for HHW, along with evaluation of associated fee allocations and possible reallocation to support infrastructure development or expansion.
- **Amend state law to authorize the development of a statewide Illinois Resource Master Plan.** This involved amending Section 6 of the Solid Waste Management Act and Section 6 of the Solid Waste Planning and Recycling Act to provide authority to the State to develop a statewide Illinois Resource Management Plan to achieve greater diversion of waste from landfills in a cost-effective manner via source reduction, reuse, recycling, composting/biodegradation or other methods. It was recognized that counties could draw upon aspects of a statewide plan when preparing their 5-year solid waste management plan updates, and noted that multiple other state governments had enacted statewide initiatives or legislation to improve or expand recycling and composting efforts.
- **Require more purchasing by the state of products and material generated by Construction and Demolition debris recyclers.** This involved amending 30 ILCS 500/45-20 Recycled Materials and 30 ILCS 500/45-26 Environmentally Preferable Procurement codes to assist in providing direction to state agencies for the purchasing of recycled content goods.
- **Expansion of organics management strategies through provision of temporary drop-off sites for organics, defining permitting for anaerobic digestion, and tiered compost regulations.** This involved directing the state to form a committee to conduct a coordinated review and rewrite of the permitting regulations for siting, developing, operating and closure of compost facilities within Illinois, as well as appropriate definitions for anaerobic digesters (AD), including substrates and products and development of permitting and standards for AD. That committee would also develop regulation for temporary and permanent drop-off sites for organic materials, especially food scraps.

Formation of the Materials Management Advisory Committee (MMAC) can be seen as a necessary step in the practical realization of a statewide Resource Master Plan, as recommended by the Task Force on the Advancement of Materials Recycling, and thus building upon the efforts of that previous committee.

Like the previous task force, and as suggested in its name, the MMAC considers sustainable materials management, an approach which includes a much broader range of strategies than traditional waste management. **Sustainable materials management** (SMM), as defined by the US EPA, "is a systemic approach to using and reusing materials more productively over their entire life cycles." Materials, and the products made from those materials, can be considered to have "life cycles" analogous to living organisms. Instead of progressing from conception/germination to birth through various growth stages and finally to death and decomposition, materials can be seen as progressing from extraction to processing, through design and manufacturing to use, collection, and disposal. In each step of this conceptual "life cycle," a material or product has environmental impacts. SMM seeks to address and reduce the negative environmental impacts that arise from the manufacture and consumption of products and materials throughout their life cycles, using a system-wide perspective.

In addition to taking a system-wide approach in terms of environmental impacts, the MMAC also considered global economic factors that have evolved since the recommendations of the Task Force on the Advancement of Materials Recycling. For example, for decades, China was the world's largest importer of waste materials, using the cast-offs disposed of by other countries, including the US, for processing and reuse in its own manufacturing operations. Waste materials flowed from the US and other countries to China, where they were often incorporated into new products that were then exported back to the countries where the wastes were produced. This was not ideal from a sustainability standpoint for a variety of reasons; the greenhouse gas emissions associated with the international transportation of materials, which might have been avoided by recovering materials generated within a country for reuse within that same country, are one example of the negative impacts of such a system. This international flow of materials ended with the so-called "National Sword" or "Green Sword" policy, announced in July 2017 and going into effect in January 2018, in which China banned the importation of certain types of solid waste, along with setting strict contamination limits on recyclable materials. Such a change created simultaneous challenges and opportunities in terms of environmental and economic factors with regard for materials management in Illinois and throughout the US. Materials that were previously exported for processing elsewhere suddenly needed to be processed or landfilled domestically, disrupting material end markets while also opening up the possibility of innovation and entrepreneurship in response. MMAC recommendations were considered and formulated within the context of these evolving market landscapes to foster the state economy as well as minimizing negative environmental impacts associated with various life cycle phases of materials and products.

A) Overview of Illinois Environmental Laws and Regulations

The primary framework for statewide solid waste and materials management in Illinois is captured by three laws. These statutory bodies are the Illinois Environmental Protection Act, the Illinois Solid Waste Management Act, and the Illinois Solid Waste Planning and Recycling Act. The text of each of these laws, as well as the additional statutory schemes discussed below, is available online and linked in each section.

i) Illinois Environmental Protection Act

The Illinois Environmental Protection Act (the Act), 415 ILCS 5, provides the statutory foundation for the majority of solid waste and materials management oversight in Illinois. The Act creates the Illinois EPA and the Illinois Pollution Control Board (the Board), and frames those entities' respective authorities. The Act provides both the Illinois EPA and the Board the authority to adopt environmental regulations to control and regulate the movement and disposal of waste. The Act establishes thresholds for permitting pollution control facilities such as landfills, transfer stations and some compost sites. These standards include requiring approval from the county or municipality in which the site is located for the development of a pollution control facility. In these cases, the relevant local government must approve the requested development if the facility is necessary to accommodate the waste needs of the area it is intended to service, the facility is so designed, located and proposed to be operated that public health, safety and welfare will be protected, and the facility satisfies the various locational standards set forth in Section 39.2(a) of the Act. Notably, the Act does not require Illinois EPA-issued permits for recycling centers and other entities that do not treat, store, or dispose of waste.

The Act establishes fees on waste accepted at Illinois landfills, which supports the Illinois EPA's administration of the various statewide solid waste and materials management programs. These statutory tipping fees currently total $1.05 per cubic yard or $2.22 per ton. The Act also authorizes some local governments to impose a surcharge on tipping fees at landfills within their jurisdiction. Local governments that host landfills also are authorized to impose up to an additional $0.60 per cubic yard or $1.27 per ton local surcharge. The Act does not establish any disposal fees remitted to local governments that do not host a landfill. This Committee does not recommend changing these fees. The revenue generated from these fees and proposed additional uses for historically unincumbered fee revenues are discussed in further detail below.

ii) Solid Waste Planning and Recycling Act

The Solid Waste Planning and Recycling Act (Planning and Recycling Act), 415 ILCS 15, establishes guidelines for local solid waste management planning for Illinois counties and the City of Chicago. Under the Planning and Recycling Act, each Illinois county and the City of Chicago were required to develop comprehensive solid waste management plans by March 1, 1995. The Illinois EPA was tasked with reviewing and commenting on each county solid waste management plan to ensure consistency with the requirements of the Planning and Recycling Act. The plans were intended to include, among other provisions, recycling programs designed to recycle at least 25 percent of the municipal solid waste generated within the reporting county's jurisdiction. Each county waste management plan is required to be updated and reviewed every five years, and counties are required to submit necessary or appropriate revisions, if any, to the Illinois EPA.

iii) Solid Waste Management Act

The Illinois Solid Waste Management Act (SWM Act), 415 ILCS 20, establishes the statewide waste management hierarchy and assigns individual executive agencies and local government specific authority to support that hierarchy. The SWM Act establishes the solid waste management hierarchy as:

- volume reduction at the source;
- recycling and reuse;
- combustion with energy recovery;
- combustion for volume reduction;
- disposal in landfill facilities.

The SWM Act contains provisions that generally govern state operations. For example, the State of Illinois is required to procure certain products made from recycled content. In addition, state colleges and universities develop and implement comprehensive waste reduction plans. The SWM Act also authorizes the State of Illinois to provide grants and loans to government entities, not-for-profit organizations, and for-profit businesses to enhance waste reduction and recycling efforts. Executive Order 2017-03 designated the Illinois EPA as the lead agency for this grant program. However, to date no funds have been specifically appropriated to the Illinois EPA to support the grant program, which is subject to appropriation.

In addition, the SWM Act requires the Illinois EPA to annually report the existing disposal capacity report for sanitary landfills that are subject to the Solid Waste Management fees in Section 22.15 of the Act. This report is referred to as the Landfill Capacity Report. With the report, the Illinois EPA presents capacity data on a regional basis and must include an assessment of the life expectancy of each landfill.

iv) Material-Specific Laws

In addition to the statutory provisions broadly governing solid waste and materials management, Illinois law includes numerous provisions that are exclusively applicable to specific materials. This includes banning certain items from landfills. A summary of items currently banned from Illinois landfills is included below.

- Landscape waste;
- Lead-acid batteries;
- Waste tires;
- White goods, including discarded refrigerators, ranges, water heaters, freezers, air conditioners, humidifiers and other similar domestic and commercial items;
- Used oil;
- Electronic waste, including consumer electronic devices; and
- Mercury-containing thermostats.

v) Pollution Control Board Regulations

The Act authorizes the Board to adopt regulations governing the development, operation, closure, and post-closure care of numerous types of solid waste facilities in the state. These regulated facilities include:

- Hazardous waste treatment, storage, and disposal facilities;

- Landfills;
- Transfer stations;
- Compost facilities;
- Used tire storage and disposal facilities;
- General construction and demolition debris recycling facilities;[9]
- Clean construction and demolition debris facilities; and
- Uncontaminated soil fill operations.

B) House Bill 3068

House Bill 3068 amended the Planning and Recycling Act by creating a new section 4.5. This amendment created the Committee and the framework for this report. In short, the new section required the Director of the Illinois EPA to appoint the members of the Committee, who would be charged with crafting a path to increasing landfill diversion rates in Illinois over the forthcoming two decades. On July 12, 2019, Governor Pritzker signed H.B. 3068 into law, Public Act 101-0074.

C) Definitions

To ensure internal consistency within the Report, the Committee developed a following roster of defined terms. In most cases, these definitions were derived directly from applicable Illinois law or Board regulations. Where applicable, the relevant citation is included.

Clean Construction or Demolition Debris: Uncontaminated broken concrete without protruding metal bars, bricks, rock, stone, reclaimed or other asphalt pavement, or soil generated from construction or demolition activities. 415 ILCS 5/3.160.

Commercial Waste: Non-hazardous municipal waste including garbage, grease, grease trappings and rendering byproducts originating from wholesale, retail, or service establishments such as restaurants, office buildings, stores, markets, theaters, hotels, motels, government offices, distribution centers and warehouses.

Compost: Humus-like product of the process of composting organic waste, which may be used as a soil conditioner. 415 ILCS 5/3.150.

Composting: The biological treatment process by which microorganisms decompose the organic fraction of waste, producing compost. 415 ILCS 5/3.155.

Consumer Electronic Device: Any computer, computer monitor, television, printer, electronic keyboard, facsimile machine, videocassette recorder, portable digital music player that has memory capability and is battery powered, digital video disc player, videogame console, electronic mouse, scanner, digital converter box, cable receiver, satellite receiver, digital video disc recorder, or small scale server sold at retail. 415 ILCS 151/1-5.

[9] As of the date of this report, some of these facilities are permitted in accordance with the regulations governing solid waste facilities. See 35 Ill. Adm. Code 807, et seq.

Disposal: The discharge, deposit, injection, dumping, spilling, leaking or placing of waste or hazardous waste into or on any land or water or into any well so that such waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters. 415 ILCS 5/3.185.

Diversion: A process, method, or technique of collecting, treating, processing, or using materials that would otherwise be handled as solid waste and sent to a landfill for disposal.

Food Scrap: Garbage that is (i) capable of being decomposed into compost by composting, (ii) separated by the generator from other waste, including, but not limited to, garbage that is not capable of being decomposed into compost by composting, and (iii) managed separately from other waste, including, but not limited to, garbage that is not capable of being decomposed into composting. 415 ILCS 5/3.197.

Garbage: Waste resulting from the handling, processing, preparation, cooking, and consumption of food, and wastes from the handling, processing, storage, and sale of produce. 415 ILCS 5/3.200.

General Construction or Demolition Debris: Non-hazardous, uncontaminated materials resulting from the construction, remodeling, repair and demolition of utilities, structures, and roads, limited to the following: 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; asphalt 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. 415 ILCS 5/3.160.

Hazardous Waste: A waste, or combination of wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating reversible illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed, and which has been identified, by characteristics or listing, as hazardous pursuant to Section 3001 of the Resource Conservation and Recovery Act of 1976, P.L. 94-580, or pursuant to Board regulation. 415 ILCS 5/3.220.

Household Waste: Any solid waste, including garbage, trash, and sanitary waste in septic tanks, derived from households. 415 ILCS 5/2.230.

Infrastructure: The system of public works of a country, state, or region; also: the resources (such as personnel, buildings, or equipment) required for an activity.

Institutional Waste: Solid waste generated by educational, health care, correctional, and other institutional facilities. 40 CFR 243.101(q).

Landscape Waste: All accumulations of grass or shrubbery cuttings, leaves, tree limbs and other materials accumulated as the result of the care of lawns, shrubbery, vines, and trees. 415 ILCS 5/3.270.

Materials and Management Methods in this document are subdivided into two categories: See definitions for Traditional material and Non-traditional material.

Municipal Waste (aka Municipal Solid Waste or MSW): Garbage, general household and commercial waste, industrial lunchroom or office waste, landscape waste, and construction and demolition debris. 415 ILCS 5/3.290.

Non-Traditional Material: Includes materials managed through programs provided by local governments or by private sector collectors. These materials include batteries, bikes, books, construction & demolition (C&D) recycling and solid waste, confidential documents, electronics, fluorescent tubes and bulbs, household hazardous wastes (HHW), paint, scrap metal, scrap wood, shoes, Styrofoam, textiles, tires, tools, and other hard-to-recycle materials.

Organic Material: needs definition

Recovery: The process of obtaining materials or energy resources from solid waste. 40 CFR 246.101(v).

Recycling Center: A site or facility that accepts only segregated, nonhazardous, nonspecial, homogenous, nonputrescible materials, such as dry paper, glass, cans or plastics, for subsequent use in the secondary materials market. 415 ILCS 5/3.375.

Recycling Market: A person that receives processed or unprocessed source separated recycled material and utilizes the material as a finished product or raw material in a manufacturing process.

Recycling, Reclamation or Reuse: A method, technique, or process designed to remove any contaminant from waste so as to render such waste reusable, or any process by which materials that would otherwise be disposed of or discarded are collected, separated or processed and returned to the economic mainstream in the form of raw materials or products. 415 ILCS 5/3.380.

Resource Conversation: Reduction of the amounts of waste that are generated, reduction of overall resource consumption and the utilization of recovered resources. 415 ILCS 5/3.415.

Sludge: Any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility or any other such waste having similar characteristics and effects. 415 ILCS 5/3.465.

Traditional Material: Includes materials that are collected from generators, by waste and recycling haulers typically as part of a regularly-scheduled service. These materials include (1) residential curbside single-stream recycling, organic waste, and solid waste; and (2) commercial recycling, organic waste, and solid waste.

Transfer Station: A site or facility that accepts waste for temporary storage or consolidation and further transfer to a waste disposal, treatment or storage facility. "Transfer station" includes a site where waste is transferred from a rail carrier to a motor vehicle or water carrier; a water carrier to a rail carrier or motor vehicle; a motor vehicle to a rail carrier, water carrier or motor vehicle; a rail carrier to a rail carrier, if the waste is removed from a rail car; or a water carrier to a water carrier, if

the waste is removed from a vessel. "Transfer Station" does not include: (i) a site where waste is not removed from the transfer container, or (ii) a site that accepts or receives open top units containing only clean construction and demolition debris, or (iii) a site that stores waste on a refuse motor vehicle or in the vehicle's detachable refuse receptacle for no more than 24 hours, excluding Saturdays, Sundays, and holidays, but only if the detachable refuse receptacle is completely covered or enclosed and is stored on the same site as the refuse motor vehicle that transported the receptacle to the site. 415 ILCS 5/3.500.

Waste: Any garbage, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility or other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting industrial, commercial, mining and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows, or coal combustion by-products as defined in Section 3.135 of the Act, or industrial discharges which are point sources subject to permits under Section 402 under the Federal Water Pollution control Act, or source, special nuclear, or by-product materials as defined by the Atomic Energy Act of 1954, or any solid or dissolved material from any facility subject to the Federal Surface Mining Control and Reclamation Act of 1977. 415 ILCS 5/3.535.

Waste Disposal Site: A site on which solid waste is disposed. 415 ILCS 5/3.540.

Waste Generation: The action or process by which any material is discarded or otherwise no longer used for its intended purpose.

White Goods: All discarded refrigerators, ranges, water heaters, freezers, air conditioner, humidifiers and other similar domestic and commercial large appliances. 415 ILCS 5/22.28(c)(1).

White good components: Any chlorofluorocarbon refrigerant gas; any electrical switch containing mercury; and any device that contains or may contain PCBs in a closed system, such as a dielectric fluid for a capacitor, ballast or other component. 415 ILCS 5/22.28(c)(2).

D) Acronyms

C & D: Construction and Demolition

CFR: Code of Federal Regulations

CMS: Central Management Services

DEP: Department of Environmental Protection

EGLE: Michigan Department of Environment, Great Lakes, and Energy

EPA: Environmental Protection Agency

EPR: Extended Producer Responsibility

FAQ: Frequently Asked Questions

GAIA: Global Analysis for Incinerator Alternatives

H.B: House Bill

HDPE: high density polyethylene

HHW: Household Hazardous Waste

HVAC: Heating, Ventilation and Air Conditioning

IEPA: Illinois Environmental Protection Agency

ILCS: Illinois Compiled Statutes

ISTC: Illinois Sustainable Technology Center

MRF: Materials Recovery Facility

MSW: Municipal Solid Waste

$MtCO_2e$: Metric Tons of Carbon Dioxide equivalent

NAICS: North American Industry Classification System

NGO: Non-Governmental Organizations

OCC: Corrugated Cardboard

ONP: Newspaper

PET: polyethylene terephthalate

PSI: Product Stewardship Institute

SCARCE: School & Community Assistance for Recycling and Composting Education

SFY: State Fiscal Year

SWM: Solid Waste Management

USEPA: United States Environmental Protection Agency

III. Overview of Solid Waste and Materials Management in Illinois

A) Materials Generation in the United States

In outlining the fundamentals of its Sustainable Materials Management approach, the US Environmental Protection Agency explains that global raw material use increased during the 20th century at about twice the rate of population growth, and that with each percent increase in gross domestic product, raw material use has risen by 0.4 percent.

US EPA released the *2018 Advancing Sustainable Materials Management: Fact and Figures* report, with updated data on the management of Municipal Solid Waste (MSW; discarded materials

generated, landfilled, or recycled) from US residences. The data reveal that the U.S. recycling rate (including composting) was 32.1 percent in 2018--down from approximately 35 percent in 2017.

Meanwhile, the total generation of MSW increased from approximately 268.7 million tons in 2017 to 292.4 million tons in 2018, with the per capita generation increasing from 4.53 lbs./person/day in 2017 to 4.9 lbs./person/day in 2018. Although US EPA notes that "MSW generation rose considerably from 2017 to 2018 mainly because EPA enhanced its food measurement methodology to more fully account for all the ways wasted food is managed throughout the food system," these generation rates are nonetheless at an all-time high from 1960, the earliest year from which data points are presented in the US EPA report. This underscores the importance of increasing recycling rates, and more broadly, improving landfill diversion rates and overall waste prevention and reduction.

B) Materials Management Strategies in the United States and Illinois

In November 2020, US EPA announced the national goal to increase the national recycling rate to 50% by the year 2030, or "50 by 30," in its abbreviated form. Increasing the national recycling rate to 50% from its currently reported 32% would be a significant challenge.

US EPA outlines its approach and strategy to achieve the 50 by 30 goal in its draft *National Recycling Strategy* to create a stronger, more resilient national recycling system. This strategy builds upon the *National Framework for Advancing the U.S. Recycling System*, released in November 2019, which was developed through collaborative efforts by stakeholders from across the recycling system, and launched during the first America Recycles Day Summit in 2018. Recommended actions within the current draft National Recycling Strategy are organized under three following bolded strategic objectives. For more detailed recommendations related to the suggested actions associated with each strategic objective, see the full draft strategy.

- **Reduce contamination in the recycling stream.** Suggested actions to achieve this objective include enhancing education and outreach to consumers on the value and best practices of recycling, and increasing coordination availability and accessibility of information about recycling programs and policies at all levels of government.
- **Increase processing efficiency.** Suggested actions to achieve this objective include improving the understanding of available recycling infrastructure and gaps (via mapping of assets and needs assessments); increasing awareness of available public and private funding and incentives, as well as effective strategies to access funding; continuing to fund research and development of innovative technologies and processes to improve manufacturing and processing efficiencies; increasing consideration of the sorting process as an important factor in the design of new products; and developing and implementing national recycling system definitions, targets, measures, and performance indicators.
- **Improve markets.** Suggested actions to achieve this objective include conducting market development workshops and dialogues for the purposes of stakeholder education and identification of solutions to overcome systemic challenges; producing an analysis of end markets with consideration for key factors for decision makers (e.g. resilience, environmental benefits, etc.); increasing data availability and transparency about recyclable materials

generated as well as manufacturer needs; increasing use of recycled material feedstocks in regions where they are generated; and increasing demand for recycled materials via policies, programs, initiatives, and incentives, with a focus on materials with less mature markets.

The public comment period on the draft National Recycling Strategy ended on December 4, 2020. The US EPA is currently in the process of finalizing the strategy. A target date for release of the finalized strategy has not been set.

Extended Producer Responsibility

As manufacturers control decisions related to product design and packaging specifications, they have a strategic opportunity to implement changes at the earliest stages of a product's lifecycle which, for better or worse, will ripple throughout the lifecycle of that product, including toxicity, resource consumption; emissions (water, greenhouse gases, and other air emissions) associated with the manufacture, use, and disposal of the product; the ability to maintain, repair, and upgrade a product to extend its useful life; and the ability to recycle materials or reclaim components for reuse at the end of the product's useful life. The concepts of product stewardship and extended producer responsibility include the assertion that manufacturers not only have the greatest opportunity to affect changes to potential negative impacts of products—they also have the greatest responsibility associated with the mitigation of those negative environmental, economic, health, and safety impacts.

The idea of extended producer responsibility, or EPR, was introduced by Thomas Lindhqvist in a 1990 report to the Swedish Ministry of the Environment. In subsequent reports to the Ministry, EPR came to be defined as "an environmental protection strategy to reach an environmental objective of a decreased total environmental impact from a product, by making the manufacturer of the product responsible for the entire life – cycle of the product and especially for the take–back, recycling and final disposal of the product."

The Product Stewardship Institute (PSI) notes that the terms "product stewardship" and "extended producer responsibility" are often used in slightly different ways by different entities. Some organizations, such as CalRecycle, use the terms interchangeably. In an effort to standardize the use of terminology in the US, PSI developed national principles of product stewardship in 2001, and updated them in 2011. According to the updated *Product Stewardship and Extended Producer Responsibility Definitions and Principles*, "**product stewardship**" is "the act of minimizing health, safety, environmental and social impacts, and maximizing economic benefits of a product and its packaging throughout all lifecycle stages. The producer of the product has the greatest ability to minimize adverse impacts, but other stakeholders, such as suppliers, retailers, and consumers, also play a role. Stewardship can be either voluntary or required by law." **Extended Producer Responsibility (EPR)** "is a mandatory type of product stewardship that includes, at a minimum, the requirement that the producer's responsibility for their product extends to post-consumer management of that product and its packaging. There are two related features of EPR policy: (1) shifting financial and management responsibility, with government oversight, upstream to the

producer and away from the public sector; and (2) providing incentives to producers to incorporate environmental considerations into the design of their products and packaging."

Thus, well-crafted EPR policy not only has the potential to relieve some of the financial and administrative burdens associated with government oversight by shifting responsibilities to the private sector, it also can incentivize both short-term waste diversion (e.g. greater coordination and increased efficiency in product take-back and material recovery programs) and long-term waste prevention (e.g. design for durability and dismantling) strategies to support a shift toward a more circular economy.

The updated *Product Stewardship and Extended Producer Responsibility Definitions and Principles* outlines aspirational "key elements" of EPR legislation to maximize efficacy, recognizing that these elements may be applied differently by different jurisdictions:

- ***Producer responsibility.*** Producers are required to design, manage, and finance programs for end-of-life management of their products and packaging as a condition of sale. EPR programs may or may not use existing collection and processing infrastructure. Programs should cover all products in a given category, even if the manufacturer cannot be identified or has gone out of business.
- ***Level Playing Field.*** All producers within a product category have the same requirements, whether they choose to meet them individually or jointly.
- ***Results-based***. The focus of EPR legislation should be on the goal of achieving the desired environmental and health outcomes, striking a balance between requirements and flexibility. Producers should have flexibility to design the product management system to meet the required performance goals with minimum government involvement. The management systems must follow the resource conservation hierarchy of reduce, reuse, recycle, and beneficially use, as appropriate. Product management must protect human health and the environment. Producers should design and implement appropriate public education programs to ensure achievement of mandated performance goals and standards. And all consumers should have convenient access to collection opportunities free of charge.
- ***Transparency and Accountability.*** Government is responsible for ensuring that EPR programs are transparent and accountable to the public. EPR programs must provide opportunity for input by all stakeholders, including their development and decisions regarding the fate of products managed.
- ***Roles for Government, Retailers and Consumers.*** Effective EPR policy should have clearly-defined roles not only for manufacturers but for other stakeholders as well. As a best practice, government should be responsible for ensuring a level playing field for all parties in the product value chain to maintain a competitive marketplace with open access to all, for setting and enforcing performance goals and standards, for supporting industry programs through procurement, and for helping educate the public. Retailers should only sell brands within a covered product category that are made by producers participating in an industry program, and they are responsible for providing information to consumers on how to access the programs. Consumers have a responsibility to reduce waste, reuse products, use take-back

and other collection programs, and make appropriate purchasing decisions based on available information about product impacts and benefits.

In 2021, 33 US states, plus the District of Columbia, have at least one EPR law, as reflected in the PSI US State EPR Laws map. Nineteen of those states, plus the District of Columbia, have multiple EPR laws. Illinois is among the four states that also have additional EPR laws at the local government level. Ten of the 33 states have "bottle bills" (container deposit laws). This tally does not include "other laws that contribute to the appropriate management of products, such as disposal bans and sales bans on products containing toxic materials deposit fees that may be redeemed when the consumer recycles the product, policies requiring retailers to collect products for recycling, and policies requiring the purchase of environmentally preferable products." Products covered by these laws include appliances containing refrigerants; mercury-containing devices (such as auto switches, fluorescent lighting and mercury thermostats); electronics (including cell phones); energy generation and storage equipment (including solar panels and batteries); products widely used in human living spaces (including paint, carpet, and mattresses); medical sharps and pharmaceuticals; and pesticide containers.

Participating manufacturers can benefit from EPR systems by securing access to a stable source of relatively high-quality raw materials for continued production. Manufacturers may also experience reduced liability and costs related to safe handling and disposal of materials, as they use fewer hazardous materials. Using safer chemicals and processes could also potentially foster greater employee satisfaction and retention. The use of safer materials and processes, along with efforts to extend the useful life of products and management them responsibility at their end-of-life can of course also impact consumer opinions, and manufacturers could benefit from increased positive public perception and resulting brand loyalty. Furthermore, research suggests that consumers are willing to pay more for "sustainable products," but most don't know how to identify such products. Participating in an EPR program with mandated goals against which progress and performance can be reported could assist manufacturers in demonstrating the sustainable aspects of their wares. And by proactively being involved in product disposal and sustainable materials management discussions surrounding EPR, manufacturers have greater input and control over the development of resulting program design, and thus, will likely find their roles and responsibilities less burdensome than those imposed through other forms of regulation.

C) Statistical Overview of the Illinois Materials Management Landscape

1) Methodology

The SWM Act requires Illinois EPA to collect and annually publish the projected disposal capacity available for municipal waste in the state, and on a regional basis as well as the life expectancy of each landfill in the state. Through this effort the state has consistent data on the locations and disposal data for landfills across the state since 1986.

However, beyond the data on tonnage of waste landfilled in the state there lacks a mechanism to collect, track, and report relevant generation or diversion data or infrastructure that assists in the sustainable management of materials in Illinois.

On the generation and diversion data side there is no mechanism in the state that requires the annual reporting of recovered materials to a central entity, and there is no uniform recycling reporting protocol that sets forth the guidelines for counties to report (e.g. what materials should be included or excluded, what activities should or should not be included, double counting, etc.).

Therefore, Illinois cannot reliably report what the landfill diversion rate, resulting from recycling and composting efforts, is today or what it may have been in the past. The Committee utilized available real data and made minor modifications to existing statewide models to provide an estimate of current waste generation and diversion.

2) Annualized Waste Disposal, Diversion, and Generation Figures[10]

The waste generated in the state that have been destined for landfill disposal could end up in landfills beyond the state. Similarly, waste generated in other states can end up in landfills in Illinois. Thus, to calculate the amount of waste disposed by Illinois residents the following methodology was utilized: First the total waste disposed in each landfill was collected through the landfill capacity reports for each available year since 2002, and secondly, the amount of waste each landfill recorded as imported from outside the state was subtracted for each available year since 2002 (i.e., imported material). Reports from neighboring states (Wisconsin, Michigan, Kentucky, Indiana and Iowa) were reviewed to collect the amount of waste received from Illinois for disposal for each available year since 2002 (i.e., exported material).

The effective tonnage of waste generation by Illinois residents was calculated by subtracting the waste imported from other states and adding the waste exported to other states to the data collected through the landfill capacity reports for each year.

This process revealed that in 2018, 14.1 million tons of waste were landfilled in Illinois, 1.8 million of which was waste from out of state. While Illinois exported 2.7 million tons to neighboring states, making the effective landfill disposal of Illinois 15.1 million tons for 2018. Table XX, shows that long-term trend indicates a slow reduction of landfill disposal, and when accounting for the declining population in the state, the per capita landfilled disposal seems to have plateaued between 6-6.5 lb./capita/day.

Table ___: Waste Generation in Illinois

Year	Illinois Landfilled	Illinois Imports	Export total	IL Landfill Disposal	Per Capita Disposal (lb./c/d)
2002	14,687,694.84	1,759,976.80	2,808,438.53	15,736,156.57	6.88
2003	15,899,821.19	1,881,137.95	2,290,371.97	16,309,055.21	7.12
2004	14,285,613.21	2,212,438.50	4,122,466.05	16,195,640.76	7.05
2005	15,258,949.97	2,114,898.40	4,530,666.81	17,674,718.38	7.68
2006	14,744,699.45	2,163,615.48	4,067,263.80	16,648,347.76	7.21
2007	13,714,319.52	2,128,853.03	3,760,266.20	15,345,732.70	6.62
2008	12,782,811.27	1,893,221.93	3,879,152.56	14,768,741.89	6.30
2009	11,594,013.21	1,626,023.45	3,131,202.91	13,099,192.67	5.59
2010	11,927,916.12	1,538,784.77	2,663,614.52	13,052,745.86	5.57
2011	12,675,124.25	1,858,881.49	2,398,993.67	13,215,236.42	5.63
2012	12,272,620.46	1,685,254.35	2,296,077.74	12,883,443.85	5.48
2013	13,628,261.45	1,618,056.37	2,383,205.93	14,393,411.01	6.12
2014	14,317,613.76	1,628,796.13	2,499,139.48	15,187,957.10	6.46
2015	13,392,739.63	1,697,354.92	2,405,940.57	14,101,325.28	6.01
2016	14,220,208.53	1,851,956.39	2,520,977.18	14,889,229.31	6.37
2017	14,523,134.15	2,011,607.97	2,501,015.77	15,012,541.95	6.43
2018	14,175,171.14	1,784,459.28	2,711,900.79	15,102,612.65	6.50

[10] In this section, the term "waste" means items that were taken to a landfill for disposal; the term "materials" means items that were no longer used for their intended purpose and could have been destined for disposal but were diverted to a facility other than a landfill.

2019	13,799,929.97	1,828,860.88	2,550,967.00	14,522,036.09	6.28

There is no centralized repository for the data on quantities of material recycled, composted, reduced, or reused in Illinois. To calculate the total tonnage of material being recovered in Illinois the data and methodology from the 2015 CDM Illinois Commodity/Waste Generation and Characterization Study Update (CDM Study) was adopted. The CMD Study estimates recovery quantities through a model based on the generation estimates contained in national US EPA data and the waste characterization data from their physical sorting. Based on this methodology the CDM Study estimated that 7.2 million tons of material were recovered in 2014. Based on those data the overall Illinois diversion rate was estimated to be 37.3% by weight.

For the purposes of this report, the committee updated the CDM Study methodology using landfill data from 2018. Based on these estimates 8.7 million tons of material were recovered in 2018 to reflect the 37.3% diversion by weight. It should be noted that these estimates are higher than current diversion rates experienced by most counties in Illinois and given the lack of data are hard to validate. The committee received voluntary data from 4 of the larger MRFs in the state and found that they collectively recovered 462,663 tons of recyclables in 2018. This data does not include a significant portion of the true diversion that occurs in the State. For example, some large retailers and manufacturers consolidate materials within their operations and go direct to market and thus are not captured in the data from the MRFs additionally this does not include the tonnages that scraps yards accept and recover. However, this difference in order of magnitude does suggest that the true tonnage being diverted from landfills may be lower than the modeled estimate and reaffirms that a system to track annual diversion data is critical in this process. Given those two factors, the 37.3% diversion rate and the 8.7 million tons of recovered materials are likely the upper limit of diversion data.

Waste generation is calculated as the sum waste diverted from the landfill and the waste disposed to the landfill. Waste generated per capita was calculated using the waste generated divided by the population for the calendar year of 2018.

Waste disposed to the landfill:	15,102,612 tons	(Source: IEPA data)
Waste diverted from landfills:	8,793,713 tons	(Source: Data based on waste characterization study)
Waste generation:	23,896,326 tons	
Illinois population 2018:	12,741,080 individuals	
Waste generation rate:	10.27 pounds per person per day	

As the data uses the higher bound limit of the material recovered and the committee was unable to validate this with real tonnages the committee acknowledges that the generation rate presented is an overestimate. This overestimation is evident when compared to the national average 4.9 pounds per person per day calculated by USEPA for 2018 as well as the regional generation rate of 8.92 pounds per person per day calculated by Lake County for 2018.

3) Existing Markets for Divertible Materials Generated in Illinois

For materials to be returned to the economic mainstream as a raw material there needs to be an identifiable demand for that raw material within the market. These markets are influenced by changes

in local and international policies, manufacturing process, virgin material pricing and demand for raw materials.

In July of 2020, the US EPA produced a report summarizing the historical recycled commodity values across the nation from 1990 to 2018, normalized to 2018 dollars. Its study focused on known market prices for postconsumer paper, glass, plastics and steel and aluminum cans, which represent a subset of all recycled commodity markets. The EPA analysis revealed that except for high density polyethylene (HDPE) and glass all materials experienced a downward trend over this time.

Table XX Recycled Commodity Values by Year ($2018 per ton)

Year	HDPE Natural	PET Clear	Aluminum UBC	Steel Can	Newspaper (ONP)	Corrugated Cardboard (OCC)	Soft Mixed Paper	Glass Flint	Glass Amber	Glass Green
2000	$546	$374	$1,065	$26	$40	$115	$70	$40	$38	$11
2001	$366	$301	$929	$20	$26	$57	$28	$37	$35	$4
2002	$373	$206	$856	$31	$32	$95	$41	$37	$29	-$7
2003	$445	$318	$863	$52	$68	$91	$67	$34	$22	-$3
2004	$594	$433	$862	$84	$84	$119	$87	$33	$21	-$2
2005	$828	$540	$1,628	$197	$83	$108	$77	$32	$19	$1
2006	$780	$361	$2,057	$208	$71	$97	$68	$32	$19	$6
2007	$779	$435	$2,053	$235	$104	$145	$114	$33	$22	$11
2008	$786	$405	$1,950	$225	$93	$120	$94	$36	$19	$10
2009	$458	$247	$1,236	$95	$45	$69	$49	$28	$14	$8
2010	$605	$453	$1,694	$138	$83	$160	$98	$28	$14	$8
2011	$764	$702	$1,908	$136	$93	$182	$124	$29	$19	$9
2012	$664	$508	$1,640	$134	$66	$136	$88	$31	$25	$12
2013	$710	$422	$1,567	$131	$57	$130	$69	$31	$25	$12
2014	$927	$414	$1,619	$129	$54	$113	$59	$30	$24	$12
2015	$597	$273	$1,330	$82	$51	$92	$55	$31	$25	$11
2016	$597	$210	$1,182	$34	$50	$99	$66	$31	$28	$14
2017	$587	$289	$1,352	$30	$51	$147	$67	$32	$28	$12
2018	$729	$309	$1,432	$29	$30	$81	$6	$33	$28	$11

National trends do not accurately reflect regional or even local market conditions. Regional data from recycling markets reveal similar additional market trends. Markets for individual materials in the region over the last decade have been highly volatile, a summary of regional markets are included in Appendix XX. For instance, as shown in Fig XX, even for a material that has a growing domestic demand the regional price for corrugated containers has varied on an annual basis.

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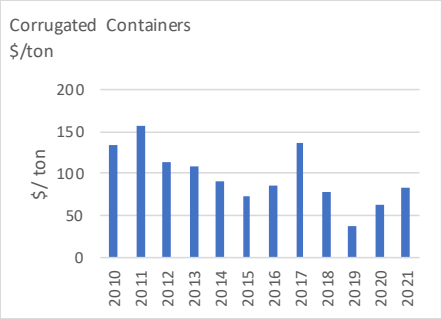
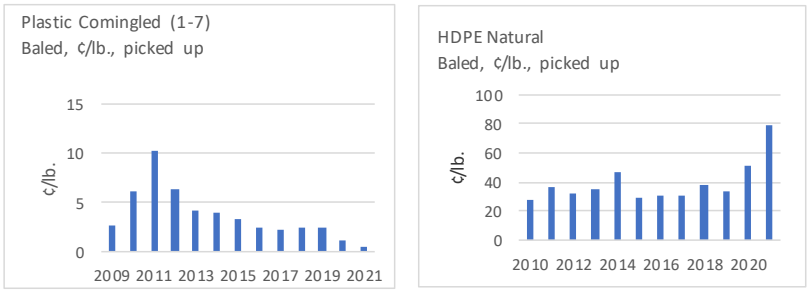
Table xx: Pricing for Corrugated Containers



Commodity specific markets: The price for a material may vary significantly depending on the purity of the bale being sold in the market. For instance, although the price for a mixed bale of rigid 1-7 comingled plastic has been consistently declining in the region, the price for a source separated bale of HDPE plastic has shown an increasing upward trend (Figures XX and XX).

Figure xx: Pricing for Comingled Plastic vs. Natural HDPE



International policies such as China's 2018 ban on imports of certain types of solid waste and contamination limits (aka "National Sword"), ceased the flow of many materials which had been historically exported, leaving recyclers and program coordinators with a domestic glut of materials for which there are not adequate end markets. Additional international policies in South and Southeast Asian countries have developed since the enactment of China's National Sword involving bans, quotas, and contamination limits, particularly around paper and plastics. An amendment to the Basel Convention means that International shipments of most plastic scrap will be allowed only with the prior written consent of the importing country and any transit countries. As international policies continue to develop, markets for impacted commodities will fluctuate. Over the last six months the markets have been fairly volatile with a trend to move upwards. To augment the changing commodity values, many MRFs now have moved to charge a nominal tipping fee. Additionally, there is a growing investment in recycling processing infrastructure by the private sector in the region.

Beyond global policy changes, various other factors have impacted commodity markets in recent years. Changes in manufacturing processes, such as light-weighting of packaging (especially plastic and aluminum, and newer packaging formats such as cartons and flexible packaging), require more items to be processed to create the same weight bale of recovered material, thereby reducing the

cost-effectiveness of the overall process. The growth in e-commerce has created an increased demand for corrugated cardboard within the US.

The global COVID-19 pandemic also impacted commodity prices as significant changes in consumer and manufacturing patterns impacted the flow of and demand for recycled commodities in the market place. For example, according to the World Bank, between January and April 2020, metal prices declined by 15 percent, but have "recovered in response to supply shocks and a quicker-than-expected pickup in China's industrial activity."

In summary, a variety of systemic factors work together to create commodity markets which may be highly volatile, with prices for many commodities declining over time. Fluctuations which occur at the national level may not necessarily match those simultaneously occurring at the regional or local levels. Both commodity pricing data and international policies make it clear that decreasing contamination and improving the purity of recovered materials is crucial for maintaining the economic feasibility of recycling in the face of such market volatility.

4) Overview of Illinois Solid Waste and Materials Management Infrastructure

If sustainable materials management is the systematic approach to using and reusing materials productively over their entire life cycle, then the social systems and physical assets that operationalize this approach may be considered the solid waste and materials management infrastructure.

Complex network of facilities and systems are part of this infrastructure in Illinois as shown in Figure XX.

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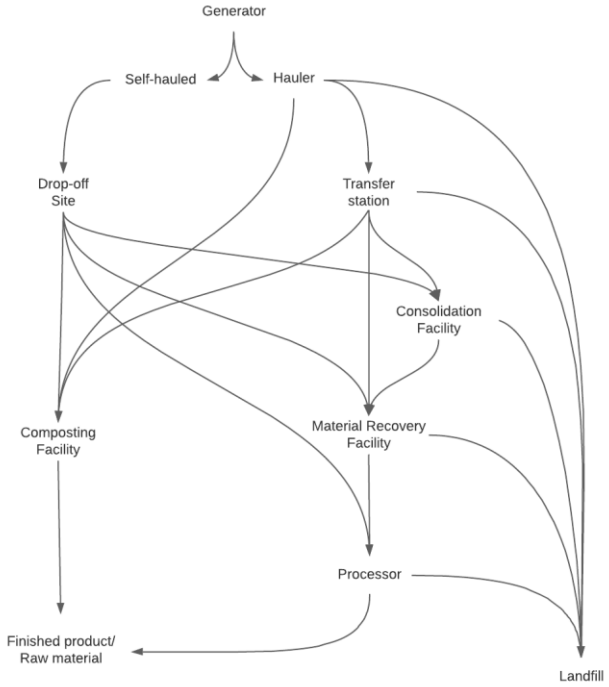
Figure xx: ……..



Some of this infrastructure is statutorily defined across the various acts mentioned in previous sections, such as landfills (415 ILCS 5/3.445; 35 Ill. Adm. Code 807, et. seq; 35 Ill. Adm. Code 811, et seq.), municipal transfer stations (415 ILCS 5/3.500; 35 Ill. Adm. Code 807, et seq.), landscape waste transfer stations (415 ILCS 5/3.500; 35 Ill. Adm. Code 807, et seq.), construction and demolition transfer stations (415 ILCS 5/3.500; 35 Ill. Adm. Code 807, et seq.), compost facilities (35 Ill. Adm Code 807, et seq.; 35 Ill. Adm. Code 830, et seq.), construction and demolition recycling facilities (415 ILCS 5/22.38). However, some infrastructure has no unifying definition such as material recovery facilities, consolidation facilities, and collection drop-offs.

In order to attempt to identify and map the entire solid waste and materials management infrastructure in Illinois the following steps were implemented. [11]

- Compilation: Data from all publicly available databases were compiled and extracted to create a list of all possible facilities. Data from the following sources were extracted:

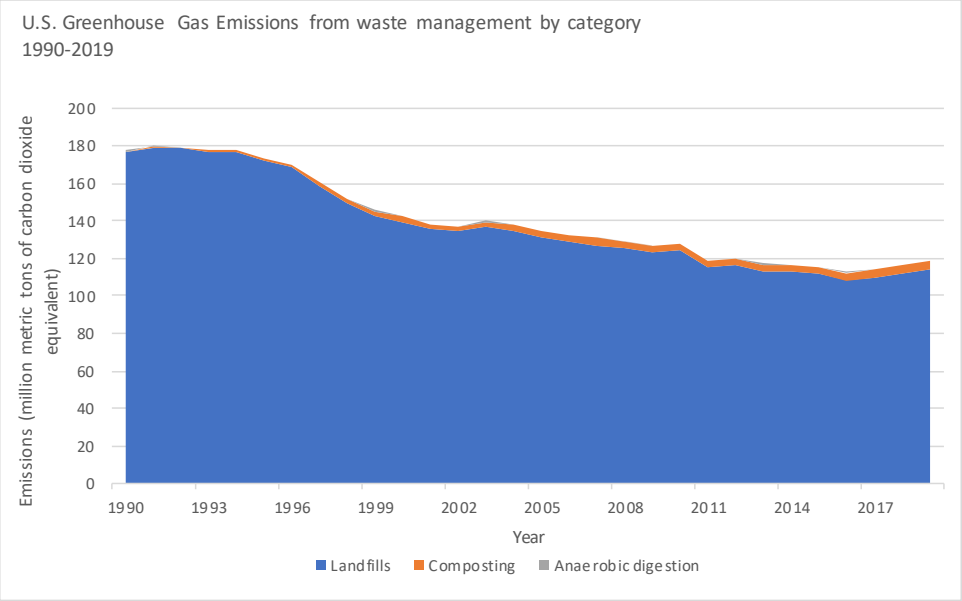
[11] The maps included in this report reflect the totality of the solid waste and materials management universe in Illinois confirmed by the Committee. These maps do not necessarily reflect sites that permissibly operate, but were not required to be permitted by the Illinois EPA or not identified as part of a publicly available report.

- US EPA Disaster Debris Recovery Tool: EPA developed a tool of twelve types of recyclers and landfills that manage disaster debris. This tool provides information and locations of over 20,000 facilities capable of managing different materials across the United States. All facilities located within Illinois were extracted. (Number of sites identified: 706)
- Illinois Statewide Contamination Task Force Survey Sites: The Illinois Statewide Contamination Task Force conducted a survey of MRFs in Illinois in 2018. All the facilities that responded to the survey were extracted. (Number of sites identified: 13)
- LexisNexis Company Dossier: LexisNexis company dossier provides detailed information on companies and industries. A company list based on NAICS codes related to the waste and recycling industry were extracted. (Number of sites identified: 680)
- Illinois EPA permits: Data for each of the facilities that are statutorily defined and regulated/inspected by Illinois EPA were extracted through various Illinois EPA data bases. This includes sites that are inspected by delegated agencies on behalf of Illinois EPA.

- Initial verification: Staff from the Illinois Sustainable Technology Center (ISTC) and Illinois EPA eliminated duplicate facilities across all lists and assigned each facility to a specific infrastructure category, either based on a statutory definition or working definition provided by the Committee and created initial asset maps. (Number of sites identified include: 76 transfer stations for municipal solid waste, 60 transfer stations for landscape waste, 51 sites for construction and demolition waste, 106 scrap metal sites, 41 material recovery facilities, 64 drop off locations and 49 compost facilities.
- Committee review: The maps were circulated to Committee members, industry experts, and community members to ensure that all relevant information available to the Committee members was being captured and recorded.

C) Economic and Environmental Benefits of Landfill Diversion

Growth, either in terms of population or economy, is associated with increased consumption of resources. A few negative environmental impacts of increased consumption include biodiversity loss, desertification, habitat destruction, and increased stress upon food sources such as fish populations. MSW landfills, alone are the third-largest source of methane emissions, one of the many gases known to have an impact on the changing climate, in the United States generated by human activity, accounting for approximately 15.1 percent of these emissions in 2019. Waste management activities directly contributed to 2.7% of the total greenhouse gas emissions in the US in 2018. As seen in Figure XX although emissions associated to waste management have been decreasing overtime as landfill gas recovery systems continue to be deployed nationwide, landfills still represent the greatest source of emissions.



To maintain a competitive economy and resilient habitat for Illinois residents, it is crucial that natural resources not be squandered and that activities contributing to climate change be minimized. Diverting materials from landfills extends the useful life of existing landfills, reducing the need for new sites and thus conserving the state's land assets. Landfill diversion also protects the previous investments of natural resources, money, and labor that are embodied within existing consumer products. This includes not only the water, energy, and raw materials used as feedstocks during manufacturing, and the labor involved in component and finished-product assembly, but also those required for feedstock extraction and processing, as well as energy and labor tied to transportation and distribution of components and finished products along the supply chain and ultimately to consumers. Diversion also supports the economy through avoidance of disposal costs.

Furthermore, diversion strategies such as reuse, repair, and recycling create more jobs than landfilling. The 2020 Recycling Economic Information (REI) Report prepared by the USEPA revealed that in 2012, recycling and reuse activities in the United States accounted for 681,000 jobs; $37.8 billion in wages; and $5.5 billion in tax revenues, which equates to 1.17 jobs, $65,230 wages, and $9,420 tax revenues attributable for every 1,000 (US) tons of recyclables collected and recycled. According to a recently released report from Global Analysis for Incinerator Alternatives (GAIA), which involved analyzing data from a wide range of sources (peer-reviewed academic papers, news articles, government reports, company websites, & publications from NGOs) across 16 countries (including the US), repair creates over 200 times as many jobs as sending materials to landfills or incineration. Recycling creates 50 times as many jobs as landfilling or incineration. This study also illustrated that waste management strategies which create the most jobs also deliver the best environmental outcomes, and that so-called "zero waste systems" offer more desirable employment

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opportunities which: draw upon skills beyond manual labor, provide higher wages, offer more permanent positions, and improve quality of life.

A 2011 report from the Minnesota Pollution Control Agency that focused on the economic impacts of that state's repair, reuse and rental sectors revealed that at the time, Minnesota's reuse sector directly employed almost 46,000 people and generated at least $4 billion in gross sales annually, or 1.8 percent of Minnesota employees and 1.6 percent of the state's gross domestic product. Recycling can also recover both spare parts and components to support the local repair sector and materials which might serve as feed stocks for domestic manufacturing operations, contributing to economic resiliency. Diversion strategies might also contribute to resiliency by allowing for more agile responses to crises such as pandemics; for example, greater access to repair information, tools, and spare parts may ensure the availability of adequate affordable electronic devices for remote work and learning, as well as fostering adequate supplies of critical medical equipment, such as ventilators.

The concept of a circular economy integrates the environmental and economic benefits of reuse, repair, and recycling within a single framework. According to the Ellen MacArthur Foundation, "a circular economy aims to redefine growth, focusing on positive society-wide benefits. It entails gradually decoupling economic activity from the consumption of finite resources, and designing waste out of the system. Underpinned by a transition to renewable energy sources, the circular model builds economic, natural, and social capital. It is based on three principles: Design out waste and pollution; Keep products and materials in use; Regenerate natural systems."

D) Statewide Public Financial Support for Waste Management and Materials Management

As set forth above, landfill tipping fees support the State of Illinois's administration of the various statewide solid waste and materials management programs. The statutory tipping fee currently totals $1.05 per cubic yard or $2.22 per ton. Historically, the Solid Waste Management Fund has been the primary mechanism used to support these programs, including the State of Illinois's recycling and composting grant programs, which have not been funded in recent years. According to the proposed budget submitted by the Office of Management and Budget, the Solid Waste Management Fund is projected to generate $22 million in revenue during State Fiscal Year 2022. However since State Fiscal Year 2016, appropriations from the Solid Waste Management Fund exceeded $15 million only three times. As a result, the Solid Waste Management Fund is projected to have a surplus of approximately $6.8 million at the end of State Fiscal Year 2022.

Table XX below reflects projected funding revenues, less statutory fund transfers, and anticipated appropriations to the Illinois EPA over the forthcoming five State Fiscal Years, based on existing programmatic obligations. These appropriations cover, among other expenses, $4.5 million for HHW and other collection programs, and $3 million to units of local government to support delegated enforcement authority.

	SFY23	SFY24	SFY25	SFY26	SFY27
Projected previous SFY surplus	$6,800,000	$9,616,000	$12,432,000	$15,248,000	$18,064,000
Projected revenue	$22,000,000	$22,000,000	$22,000,000	$22,000,000	$22,000,000
Anticipated appropriations	$18,717,000	$18,717,000	$18,717,000	$18,717,000	$18,717,000
Statutory transfer	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000
Unappropriated fund balance	**$9,616,000**	**$12,432,000**	**$15,248,000**	**$18,064,000**	**$20,880,000**

	SFY23	SFY24	SFY25	SFY26	SFY27
Projected previous SFY surplus	$6,800,000	$9,616,000	$12,432,000	$15,248,000	$18,064,000
Projected revenue	$22,000,000	$22,000,000	$22,000,000	$22,000,000	$22,000,000
Anticipated appropriations	$18,717,000	$18,717,000	$18,717,000	$18,717,000	$18,717,000
Statutory transfer	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000
Unappropriated fund balance	**$9,616,000**	**$12,432,000**	**$15,248,000**	**$18,064,000**	**$20,880,000**

At the revenue and spending levels, the Solid Waste Management Fund will build a significant surplus within the coming years.

IV. Discussion and Committee Actions

A) Education and Outreach

The Education and Outreach Subcommittee's primary foci were identifying and proposing effective messages and methods to maximize statewide landfill diversion. This work targeted recommended actions that could be taken statewide and within individual counties to increase landfill diversion rates, and education and public outreach programs that could maximize waste diversion.

The Education and Outreach Subcommittee met twelve times between April 2020 and March 2021. During those meetings, the Subcommittee hosted speakers from various other state governments and a range of private entities on topics including large scale educational programs and the effectiveness of those programs.

B) Infrastructure

The Infrastructure Subcommittee's primary objectives were to identify possible enhancements in the existing waste diversion and disposal network to maximize landfill diversion and propose viable means to achieve those enhancements. This work included a focus on analyzing the existing infrastructure to divert materials from Illinois landfills, recommending actions that could be taken to increase landfill diversion rates and the costs associated with those actions, and developing a database and map of permitted facilities.

The Infrastructure Subcommittee met fourteen times between April 2020 and May 2021. During those meetings, the Subcommittee hosted speakers from various private entities with a wide range of experience supporting recycling, composting, secondary materials recovery facilities, and other materials management programs through direct infrastructure support.

C) Market Development

The Market Development Subcommittee's primary objectives were to identify shortcomings in existing end markets for divertible materials and propose options to support and enhance those markets in Illinois. The work included focusing on analyzing the markets available for materials diverted from Illinois landfills, recommending achievable landfill diversion rates, and recommending actions to increase landfill diversion.

The Market Development Subcommittee met twelve times between April 2020 and March 2021. During those meetings, the Subcommittee hosted speakers from various other state governments and a range of private entities with a wide range of experience supporting recycling programs and rendering new products that contained recycled material. The Subcommittee also discussed a range of issues impacting recycling market development, including publicly-supported market development grant programs, minimum recycled content legislation, the state of existing markets for recovered materials, and processes employed to maximize the volume of recycled material returned to the economic mainstream.

D) Measurement

The Measurement Subcommittee's primary purpose was to identify, capture, and evaluate existing data reflecting the state of waste and materials management in Illinois in 2018, the base year for the reported data. Using those data, the Measurement Subcommittee was tasked with developing a matrix reflecting the environmental impacts of diverting specific materials from landfills and relaying that information to the entire Committee.

The Measurement Subcommittee met eleven times between April 2020 and May 2021. The primary focus of each meeting was to discuss available waste generation, landfill diversion, recycling, and other materials management data, as well as efforts to collect those data. Such efforts included reviewing publicly available reports and data and surveying each of the state's 102 counties to compile statewide waste management and materials management data and infrastructure information. The meetings also covered endeavors to accurately map existing facilities that engage in waste disposal and material diversion activities.

E) Local Government Support

The Local Government Support Subcommittee's primary objectives were to develop a useful suite of tools to simplify and standardize the county solid waste management reporting process for units of local government in Illinois. This work included a focus on crafting standard elements and content for county solid waste management plans and to create a standard methodology for counties to determine annualized waste generation, disposal, and diversion rates.

The Local Government Subcommittee met sixteen times between April 2020 and May 2021. During those meetings, the Subcommittee facilitated discussions involving local solid waste management, difficulties facing the diverse spectrum of local governments throughout Illinois, the role of local government in statewide materials management policy development, and best practices in county solid waste management planning.

V. Findings

A) Existing Waste Management and Materials Management Infrastructure

The Illinois EPA divides the state into seven administrative regions used to evaluate compliance, permitting, reporting and enforcement activities. A map reflecting these regions is included below.

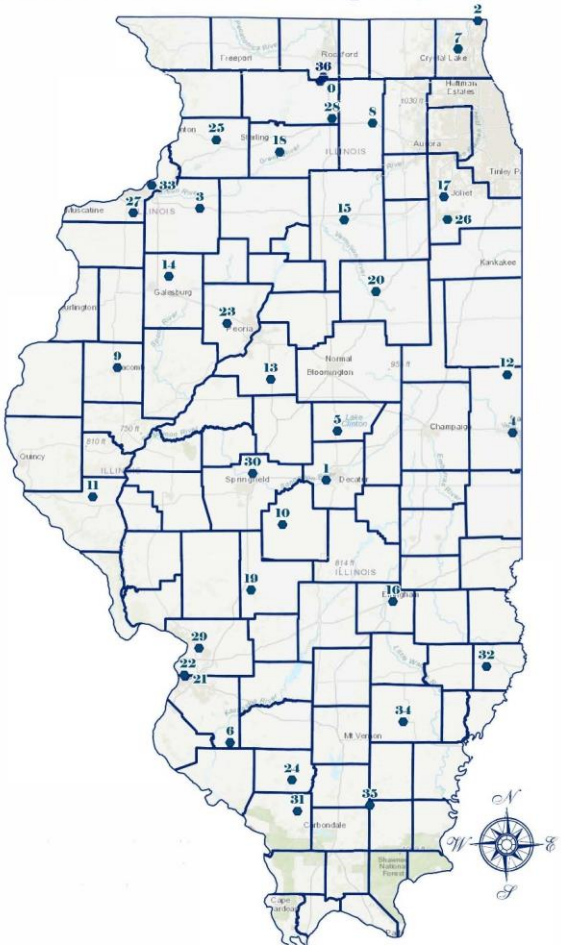
Figure xx: IEPA Administrative Regions

These Regions are referenced in the following are the findings related to the current infrastructure in the State of Illinois for managing municipal waste:

1) Municipal Landfills with Available Capacity

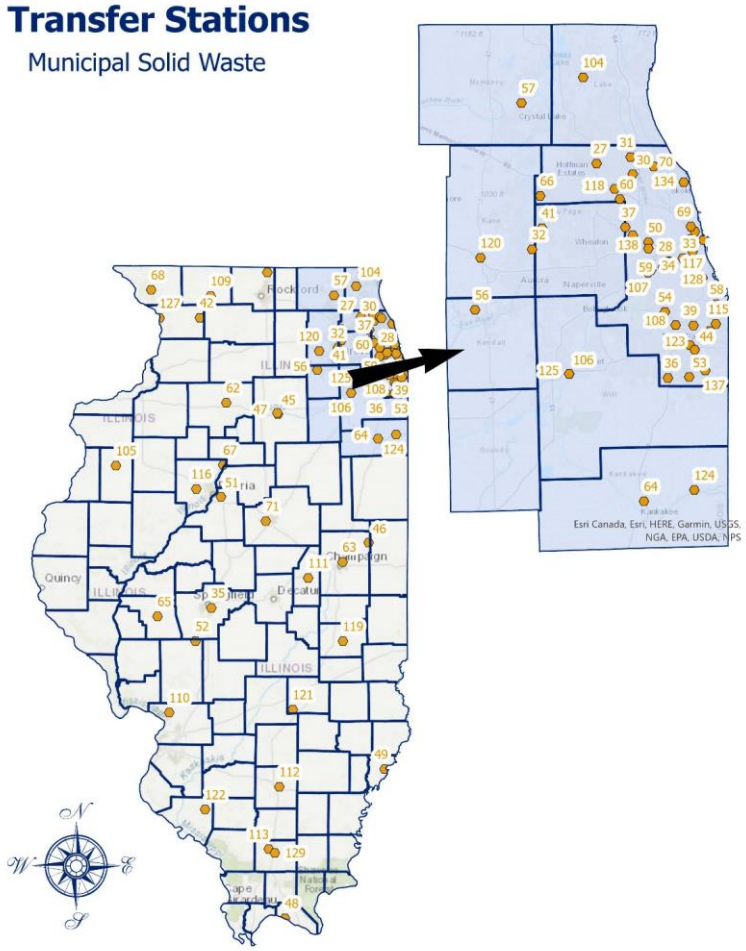
The Illinois EPA's 2020 Illinois Landfill Disposal Capacity Report documented there are 24.5 years of landfill disposal capacity statewide, with capacity ranging from 12.4 years in Illinois EPA Region 2 to 48.22 years in Region 7. Figure XX shows the distribution of municipal landfills with available capacity in the State. Detailed information on each site identified in this map can be found in Appendix G.1.

Municipal Landfills With Available Capacity



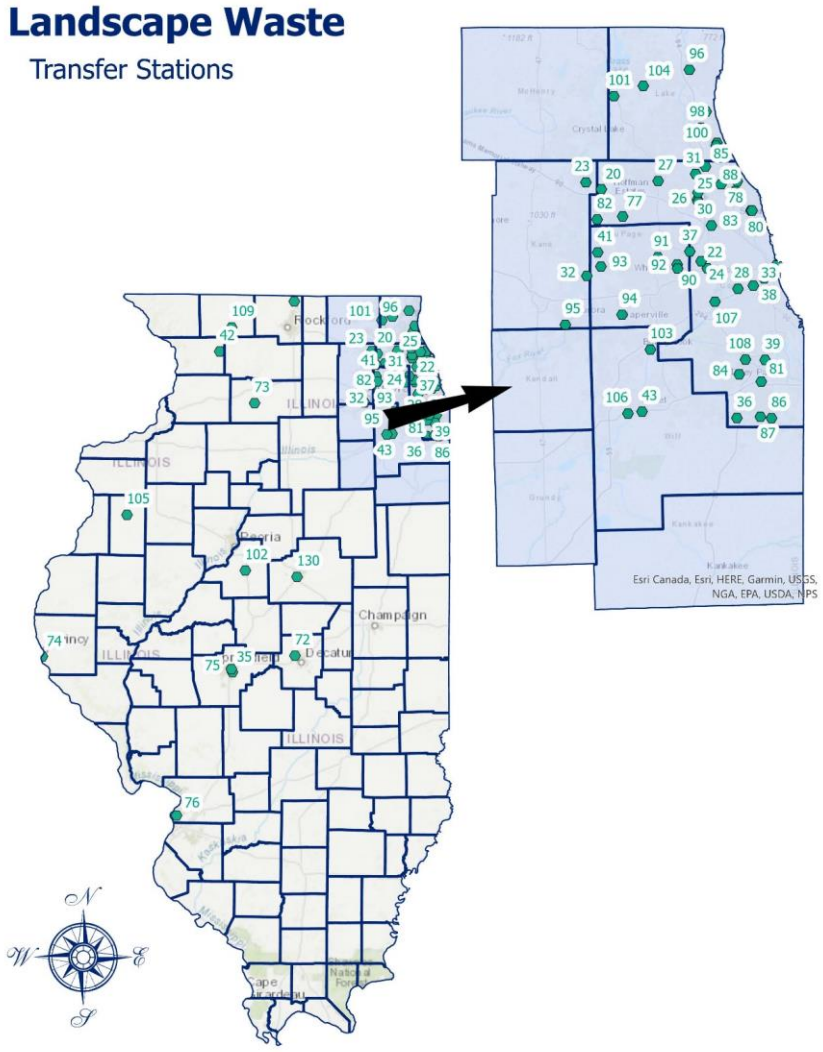
2) Waste Transfer Stations

The existing distribution of waste transfer stations shown on Figure XX indicates there are more waste transfer stations in the Illinois EPA Region 2 than the other regions of the State and the other regions of the State rely more on long hauling of municipal waste in packer trucks direct to the landfill than Region 2. Waste transfer stations can serve multiple infrastructure purposes to enhance the efficiency of transporting municipal waste, recyclables, and landscape waste, and may include additional recovery of recyclables at the transfer station. Detailed information on each site identified in this map can be found in Appendix G.2.



3) Landscape Waste Transfer Stations

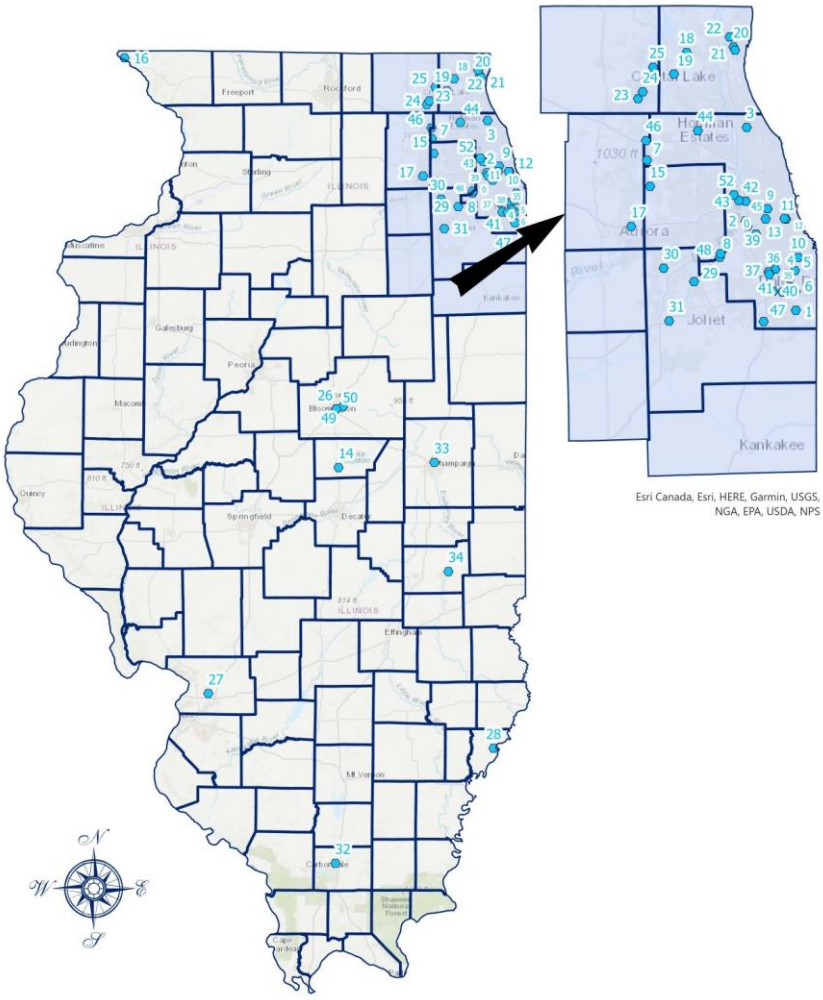
The existing distribution of landscape waste transfer stations shown on Figure XX indicates there are more landscape waste transfer stations in Illinois EPA Region 2 than other regions of the State. As with waste transfer stations, this indicates that other Regions of the State rely more on long hauling of landscape waste in collection vehicles direct to composting facilities than in Region 2. Detailed information on each site identified in this map can be found in Appendix G.3.



4) Construction and Demolition Debris Recycling Facilities

The existing distribution of construction and demolition (C&D) debris recycling facilities is shown on Figure XX. The Figure illustrates that the majority of C&D recycling facilities are located in Illinois EPA Region 2. Prior to 2009, C&D recycling facilities were only exempt from local siting requirements set forth in Section 39.2 of the Illinois Environmental Protection Act, in counties with more than 700,000 residents which limited development of this type of infrastructure outside of Region 2. Detailed information on each site identified in this map can be found in Appendix G.4.

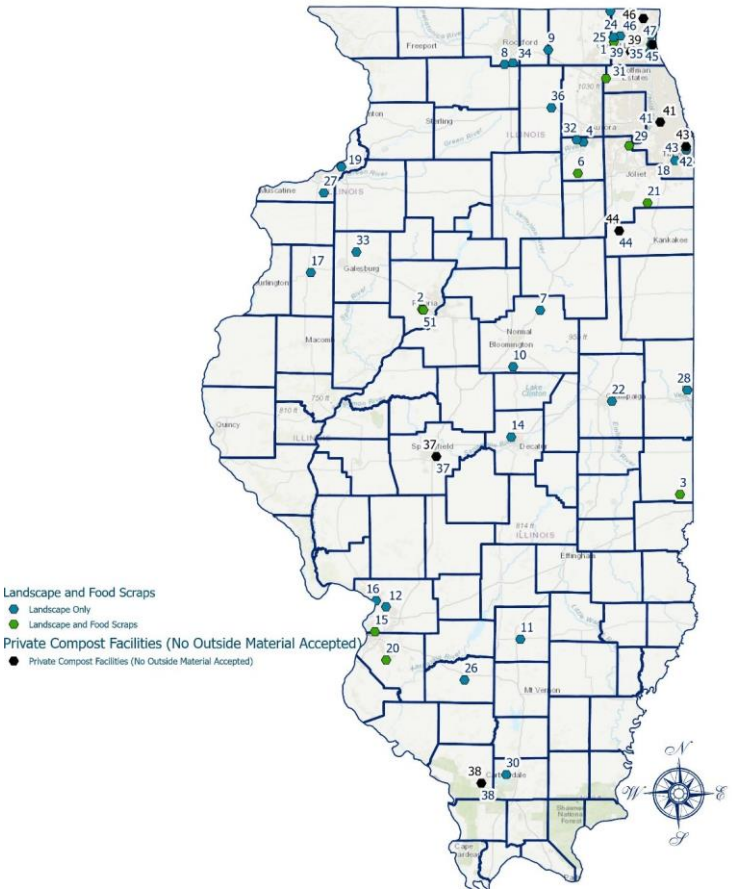
Construction and Demolition Recycling Sites



5) Permitted Compost Facilities

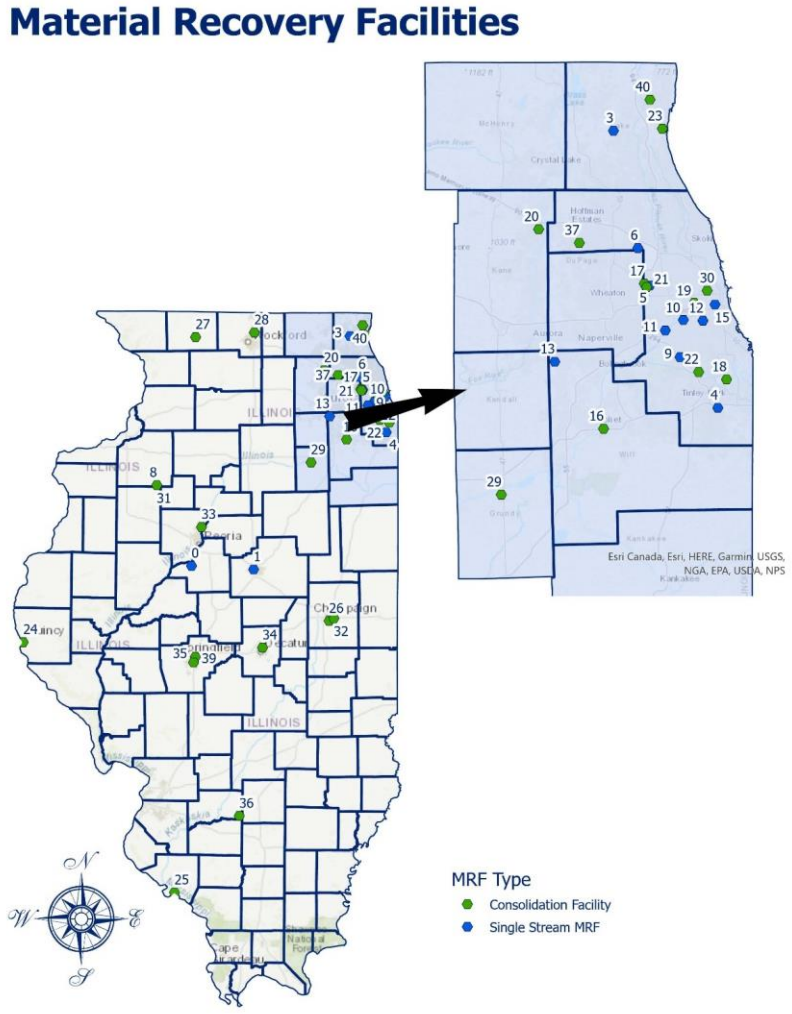
The distribution of permitted compost facilities shown on Figure XX indicates there is greater geographic coverage and distribution of these facilities across the State than with either material recovery facilities or construction and demolition recycling facilities. The infrastructure for landscape waste developed since the landscape waste ban went into effect in 1990. It should be noted that while the State diverts approximately 500,000 tons per year of landscape waste, the amount of other organic material in the waste stream (e.g. food scraps and food-soiled paper) if captured would represent nearly ten times that amount. Further, of the State's 48 permitted compost sites only 6 reported accepting food scraps in their 2019 annual reports required pursuant to Section 39(m) of the Act. Detailed information on each site identified in this map can be found in Appendix G.5.

Compost Facilities



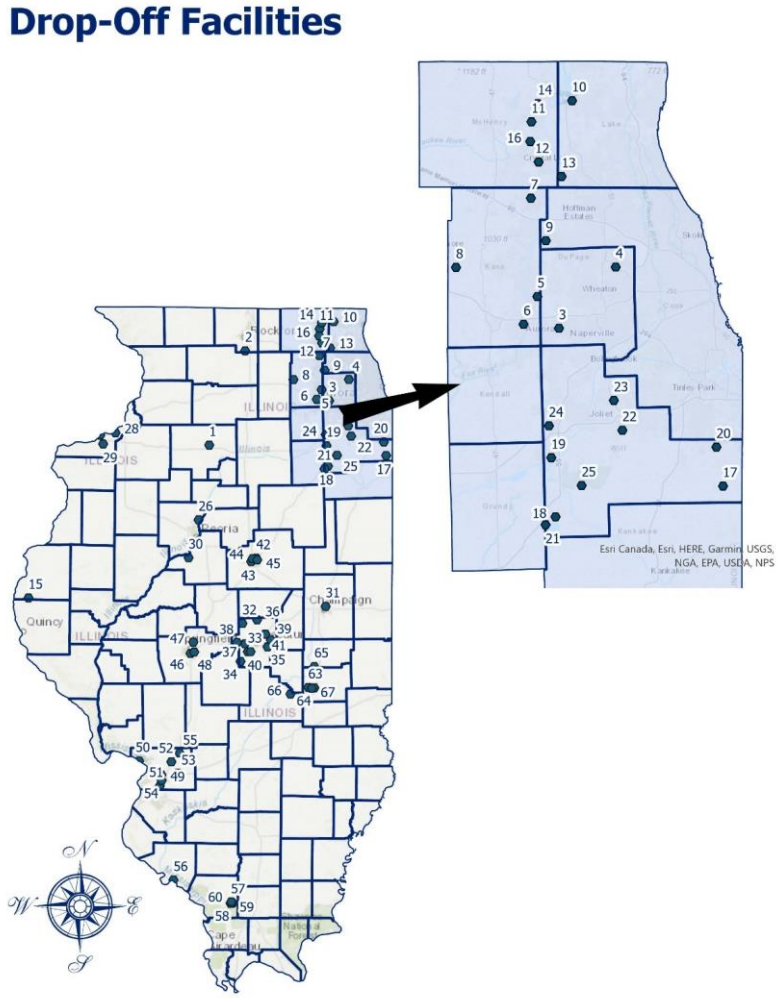
6) Materials Recovery Facilities

The distribution of existing MRFs and consolidation/transload facilities shown on Figure XX (including both in-state and out-of-state facilities currently receiving materials generated in Illinois) indicates there is likely a need for additional consolidation/transload facilities in rural areas to aggregate recyclables for more efficient transfer to primary MRFs, which are predominantly located in more densely populated areas of the State. Detailed information on each site identified in this map can be found in Appendix G.6.



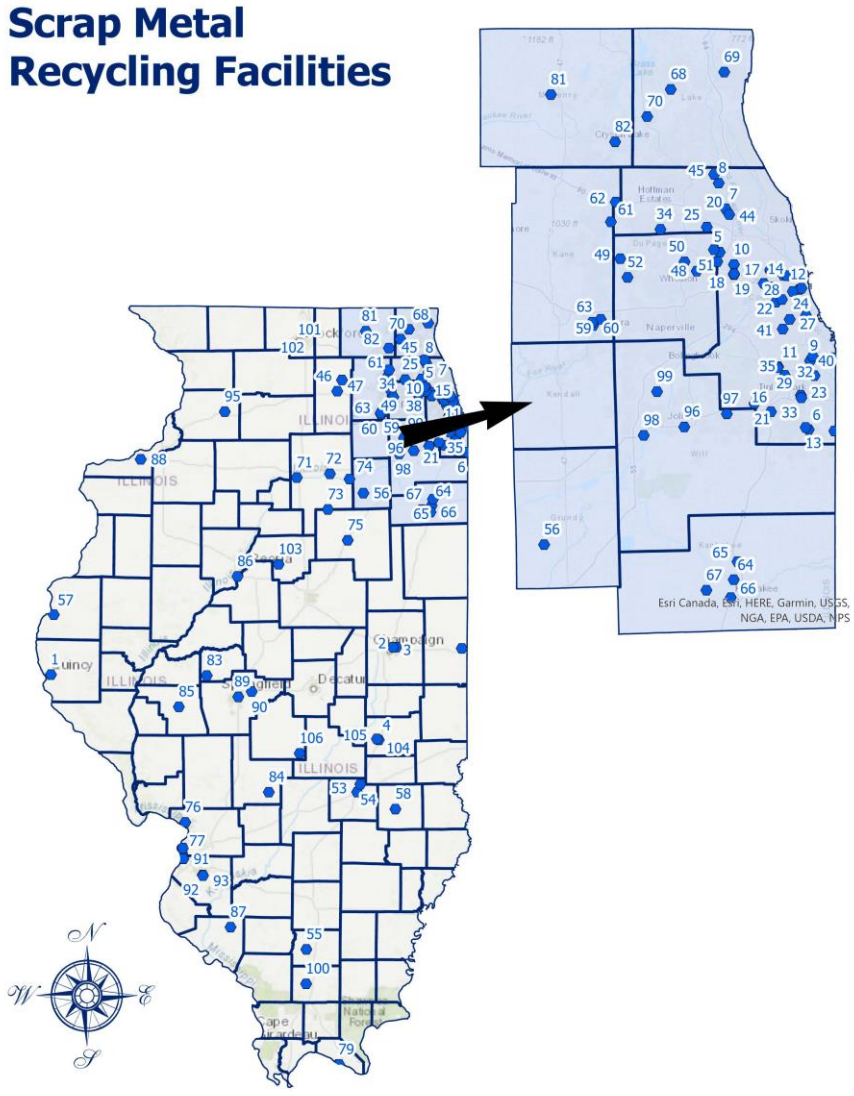
7) Drop-Off Recycling Locations

The distribution of drop-off traditional recycling locations (including sites that collect recyclables, electronics and/or food scraps) sites shown on Figure XX indicates there is likely a need for more drop-off recycling facilities in rural areas to serve residents who typically are not offered curbside recycling service. This map does not include sites that collect source separated items such as books, textiles, etc. For a list of sites that collect such materials please visit, the Illinois Beyond the Bin. Detailed information on each site identified in this map can be found in Appendix G.7.



8) Scrap Metal Recycling Facilities

The distribution of scrap metal recycling facilities shown on Figure XX indicates there is likely adequate coverage for the State. Detailed information on each site identified in this map can be found in Appendix G.8.



9) Household Hazardous Waste Collection

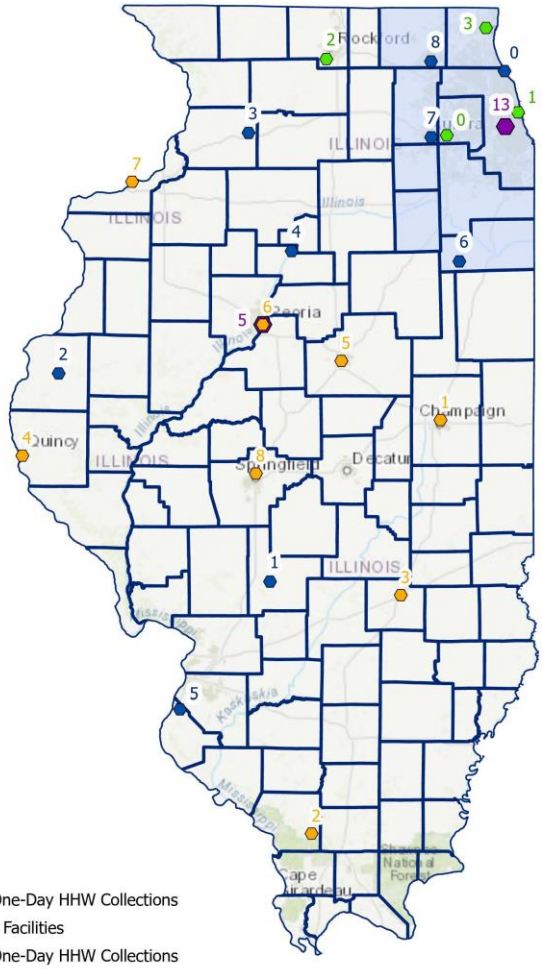
The distribution of HHW collection on Figure XX indicates that all four existing HHW collection facilities are located in northern Illinois. At the far southwest portion of the state, Madison County is close to opening one additional HHW collection facility supported by Illinois EPA funding. In west central Illinois (Peoria County), a privately operated HHW collection facility is planned to open in the next few years.

Based on available appropriations, Illinois EPA-sponsored one-day HHW collection events have been inconsistently available to residents who live more than a 40-mile distance from the four HHW collection facilities in northern Illinois. However, a 2015 survey conducted for Cook County residents found that up to one third of residents were unwilling to travel more than 10 miles to a collection site and roughly the remaining two thirds were willing to travel less than 20 miles[12]. In an attempt to provide consistent service and reduce the barrier to travel Kane County has instituted a program that provides residents with at home collection. Typically, the General Assembly appropriates the Illinois EPA funding to annually provides a limited number of one-day collection events for HHW at variable locations throughout the State. There have been a few years when insufficient funds were appropriated to allow for any Illinois EPA-sponsored one-day HHW collection events. Prior to 2020, no consistent schedule of Illinois EPA-sponsored one-day HHW collection events was available to Illinois residents outside of northern Illinois. In 2020, Illinois EPA entered into long-term collection agreements with six "hub" collection locations across the State that provide for annual Illinois EPA sponsored one-day collection events. This IEPA commitment significantly improves the consistency of larger annual one-day HHW collection events.

The 2015 Illinois Task Force on the Advancement of Materials Recycling unanimously agreed that a convenient statewide HHW collection infrastructure is needed. Illinois residents who are located more than 40 miles from a HHW collection facility continue to lack a convenient option for HHW disposal.

[12] Delta Institute, 2015, Cook County Household Hazardous Waste Needs Assessment and Feasibility Study

Household Hazardous Waste



Legend

- Rotating IEPA Sponsored One-Day HHW Collections
- Long-Term HHW Collection Facilities
- Annual IEPA Partner Hub One-Day HHW Collections
- Private Long-Term Facilities

B) Existing Infrastructure Challenges

The following are challenges that have been identified with enhancing the infrastructure for managing municipal waste in Illinois:

1) Geographic Concentration

As most the infrastructure figures show, there is more intense development of infrastructure in the more populated areas of the State because of the greater municipal waste generation. Absent additional or alternative infrastructure investment, this situation poses a challenge to the less populated areas of the State that do not have the same access to recycling and composting infrastructure compared to more populated areas resulting in fewer waste diversion programs in less populated areas. The key question regarding infrastructure development is how can the infrastructure be developed if there is less waste or material to be managed which typically results in higher unit costs, and in turn leads to project developers deciding not to invest in the infrastructure due to a lack of business case and affordability?

2) Expanded Program Participation

In order to achieve higher waste division goals there will be a need to increase the number of residents and businesses who recycle and compost. A key challenge will be not only getting more participation in programs but making sure there are proper guidelines for recycling and composting in order to reduce contamination which leads to higher program costs and can impact markets negatively as well.

3) Market Enhancement

A corollary to Item 2 above is if Illinois is successful in diverting more material from landfills and developing the infrastructure to manage this additional material, there must be markets for the recyclables and end use compost. Market development should lead to more secure business models which should lead to continued investment in infrastructure.

4) Local Funding for HHW Expansion

Increasing the number of HHW collection facilities is challenged by the need for local units of government to find, fund and maintain a HHW collection facility site, and pay for the initial permitting costs. This has been a significant barrier to the development of more HHW collection facilities.

C) Findings Related to State Financing

1) State landfill tipping fee revenues have been sufficient to support a state-administered market development grant program, but future revenues are uncertain[13]

Historically, the Solid Waste Management Fund has been the primary mechanism used to support the State of Illinois's recycling and composting grant programs. Between State Fiscal Years 2016 and 2021, the Solid Waste Management Fund generated approximately $20 million annually in revenue. Appropriations from the Solid Waste Management Fund exceeded $15 million twice during that time. The Office of Management and Budget projects that the Solid Waste Management Fund will generate $22 million in State Fiscal Year 2022 and is projected to have a surplus of approximately $6.8 million at the end of State Fiscal Year 2022. Accordingly, funds appear to be available to annually support a market development grant program without impairing existing State operations supported by the Solid Waste Management Fund or increasing tipping fees. However, it is not clear whether those revenues are sustainable long term. The success of recycling and composting market development initiatives may decrease the volume of landfilled materials, which would result in lower state tipping fee revenues. In addition, the COVID-19 pandemic has resulted in budget shortfalls, which may result in some or all of the excess balance in the Solid Waste Management Fund to be swept to partially offset deficits in the General Revenue Fund. During its research of other State programs, the Committee found other examples of funding mechanisms currently being utilized or evaluated including taxes on other services (for example Michigan uses tax proceeds from an internet tax to fund environmental programs), using unredeemed bottle bill revenue and Extended Producer Responsibility (EPR) for packaging.

2) Historic State Financial Support for County Solid Waste Planning

Development of initial County Solid Waste Plans in the 1990's was funded in part with grants issued by Illinois EPA, in recognition of the financial burden that the planning requirement would have on counties statewide. Counties were encouraged to jointly develop their Solid Waste Plans to ensure a regional, cohesive strategy for long-term waste management. Implementation of a revised standard format for Plan Updates is expected to have a similar financial burden, which may impede implementation if funding is not available in every county.

D) A coordinated statewide market development grant program is a critical component of a successful long-term materials management strategy

The markets for recycled feedstock and compostable materials are one of the primary drivers of landfill diversion in Illinois and nationally, and they need added support and subsidization to function well as a driver. Recyclables are commodities. Recognizing that, it is important to have measures in place which will create a valuable feedstock to manufacture new products and goods with a reduced environmental impact. Likewise, organics are commodities that have significant landfill diversion potential, provided a strong market for compost exists. Low prices of virgin materials have the potential to impair efforts to expand landfill diversion of recyclables without offering similar environmental benefits to successful materials management strategies. Similarly, organics are also dependent on end markets, compete against other products, and present other transportation

[13] This Section contains the substance of Infrastructure Subcommittee Finding 10 and Market Development Finding 2 because of substantive overlap.

challenges to virgin materials with similar uses. To counter this reality, most states have financed market development opportunities within their jurisdictions. These programs are designed to support innovative endeavors that exhibit the potential to stabilize and grow the markets for recycled materials and compost. Since 2013, Illinois has not been among that population of states.

E) Minimum recycled content policies are an important element of market development and ultimate landfill diversion

Numerous national public and private entities across the country are making efforts to enhance the use of minimum recycled content in adopting policies and procurement practices. These efforts include targets for minimum recycled content levels for a variety of products. If successful, these initiatives could markedly increase the demand for recycled materials and start to shift the economic calculus of materials management. However, based on publicly available data, additional work is necessary for some of these initiatives to achieve their goals.[14] Numerous national organizations track the performance of these initiatives, including some public entities. To that end, there is value in the State of Illinois monitoring the status of similar state programs across the nation and engaging stakeholders within the state that have such initiatives to establish best practices when rendering policy decisions regarding minimum recycled content.

F) Data collection and tracking are critical elements to evaluate county materials management program success that requires additional statewide support

The US EPA, in its draft 2020 National Recycling Strategy, has identified information tracking and measurement as core components of successful progress of the nation's recycling programs. In Illinois, solid waste, recycling, and other materials management initiatives are primarily coordinated at the county or municipal level, rather than statewide. Some counties have effective data collection and tracking mechanisms that enable them to examine historic trends and implement targeted, data-driven enhancements. However, not all counties have the resources or the reporting structure in place for data collection and tracking. The absence of a consistent statewide data gathering system adversely impacts the quality of available statewide materials management data, impairs individual county's efforts to monitor materials management program performance and update their Solid Waste Plans. This information deficit results in a lack of statewide data to examine materials management metrics and program effectiveness.

G) The existing Solid Waste Plan reporting structure does not provide sufficient flexibility for all counties or guarantee that information is consistently reported at the state level

The Solid Waste Planning and Recycling Act establishes the minimum criteria for Solid Waste Plan contents and county government reports. Existing law requires each county to review its Solid Waste Plan every five years and submit any necessary and appropriate changes to the Illinois EPA for review and approval. Not all counties have sufficient resources to designate limited staff time to such revisions, or to contract with a consultant to complete an update every five years, which puts those counties in the difficult position of weighing satisfaction of the Solid Waste Planning and Recycling Act requirements against other core local government functions. This could result in some counties

[14] https://resource-recycling.com/recycling/2020/11/10/major-packaging-users-hit-6-2-average-recycled-content/

going several cycles without updating their Solid Waste Plan and therefore impair the advancement of the materials management infrastructure in those communities. For the five year period from 2015 to 2020, counties with a population greater than 100,000 were over four times as likely to complete a Plan Update than counties with populations under 100,000. In addition, not all Solid Waste Plans are submitted to the Illinois EPA; only plans with necessary and appropriate changes are submitted. Limited reporting of Plan Updates impedes the Illinois EPA's ability to render evaluations that accurately reflect existing materials management practices across the state.

VI. Statewide Recommendations

A) Statewide Diversion Goals

As of 2018, 37 percent of waste generated in Illinois is diverted from landfills. Based on the information compiled and reviewed by the Committee, the following landfill diversion goals are recommended:

Calendar Year	Diversion Goal
2025	40 percent
2030	45 percent
2035	50 percent

While ambitious, these goals are achievable if the recommendations set forth in this report are implemented. There are numerous environmental and economic benefits to undertaking the necessary efforts to meet these diversion targets. Meeting these figures could result in a reduction of as at least 9,750,200 $MtCO_2e$ of greenhouse gas emissions from landfilling and would achieve many of the economic benefits identified in earlier sections. Further reductions may be realized based on the material composition of the diverted material.

These potential improvements highlight that it is imperative that the General Assembly provide the necessary resources to realize the Committee's recommended diversion targets.

B) Materials to Target for Diversion

The composition and quantity of materials reaching the end of life continue to change. As technological and social innovations create new consumer patterns, disrupt existing patterns, or respond to consumer demands the nature of the material stream changes. This dynamic landscape has challenged the recycling industry for decades. Local planners, often challenged with limited resources, are forced to choose between focusing on increasing the recovery of materials present in the waste stream that currently have markets and search for markets for materials that maybe in increasing quantity in the waste stream. However, this creates a program that is forever playing catch up to a changing material stream.

The Committee presents a diversion matrix that provides four distinct diversion quadrants based on the current collection program and market conditions of the material. Collection programs vary

depending on geography, volume, material, and investments. Drop-offs, recycling centers, curbside, and one-day collection events are only some of the examples of collection programs. New programs are continuously being developed both in the private and public sector.

Any material of the waste stream can be placed in one of four of the diversion quadrants and can subsequently be moved to a different quadrant over time to reflect the current conditions.

Established programs: These are materials with established collection programs. Residents and businesses across the states have reasonable and consistent access to the program and commodity markets for the material. Significant infrastructure investments for these programs have already been made and new investments tend to be supported by the commodity markets for the materials.

Limited programs: These are materials with established collection programs in specific regions. In some regions of the state residents and or businesses may have reasonable and consistent access to the program or commodity markets for the material. Limited infrastructure investments for these programs have been made and are growing to support commercial volumes.

Pilot programs: These are materials with collection programs currently being piloted. Specific residents and or businesses may have temporary access to the program or commodity markets for the material. Commodity markets for the material may not be mature or scaled to process current volumes. Current infrastructure and infrastructure investments for these programs is limited and not networked to existing materials management infrastructure.

No programs: These are materials with no known collection programs. Residents and or businesses do not have access to the program or commodity markets for the material. Commodity markets for the material do not exist. Infrastructure investments for these programs is limited and not networked to existing materials management infrastructure.

Based on the current conditions in Illinois Table XX reflects which materials meet the parameters for each of the four categories and the relative percentage of the waste stream each material comprises.

Table xx: Table of Diversion Quantities

Material group	Established program	% of landfilled waste stream	Limited programs	% of landfilled waste stream	Pilot Programs	% of landfilled waste stream	No programs	% of landfilled waste stream
Fiber	Mixed Paper	9.8%			Compostable Paper	3.7%		
	Uncoated OCC/Kraft	8.8%						
	Milk & Juice Cartons/Boxes - Coated	0.3%						
Organics	Yard Waste	3.1%	Food Scraps	17.5%	Other Organic	2.2%	Bottom Fines & Dirt	3.0%
			Clothing	1.8%	Carpet	2.0%	Diapers	2.0%
					Other Textiles	1.6%	Ceramics/ Porcelain	0.6%
Plastic	Other Rigid Plastic Products	2.5%	Other Film	3.1%	Other Plastic	1.9%	Trash Bags	1.8%
	#1 PET Bottles/Jars	1.1%	#6 Exp. Polystyrene Packaging	1.0%				
	Grocery & Merchandise Bags	0.7%	#3-#7 Other - All	0.7%				
	#2 HDPE Bottles/Jars - Clear	0.4%	Commercial & Industrial Film	1.8%				
	#2 HDPE Bottles/Jars - Color	0.4%						
	#1 Other PET Containers	0.3%						
	#2 Other HDPE Containers	0.0%						
Construction and Demolition	Clean Engineered Wood	1.7%	Painted Wood	3.0%	Plastic C&D Materials	1.0%	Other C&D	2.0%
	Composition Shingles	1.5%	Wood Pallets	2.4%			Other Roofing	0.3%
	Clean Dimensional Lumber	1.5%	Gypsum Board	0.8%				
	Concrete	1.0%	Treated Wood	0.1%				
	Rock & Other Aggregates	0.6%						
	Bricks	0.3%						
	Asphalt Paving	0.2%						
	Reinforced Concrete	0.0%						
Metal	Other Ferrous	1.3%						

Material group	Established program	% of landfilled waste stream	Limited programs	% of landfilled waste stream	Pilot Programs	% of landfilled waste stream	No programs	% of landfilled waste stream
	Ferrous Containers (Tin Cans)	0.9%						
	Other Metal + mixed C&D metals	0.7%						
	Aluminum Beverage Containers	0.5%						
	Other Non-Ferrous	0.4%						
	Other Aluminum	0.3%						
	HVAC Ducting	0.0%						
Glass	Recyclable Glass Bottles & Jars	2.6%					Flat Glass	0.5%
							Other Glass	0.3%
Inorganics	Electronic Equipment	0.5%						
	White Goods - Not refrigerated	0.3%						
	Televisions	0.2%						
	Computer Equipment/Peripherals	0.2%						
	Computer Monitors	0.1%						
	White Goods - Refrigerated	0.1%						
Other Inorganics	Tires	0.2%	Other Household Batteries	0.2%	Household Bulky Items	2.3%	All other materials	3.0%
	Used Oil/Filters	0.1%	Latex Paint	0.1%				
	Other Automotive Fluids	0.0%	Oil Paint	0.0%				
	Lead-acid Batteries	0.0%	Fluorescent Lights/Ballasts	0.0%				
Total		42.4%		32.6%		14.2%		10.7%

Commented [FS5]: JJarland: As I mentioned on a couple of calls: Demolition (sp)

What order is this in? Maybe alphebetise or at least categorize with organics and then other organics and inorganics and other inorganics

Are these terms defined above?

Also confusing under organics, what is other organic 2.2%?as opposed to "other organics" further down… Sorry I didn't catch that before

C) Necessary Actions to Achieve Diversion Goals

i) Recommendations Related to State Funding

The Committee recommends the General Assembly appropriate the Illinois EPA additional funds, using exclusively existing revenues, to expand the statewide materials management programs. Recognizing that and consistent with the uses of the Solid Waste Management Fund,[15] the Committee proposes several additional appropriations to meaningfully enhance landfill diversion in Illinois. The additional financing would be a combination of grants to local government, recycling facilities, composting facilities, private entities engaged in developing markets for materials diverted from landfills, and to the Illinois EPA. Table XX below reflects the Committee's programmatic funding recommendations. These recommendations may be achieved without reducing the Illinois EPA's existing appropriations or increasing fees that support these programs. Each recommendation is discussed in further detail below.

Table xx: Committee Funding Recommendations

	SFY23	SFY24	SFY25	SFY26	SFY27
Unappropriated revenue	**$9,616,000**	**$9,627,000**	**$9,538,000**	**$9,474,000**	**$9,460,000**
Education campaign	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Market Development Advisory Board	$0	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Recycling infrastructure	$400,000	$0	$600,000	$0	$0
Composting infrastructure	$400,000	$600,000	$0	$0	$0
HHW infrastructure	$0	$0	$275,000	$825,000	$1,375,000
Solid waste plan updates	$1,000,000	$0	$0	$0	$0
Solid waste characterization	$0	$300,000	$0	$0	$0
Data tracking services	$5,000	$5,000	$5,000	$5,000	$5,000
Unappropriated fund balance	**$6,811,000**	**$6,722,000**	**$6,758,000**	**$6,544,000**	**$6,080,000**

a) Establishment of materials management market development advisory board

The General Assembly should establish by law a materials management market development advisory board (advisory board) at the University of Illinois. The advisory board should be tasked with reviewing grant applications for financial support from entities that are developing new, or enhancing existing, opportunities to recover material that would otherwise become waste and return those materials to the economic mainstream. The advisory board should be comprised of two members of the Illinois General Assembly, of different parties, and the following individuals appointed by the Governor or their designee:

[15] See 415 ILCS 5/22.15

- one representative of the University;
- one representative of the Illinois Environmental Protection Agency;
- one representative of the waste industry,
- one representative of the recycling industry;
- one representative of residential recycling programs in Illinois;
- one representative of the composting industry;
- one representative of the construction and demolition debris recycling industry;
- one representative of the environmental community;
- one representative of local government;
- one representative of manufacturers located in Illinois;
- one representative of retailers located in Illinois;
- one representative of manufacturers that use recycled materials in their production process; and
- any additional experts necessary to adequately evaluate submitted applications.

The advisory board should seek input from other relevant experts, as needed, to evaluate the potential for individual applications to result in the expansion of markets to divert materials from Illinois landfills. Based on its review of submitted applications, the advisory board should recommend one or more projects to the University and Illinois EPA for funding based on the individual project's likelihood of enhancing the market in Illinois for one or more materials that would otherwise be landfilled. Projects the advisory board recommends to the University and Illinois EPA should be subject to an applicant financial match of at least fifty percent of the project's total cost. The match could be either financial or in-kind. The advisory board should identify and endeavor to secure grant funding for awards issued from private sources or partnerships to the greatest extent possible.

Proposed funding level: The grants approved by the University and Illinois EPA should be supported by an appropriation of at least $1 million annually from the Solid Waste Management Fund from existing revenues. This appropriation should be in addition to all other appropriations from the Solid Waste Management Fund that support other state programs. In 2026, or five years after the implementation of the award program, whichever is later, the University and the Illinois EPA, with input from the Advisory Board, should evaluate whether another funding source is necessary to sustain the award program.

b) Funding for Infrastructure Enhancements

1) Recycling and Composting Grants

The Illinois EPA has the authority to issue grants to support materials management infrastructure enhancements in the State. In the past, the General Assembly appropriated in excess of $3 million per State Fiscal Year for this type of award. However, no such appropriations have been made since State Fiscal Year 2014. Illustrative examples of such projects in other jurisdictions include awards to MRFs to purchase optical sorting technology or balers. The General Assembly should appropriate funds to restart the grant programs. The scope of the new grant programs should include:

- one round of grants to counties with less than 100,000 residents for new and existing material recovery facilities (MRFs), new and existing consolidation facilities for recyclables, general construction and demolition debris recycling facilities, and drop-off recycling facilities;
- one round of grants to counties with more than 100,000 residents for new and existing MRFs;
- one round of grants to counties with less than 100,000 residents for new and existing compost facilities, landscape waste transfer stations and include all types of composting technology; and
- one round of grants to counties with more than 100,000 residents for new and existing compost facilities, landscape waste transfer stations, and include all types of composting technology.

$400,000 for grants to counties with less than 100,000 residents and the second appropriation should be for at least $600,000 for grants to counties with more than 100,000 residents.

Proposed funding level: The General Assembly should appropriate, at a minimum, the following amounts, using existing revenues, from the Solid Waste Management Fund to the Illinois EPA during the next five years:

- $400,000 for grants to counties with less than 100,000 residents for the recycling infrastructure outlined above;
- $600,000 for grants to counties with more than 100,000 residents for new and existing MRFs;
- $400,000 for grants to counties with less than 100,000 residents for the composting infrastructure outlined above; and
- $600,000 for grants to counties with more than 100,000 residents for the composting infrastructure outlined above.

2) HHW Expansion

The Illinois EPA is authorized to provide financial support to household hazardous waste collection sites and events throughout the state, subject to appropriation. Costs for these events and collections are covered as part of the General Assembly's appropriation to the Illinois EPA for household waste collection programs. Between State Fiscal Year 2016 and 2020, the median cost for the Illinois EPA to support each long-term household hazardous waste facility in the state was $272,000 per facility per State Fiscal Year. Provided there is sufficient local support to independently finance and develop these facilities, the General Assembly should increase the Illinois EPA's annual household waste collection appropriation to ensure sufficient financial support for up to five additional long term HHW collection locations throughout the state.

Proposed funding level: The General Assembly should increase the Illinois EPA's household waste collection appropriation, using existing revenues, from the Solid Waste Management Fund by $275,000 per State Fiscal Year for each new facility that is developed and executes an Intergovernmental Agreement with the Illinois EPA for financial support.

c) Statewide Education Campaign

The Illinois General Assembly should appropriate one million dollars annually from the Solid

Waste Management Fund to the Illinois EPA to finance education and outreach activities for a statewide waste reduction campaign. These activities include engaging with a marketing firm, updating and maintaining content on a website, and providing resources and support to local communities.

Using the appropriated funds, the Illinois EPA should engage with a marketing firm to develop a statewide waste reduction campaign. A marketing firm should create a slogan, a logo, and an overall design for a website, flyers, and other materials that will deliver a simple and consistent message to all areas and sectors of the state. After rolling out the campaign, the Illinois EPA should utilize the marketing materials to introduce specific waste reduction strategies (i.e. reduce, reuse, repair, compost, recycle) in phases.

To maximize engagement and consistency throughout the phases, the campaign should:

- Emphasize the environmental, health, and economic benefits of reducing waste
- Address waste from residences, businesses, schools, organizations, institutions, and municipalities
- Build on the work of the Illinois Task Force on Reducing Recycling Contamination and Increasing Diversion Rates to increase proper recycling and decrease contaminants in the recycling stream
- Use language that encourages consumers to analyze their discarded items and consider the value of these "resources"
- Provide actions individuals and organizations can take to reduce consumption, engage in green consumerism, reuse, repair, compost, recycle, and locate proper disposal outlets for additional unwanted materials

Proposed funding level: The General Assembly should appropriate the Illinois EPA $1 million from the Solid Waste Management Fund per state fiscal year to develop and support a statewide materials management education program.

d) County Solid Waste Management Plan Updates

The General Assembly should appropriate $1 million from the Solid Waste Management Fund to the Illinois EPA to provide grant funding support for counties to develop their first Plan Update incorporating the revised standard content. Fund appropriation may be distributed over one or multiple budget years to reflect varying due dates for county Plan Updates. Appropriated funds should be allocated to counties based on need, with funds applied for through and administered by the Illinois EPA. Funds may be used for third party expenditures or for in-kind costs incurred in the development of a Plan Update.

The schedule for completion of Plan Updates utilizing the new format is recommended as follows:

1. Counties with a Plan Update completed within the 5-year period preceding implementation of the new format: Prepare and submit a Plan Update conforming with the new format on

their next 5-year Plan Update renewal date (provided, however, that counties with a Plan Update in progress or due within 6 months of the date the new format is implemented are granted a 1-year extension to complete their update utilizing the new format)

2. Counties with a Plan Update completed more than 5 years before the implementation of the new format: Prepare and submit a Plan Update conforming with the new format within 18 months of the date the new format is implemented.
3. For any county that fails to request funds and/or to complete a Plan Update within 18 months of the date that such funds and the new format are available, the IEPA shall have the option to reallocate grant funds on behalf of the County. Such funds shall be used to assign staff or retain a third-party consultant to develop a Plan Update on the county's behalf, which task shall include consultation with the subject county.

Proposed funding level: The General Assembly should appropriate $1 million from the Solid Waste Fund to the Illinois EPA to provide grant funding support for all counties to develop their first Plan Update incorporating the revised standard content. This amount may be distributed over one or multiple budget years to reflect varying due dates for county Plan Updates. The Illinois EPA should allocate appropriated funds equally to counties based on need.

e) Data Tracking Platform

The State of Illinois does not presently have a centralized statewide materials management tracking platform. Currently, numerous private entities offer multijurisdictional data tracking services that enable various federal and state agencies to aggregate comparable reported datasets in a manner that is easily digestible for regulatory agencies, the regulated community, local government, and the general public. Indeed, US EPA has procured such services as part of its State Measurement Program, which identifies national trends in various solid waste, recycling, and materials management arenas. For nearly a decade, the Illinois EPA has participated in US EPA's Program by providing EPA the requested information via the procured data tracking services. Other states have obtained comparable software to compile a wide range of materials management data and employed those data to render sound policy and program decisions. The data gleaned from using these services will enable the state and individual counties to determine their respective generation and diversion rates in future years.

Proposed funding level: The General Assembly should appropriate the Illinois EPA sufficient resources from the Solid Waste Management Fund to obtain statewide data tracking services. Based on information gleaned by the Committee, these services may be obtained for as little as $5,000 per State Fiscal Year. Once funding is made available, the Illinois EPA should identify counties to test it prior to statewide implementation.

f) Future Funding Sources[16]

The recommendations included above are based on existing revenues and anticipated future expenses. Both are subject to variability. Accordingly, the General Assembly should continue to monitor the revenue generated by the Solid Waste Management Fund. In the event that projected

[16] This Section includes content from Education and Outreach Subcommittee recommendation 1 and Infrastructure Subcommittee Recommendations 3 and 5.

revenues are not adequate to continue to support the proposed programs, the General Assembly should explore other funding mechanisms in addition to the landfill surcharges authorized by Section 22.15 of the Act. In addition, a group of impacted stakeholders, including the Illinois EPA, representatives of local government, the environmental community, and the regulated community, should identify and evaluate additional future statewide funding sources by 2026.

Beyond these efforts, the State and other units of local government should explore public-private collaboration on funding for needed infrastructure, including additional grants for MRFs, secondary MRFs (a secondary MRF processes the residue and/or mixed plastics from MRFs to further recover materials of value), C&D recycling facilities, drop-off facilities and residential recycling carts to divert material from the landfill into needed feedstocks for recycling or composting. As part of this collaboration, State and local governments and the private sector should explore how to support the end-use of recycled content products and finished compost material. With the recent commitments being made by the private sector in organizations such as The Recycling Partnership and Closed Loop Partners, the advantages of working together have become obvious and needed.

2) Supporting Markets for Diverted Materials

a) Exploring Public-Private Partnerships for Materials Diversion

The State of Illinois should promote existing materials exchange services that connect entities within Illinois that generate usable materials to other entities that use those materials to mitigate landfilling of salvageable items. These promoted services may include privately and publicly funded platforms that enable materials generators to list the type, volume, quality, and location of available items and communicate directly with individuals and organizations that seek those items. The State of Illinois should evaluate the effectiveness of the promoted materials exchange services to determine if establishing an independent service would be beneficial. If the State of Illinois determines it is necessary to develop an independent service, the State of Illinois should consider examining partnerships with private entities to establish a materials exchange service that addresses any voids in the existing state network. To the greatest extent possible, this service should be hosted and maintained by non-governmental entities.

b) Purchases of Materials with Recycled Content

Purchasing materials with minimum recycled content requirements helps bolster the markets for those materials and, in turn, strengthens the economic viability of recycling in general. Illinois law currently requires the State of Illinois to prioritize purchasing items that have minimum recycled content. However, those purchases are not required to be tracked, which renders evaluating the effectiveness of this provision difficult. The General Assembly should amend the Illinois Procurement Code to require state agencies to track: purchases of materials that are subject to minimum recycled content requirements; use of compost on state construction projects; and exceptions made from those purchasing requirements. Central Management Services (CMS) should promote to the executive agencies the policies set forth in Section 45-20 of the Illinois Procurement Code to ensure the state maximizes its procurement of materials that meet minimum recycled content thresholds. In addition, CMS should annually compile and publish the volume and type of products subject to minimum recycled content requirements purchased, the total expenditures for these purchases, and an itemized list of exceptions to the purchasing requirements on the Procurement

Policy Board website. On January 1, 2026, or four years after amendments to the Procurement Code take effect, whichever is earlier, Central Management Services and the Illinois EPA should convene a committee of representatives of state agencies subject to the amended tracking provisions to evaluate recycled content product purchasing habits and make recommendations to the General Assembly of any needed improvements to maximize the ratio of state government purchases of products made from recycled items.

c) Encouraging Further Innovation

Based on the information reported to the Infrastructure Subcommittee from various vendors and technologies (e.g.,Brightmark - pyrolysis of plastics, Waste Management – anaerobic digestion of organics, INEOS -chemical recycling of polystyrene back into styrene, Bioenergy Development – anaerobic digestion of organics, and Titus MRF Services – secondary MRF) there are opportunities for development of new infrastructure and Illinois should continue to encourage the development of new infrastructure in the State that can accept recyclables or organic material as a feedstock and reduce reliance on landfilling.

In addition, the Illinois EPA should clarify its position regarding the siting of new or existing aerobic and anaerobic digestors that accept food scraps pursuant to Public Act 96-0418, more specifically to clarify and under what circumstances these facilities may be exempt from the local siting law.

3) Statewide Education Program Enhancements

In implementing the statewide education campaign using Solid Waste Management Fund appropriations, the Illinois EPA should employ multiple messaging strategies to convey waste reduction information to diverse populations across the state.

These strategies should include:

- Utilizing best management practices related to education and outreach, including employing a combination of printed and online communications tools using clear instructions using visual cues and multiple languages;
- Addressing needs of variety of audiences, including diverse and underserved populations, and certain commercial and institutional establishments;
- Leveraging free resources available to county recycling coordinators; and
- Offering examples of what other communities and states are doing.

In addition, the statewide education campaign should convey updated messaging and resources on an existing State of Illinois-hosted website or on a separate, newly created website. This is a cost-efficient action that will provide a central location for residents, businesses, municipalities, and community organizations to find information easily. Several states, including nearby states like Michigan, have successfully utilized separate websites to increase the accessibility of information and reduce confusion with other state agency objectives.

Incorporating guidance from the procured marketing firm, the website should, at a minimum, include:

- The slogan, logo, and overall purpose of the waste reduction campaign General information on waste reduction, recycling, and composting, including FAQs
- A list of solid waste coordinators for each county
- Information on how to host one-day waste diversion events
- Resources for organizations seeking to reduce waste
- Descriptions of proper waste management practices to discourage illegal dumping, burning of trash, and other environmentally harmful activities
- Map(s) of statewide recyclers/drop-offs so consumers know where they can take electronics, bulbs, scrap metal, and other difficult to divert materials

Given the state's history of locally-driven materials management program support, the Illinois EPA's contractor should develop graphics and toolkits conducive to customization that allows county waste coordinators to tailor the statewide message to the unique needs of their respective communities. There is variation across the state regarding the proper end-of-life handling of specific materials. Working with haulers, materials recovery facilities, compost facilities, and county waste coordinators, the Illinois EPA should develop customizable flyers and social media kits branded with the statewide campaign logo. An example of a customizable document is the recycling flyer created by the Illinois Task Force on Reducing Recycling Contamination. It allows governments to specify items acceptable in local recycling programs while retaining the format developed for use across the state.

Finally, the Illinois EPA should pursue partnerships with organizations that can further the goals of the state's waste reduction campaign. Partnerships will help sustain the state's waste reduction efforts into the future. For example, in Florida, a coalition of businesses and associations hosts the state's recycling website. To reduce food waste, Florida DEP is evaluating partnerships with nonprofit organizations, which would allow for sharing of educational resources and expanding the reach of the campaign.

4) Asset mapping

Mapping existing materials management infrastructure is an effective means for encouraging public participation in waste reduction programs and connecting entities with large volumes of potentially divertible materials with interested end users. There are several examples of this approach being successful in Illinois. For example, in 2016, USEPA released its disaster debris recovery tool, which is an interactive map of numerous types of entities that manage common disaster debris and enables local entities responsible for coordinating disaster response and recovery to effectively plan for materials management needs. In 2018, the Illinois EPA launched its Beyond the Bin map, which identified collection locations for divertible materials that are not commonly accepted in curbside collection programs and allowed residents to search their communities for such opportunities and obtain directions to the nearest collection site for more than a dozen difficult to recycle items. Each tool reflects the potential for using mapping as a means to enhance landfill diversion opportunities, but additional work is needed to maximize the educational capacity for this mechanism of public education. Recognizing that, the General Assembly should provide sufficient support to allow the Illinois EPA and other identified executive agencies to develop the mapping tools identified below and annually update the information included on those maps.

a) Reuse Asset Map

The General Assembly should appropriate sufficient funding to allow the Illinois EPA to develop and support a website and map that identifies entities within Illinois that accept and reuse, repurpose, or repair materials that are not recyclable through conventional collection means. The map should include the identified entities' contact information and a disclaimer that individuals and businesses should contact the mapped entity before bringing any materials to the site. The mapped entities should include, but not be limited to, food pantries, manufacturers that utilize recyclable products in their production, and repair and reuse stores. The website should include an option that allows public or private organizations to request placement on the roster of sites, subject to the Illinois EPA's discretion. The website should be updated, at least annually, using readily available public information and direct outreach to entities identified on the website at the time of the update.

b) Food Recovery Asset Map

The Illinois EPA and Illinois Department of Agriculture should work together, in conjunction with the Illinois Farm Bureau, Feeding Illinois, and the University of Illinois, to develop an asset map and database for food recovery. The asset map and database should attempt to connect all known food pantries and food rescue or recovery network partners in the State with all known donators of food. The map and database should also include all known specialty farmers who recover and donate food from their own specialty crops.

c) Revised Maps from this Report[17]

The Illinois EPA should update the maps for landfills, waste transfer stations, landscape waste transfer stations, construction and demolition debris recycling facilities, MRFs and consolidation/transload facilities, compost facilities, drop-off recycling sites, scrap metal recycling facilities and HHW collection facilities/one-day collection hub locations prepared for this report on an annual basis and include the maps and associated data in the annual landfill capacity report. In addition, the Illinois EPA should conduct an annual survey of MRFs and compost facilities to obtain updated information about materials accepted in different parts of the state. The Illinois EPA should provide the information to all county solid waste coordinators and use data collected to update the website, flyers, and toolkits on an annual basis. The survey data from the MRFs and compost sites should be linked to the geographic area that utilizes the MRF and/or compost site.

VII. Local Planning Recommendations

A) Standard Local Solid Waste Plan Elements

The content required for county Solid Waste Plan updates should be revised to include a standard format. More specifically, the amended Plan form should include the following standard elements: an Executive Summary; Current Plan Implementation; data on the volume (generation) and types (characterization) of materials currently being managed; a detail of existing infrastructure; a waste generation assessment; description of existing diversion programs and recommendations for

[17] This Section includes Education and Outreach Subcommittee recommendation 5 and Infrastructure Subcommittee recommendation 8.

expanding recycling programs; discussion of public education campaigns; and a summary of recommendations. There may also be an optional section on Partnerships, Policy, and Funding. To assist counties with less than 100,000 population, less reporting will be required for the description of current and proposed material management programs. Whenever possible, the standard form should be available as a fillable PDF that can be submitted electronically. Additional information on each reporting element is detailed in the County Solid Waste Plan Update Template included as Appendix E of this Report.

B) Revised Plan Submission Flexibility

Flexibility should be granted to Counties in the submission of subsequent Plan Updates. For all counties, subsequent Plan Updates (those submitted after the first Plan Update on the new format), the Plan Update requirement may be may be satisfied by: 1) submission of a new Plan Update following the revised format; or 2) a written statement by the County that there are no significant changes in the waste characterization, infrastructure or materials management programs in the County.

C) Coordination with State Government

The Illinois EPA and county solid waste coordinators should communicate regularly about evolving technologies, laws, and waste diversion practices. The Illinois EPA should maintain a contact list of county solid waste coordinators and send them quarterly electronic newsletters that include information on programmatic updates and other relevant information. In addition to disseminating important information, a newsletter may encourage county coordinators to report back valuable information. This ongoing dialogue will be an important component of creating a uniform waste diversion effort.

VIII. Appendices

A) Text of H.B. 3068

B) Committee Meeting Agendas

C) Summaries of Formal Actions Adopted by the Committee

i) Remote Attendance Policy

ii) Motion to Authorize ISTC to Include WARM Model Data

iii) Motion to Adopt Recommendations from Education and Outreach Subcommittee

iv) Motion to Adopt Recommendations from Market Development Subcommittee

v) Motion to Adopt Recommendations from Infrastructure Subcommittee

vi) Motion to Adopt Recommendations from Local Government Support Subcommittee

vii) Motion to Adopt Recommended Diversion Goals

viii) Motion to Adopt Recommended Approach to Materials to Target for Diversion

D) County Solid Waste Plan Update Template.

E) Resources Examined by the Education and Outreach Subcommittee

F) Materials management metric strategies of various states

G) Supporting data and individual site information for asset maps

Appendix A- Text of House Bill 3068

415 ILCS 15/4.5

AN ACT concerning health.

Be it enacted by the People of the State of Illinois, represented in the General Assembly:

Section 5. The Solid Waste Planning and Recycling Act is amended by adding Section 4.5 as follows:

(415 ILCS 15/4.5 new)

Sec. 4.5. Statewide Materials Management Advisory Committee; Report.

(a) The Statewide Materials Management Advisory Committee is hereby created.

(b) The Advisory Committee shall:

(1) investigate and provide recommendations for expanding waste reduction, recycling, reuse, and composting in Illinois in a manner that protects the environment, as well as public health and safety, and promotes economic development;

(2) investigate and provide recommendations for the form and contents of county waste management plans adopted under this Act; and

(3) prepare a report as required under Section 4.6 of this Act.

(c) The Advisory Committee shall be composed of the following:

(1) The Director of the Agency, or his or her designee, who shall serve as an ex officio and nonvoting member.

(2) 25 voting members appointed by the Director of the Agency, as follows:

(A) one member representing a municipality with a population of more than 1,000,000;

(B) one member representing a county with a population of more than 1,000,000;

(C) two members representing counties with a population of at least 200,000 but not more than 1,000,000;

(D) two members representing counties with a population of at least 85,000 but not more than 200,000;

(E) two members representing counties with a population of less than 85,000;

(F) two members representing the solid waste management industry;

(G) two members representing the recycling industry;

(H) two members representing providers of general construction and demolition debris recycling services;

(I) two members representing environmental interest groups;

(J) two members representing manufacturers in the State;

(K) two members representing retailers in the State;

(L) two members representing producers of compost; and

(M) three members representing producers of end products generated through recycling.

(d) The Director of the Agency shall appoint all members of the Advisory Committee by no later than January 1, 2020.

(e) The initial meeting of the Advisory Committee shall be convened by the Director of the Agency, or his or her designee, no later than March 1, 2020. At the initial meeting, the voting members shall select co-chairs. Subsequent meetings shall convene at the call of the co-chairs.

(f) A simple majority of those appointed shall constitute a quorum. The affirmative vote of a majority of those present and voting shall be necessary for Advisory Committee action.

(g) Members of the Advisory Committee shall receive no compensation for their services.

(h) The Agency shall provide administrative assistance and technical support to the Advisory Committee. The Agency may obtain assistance from outside experts to assist in preparation of the Plan. Funding for the Plan and assistance from outside experts shall be obtained from the Solid Waste Management Fund.

(i) On or before July 1, 2021, the Advisory Committee shall prepare and submit a report to the General Assembly summarizing its work.

(j) The report shall include, at a minimum, the following information:

(1) an estimate of the amount and composition of waste generated annually in Illinois with 2018 as the base year;

(2) an estimate of the amount of waste disposed of annually in Illinois with 2018 as the base year;

(3) an estimate of the amount of material diverted from landfills annually in Illinois with 2018 as the base year;

(4) an analysis of the markets available for materials diverted from Illinois landfills;

(5) recommended materials in the municipal waste stream that could be targeted to maximize waste diversion;

(6) recommended actions that could be taken to increase landfill diversion rates and the costs associated with those actions;

(7) recommended education and public outreach programs that could maximize waste diversion;

(8) recommended diversion rates that are achievable by 2025, 2030, and 2035; and

(9) a database and map of permitted facilities, including, but not limited to, landfills, garbage transfer stations, landscape waste transfer stations, construction and demolition debris recycling facilities, recycling facilities, compost sites, and scrap metal recycling facilities.

(k) In addition, the report shall also include, at a minimum, the following recommendations for waste management plans required under this Act:

(1) recommended elements for counties to include in waste management plans required under this Act;

(2) a recommended standard methodology for counties to use to determine the annual waste generation rate in the county;

(3) a recommended standard methodology for counties to use to determine the annual disposal rate in the county;

(4) a recommended standard methodology for counties to use to determine the annual diversion rate in the county;

(5) recommended standard actions that can be taken by counties to increase landfill diversion rates;

(6) recommended education and public outreach programs that could maximize waste diversion within the county; and

(7) recommended standard content for waste management plans required under this Act.

(l) The report may include a list of nonpermitted facilities that are involved in waste disposal, materials recycling, or composting.

(m) This Section is repealed on July 1, 2022.

Section 99. Effective date. This Act takes effect upon becoming law.

Appendix B- Committee Meeting Agendas

Statewide Materials Management Advisory Committee

Meeting Agenda
February 21, 2020, 10:00 am to 1:00 pm
Illinois Environmental Protection Agency
1021 North Grand Avenue East Springfield, Illinois

1. Introductions (15 minutes)

2. IEPA Overview (75 minutes)
   a. Open Meetings Act obligations
   b. H.B. 3068 obligations and deliverables
   c. Discussion of currently available information and resources
   d. Proposed subcommittee structure and objectives
      i. Education and Outreach
      ii. Infrastructure Development
      iii. Market Development
      iv. Measurement
      v. Local Government Support
   e. Steering committee structure and function

3. Group Discussion (75 minutes)
   a. Are the scope and structure appropriate?
   b. Are the objectives for each subcommittee appropriate?
   c. Identify subcommittee candidates

4. Next Steps (15 minutes)
   a. Agree on action items for next meeting and identify responsible individuals
   b. Identify location and approximate date/time for the next meeting

Statewide Materials Management Advisory Committee

Meeting Agenda
March 26, 2020, 1:30 pm to 2:30 pm
Illinois Environmental Protection Agency
By Teleconference: (312) 535-8110
Access Code: 801 031 612

1. Introductions (5 minutes)
2. Discussion of Remote Meeting Policy (25 minutes)
3. Old Business (10 minutes)
4. New Business (10 minutes)
5. Next Meeting Logistics Discussion (10 minutes)

Statewide Materials Management Advisory Committee

Meeting Agenda
April 30, 2020, 1:00 pm to 3:00 pm
Illinois Environmental Protection Agency
By Teleconference: (312) 535-8110
Access Code: 286 820 866

1. Introductions (5 minutes)
2. Approval of Past Minutes (10 minutes)
3. Discussion of Scopes of Work (75 minutes)
    a. Education and Outreach
    b. Infrastructure
    c. Market Development
    d. Measurement
    e. Local Government
4. Old Business (10 minutes)
5. New Business (10 minutes)
6. Next Meeting Logistics Discussion (10 minutes)

Statewide Materials Management Advisory Committee

Meeting Agenda
May 26, 2020, 1:00 pm to 3:00 pm
Illinois Environmental Protection Agency
By Teleconference: (312) 535-8110
Access Code: 289 611 329

1. Introductions (5 minutes)
2. Approval of Past Minutes (10 minutes)
3. Committee Co-Chair Nomination and Election (15 minutes)
4. Discussion and Approval Scopes of Work (25 minutes)
5. Discussion of General Assembly Report Definitions (25 minutes)
   - Sunil Suthar, Illinois EPA
6. Discussion of Local Government Plan Options (15 minutes)
   - Jennifer Jarland, Kane County
7. Old Business (10 minutes)
8. New Business (10 minutes)
9. Next Meeting Logistics Discussion (5 minutes)

Statewide Materials Management Advisory Committee

Meeting Agenda
June 23, 2020 1:00 pm
Illinois Environmental Protection Agency
By Teleconference: (312) 525-8110
Access Code: 289 611 329

1. Introductions (5 minutes)
2. Approval of Past Minutes (10 minutes)
3. Subcommittee Co-Chair Nominations (15 minutes)
    a. Education and Outreach
    b. Infrastructure
4. Subcommittee Updates (30 minutes)
    a. Education and Outreach
    b. Infrastructure
    c. Market Development
    d. Measurement
        ISTC survey discussion, Shantanu Pai
    e. Local Government
5. General Assembly Report Discussion (35 minutes)
        Mary Margaret Cowhey and Sunil Suthar
6. Old Business (10 minutes)

7. New Business (10 minutes)
8. Next Meeting Logistics Discussion (5 minutes)

Statewide Materials Management Advisory Committee

Meeting Agenda
July 28, 2020 1:00 pm
Illinois Environmental Protection Agency
By Teleconference: (312) 525-8110
Access Code: 289 611 329

1. Introductions (5 minutes)
2. Approval of Past Minutes (10 minutes)
3. General Assembly Report Discussion (35 minutes)
4. Subcommittee Updates (30 minutes)
    a. Education and Outreach
    b. Infrastructure
    c. Market Development
    d. Measurement

        ISTC survey discussion, Shantanu Pai

    e. Local Government
5. Old Business (10 minutes)
6. New Business (10 minutes)
7. Next Meeting Discussion (5 minutes)

Statewide Materials Management Advisory Committee

Meeting Agenda
August 25, 2020 1:00 pm
Illinois Environmental Protection Agency
By Teleconference: (312) 525-8110
Access Code: 289 611 329

1. Introductions (5 minutes)
2. Approval of Past Minutes (5 minutes)
3. Materials for Diversion Matrix (20 minutes)
   - Michael Westerfield, DART
   - Walter Willis, SWALCO
4. Subcommittee Updates (30 minutes)
   a. Education and Outreach
   b. Infrastructure
   c. Market Development
   d. Measurement
   e. Local Government
5. Old Business (15 minutes)
6. New Business (10 minutes)
7. Next Meeting Discussion (5 minutes)

Statewide Materials Management Advisory Committee

Meeting Agenda
September 22, 2020 1:00 pm
Illinois Environmental Protection Agency
By Teleconference: (312) 525-8110
Access Code: 289 611 329

1. Introductions (5 minutes)
2. Approval of Past Minutes (5 minutes)
3. Administrative Matters (5 minutes)
    a. State Ethics and Sexual Harassment Training
4. Materials to Target for Diversion Discussion (35 minutes)
5. Subcommittee Updates (45 minutes)
    a. Education and Outreach
    b. Infrastructure
    c. Market Development
    d. Measurement
    e. Local Government
        - Local Government Plan Update, Jennifer Jarland and Jessica Miller
6. Old Business (15 minutes)
    a. Committee Report Discussion, IEPA
7. New Business (5 minutes)

Statewide Materials Management Advisory Committee

Meeting Agenda
October 27, 2020 1:00 pm
Illinois Environmental Protection Agency
By Teleconference: (312) 535-8110
Access Code: 289 611 329

1. Introductions (5 minutes)
2. Motions to Adopt Items for the Report to the General Assembly, *Walter Willis* (35 minutes)
    a. Motion to Recommend that the General Assembly Include Recycling Grant Funding in Future State Budgets
    b. Motion to Recommend that the Report to the General Assembly Include Greenhouse Gas Emissions Data from USEPA's WARM Model
3. Measurement Subcommittee Update, *Suzanne Boring and Shantanu Pai* (30 minutes)
    a. Discussion of Materials to Target for Diversion
    b. Discussion of Surveys to Local Government
4. Education and Outreach Subcommittee Update, *Kay McKeen and Don Buis* (10 minutes)
5. Local Government Subcommittee Update, *Jennifer Jarland and Jessica Miller* (10 minutes)
6. Infrastructure Subcommittee Update, *Walter Willis and Sunil Suthar* (5 minutes)
7. Market Development Subcommittee Update, *Lisa Disbrow and James Jennings* (5 minutes)
8. Old Business (10 minutes)
    a. Definitions Document, *James Jennings and Sunil Suthar*
7. New Business (5 minutes)
8. Next Meeting Discussion (5 minutes)

Statewide Materials Management Advisory Committee

Meeting Agenda
November 24, 2020 1:00 pm
Illinois Environmental Protection Agency
By Teleconference: (312) 535-8110
Access Code: 289 611 329

1. Introductions (5 minutes)
2. Approval of Past Minutes (5 minutes)
2. Measurement Subcommittee Update, *Suzanne Boring and Shantanu Pai* (35 minutes)
    a. Discussion of Materials to Target for Diversion
    b. Discussion of Surveys to Local Government
3. Education and Outreach Subcommittee Update, *Kay McKeen and Don Buis* (25 minutes)
5. Local Government Subcommittee Update, *Jennifer Jarland and Jessica Miller* (20 minutes)
5. Market Development Subcommittee Update, *Lisa Disbrow and James Jennings* (10 minutes)
6. Infrastructure Subcommittee Update, *Walter Willis and Sunil Suthar* (5 minutes)
7. Old Business (5 minutes)
    a. State ethics training
    b. Document availability
8. New Business (5 minutes)
9. Next Meeting Discussion (5 minutes)

Statewide Materials Management Advisory Committee

Meeting Agenda
December 22, 2020 1:00 pm
Illinois Environmental Protection Agency
By Teleconference: (312) 535-8110
Access Code: 289 611 329

1. Introductions (5 minutes)
2. Approval of Past Minutes (5 minutes)
3. New Member Introductions (10 minutes)
4. Measurement Subcommittee Update, *Suzanne Boring and Shantanu Pai* (20 minutes)
5. Education and Outreach Subcommittee Update, *Kay McKeen and Don Buis* (20 minutes)
6. Local Government Subcommittee Update, *Jennifer Jarland and Jessica Miller* (15 minutes)
7. Market Development Subcommittee Update, *Lisa Disbrow and James Jennings* (15 minutes)
8. Infrastructure Subcommittee Update, *Walter Willis and Sunil Suthar* (15 minutes)
9. Old Business (5 minutes)
   a. State ethics training
10. New Business (5 minutes)
11. Adjournment (5 minutes)

Statewide Materials Management Advisory Committee

Meeting Agenda
January 26, 2021 1:00 pm
Illinois Environmental Protection Agency
By Teleconference: (312) 535-8110
Access Code: 289 611 329

1. Introductions (5 minutes)
2. Group Photo (5 minutes)
3. Approval of Past Minutes (5 minutes)
4. Group Photo (5 minutes)
5. Discussion of Materials to Target for Diversion Methodology (40 minutes)
6. Discussion of Diversion Goals Methodology (25 minutes)
7. Subcommittee Updates (25 minutes)
    a. Measurement Subcommittee Update, *Suzanne Boring and Shantanu Pai*
    b. Education and Outreach Subcommittee Update, *Kay McKeen and Don Buis*
    c. Local Government Subcommittee Update, *Jennifer Jarland and Jessica Miller*
    d. Market Development Subcommittee Update, *Lisa Disbrow and James Jennings*
    e. Infrastructure Subcommittee Update, *Walter Willis and Sunil Suthar*
8. Old Business (5 minutes)
9. New Business (5 minutes)
10. Adjournment

Statewide Materials Management Advisory Committee

Meeting Agenda
February 23, 2021 1:00 pm
Illinois Environmental Protection Agency
By Teleconference: (312) 535-8110
Access Code: 289 611 329

1. Introductions (5 minutes)
2. Approval of Past Minutes (5 minutes)
3. Discussion of Materials to Target for Diversion Methodology (45 minutes)
4. Discussion of Diversion Goals Methodology (30 minutes)
5. Subcommittee Updates (25 minutes)
    a. Measurement Subcommittee Update, *Suzanne Boring and Shantanu Pai*
    b. Education and Outreach Subcommittee Update, *Kay McKeen and Don Buis*
    c. Local Government Subcommittee Update, *Jennifer Jarland and Jessica Miller*
    d. Market Development Subcommittee Update, *Lisa Disbrow and James Jennings*
    e. Infrastructure Subcommittee Update, *Walter Willis and Sunil Suthar*
6. Old Business (5 minutes)
7. New Business (5 minutes)
8. Adjournment

Statewide Materials Management Advisory Committee

Meeting Agenda
March 23, 2021 1:00 pm
Illinois Environmental Protection Agency
By Teleconference: (312) 535-8110
Access Code: 289 611 329

1. Introductions (5 minutes)
2. Approval of Past Minutes (5 minutes)
3. Motion to Adopt Recommendations to the General Assembly (60 minutes)
    a. Education and Outreach Recommendations
    b. Market Development Recommendations
4. Subcommittee Updates (30 minutes)
    a. Measurement Subcommittee Update, *Suzanne Boring and James Jennings*
    b. Local Government Subcommittee Update, *Jennifer Jarland and Jessica Miller*
    c. Infrastructure Subcommittee Update, *Walter Willis and Sunil Suthar*
5. Old Business (10 minutes)
    a. State training requirements
6. New Business (10 minutes)
7. Adjournment

Statewide Materials Management Advisory Committee

Meeting Agenda
April 27, 2021 1:00 pm
Illinois Environmental Protection Agency
By Teleconference: (312) 535-8110
Access Code: 289 611 329

1. Introductions (5 minutes)
2. Approval of Past Minutes (5 minutes)
3. Discussion of Extended Producer Responsibility for Packaging (30 minutes), *Scott Cassel and Sydney Harris, Product Stewardship Institute*
4. Landfill Diversion Strategies (30 minutes)
    a. Landfill bans, *IEPA Team*
    b. Numerical Diversion Goals, *James Jennings*
    c. Materials to Target for Diversion, *Shantanu Pai*
5. Subcommittee Updates (30 minutes)
    a. Measurement Subcommittee Update, *Suzanne Boring and Shantanu Pai*
    b. Local Government Subcommittee Update, *Jennifer Jarland and Jessica Miller*
    c. Infrastructure Subcommittee Update, *Walter Willis and Sunil Suthar*
6. Old Business (5 minutes)
    a. State training requirements
7. New Business (5 minutes)
8. Adjournment

Statewide Materials Management Advisory Committee

Meeting Agenda
May 25, 2021 1:00 pm
Illinois Environmental Protection Agency
By Teleconference: (312) 535-8110
Access Code: 289 611 329

1. Introductions (5 minutes)
2. Approval of Past Minutes (5 minutes)
3. Motion to Adopt Recommendations to the General Assembly (90 minutes)
    a. Infrastructure Recommendations
    b. Local Government Support Recommendations
    c. Statewide Diversion Goals
    d. Materials to Target for Diversion
4. Old Business (5 minutes)
5. New Business (15 minutes)
    a. Report to the General Assembly Review process, *James Jennings and Shantanu Pai*
6. Adjournment

Appendix C- Summary of Formal Actions Adopted by the Committee

Policy on Meetings via Remote Attendance

WHEREAS, the Illinois Statewide Materials Management Advisory Committee ("the Committee") believes it is in the best interest of its members, the Committee, and interested stakeholders that the fullest participation and attendance in all meetings be achieved whenever feasible; and

WHEREAS, the use of telephone or electronic conferencing for meeting attendance and voting requirements, at least in some governmental meetings, is permissible so long as the meeting is conducted in accordance with the Open Meetings Act ('the Act"), 5 ILCS 120, *et seq.*; and

WHEREAS, the Act has been amended to allow public bodies that do not have authority to make binding recommendations or determinations, such as the Committee, to permit members to attend meetings by other means than physical presence so long as they adopt specific procedural rules therefore; and

WHEREAS, the Committee in any regular, special, Committee, and subcommittee meetings complies and intends to comply with the provisions of the Act.

NOW, THEREFORE, BE IT RESOLVED, that the Committee, having considered the aforesaid matters hereby adopts this policy, to be used when needed, to utilize the capabilities for conferencing by telephonic, electronic, or any other type of conferencing means ("remote attendance") for its meetings or any subcommittee meetings, and to adopt, establish, and set forth these Rules of the Committee:

1. The Committee and its members must comply with all pertinent provisions of the Act, including the proper notice of any regular or special meeting, the proper recordkeeping of each meeting, and the appropriate agenda preparation for each meeting. The use of closed sessions, if necessary, must comply with the Act.

2. The Committee will employ sufficient security and identification procedures, either at the outset of any meeting or at any time during the meeting, as appropriate, to ensure that any member attending for discussion and voting purposes are in fact authorized members of the Committee, with the right to speak and vote at a meeting.

3. The requirement of Section 7(a) of the Act that a quorum of Committee members must be physically present at the location of the meeting shall not apply because the Committee does not have the statutory authority to make binding recommendations or determinations. See 5 ILCS 120/7(d). The Committee members may attend a meeting remotely for the purposes of satisfying the need for a quorum of members and voting.

4. All Committee members attending meetings remotely are entitled to vote as if they were personally and physically present at the site, provided a quorum is, in total, in attendance of the meeting. Members who are not physically present will have their votes reflected as having occurred via remote attendance.

5. A member who attends a meeting remotely must provide notice to the Illinois EPA designee at least 24 hours prior to the meeting, unless such advanced notice is impracticable.

6. A member may attend a meeting remotely if, in the opinion of the member, her or his physical presence at the meeting is unworkable or inconvenient for any reason, including scheduling conflicts, length of necessary travel time, high cost of travel, or need to attend to personal matters.

7. As soon as it becomes apparent to the Illinois EPA designee that one or more members will attend a meeting remotely, all subsequent notices of that meeting will indicate that one or more members will or may be attending remotely. In the event that the notice of the meeting has been disseminated and posted in accordance with the Act, a subsequent notice indicating the above shall be substituted as soon as possible.

8. The minutes for any meeting at which a member attended remotely will identify whether attending members were physically present or attended remotely. The minutes will also include any other content required by the Act.

9. All meetings will be held at locations that are equipped with a suitable transmission system to ensure that the public audience, the members in attendance, and any other interested party will be able to hear any input, vote, or discussion of the meeting and that any member attending remotely shall have a similar capability to hear and participate in such input, vote, or discussion.

10. Prior to discussing a new matter of business, the Illinois EPA designee or, in the case of a subcommittee, a subcommittee co-chair, will confirm with each member attending remotely that the telephonic or electronic connection is active and not muted.

11. When a motion is made, and seconded, and discussion regarding a motion begins, the Illinois EPA designee, or in the case of a subcommittee, a subcommittee co-chair, will confirm with each member attending remotely that the telephonic or electronic connection is active and not muted. Prior to closing discussion and voting on any motion, the Illinois EPA designee will ask that any member attending by telephone, electronic conference, or other electronic means whether she or he has any additional comments, questions, or information to be added to the discussion. Such contributions will be recorded in the minutes as if the member(s) were physically present at the meeting location.

12. The Rules set forth above apply to all Committee meetings and any meeting held by any subcommittee of the Committee.

Adopted: March 26, 2020
Approved: March 26, 2020

Motion to Adopt Recommendation to the General Assembly

Proposed Motion Language: The report to the General Assembly shall include the use of the USEPA's Waste Reduction Model (WARM) to estimate the greenhouse gas (GHG) impacts of waste management activities. More specifically, the GHG impact of diverting from disposal specific materials in the waste stream shall be one of the measures used to determine which materials in the waste stream should be targeted for greater recycling or composting.

Summary of the Issue: The WARM model was designed to help solid waste planners, governments and businesses track and report GHG emissions reductions. It is a database tool thathelps decision makers predict the strategies that most reduce GHG emissions. It continues to be updated and improved as a planning tool and widely recognized and used in the United States.

While Public Act 101-0074 does not specifically mention GHG emissions reductions as a goal, itis the Committee's position that the report should include the WARM model data for planning purposes to ensure the report recognizes the relationship between how we manage our waste and the resulting GHG emissions.

General Assembly Plan Element(s) Addressed: 415 ILCS 15/4.5(b)(1); 415 ILCS 15/4.5(j)(5); and 415 ILCS 15/4.5(j)(6).

Recordkeepin

gDate of Consideration: October 27, 2020

Summary of Discussion: Willis moved the Committee authorize ISTC include WARM modeldata among the criteria to be used to decide which materials to target for landfill diversion.
McKeen seconded the motion. Group discussion of the genesis and use of the WARM model followed. One participating public commenter stated that the Committee would be remiss to notinclude WARM data in its analysis.

Resolution: Adopted

Votes in Favor: Willis, McKeen, Stone, Jarland, Connell, Pausma, Kaar, Disbrow, Cowhey, Westerfield, Monte, Mora, Mummel

Votes in Dissent: Laird, Holcomb, Griffith

Abstentions: Pai

Motion to Adopt Recommendations to the General Assembly

Proposed Motion Language: The Committee include in its report to the General Assembly that findings and recommendations adopted by the Education and Outreach Subcommittee.

Summary of the Issue: Public education on the proper means to divert recoverable materials from landfills is a critical element in a successful statewide sustainable materials management structure. The Education and Outreach recommends the General Assembly support such a statewide education campaign by appropriating the Illinois EPA sufficient funds to develop and implement a statewide marketing campaign, survey materials recovery facilities to confirm the universe of acceptable and unacceptable materials, and convey contemporaneous information on the state of recycling, composting, and other materials management strategies to impacted units of local government. Additional details on the Education and Outreach Subcommittee's findings and recommendations are attached.

General Assembly Plan Element(s) Addressed: 415 ILCS 15/4.5(j)(6); 415 ILCS 15/4.5(j)(7); 415 ILCS 15/4.5(k)(5); 415 ILCS 15/4.5(k)(6).

Recordkeeping

Date of Consideration: March 23, 2021

Summary of Discussion: All members of the Materials Management Advisory Committee present voted to approve the Education and Outreach Subcommittee's recommendations minor clarifications to the proposed verbiage.

Resolution: Adopted, with revisions identified during discussion

Votes in Favor: McKeen, Willis, Sauve, Jarland, Holcomb, Pausma, Stone, Cowhey, Connell, Kaar, Disbrow, Griffith, Mummel, Monte

Votes in Dissent: None

Abstentions: None

The Education and Outreach subcommittee conducted several well-attended virtual meetings to analyze strategies on educating the public about reducing waste, recycling, composting, and proper disposing of items comprising the waste stream. The subcommittee researched waste diversion programs in multiple states and met with the Florida Department of Environmental Protection (DEP) to learn about its *Rethink. Reset. Recycle.* Program. The subcommittee also met with professionals from the U.S. EPA Region 5 to discuss local, regional, and national strategies. In addition, representatives from the Michigan Department of Environment, Great Lakes, and Energy

(EGLE) gave a presentation to the subcommittee on its highly regarded *Know It Before You Throw It* statewide campaign.

Based on these events, the Education and Outreach subcommittee offers the following recommendations for inclusion in the Materials Management Advisory Committee final report.

2. The Illinois General Assembly should appropriate one million dollars annually from the Solid Waste Management Fund to the Illinois EPA to finance education and outreach activities for a statewide waste reduction[1] campaign. These activities include engaging witha marketing firm, updating and maintaining content on a website, and providing resources and support to local communities. A group of impacted stakeholders, including the Illinois EPA, representatives of local government, the environmental community, and the regulated community, should identify and evaluate additional future funding sources by 2026.

3. The Illinois EPA should engage with a marketing firm to develop a statewide waste reduction campaign. A marketing firm should create a slogan, a logo, and an overall design for a website, flyers, and other materials that will deliver a simple and consistent message to all areas and sectors of the state. After rolling out the campaign, the Illinois EPA should utilize the marketing materials to introduce specific waste reduction strategies (i.e. reduce, reuse, repair, compost, recycle) in phases.

To maximize engagement and consistency throughout the phases, the campaign should:

- Emphasize the environmental, health, and economic benefits of reducing waste
- Address waste from residences, businesses, schools, organizations, institutions, and municipalities
- Build on the work of the Illinois Task Force on Reducing Recycling Contamination and Increasing Diversion Rates to increase proper recycling and decrease contaminants in the recycling stream
- Use language that encourages consumers to analyze their discarded items and consider the value of these "resources"
- Provide actions individuals and organizations can take to reduce consumption, engage in green consumerism, reuse, repair, compost, recycle, and locate proper disposal outlets for additional unwanted materials

[1] Waste reduction refers actions taken before waste is generated to either reduce or completely prevent the generation of waste. It includes the combined efforts of waste prevention, reuse, composting, and recycling practices.

4. The Illinois EPA should convey updated messaging and resources related to the statewide waste reduction campaign either on its existing website or on a separate, newly created website. This is a cost-efficient action that will provide a central location for

residents, businesses, municipalities, and community organizations to find information easily. Several states have successfully utilized separate websites to increase the accessibility of information and reduce confusion with other state agency objectives.

Incorporating suggestions from the marketing firm, the website should, at a minimum, include:

- The slogan, logo, and overall purpose of the waste reduction campaign
- General information on waste reduction, recycling, and composting, including FAQs
- A list of solid waste coordinators for each county
- Information on how to host one-day waste diversion events
- Resources for organizations seeking to reduce waste
- Descriptions of proper waste management practices to discourage illegal dumping, burning of trash, and other environmentally harmful activities
- Map(s) of statewide recyclers/drop-offs so consumers know where they can take electronics, bulbs, scrap metal, etc.

5. The Illinois EPA should provide graphic design support and toolkits that allow county-level waste coordinators to tailor messages for their communities. There is variation across the state regarding the proper end of life handling of specific materials. Working with haulers, materials recovery facilities, compost facilities, and county waste coordinators, the Illinois EPA should develop customizable flyers and social media kits branded with the statewide campaign logo. An example of a customizable document is the recycling flyercreated by the Illinois Task Force on Reducing Recycling Contamination (Attachment E). It allows governments to specify items acceptable in local recycling programs while retaining the format developed for use across the state.

6. The Illinois EPA should conduct a yearly survey of materials recovery facilities (MRFs) and compost facilities to obtain updated information about materials accepted in different parts of the state. The Illinois EPA should provide the information to all county solid waste coordinators and use data collected to update the website, flyers, and toolkits on an annual basis. The survey data from the MRFs and compost sites should be linked to the geographic area that utilizes the MRF and/or compost site.

7. The Illinois EPA and county solid waste coordinators should communicate regularly about evolving technologies, laws, and waste diversion practices. The Illinois EPA should maintain a contact list of county solid waste coordinators and send them quarterly electronic newsletters that include information on programmatic updates and other relevant information. In addition to disseminating important information, a newsletter may encourage county coordinators to report back valuable information. This ongoing dialogue will be an important component of creating a uniform waste diversion effort.

8. The Illinois EPA should employ multiple strategies and forms of communication to convey waste reduction messaging to diverse populations across the state.

These strategies should include:

- Utilize best management practices related to education and outreach, e.g. mix of printed and online communications tools, clear instructions using visual cues and multiple languages (Attachment F)
- Address needs of variety of audiences, including diverse and underserved populations, and certain commercial and institutional establishments
- Leverage free resources available to recycling coordinators
- Show examples of what other communities and states are doing

9. The Illinois EPA should pursue partnerships with organizations that can further the goals of the state's waste reduction campaign. Partnerships will help sustain the state's waste reduction efforts into the future. For example, in Florida, a coalition of businesses and associations hosts the state's recycling website. To reduce food waste, Florida DEP is evaluating partnerships with nonprofit organizations, which would allow for sharing of educational resources and expanding the reach of the campaign.

Motion to Adopt Recommendations to the General Assembly

Proposed Motion Language: The Committee include in its report to the General Assembly that findings and recommendations adopted by the Market Development Subcommittee.

Summary of the Issue: A coordinated statewide effort to support the markets for materials diverted from landfills is critical to maximizing the impact of the state's materials management efforts. To that end, the Market Development Subcommittee recommends the General Assembly support a new grant program for entities developing new or enhance opportunities to recover materials that may become waste and return those materials to the economic mainstream by establishing a Market Development Advisory Board providing recommendations on projects to the University of Illinois, appropriating sufficient funds to support the Market Development Advisory Board and enable the Illinois EPA to develop and maintain an asset map reflecting the known entities that reuse, repurpose, or recover materials that could otherwise be sent to landfills. The Market Development Subcommittee also recommends that the General Assembly amend the Illinois Procurement Code to ensure purchases of materials containing recycled content and use of compost in procured projects are each tracked. Additional details on the Market Development Subcommittee's findings and recommendations are attached.

General Assembly Plan Element(s) Addressed: 415 ILCS 15/4.5(j)(6); 415 ILCS 15/4.5(j)(9).

Recordkeeping

Date of Consideration: March 23, 2021

Summary of Discussion: All Materials Management Advisory Committee members presented voted to approve the recommendations developed by the Market Development subcommittee, with minor changes. Those changes were:

- Having the University of Illinois and the Illinois EPA obtain input from the Market Development Advisory Board when identifying potential funding opportunities beyond the Solid Waste Management Fund;
- Characterizing difficult to recycle items as "non-traditional recyclables" for consistency with other Subcommittees;
- Adding sites that offer repair services to the universe of entities on the market development asset map; and
- Striking "industrial" from the discussion on materials exchange services.

Resolution: Adopted, with revisions identified during discussion

Votes in Favor: McKeen, Willis, Sauve, Jarland, Holcomb, Pausma, Stone, Cowhey, Connell, Kaar, Disbrow, Griffith, Mummel, Monte

Votes in Dissent: None

Abstentions: None

Market Development Subcommittee Findings

1. **A coordinated statewide market development grant program is a critical component of a successful long-term materials management strategy.** The markets for recycled feedstock and compostable materials are one of the primary drivers of landfill diversion in Illinois and nationally. Recyclables are commodities. Recognizing that, it is important to have measures in place which will create a valuable feedstock to manufacture new products and goods with a reduced environmental impact. Likewise, organics are commodities that have significant landfill diversion potential, provided a strong market for compost exists. Low prices of virgin materials have the potential to impair efforts to expand landfill diversion of recyclables without offering similar environmental benefits to successful materials management strategies. Similarly, organics are also dependent on end markets, compete against other products, and present other transportation challenges to virgin materials with similar uses. To counter this reality, most states have financed market development opportunities within their jurisdictions. These programs are designed to support innovative endeavors that exhibit the potential to stabilize and grow the markets for recycled materials and compost. Since 2013, Illinois has not been among that population of states.

2. **In recent years, state landfill tipping fee revenues have been sufficient to support a state-administered market development grant program, but future revenues are uncertain.** Historically, the Solid Waste Management Fund has been the primary mechanism used to support the State of Illinois's recycling and composting grant programs. Between State Fiscal Years 2016 and 2020, the Solid Waste Management generated approximately $20 million annually in revenue. Appropriations from the Solid Waste Management Fund exceeded $15 million only once during that time. The Solid Waste Management Fund is projected to have a surplus of approximately $7 million at the end of State Fiscal Year 2021. Accordingly, funds appear to be available to annually support a market development grant program without impairing existing State operations supported by the Solid Waste Management Fund or increasing tipping fees. However, it is not clear whether those revenues are sustainable long term. The success of recycling and composting market development initiatives may decrease the volume of landfilled materials, which would result in lower state tipping fee revenues. In addition, the COVID-19 pandemic has resulted in budget shortfalls, which may result in some or all of the excess balance in the Solid Waste Management Fund to be swept to partially offset deficits in the General Revenue Fund.

3. **Minimum recycled content policies are an important element of market development and ultimate landfill diversion.** Numerous public and private entities are making efforts to enhance the use of minimum recycled content in adopting policies and procurement practices. These efforts include targets for minimum recycled content levels for a variety of products. If successful, these initiatives could markedly increase the demand for recycled materials and start to shift the economic calculus of materials management. To date, many of these initiatives have been implemented. However, based on publicly available data, it appears additional work may be necessary for some of these initiatives to achieve their goals.[18]

[18] https://resource-recycling.com/recycling/2020/11/10/major-packaging-users-hit-6-2-average-recycled-content/

Numerous organizations track the performance of these initiatives, including some public entities. To that end, there is value in the State of Illinois monitoring the status of these programs and engaging stakeholders within the state that have such initiatives when rendering policy decisions regarding minimum recycled content.

Market Development Subcommittee Recommendations

1. Establishment of materials management market development advisory board

The General Assembly should establish by law a materials management market development advisory board (advisory board) at the University of Illinois. The advisory board should be tasked with reviewing applications for financial support from entities that are developing new, or enhancing existing, opportunities to recover material that would otherwise become waste and return those materials to the economic mainstream. The advisory board should be comprised of two members of the Illinois General Assembly, of different parties, and the following individuals appointed by the Governor or his or her designee:

- one representative of the University;
- one representative of the Illinois Environmental Protection Agency;
- one representative of the waste industry,
- one representative of the recycling industry;
- one representative of residential recycling programs in Illinois;
- one representative of the composting industry;
- one representative of the construction and demolition debris recycling industry;
- one representative of the environmental community;
- one representative of local government;
- one representative of manufacturers located in Illinois;
- one representative of retailers located in Illinois;
- one representative of manufacturers that use recycled materials in their production process; and
- any additional experts necessary to adequately evaluate submitted applications.

The advisory board should seek input from other relevant experts, as needed, to evaluate the potential for individual applications to result in the expansion of markets to divert materials from Illinois landfills. Based on its review of submitted applications, the advisory board should recommend one or more projects to the University and Illinois EPA for funding based on the individual project's likelihood of enhancing the market in Illinois for one or more materials that would otherwise be landfilled. Projects the advisory board recommends to the University and Illinois EPA should be subject to an applicant financial match of at least fifty percent of the project's total cost. The advisory board should identify and endeavor to secure grant funding for awards issued from private sources or partnerships to the greatest extent possible. To the extent private funding is not available, the grants approved by the University and Illinois EPA should be supported by an appropriation of at least $1 million annually from the Solid Waste Management Fund. This appropriation should be in addition to all other appropriations from the Solid Waste Management Fund that support other state programs. In 2026, or five years after the implementation of the award program, whichever is later, the University and the Illinois EPA, with input from the Advisory Board, should evaluate whether another funding source is necessary to sustain the award program.

2. Identify and Support Entities that Encourage Material Reuse and Materials Exchanges

a) Reuse Asset Map

The General Assembly should appropriate sufficient funding to allow the Illinois EPA to develop and support a website and map that identifies entities within Illinois that accept and reuse, repurpose, or repair non-traditional recyclable materials. The map should include the identified entities' contact information and a disclaimer that individuals and businesses should contact the mapped entity before bringing any materials to the site. The mapped entities should include, but not be limited to, food pantries, manufacturers that utilize recyclable products in their production, and repair and reuse stores. The website should include an option that allows public or private organizations to request placement on the roster of sites, subject to the Illinois EPA's discretion. The website should be updated, at least annually, using readily available public information and direct outreach to entities identified on the website at the time of the update.

b) Exploring Public-Private Partnerships

The State of Illinois should promote existing materials exchange services that connect entities within Illinois that generate usable materials to other entities that use those materials to mitigate landfilling of salvageable items. These promoted services may include privately and publicly funded platforms that enable materials generators to list the type, volume, quality, and location of available items and communicate directly with individuals and organizations that seek those items. The State of Illinois should evaluate the effectiveness of the promoted materials exchange services to determine if establishing an independent service would be beneficial. If the State of Illinois determines it is necessary to develop an independent service, the State of Illinois should consider examining partnerships with private entities to establish a materials exchange service that addresses any voids in the existing state network. To the greatest extent possible, this service should be hosted and maintained by non-governmental entities.

3. Government procurement tracking enhancements

The General Assembly should amend the Illinois Procurement Code to require state agencies to track: purchases of materials that are subject to minimum recycled content requirements, use of compost on state construction projects, and exceptions made from those purchasing requirements. Central Management Services (CMS) should promote to the executive agencies the policies set forth in Section 45-20 of the Illinois Procurement Code to ensure the state maximizes its procurement of materials that meet minimum recycled content thresholds. In addition, CMS should annually compile and publish the volume and type of products subject to minimum recycled content requirements purchased, the total expenditures for these purchases, and an itemized list of exceptions to the purchasing requirements on the Procurement Policy Board website. On January 1, 2026, or four years after amendments to the Procurement Code take effect, whichever is earlier, Central Management Services and the Illinois EPA should convene a committee of representatives of state agencies subject to the amended tracking provisions to evaluate recycled content product purchasing habits and make recommendations to the General Assembly of any needed improvements to maximize the ratio of state government purchases of products made from recycled items.

Motion to Adopt Recommendations to the General Assembly

Proposed Motion Language: The Committee include in its report to the General Assembly the findings and recommendations adopted by the Infrastructure Subcommittee.

Summary of the Issue: Materials collection and recovery infrastructure is an imperative element to a successful statewide materials management strategy. The Infrastructure Subcommittee recommends the General Assembly address the statewide need for additional materials management infrastructure by appropriating sufficient funds to provide awards for recycling, compost facility, and HHW facility construction and enhancement. The Subcommittee also recommends that numerous state agencies collaborate to develop and maintain asset maps reflecting available materials recovery opportunities across the state. Additional details on the Infrastructure Subcommittee's findings and recommendations are attached.

General Assembly Plan Element(s) Addressed: 415 ILCS 15/4.5(j)(6); 415 ILCS 15/4.5(j)(9); 415 ILCS 15/4.5(k)(5).

Recordkeeping

Date of Consideration: May 25, 2021

Summary of Discussion: Willis provided an overview of the Infrastructure Subcommittee's work. Group discussion regarding the projected revenue for the Solid Waste Management Fund and its cumulative impact on recommendations. Group discussion to revise the funding language.

Resolution: Adopted

Votes in Favor: Sauve, Pai, Griffith, Tazlaar, Willis, Cowhey, Jarland, Disbrow, Connell, Holcomb, Pausma, Monte, Mummel, Dyer, Murphy, Westerfield, Kaar

Votes in Dissent: None

Abstentions: Stone

ILLINOIS MATERIALS MANAGEMENT ADVISORY COMMITTEE
INFRASTRUCTURE SUBCOMMITTEE RECOMMENDATIONS

FINDINGS

The following are the findings of the MMAC related to the current infrastructure in the State of Illinois for managing municipal waste:

1. The IEPA 2020 Illinois Landfill Disposal Capacity Report documented there are 24.5 years of landfill disposal capacity statewide, with capacity ranging from 12.4 years in IEPA Region 2 to 48.22 years in Region 7. Figure 1 shows the distribution of permitted landfills in the State.

2. The existing distribution of waste transfer stations shown on Figure 2 indicates there are more waste transfer stations in the IEPA Region 2 than the other regions of the State and the other regions of the State rely on more long hauling of municipal waste in packer trucks direct to the landfill than Region 2. Waste transfer stations can serve multiple infrastructure purposes to enhance the efficiency of transporting municipal waste, recyclables, and landscape waste, and may include additional recovery of recyclables at the transfer station.

3. The existing distribution of landscape waste transfer stations shown on Figure 3 indicates there are more landscape waste transfer stations in IEPA Region 2 than other regions of the State . As with waste transfer stations, this indicates that other Regions of the State rely on long hauling of landscape waste in collection vehicles direct to composting facilities than in Region 2.

4. The existing distribution of construction and demolition (C&D) recycling facilities is shown on Figure 4. The Figure illustrates that the majority of C&D recycling facilities are located in IEPA Region 2. Prior to 2009, C&D recycling facilities were only exempt from local siting requirements set forth in Section 39.2 of the Illinois Environmental Protection Act, in counties with more than 700,000 residents which limited development of this type of infrastructure outside of Region 2.

5. The distribution of permitted compost facilities shown on Figure 5 indicates there is greater geographic coverage and distribution of these facilities across the State than with either material recovery facilities or construction and demolition recycling facilities. The infrastructure for landscape waste developed since the landscape waste ban went into effect in 1990. It should be noted that while the State diverts approximately 500,000 tons per year of landscape waste, the amount of other organic material in the waste stream (e.g. food scraps and food-soiled paper) if captured would represent nearly 10 times that amount. Further, of
the State's 48 permitted compost sites only 6 reported accepting food scraps in their 2019 annual reports required pursuant to Section 39(m) of the Illinois Environmental Protection Act.

6. The distribution of existing material recovery facilities and consolidation/transload facilities shown on Figure 6 (including both in-state and out-of-state facilities currently receiving materials generated in Illinois) indicates there is likely a need for additional consolidation/transload facilities in rural areas to aggregate recyclables for more efficient transfer to primary MRFs, which are predominantly located in more densely populated areas of the State.

7. The distribution of drop-off recycling locations (including sites that collect recyclables, electronics and/or food scraps) sites shown on Figure 7 indicates there is likely a need for more drop-off recycling facilities in rural areas to serve residents who typically are not offered curbside recycling service.

8. The distribution of scrap metal recycling facilities shown on Figure 8 indicates there is likely adequate coverage for the State.

9. The distribution of household hazardous waste (HHW) collection facilities shown on Figure 9 indicates that all four existing HHW collection facilities are located in northern Illinois. At the far southwest portion of the state, Madison County is close to opening one additional HHW collection facility supported by IEPA funding. In west central Illinois (Peoria County), a privately operated HHW collection facility is planned to open in the next few years.

Based on available appropriations, IEPA-sponsored one-day HHW collection events have been inconsistently available to residents who live more than a 40-mile distance from the four HHW collection facilities in northern Illinois. Typically, the General Assembly appropriates the IEPA funding to annually provides a limited number of one-day collection events for HHW throughout the State. There have been a few years when insufficient funds were appropriated to allow for any IEPA-sponsored one-day HHW collection events. In 2020, IEPA entered into long-term collection agreements with six "hub" collection locations across the State that provide for annual IEPA sponsored one-day collection events. This IEPA commitment significantly improves the consistency of larger annual one-day HHW collection events.

The 2015 Illinois Task Force on the Advancement of Materials Recycling unanimously agreed that a convenient statewide HHW collection infrastructure is needed. Illinois residents who are located more than 40 miles from a HHW collection facility continue to lack a convenient option for HHW disposal.

10. Currently the IEPA's funding for waste diversion programs is totally reliant on the landfill surcharges authorized by Section 22.15 of the Act. The MMAC during its research of other State programs found other examples of funding mechanisms currently being utilized or evaluated including taxes on other services (for example Michigan uses tax proceeds from an internet tax to fund environmental programs), using unredeemed bottle bill revenue and Extended Producer Responsibility (EPR) for packaging.

CHALLENGES

The following are challenges that have been identified with enhancing the infrastructure for managing municipal waste in Illinois:

1. As most the infrastructure figures show, there is more intense development of infrastructure in the more populated areas of the State because of the greater municipal waste generation. Absent additional or alternative infrastructure investment, this situation poses a challenge to the less populated areas of the State that do not have the same access to recycling and composting infrastructure compared to more populated areas resulting in fewer waste diversion programs in less populated areas. The key question regarding infrastructure development is how can the infrastructure be developed if there is less waste or material to be managed which typically results in higher unit costs, and in turn leads to project developers deciding not to invest in the infrastructure due to a lack of business case and affordability?

2. In order to achieve higher waste division goals there will be a need to increase the number of residents and businesses who recycle and compost. A key challenge will be not only getting more participation in programs but making sure there are proper guidelines for recycling and composting

in order to reduce contamination which leads to higher program costs and can impact markets negatively as well.

3. A corollary to Item 2 above is if Illinois is successful in diverting more material from landfills and developing the infrastructure to manage this additional material, there must be markets for the recyclables and end use compost. Market development should lead to more secure business models which should lead to continued investment in infrastructure.

4. Increasing the number of HHW collection facilities is challenged by the need for local units of government to find, fund and maintain a HHW collection facility site, and pay for the initial permitting costs. This has been a significant barrier to the development of more HHW collection facilities.

RECOMMENDATIONS

The following are recommendations based on the above findings, noted challenges and research conducted by the MMAC:

1. The General Assembly should appropriate from the Solid Waste Management Fund the following amounts to the IEPA:

a. A minimum of $1 million in total for the express purpose of issuing two rounds of infrastructure grants to recycling facilities within the next 5 years. The first appropriation should be for at least $400,000 for grants to counties with less than 100,000 residents. The scope of this grant round should include new and existing material recovery facilities (MRFs), new and existing consolidation facilities for recyclables, general construction and demolition debris recycling facilities, and drop-off recycling facilities. The second appropriation should be for at least $600,000 for grants to counties with more than 100,000 residents. The scope of this grant round should be new and existing MRFs.

b. A minimum of $1 million in total for the express purpose of issuing two rounds of infrastructure grants to compost facilities within the next 5 years. The grant should be open to both new and existing compost facilities, landscape waste transfer stations and include all types of composting technology. The first appropriation should be for at least
$400,000 for grants to counties with less than 100,000 residents and the second appropriation should be for at least $600,000 for grants to counties with more than 100,000 residents.

c. Annual appropriations of an additional $275,000 per new HHW facility (for up to five additional HHW collection facilities to be established in areas of the state sufficiently remote from the network of existing HHW collection facilities) from the Solid Waste Fund to the IEPA to provide funding for HHW transportation and disposal expenses. This funding is in addition to the current appropriation of funds for the four existing HHW facilities, which have an approximate cost of $275,000 per facility per year.

2. Units of local government should explore implementing curbside pick-up programs for HHW in areas of the state where a franchise agreement with a municipal waste hauler can be established and the waste hauler providing service has capabilities to collect and transport HHW.

3. The General Assembly should continue to monitor the revenue generated by the Solid Waste Management Fund. In the event that projected revenues are not adequate to support the proposed programs, the General Assembly should explore other funding mechanisms in addition to the landfill surcharges authorized by Section 22.15 of the Act.

4. Based on the information reported to the Subcommittee from various vendors and technologies (e.g..,Brightmark - pyrolysis of plastics, WM – anaerobic digestion of organics, INEOS -chemical recycling of polystyrene back into styrene, Bioenergy Development – anaerobic digestion of organics, and Titus MRF Services – secondary MRF) there are opportunities for development of new infrastructure and Illinois should continue to encourage the development of new infrastructure in the State that can accept recyclables or organic material as a feedstock and reduce reliance on landfilling.

5. The State and other units of local government should explore public-private collaboration on funding for needed infrastructure, including additional grants for MRFs, secondary MRFs (a secondary MRF processes the residue and/or mixed plastics from MRFs to further recover materials of value), C&D recycling facilities, drop-off facilities and residential recycling carts to divert material from the landfill into needed feedstocks for recycling or composting. As part of this collaboration, State and local governments and the private sector should explore how to support the end-use of recycled content products and finished compost material. With the recent commitments being made by the private sector in organizations such as The Recycling Partnership and Closed Loop Partners, the advantages of working together have become obvious and needed.

6. The IEPA and Department of Agriculture should work together, in conjunction with the Illinois Farm Bureau, Feeding Illinois, and the University of Illinois, to develop an asset map and database for food recovery. As much wasted food as possible should be rescued for human consumption and if recovered would significantly reduce greenhouse gases. The asset map and database should attempt to connect all known food pantries and food rescue or recovery network partners in the State with all known donators of food. The map and database should also include all known specialty farmers who recover and donate food from their own specialty crops. The map and database should be developed by January 1, 2023 and updated annually.

7. The IEPA should clarify its position regarding the siting of new or existing aerobic and anaerobic digestors that accept food scraps pursuant to Public Act 96-0418, more specifically to clarify and under what circumstances these facilities may be exempt from the local siting law.

8. The IEPA should update the infrastructure maps for landfills, waste transfer stations, landscape waste transfer stations, construction and demolition debris recycling facilities, MRFs and consolidation/transload facilities, compost facilities, drop-off recycling sites, scrap metal recycling facilities and HHW collection facilities/one-day collection hub locations on an annual basis and include the maps and associated data in the annual landfill capacity report.

Motion to Adopt Recommendations to the General Assembly

Proposed Motion Language: The Committee includes in its report to the General Assembly the findings and recommendations document, along with the Plan Update Template document adopted by the Local Government Support Subcommittee.

Summary of the Issue: Illinois law places a heavy emphasis on local government leadership in the administration of solid waste, recycling, composting and materials management programs. The Solid Waste Planning and Recycling Act establishes the minimum guidelines for county solid waste management plans. However, that guidance has not been revisited in nearly three decades. The Local Government Support Subcommittee recommends the State of Illinois address this by utilizing the modernized template used for local solid waste management plans to reflect the significant intellectual and programmatic enhancements that have occurred in the past thirty years. Additional details on the Local Government Support Subcommittee's findings and recommendations are attached, along with the Plan Update Template to be used by County program coordinators to Update their Plans.

General Assembly Plan Element(s) Addressed: 415 ILCS 15/4.5(k).

Recordkeeping

Date of Consideration: May 25, 2021

Summary of Discussion: Jarland led a group discussion on the Subcommittee's work that led to the development of the findings and recommendations. Group discussion and agreement to narrow the scope of local awards to counties that demonstrate a need for funding.

Resolution: Adopted

Votes in Favor: Sauve, Pai, Griffith, Tazlaar, Wilis, Cowhey, Jarland, Disbrow, Stone, Connell, Holcomb, Pausma, Monte, Mummel, Dyer, Murphy, Kaar, Rivas

Votes in Dissent: None

Abstentions: None

Local Government Subcommittee Findings

1. **Data collection and tracking are critical elements to evaluate county materials management program success that requires additional statewide support.** The U.S. Environmental Protection Agency, in their 2020 National Recycling Strategy draft document, has identified information tracking and measurement as core components of successful progress of the nation's recycling programs. In Illinois, solid waste, recycling, and other materials management initiatives are primarily coordinated at the county or municipal level, rather than statewide. Some

counties have effective data collection and tracking mechanisms that enable them to examine historic trends and implement targeted, data-driven enhancements. However, not all counties have the resources or the reporting structure in place for data collection and tracking. The absence of a consistent statewide data gathering system adversely impacts the quality of available statewide materials management data, impairs individual county's efforts to monitor materials management program performance and update their Solid Waste Plans. This information deficit results in a lack of statewide data to examine materials management metrics and program effectiveness.

2. **The existing Solid Waste Plan reporting structure does not provide sufficient flexibility for all counties or guarantee that information is consistently reported at the state level.** The Solid Waste Planning and Recycling Act establishes the minimum criteria for Solid Waste Plan contents and county government reports. Existing law requires each county to review its Solid Waste Plan every five years and submit any necessary and appropriate changes to the Illinois EPA for review and approval. Not all counties have sufficient resources to designate limited staff time to such revisions, or to contract with a consultant to complete an update every five years, which puts those counties in the difficult position of weighing satisfaction of the Solid Waste Planning and Recycling Act requirements against other core local government functions. This could result in some counties going several cycles without updating their Solid Waste Plan and therefore impair the advancement of the materials management infrastructure in those communities. For the five year period from 2015 to 2020, counties with a population greater than 100,000 were over four times as likely to complete a Plan Update than counties with populations under 100,000. In addition, not all Solid Waste Plans are submitted to the Illinois EPA; only plans with necessary and appropriate changes are submitted. Limited reporting of Plan Updates impedes the Illinois EPA's ability to render evaluations that accurately reflect existing materials management practices across the state.

3. **Development of initial County Solid Waste Plans in the 1990's were funded in part with grants issued by IEPA, in recognition of the financial burden that the planning requirement would have on counties statewide.** Counties were encouraged to jointly develop their Solid Waste Plans to ensure a regional, cohesive strategy for long-term waste management. Implementation of a revised standard format for Plan Updates is expected to have a similar financial burden, which may impede implementation if funding is not available in every county.

Local Government Subcommittee Recommendations

1. The General Assembly should appropriate the Illinois EPA sufficient funding to obtain statewide data tracking services. Currently, numerous private entities offer multijurisdictional data tracking services that enable various federal and state agencies to aggregate comparable reported datasets in a manner that is easily digestible for regulatory agencies, the regulated community, local government, and the general public. Indeed, USEPA has procured such services as part of its State Measurement Program, which identifies national trends in various solid waste, recycling, and materials management arenas. For nearly a decade, the Illinois EPA has participated in USEPA's Program by providing USEPA the requested information via the procured data tracking services. Other states have obtained comparable software to compile a wide range of materials management data and employed those data to render sound policy and program decisions. In most cases, this software costs less than $5,000 per year. The General Assembly should provide the Illinois EPA funding to procure these services. Once funding is made available, the Illinois EPA will identify counties to test it prior to statewide implementation.

2. The content required for county Solid Waste Plan updates should be revised to include a standard format. More specifically, the amended Plan form should include the following standard elements: an Executive Summary; Current Plan Implementation; data on the volume (generation) and types (characterization) of materials currently being managed; a detail of existing infrastructure; a waste generation assessment; description of existing diversion programs and recommendations for expanding recycling programs; discussion of public education campaigns; and a summary of recommendations. There may also be an optional section on Partnerships, Policy, and Funding. To assist counties with less than 100,000 population, less reporting will be required for the description of current and proposed material management programs. Whenever possible, the standard form should be available as a fillable PDF that can be submitted electronically. Additional information on each reporting element is detailed in the County Solid Waste Plan Update Template section below.

3. The General Assembly should appropriate $1 million from the Solid Waste Fund to the IEPA to provide grant funding support for all counties to develop their first Plan Update incorporating the revised standard content. Fund appropriation may be distributed over one or multiple budget years to reflect varying due dates for county Plan Updates. Appropriated funds should be allocated equally to all counties ($10,000 per county), with funds applied for through and administered by the IEPA. Funds may be used for third party expenditures or for in-kind costs incurred in the development of a Plan Update.

The schedule for completion of Plan Updates utilizing the new format is recommended as follows:

1. Counties with a Plan Update completed within the 5-year period preceding implementation of the new format: Prepare and submit a Plan Update conforming with the new format on their next 5-year Plan Update renewal date (provided, however, that counties with a Plan Update in progress or due within 6 months of the date the new format is implemented are granted a 1-year extension to complete their update utilizing the new format)
2. Counties with a Plan Update completed more than 5 years before the implementation of the new format: Prepare and submit a Plan Update conforming with the new format within 18 months of the date the new format is implemented.
3. For any county that fails to request funds and/or to complete a Plan Update within 18 months of the date that such funds and the new format are available, the IEPA shall have the option to reallocate grant funds on behalf of the County. Such funds shall be used to assign staff or retain a third-party consultant to develop a Plan Update on the county's behalf, which task shall include consultation with the subject county.

4. Flexibility should be granted to Counties in the submission of subsequent Plan Updates. For all counties, subsequent Plan Updates (those submitted after the first Plan Update on the new format), the Plan Update requirement may be satisfied by: 1) submission of a new Plan Update following the revised format; or 2) a written statement by the County that there are no significant changes in the waste characterization, infrastructure or materials management programs in the County.

Motion to Adopt Recommendations to the General Assembly

Proposed Motion Language: The Committee include in its report to the General Assembly the following diversion goals: 40 percent by 2025; 45 percent by 2030; and 50 percent by 2035.

Summary of the Issue: Illinois does not presently have established statewide diversion goals. Currently, the annualized statewide landfill diversion rate is 37 percent. During several Materials Management Advisory Committee meetings, there were discussions underscoring the need for numeric diversion goals. Based on the potential cumulative impact of other previously approved recommendations, the proposed goals are both ambitious and achievable.

General Assembly Plan Element(s) Addressed: 415 ILCS 15/4.5(j)(8)

Recordkeeping

Date of Consideration: May 25, 2021

Summary of Discussion: Pai provided an overview of the previous discussions regarding the need for numerical diversion goals and the basis for identifying the proposed goals.

Resolution: Adopted

Votes in Favor: Sauve, Griffith, Tazlaar, Willis, Cowhey, Jarland, Disbrow, Stone, Connell, Holcomb, Pausma, Monte, Mummel, Dyer, Murphy, Kaar, Rivas

Votes in Dissent: None

Abstentions: Pai

Motion to Adopt Recommendations to the General Assembly

Proposed Motion Language: The Committee include in its report to the General Assembly the stratified approach to materials to target for diversion that categorizes materials based on common infrastructure and end market characteristics.

Summary of the Issue: Numerous public and private entities have identified specific materials that should be targeted for diversion as part of their jurisdictional or organizational long-term planning. This type of planning has been employed to target plastics, food waste, and other significant volumetric contributors to the municipal solid waste stream. Such an approach can be effective, but does not necessarily accommodate changes in waste generation over time. To combat this, the Committee categorized each of the categories of municipal solid waste based on common impediments to diversion and identified strategies that have been successful to overcome those hurdles. The Committee proposes using this framework to holistically target the municipal solid waste stream in a manner that maximizes landfill diversion. Additional information related to this proposal is attached.

General Assembly Plan Element(s) Addressed: 415 ILCS 15/4.5(j)(5)

Recordkeeping

Date of Consideration: May 25, 2021

Summary of Discussion: Pai provided an overview of the Measurement Subcommittee's work to stratify various types of materials streams based on comparable market and infrastructure traits.

Resolution: Adopted

Votes in Favor: Sauve, Tazlaar, Willis, Cowhey, Jarland, Disbrow, Stone, Connell, Holcomb, Pausma, Monte, Mummel, Dyer, Murphy, Westerfield, Kaar, Rivas

Votes in Dissent: None

Abstentions: Pai, Griffith

Appendix D- County Solid Waste Plan Update Template

A. Executive Summary

The Executive Summary should be a brief summary of the Plan. The summary should include a short overview of the status of materials management and diversion efforts within the County and a summary of recommended goals to enhance programs during the next planning period.

B. Current Plan Implementation Status

This section should include at least two items: 1) a review of current programs, including the progress on recommendations from the most recent Plan; and 2) a discussion of any barriers to achieving the recommendations set forth in the most recent Plan and a proposal to overcome those barriers.

C. Existing Infrastructure Report

This section should identify the location and life expectancy of any landfills that service county residents, which can be derived from the Illinois EPA's Landfill Capacity Report. This section should also include the location of facilities in the county that divert materials from landfills. Identified facilities should include, at a minimum, materials recovery facilities, transfer stations, construction and demolition debris facilities, composting facilities, recycling drop-off facilities, household hazardous waste facilities, and scrap metal yards. This information may be derived in part from IEPA infrastructure mapping resources.

D. Waste Generation Assessment

The Waste Generation section should identify the County's current waste generation rate and current diversion rate, using locally compiled data where available. If locally-derived rates are not available, the County should use statewide figures contained in Section 2 of this report(Annualized Waste Disposal, Diversion, and Generation Figures), or as updated by the Illinois EPA in the future.

E. Current and Proposed Programs

This Section should include each of the subsections below and should discuss the current status of existing diversion programs, identify opportunities to enhance programs, discuss the strategies that will be implemented during the reporting cycle, and propose a schedule for the implementation of recommendations. An illustrative list of program possibilities for each category is included below.

1. List of diverted items and materials to target for diversion

This Section should include an itemized list of the materials (traditional, organic, non-traditional, and other) for which there are locally-available collection opportunities. Illustrative examples of these opportunities include curbside collections of recyclables, food scrap drop off locations, electronics recycling collection events, and one-day collection events for household hazardous waste. This section should also include a list of items that the reporting county intends to specifically target for increased diversion during its next reporting period. The selected materials may vary from county-to-county based on unique local factors. Reporting counties should consult the best available diversion data sources at the time, including the matrix of divertible materials crafted by the Measurement Subcommittee, when rendering these decisions.

2. Traditional Recycling Efforts

This section of the Plan Update should discuss efforts focused on traditional recycling items. A description of current programs and recommendation for expansion into new materials and/or programs should be included. A menu of possible recommendations is included in the template Plan Update.

3. Organics Recycling Efforts

This section of the Plan Update should discuss efforts focused on organics recycling. A description of current programs and recommendation for expansion into new materials and/or programs should be included. A menu of possible recommendations is included in the template Plan Update.

4. Non-Traditional Recycling Efforts

This section of the Plan Update should discuss efforts focused on non-traditional, and in most cases, non- curbside recycling, such as electronics, household hazardous waste, construction and demolition debris, and other materials. A description of current programs and recommendation for expansion into new materials and/or programs should be included. A menu of possible recommendations is included in the template Plan Update.

5. Other Recycling Efforts

This section of the Plan Update should evaluating and considering support of emerging technologies that transform waste into useful products

6. Disposal

F. Public Education and Outreach

This section of the Plan Update should describe current and proposed efforts to educate the public and to promote recycling efforts in the County. Key provisions of public education and outreach programs are included in the Plan Update template.

G. Partnerships, Policy, and Funding

This section of the Plan Update is an optional discussion of partnership formation, recommended policy measures and potential funding sources for the programs described elsewhere in the Plan Update. Suggestions topics to be included in this section are included in the Plan Update template.

H. Summary of Recommendations

This Section should include a brief summary of the recommended program enhancements and the timeline for implementing those decisions.

County Solid Waste Plan Update Template

Introduction

This outline serves as a guide to Illinois counties to write Plan Updates, as required by the Solid Waste Planning and Recycling Act. The table of contents for county Plan Updates shall be as follows:

A. Executive Summary
B. Current Plan Implementation Status
C. Existing Infrastructure Report
D. Waste Generation Assessment
E. Proposed Material Managements Programs
- **1. List of Diverted Items**
- **2. Traditional Recycling Efforts**
- **3. Organics Recycling Efforts**
- **4. Non-Traditional Recycling Efforts**
- **5. Other Recycling Efforts**

F. Public Education and Outreach
G. Partnerships, Policy, and Funding (Optional Section)
H. Summary of Recommendations

All Plan Updates should be put in this order, or if an alternative format is utilized a checklist should accompany the Plan Update noting on what pages the outlined materials are presented.

Two additional sections are included in the detailed outline below that are not sections of the Plan Update. These include special provisions for counties with a population of less than 100,000 (**Section I, Special Provisions for Counties with Populations less than 100,000**), and requirements for submission of future Plan Updates (**Section J, Submission of Plan Updates**).

The Exhibits to this outline are numbered to correspond with the outline section to which they relate.

Exhibit E-1:	List of Recyclable Materials
Exhibit E-2:	Recommendations for Traditional Recycling Efforts
Exhibit E-3:	Recommendations for Organics Recycling Efforts
Exhibit E-4:	Recommendations for Non-Traditional Recycling Efforts
Exhibit F:	Education and Outreach
Exhibit G:	Partnerships, Policy and Funding (Optional)

Detailed Outline of Plan Sections

A. Executive Summary
1. One to two page summary of status of recycling in the County, goals for next planning period, and summary of critical recommendations.

B. Current Plan Implementation Status
1. Review of progress on recommendations from current plan noting barriers to progress where appropriate
2. Summary of current programs and diversion activities, if not represented in the above review
3. Use standardized reporting metrics (such as waste diversion and generation rates) to be designated and provided by the Agency

C. Existing Infrastructure Report

1. This information can be sourced from the recycling infrastructure maps available from the Illinois Environmental Protection Agency.
2. Existing Landfills utilized by county
    a. Location and expected life
    b. Plans for expansion, if any
3. Summary of other facilities utilized by county
    a. MRFs
    b. Transfer Stations
    c. C&D facilities
    d. Household Hazardous Waste collection facilities
    e. Composting facilities
    f. Recycling Drop-Off facilities
    g. Scrap Metal facilities

D. Waste Generation Assessment

1. Waste generation
    a. Use locally compiled data, where available
    b. Alternative: use state reports and data sourced by the IEPA

E. Proposed Material Management Plans

1. List of Materials to Target for Diversion
    a. See **Exhibit E-1**: **Materials to Target for Diversion** for a matrix of materials and diversion ratings from the Measurement Subcommittee
    b. Use of EPA "Managing and Transforming Waste Tool" provides assistance in the area of the Plan
2. Traditional Material Diversion Efforts
    a. Current items recycled
    b. Additional Items to be diverted
    c. Recycling goals/recommendations for traditional recycling items
    d. Encourage identification of 7 or more recommended strategies from the suggestions in **Exhibit E-2: Recommendations for Traditional Recycling,** or similar or related strategies
    e. Implementation schedule
3. Organics Material Diversion Efforts
    a. Current items recycled
    b. Additional items to be diverted
    c. Recycling goals/recommendations for organics recycling items
    d. Encourage identification 5 or more recommended strategies from the suggestions in **Exhibit E-3**: **Recommendations for Organics Recycling** or similar or related strategies
    e. Implementation schedule
4. Non-traditional Material Diversion Efforts
    a. Current items recycled
    b. Additional items such as HHW, electronics, hard-to-recycle materials
    c. Recycling goals/Recommendations for non-traditional items
    d. Encourage identification of at least 1 recommended strategy from the suggestions in **Exhibit E-4: Recommendations for Non-Traditional Recycling**, or similar or related strategy
    e. Implementation schedule
5. Other programs/technologies such as waste-to-energy, anaerobic digesters, etc.
6. Disposal Efforts

a. Facilities to be relied upon for disposal located in-county and out-of-county
b. Regional pollution control facility siting ordinance provisions
c. Identify recommendations that determine which kinds of pollution control facilities are allowed in your county

F. Public Education and Outreach

Plans should describe efforts to promote the recycling measures discussed in Section E above. Elements of the Education and Outreach sections of the Plan should follow the recommendations given in **Exhibit F: Education and Outreach**.

G. Partnerships, Policy, and Funding (Optional)

This section is optional. This Section can be used to explore additional methods to increase and improve recycling efforts described in the Plan. A suggested list of topics is included in **Exhibit G: Partnerships, Policy and Funding**.

H. Summary of Recommendations

Use enough space as necessary to provide a concise summary of the goals and recommendations set forth in Sections E (Diversion Programs), F (Public Education and Outreach) and G (Partnerships, Policy & Funding) of the Plan.

I. Special Provisions for Counties with Populations Less than 100,000

1. Required plan sections shall be completed, however Section E and F shall have modified requirements.
    a. Required Sections: Section A (Executive Summary),
    b. Section B (Current Plan Implementation Status)
    c. Section C (Current Infrastructure Report)
    d. Section D (Waste Generation Assessment)
    e. Section H (Summary of Recommendations)
    f. Sections A-D should be prepared on on-line, fillable forms whenever possible
2. Modified Section E: Current and Proposed Diversion Plans
    a. Identify at least 3 recyclable commodities to be targeted within the county for recycling from Exhibit E-1: List of Recyclable Materials
    b. Traditional Recycling Efforts
        i. Drop off and curbside collection infrastructure (for municipalities, townships, or county-wide) availability should be reviewed, and described in detail.
        ii. Encourage identification of a minimum of 3 recommended strategies for traditional recycling from **Exhibit E-2: Recommendations for Traditional Recycling**, or similar/related strategies.
    c. Organics Recycling Efforts
        i. Some local government composting or mulching should occur
        ii. Encourage a leaf and limb drop-off pile in municipalities
        iii. Local government website should provide information on backyard composting, and other available programs for organics diversion, including food scraps (may be accomplished by linking directly to state or national resources)
        iv. Encourage identification of recommended strategies for organics recycling from **Exhibit E-3: Recommendations for Organics Recycling**, or similar/related strategies.

d. Non-traditional Recycling Efforts
    i. Maintain/secure public or private sites to collect/manage batteries, tires, oil, other automotive fluids
    ii. Implement a program to manage electronics or partner with other counties to hold 1-day events
    iii. Encourage to opt-in to CERA law for reduced costs of 1-day electronics collection events (must opt-in by March 1st of preceding year with IEPA and Clearinghouse)
    iv. Consider participation in the IEPA medication and sharps collection programs and /or DEA take back programs to conduct at least one event per fiscal year for sharps and/or medicines

3. Modified Section F: Public Education and Outreach
    a. Ensure at a minimum:
        i. Provide adequate signage at drop off locations sponsored by county
        ii. K-12 education/promotion on core message
        iii. Provide information on recycling options (curbside guidelines, drop-offs, events), reduce, reuse, and compost resources on local government websites
        iv. Utilize local or state-specific educational material (customizable) to keep a consistent message in all formats (digital, print, etc.) and all parts of county
4. Optional Section G. Partnerships, Policy, and Funding.

J. Plan Updates

1. Filing of initial Plan Updates after implementation of the new format
    a. For counties that have completed a Plan Update in or after 2016, the Plan Update conforming to the new format outlined herein is due upon the next 5-year Plan Update deadline.
        i. However, if the 5-year Plan Update renewal date falls within 6 months of the date when the new format is available, an automatic 1-year extension is granted.
    b. For counties with a plan updated completed prior to 2016, a plan update conforming to the new format outlined herein is due within 18 months of the date that the new format is implemented.

2. Future Plan Updates (those submitted after the initial new format Plan Update is adopted) shall be due every five years, beginning five years after the date of the last Plan Update.
    a. For any county, a written statement by the county's designated Recycling Coordinator affirming that the prior Plan Update has been reviewed and no significant changes have occurred to necessitate revisions to the Plan shall satisfy the requirement to complete the Future Plan Update.

Exhibit E-1
Materials to Target for Diversion

The composition and quantity of materials reaching the end of life continue to change. As technological and social innovations create new consumer patterns or disrupt existing or respond to consumer demands the nature of the material stream changes. This dynamic landscape has challenged the recycling industry for decades. Local planners, often challenged with limited resources, are forced to choose between focusing on increasing the recovery of materials present in the waste stream that currently have markets and search for markets for materials that may be growing in volume in the waste stream. However, this creates a program that is forever playing catch up to a changing material stream.

The committee presents a diversion matrix that provides four distinct diversion quadrants based on the current collection program and market conditions of the material. Collection programs may and are different depending on geography, volume, material, and investments. Drop off, curbside, and take backs are only some of the examples of collection programs. New programs are continuously being developed both in the private and public sector.

Any material of the waste stream can be placed in one of four of the diversion quadrants and can subsequently be moved to a different quadrant over time to reflect the current conditions.

Established program: These are materials with established collection programs. Residents and businesses across the states have reasonable and consistent access to the program and commodity markets for the material. Significant infrastructure investments for these programs have already been made and new investments tend to be supported by the commodity markets for the materials.

Limited program: These are materials with established collection programs in specific regions. In some regions of the state residents and or businesses may have reasonable and consistent access to the program or commodity markets for the material. Limited infrastructure investments for these programs have been made and are growing to support commercial volumes.

Pilot programs: These are materials with collection programs currently being piloted. Specific residents and or businesses may have temporary access to the program or commodity markets for the material. Commodity markets for the material may not be mature or scaled to process current volumes. Current infrastructure and infrastructure investments for these programs is limited and not networked to existing materials management infrastructure.

No programs: These are materials with no known collection programs. Residents and or businesses do not have access to the program or commodity markets for the material. Commodity markets for the material do not exist. Infrastructure investments for these programs is limited and not networked to existing materials management infrastructure.

Based on the current conditions in Illinois the table below delineates the current make of materials in each diversion quadrant.

Material group	Established program	% of landfilled waste stream	Limited programs	% of landfilled waste stream	Pilot Programs	% of landfilled waste stream	No programs	% of landfilled waste stream
Fiber	Mixed Paper	9.8%			Compostable Paper	3.7%		
	Uncoated OCC/Kraft	8.8%						
	Milk & Juice Cartons/Boxes - Coated	0.3%						
Organics	Yard Waste	3.1%	Food Scraps	17.5%	Other Organic	2.2%	Bottom Fines & Dirt	3.0%
			Clothing	1.8%	Carpet	2.0%	Diapers	2.0%
					Other Textiles	1.6%	Ceramics/Porcelain	0.6%
Plastic	Other Rigid Plastic Products	2.5%	Other Film	3.1%	Other Plastic	1.9%	Trash Bags	1.8%
	#1 PET Bottles/Jars	1.1%	#6 Exp. Polystyrene Packaging	1.0%				
	Grocery & Merchandise Bags	0.7%	#3-#7 Other - All	0.7%				
	#2 HDPE Bottles/Jars - Clear	0.4%	Commercial & Industrial Film	1.8%				
	#2 HDPE Bottles/Jars - Color	0.4%						
	#1 Other PET Containers	0.3%						
	#2 Other HDPE Containers	0.0%						
Construction and Demolition	Clean Engineered Wood	1.7%	Painted Wood	3.0%	Plastic C&D Materials	1.0%	Other C&D	2.0%
	Composition Shingles	1.5%	Wood Pallets	2.4%			Other Roofing	0.3%
	Clean Dimensional Lumber	1.5%	Gypsum Board	0.8%				
	Concrete	1.0%	Treated Wood	0.1%				
	Rock & Other Aggregates	0.6%						
	Bricks	0.3%						
	Asphalt Paving	0.2%						
	Reinforced Concrete	0.0%						
Metal	Other Ferrous	1.3%						
	Ferrous Containers (Tin Cans)	0.9%						
	Other Metal + mixed C&D metals	0.7%						
	Aluminum Beverage Containers	0.5%						
	Other Non-Ferrous	0.4%						
	Other Aluminum	0.3%						
	HVAC Ducting	0.0%						
Glass	Recyclable Glass Bottles & Jars	2.6%					Flat Glass	0.5%
							Other Glass	0.3%
Inorganics	Electronic Equipment	0.5%						
	White Goods - Not refrigerated	0.3%						
	Televisions	0.2%						
	Computer Equipment/Peripherals	0.2%						
	Computer Monitors	0.1%						
	White Goods - Refrigerated	0.1%						
Other Inorganics	Tires	0.2%	Other Household Batteries	0.2%	Household Bulky Items	2.3%	All other materials	3.0%
	Used Oil/Filters	0.1%	Latex Paint	0.1%				
	Other Automotive Fluids	0.0%	Oil Paint	0.0%				
	Lead-acid Batteries	0.0%	Fluorescent Lights/Ballasts	0.0%				
Total		42.4%		32.6%		14.2%		10.7%

Exhibit E-2

Recommendations For Traditional Recycling

These recommendations do not appear in order of preference. Each county can select recommendations for its Plan based upon its specific needs, opportunities, and existing infrastructure.

Suggested Minimum Number of Recommendations to be Included in Plan

	If County Population is	
	< 100,000	> 100,000
Traditional Recycling Materials	3	7

Recommendation 1: Waste Minimization campaigns
- Use the slogan "Rethink, Reduce, Reuse, Recycle"
- Promote Repair and Share programs

Recommendation 2: Promote Education for Proper Recycling
- Use State of Illinois recycling guidelines
- Educate to reduce the "Dirty Dozen" contaminants
- Expand educational efforts to new audiences -property owners, industrial commercial sector, etc.

Recommendation 3: Promote Circular Economy
- Develop Circular Economy partnerships with business community, including waste haulers, institutions, and service/professional organizations for focused educational efforts

Recommendation 4: Promote Product Stewardship
- Monitor and consider participation in state and national manufacturer and retailer take-back initiatives
- Encourage design for environment practices amongst local industry and manufacturing businesses

Recommendation 5: Promote sustainable procurement practices
- Require minimum post-consumer recycled content procurement for local governments
- Sponsor green procurement workshops
- Reward green buying practices in schools, businesses with financial incentives
- Encourage selection of vendors with sustainability practices in supply chain management
- Promote healthy alternatives to cleaning products within local government contracts

Recommendation 6: Recognize businesses with Green Business designation
- Develop a green business program or join existing program (Smart Energy Design Assistance Center certification, Illinois Green Business Certification)
- Recognize waste reduction efforts
- Recognize new recycling efforts
- Recognize food scraps and organics reduction programs
- Recognize schools, businesses, etc. that perform IEPA waste audits.

Recommendation 7: Consider Ordinances to increase commercial/industrial/multifamily recycling

Commented [FS6]: Griffith: Consider

Consider ordinances supporting recycling
Promote educational efforts directed to property owners and tenants

Recommendation 8: Consider franchising agreements

Evaluate organized collection for residential service for waste, recyclable, and compostable collection to aid with efficiency and/or expanded services
Evaluate commercial franchises for waste, recyclable, and compostable collection to increase diversion
Review applicable state statutes concerning franchising.

Recommendation 9: Promote pilot programs/demonstration projects potentially utilizing local government to provide mentoring

Consider possible reduction of number of accepted materials or simplification of guidelines
Investigate possible multi-stream recycling for low-population communities
Promote glass collection from bars and restaurants

Recommendation 10: Plan for waste and recycling surges

Plan for end of year student move-out surges
Plan for natural disaster debris management coordination with state/regional efforts
Require event planning (or event permit requirements) to include diversion plan for public events (concerts, festivals)
Plan for holiday waste uptick (trees and pumpkins)

Recommendation 11: Promote Industrial Sector Recycling

Provide link to a toolkit sharing information on waste audits (generation and characterization studies), waste reduction analysis, materials marketplace
Investigate if haulers may provide many such services

Recommendation 12: Promote Recycling of White Goods

Promote and educate on takeback with purchase
Disseminate information on available service options
Consider inclusion for provision in hauler contracts (usually an additional fee, especially for freon-containing)
Support materials reuse centers

Exhibit E-3

Recommendations for Organics Recycling

These recommendations do not appear in order of preference. Each county can select recommendations for its Plan based upon its specific needs, opportunities, and existing infrastructure.

Suggested Minimum Number of Recommendations to be Included in Plan

	If County Population is	
	< 100,000	> 100,000
Organic Materials	optional	5

Recommendation 1: Promote green scaping and home management of yard waste
- Promote backyard composting programs with subsidized compost bin sales/workshops

Recommendation 2: Evaluate anti-burning ordinances, bans, or regulations for yard waste
- Ensure compatibility with existing state regulations

Recommendation 3: Promote development of adequate infrastructure and end market
- Attract food scrap composting facility to county
- Develop wood chip recycling facilities
- Encourage anaerobic digestion facilities
- Create and/or further develop public drop-off locations for food scraps

Recommendation 4: Evaluate voluntary vs. mandated food scrap composting programs
- Evaluate availability of collection infrastructure
- Evaluate availability of processing infrastructure

Recommendation 5: Encourage "Compost Ride-Along" programs
- Consider including collection of food waste along with landscape waste for curbside collection in hauler contracts
- Consider if infrastructure is in place to support this service, for example, consider if yard waste sites can also accept food waste and seasonality of collections

Recommendation 6: Consider clean-for-used food scrap container swap program
- Consider if possible for residential, commercial and industrial properties

Recommendation 7: Develop opportunities for pre/post-consumer food recovery
- Work with restaurants, institutions, schools, groceries
- Connect local food banks with large scale generators

Recommendation 8: Promote use of certified end-market compost in landscaping projects
- Encourage adoption of specifications requiring compost use in land development and large-scale landscaping projects
- Encourage incorporation of compost use as part of building and site plan review process for new development
- Consider ordinances requiring local government projects to use certified end-market compost

Recommendation 9: Sponsor seasonal composting events such as pumpkin collection and Christmas tree composting

Exhibit E-4

Recommendations for Non-Traditional Recycling

Non -traditional recyclable materials are those special materials that are hard-to-recycle materials that are not collected curbside. These recommendations do not appear in order of preference. Each county can select recommendations for its Plan based upon its specific needs, opportunities, and existing infrastructure.

Suggested Minimum Number of Recommendations to be Included in Plan

	If County Population is	
	< 100,000	> 100,000
Non-Traditional Materials	optional	1

Recommendation 1: Evaluate opportunities for collection sites

Consider public or private sites to properly collect and manage tires, oil, other automotive fluids, textiles, scrap metal, polystyrene, carpet, and other difficult to recycle items.

Promote opportunities for the collection of single use and rechargeable batteries.

Recommendation 2: Promote Construction and Demolition Recycling

Promote LEED certified facilities, if available

Provide to public a list of C&D processing facilities updated yearly

Promote C&D recycling for local government facility projects

Promote ordinances to require C&D recycling - tied to building or demolition permits

Recommendation 3: Sponsor One Day Events and/or Drop Off locations

Promote one day events for Hard to Recycle materials

Recommendation 4: Promote Electronic recycling

Consider opting into the CERA program

Secure permanent drop off locations

Organize one-day events

Recommendation 5: Promote reduction of and proper disposal of Household Hazardous Waste (HHW)

Direct to an IEPA toolkit that would include prepared outreach materials on such things as: healthy alternative products, promoting reuse, promoting purchasing practice to find alternatives/reduce HHW

Access IEPA HHW event program information and apply for an event

Research feasibility for siting a partnership-based HHW facility

Secure permanent drop off locations

Sponsor one-day events/ Apply for IEPA HHW events

Evaluate options for home collection programs for HHW

Recommendation 6: Promote Reuse/resale

Consider entities like Goodwill or AmVets, both for-profit and nonprofit entities

Host or partner in conducting a repair workshop

Recommendation 7: Promote Sharps and Medicine Take-Back Programs

Encourage participation in the IEPA collection programs and/or DEA take-back programs to conduct at least one event per fiscal year

Secure take-back sites for sharps and/or medicine.

Recommendation 8: Monitor legislative actions for advancement in special recycling efforts.

Exhibit F

Education and Outreach

1. County Plans should include the following:
    a. Links to IEPA Website containing education materials developed on a statewide level
    b. List of resources
    c. Local contact information
    d. Comprehensive resource guide
    e. Inventory of available infrastructure
    f. Designated spokesperson/presenter to provide local, direct outreach, and public response

2. Counties may benefit from partnership with existing state and local organizations to ensure an understanding of existing waste minimization options. The following list is not exhaustive and does not endorse any particular organization; it is meant to be illustrative of groups with additional resources on waste, recycling, and composting activities in the State of Illinois:

    Illinois Food Scrap Coalition (IFSC)
    Illinois Recycling Foundation (IRF)
    Illinois Product Stewardship Council (ILPSC)
    Illinois Counties Solid Waste Management Association (ILCSWMA)
    Illinois Chapter of the Solid Waste Association of North America (SWANA-IL)
    Seven Generation Ahead (SGA)
    SCARCE (School & Community Assistance for Recycling and Composting Education)
    Wasted Food Action Alliance (WFAA)

3. Target Audiences should include the general public, business community, institutions, government entities and officials, and teachers and students.

4. Counties are encouraged to establish measurable outcomes for educational programs, such as
    a. Website hits
    b. Newsletter reach
    c. Recovered Material quality
    d. Questions received from constituents
    e. Number of social media followers
    f. Surveys to gauge engagement and awareness
    g. Cart tagging/cart observations.

4. Counties should identify tools and methods to support outreach, such as
    a. Videos
    b. IEPA toolkit (to be developed as result of Education Committee recommendations)
    c. School education programs
    d. One-on-one educational outreach programs direct to communities with below-average diversion rates, low participation rates, and/or high contamination rates.

Exhibit G

Partnerships, Policy and Funding

(Inclusion in Plan is Optional)

1. Partnerships can be valuable tools to aid in the implementation of Plans. The following are suggestions for partnerships:

Suggestion 1: Explore working with municipalities and neighboring counties to develop municipal joint action agencies as allowed under Illinois law to jointly manage solid waste and recycling
- Share research and data
- Conduct joint planning
- Joint contracting

Suggestion 2: Consider working with other communities to develop joint contracting such as
- Collection agreements by intergovernmental agreement
- Cross-jurisdictional recycling
- Commercial/municipal franchise agreement

Suggestion 3: Develop partnerships for services and events
- Regional drop-off locations
- Community collection event
- Expansion of commercial recycling
- Educational programs

Suggestion 4: Pursue Green Business Program (not-for-profit) partnerships to assist businesses with waste diversion

Suggestion 5: Establish relationships and communication with municipal program coordinators to aid in strategy implementation

Suggestion 6: Consider creation of Citizens Advisory Committees to advise in drafting Plan Updates and strategy implementation

2. Policy initiatives can be valuable tools to aid in the implementation of Plans. The following are suggestions for policy initiatives.

Suggestion 1: Local Ordinances for data collection.

For example, the Kane County Recycling and Hauler Licensing Ordinance (95-157), requires licensed haulers to provide collection of recyclables from all residential and commercial accounts to which they provide waste service. The Ordinance also stipulates that Kane County annually license all waste and recycling haulers within the County, and specifies that annual hauler tonnage reports be completed. These hauler tonnage reports have historically provided the County with an understanding of waste and recycling tonnages by sector to ensure proper planning for collection and infrastructure needs. Hauler licensing also provides the County with insight into collection patterns and market conditions, as well as an opportunity to advance diversion efforts through direct hauler outreach. Follow link: ***Kane County Hauler Licensing and Reporting Ordinance***

Suggestion 2: Local Ordinances to Support Recycling through access and/or requirement
- Residential (single family and multi-family) recycling
- Commercial, institutional, and industrial recycling
- Food scrap and organics recycling

Set diversion goals that are stricter than the State's

Suggestion 3: Consider Waste Exports

Examine feasibility for waste exports

Review reliance on out-of-county landfills, and explore options

Suggestion 4: Consider Emerging Technologies

Evaluate and consider alternative technologies for materials management

3. Funding mechanisms can be identified to aid in the implementation of Plans. The following are suggestions for funding sources.

Suggestion 1: Compile a list of potential financial resources, including but not limited to,

Fee-for-service programs - where residents pay for the recycling service offered (such as pay-per-pound battery recycling)

Bulk Collection fees - for one-day clean-ups of bulk items and white goods

Community recycling event fees - paid by sponsors, participating communities, stakeholders, or by residents (for example pay-per-car for confidential document shredding events)

Hauler contract license fees - as permitted by state-statute

Franchise contract fees - terms may be written into hauler contracts that require haulers to cover the costs of contract administration in accordance with the limitations established in state statute

Host community benefit/host fee - for siting of pollution control facilities

Suggestion 2: Grant opportunities to support Plan implementation

Grants offered periodically available from: Closed Loop Fund, USEPA, Dept. of Agriculture, Recycling Partnership, etc.

Suggestion 3: Work with existing economic development groups

Seek outside funding to expand Solid Waste and Recycling functions

Seek funding in whole or in part for cost of developing Plans

Appendix E- Resources Examined by the Education and Outreach Subcommittee

Attachment A

MMAC Education and Outreach Subcommittee
Notes from 11-6-20 video call with Florida DEP

Florida DEP staff

- Karen Moore - Waste Reduction for over 20 years, mostly in recycling
- Chris Perry - Education and Outreach, 4 years at FL DEP; previously worked in marketing and communications in the private section
- Suzanne Boroff - Been at FL DEP just under 20 years; recycling activist; manages data for recycling rates; knowledge of recycling markets

FL recycling goal

- FL legislature had set a statewide recycling goal of 75% by 2020. FL DEP had to report to the legislature on how the goal was to be reached.
- Counties have reporting requirements on recovered materials (SW, combustion)
- In 2019, the state had a diversion rate of approximately 51% (42% recycling and 9% combustion); 2020 data won't be complete until April 2021, reported in summer 2021
- Contamination of single stream recycling was identified as an impediment
- Waste haulers had reached out to FL DEP
- Formed the Florida Recycling Partnership, a coalition of businesses and associations dedicated to improving Florida's recycling rates
- First phase - Back to basics, focus on core recyclables - Get recycling rate of aluminum cans from 18% to 75%; improve the rates on glass, plastic, paper, and items that have a market

Marketing campaign

- Put out RFP to design firms and conducted a review process
- Rewarded marketing contract to a Tallahassee firm
- Created logo that was distinctly identifiable, kept message simple, developed style guide
- Used WordPress; Mailchimp plug-ins
- Allow for customization to address differences across the state (i.e. glass, plastic bags).
- Partnered with MRFs and industry
- Funding ($50,000-$60,000) came from MRFs throughout the state (26 of them)

Next steps

- Phase 2 - Address core contaminants -- tanglers, plastic bags, toys, etc.
- Phase 3 - Focus on preparation of recyclables - empty containers, no grease, etc.
- Phase 4 - Target food waste; partner with NRDC on Save the Food campaign

Ongoing education and outreach

- Applying his expertise as a graphic design professional, Chris customizes web banners, posters, information for social media, etc.
- Chris provides ready-made materials to support local efforts
- Chris communicates regularly with county recycling coordinators
- Chris spends about 10-15% of his time on routine implementation of waste reduction initiatives, but it can be closer to 50% of his time when there is a new program/phase being developed.
- Conduct workshops, webinars, statewide campaigns (i.e. Food Waste week)
- Florida Recycling Partnership hosts the WordPress website and pays associated fees
- Partnerships are the key to sustaining the programs
- MRF feedback has been anecdotal, positive
- Residential curbside collection was the focus of this initiative
- There was no funding for pilot programs (new phases), so partnerships are important

Examples shown by Chris

- Back to Basics – branded poster explaining the statewide campaign (see below)
- Let's Break it Down – branded flyer telling local community that cardboard should be flattened
- Keep them Clean and Dry – branded flyer to address bottles that weren't being emptied
- Don't Try This at Home – branded flyer urging people to keep plastic bags out of recycling bins/carts and to take them to appropriate local retail stores
- Don't Try This at Home – branded flyer reminding people that greasy pizza boxes are not allowed in bins – recycle only the top
- Photos showed bottles and cans without labels to avoid favoring brands
- Participates in Wrap Recycling Action Plan (W.R.A.P.) - plasticfilmrecycling.org - American Chemistry Council website for films
- Smaller and mid-sized communities (75,000-200,000 people) might need more assistance than larger communities that already have sophisticated programs

Other

- Placing the spreadsheet of county coordinator contacts on the website is very useful
- Having a separate website makes implementation easier: floridarecycles.org
- With additional funding, can do more advertising -- at the movies, on billboards, etc.
- Campaign helped increase recycling, establish infrastructure
- No Recycling messages yet
- Next phase? Recycled content, procurement of sustainable materials/life cycle analysis
- New Florida workgroup started through Florida Recycling Partnership (not a legal mandate)
- Continue with a weight-based goal? There is some dissatisfaction with weight-based goals, so considering options. White paper to be submitted to the DEP.
- FL does not have a lot of curbside compost programs; has not been a lot of interest

Branded poster for statewide use during the first phase of the campaign, which was to focus on core recyclables

Branded flyers created by the Florida DEP staff during later phases of the campaign.

They allow local governments to address issues specific to their communities.

Attachment B

Websites for state campaigns

California created CalRecycle, a department within the California Environmental Protection Agency that maintains the website calrecycle.ca.gov. It offers a wealth of resources for divertingmaterials from landfills. U.S. EPA Region 5 professionals suggested using California's toolkits as a model. CalRecycle's stated mission is to "inspire and challenge Californians to achieve thehighest waste reduction, recycling and reuse goals in the nation."

Michigan created a website called recyclingraccoons.org as part of its *Know It Before YouThrow It* campaign, which playfully utilized raccoons as recycling mascots.

Florida initiated an educational campaign called *Rethink. Reset. Recycle.* to reduce recycling contamination. It includes a separate website, floridarecycles.org, designed to educate residents about the basics of curbside recycling. The website contains a description of the problem, instructions on proper recycling, a video, and FAQs. It also invites recycling coordinators to sign up for resources, including digital and printable web banners and fact sheets and a social media kit. In addition, the website directs residents to contact their countyrecycling coordinators and links to a spreadsheet with contacts for each county.

Attachment C

Resources for hosting one-day waste diversion events

Toolkit for planning community recycling events

Guide on how to collect pumpkins for composting
scarce.org/downloads/pumpkin-smash-guide/

Attachment D

Waste Reduction Resources for Businesses and Organizations

Illinois Sustainable Technology Center
Services (includes waste audits)
istc.illinois.edu/cms/One.aspx?portalId=427487&pageId=487380

Case studies
istc.illinois.edu/cms/One.aspx?portalId=427487&pageId=429210

Healthy Schools Campaign
Toolkit for Reducing Food Waste in Illinois Schools
healthyschoolscampaign.org/dev/wp-content/uploads/2020/04/Food-Waste-Reduction-Toolkit-4.6.20hires.pdf

Illinois Toolkit for Reducing Waste in the Workplace
Willcountygreen.com/assets/1/AssetManager/2010%20Workplace%20Recycling%20Toolkit%20-%20FINAL.pdf

US EPA
Preventing waste small business guide
epa.gov/p2/why-should-you-care-about-preventing-waste-small-business-guide

Attachment E

Customizable flyer that was developed by the
Illinois Task Force on Reducing Recycling Contamination and Increasing Diversion Rates

Representatives from materials recovery facilities, haulers, waste and recycling associations, and governments across Illinois joined the task force to encourage proper curbside recycling.

Coles County

Lake County

Attachment F

Suggested strategies to convey waste reduction messaging

- Target people of different ages, including school-aged children, adults, seniors
- Deliver messages using visual cues, such as clip art, to reach people who speak different languages or people who tend not to spend time reading text
- Provide text-based messages in different languages, where needed. State governmentcan provide translation services.
- Offer toolkits for counties, cities, schools, businesses, and nonprofit organizations. All materials should promote a universal message but be customizable.
- Remind organizations that printed materials are more effective for some populations,such as rural communities or senior citizens
- Keep messages clear and engaging. For example, Kane County has illustrated the volume of recyclables collected at a community event by showing the number of traincars the waste would have filled.
- Exercise caution when setting diversion goals, which can lead to "wishcycling" and increased volume of single-use "recyclable" items being purchased
- Create training materials for custodial professionals
- Encourage local governments/haulers to provide stickers for lids of recycling receptacles
- Ask the producers of Kraft bags to print composting instructions on yard waste bags

Attachment G

Examples of educational efforts

Waste Management Virtual MRF tour
youtube.com/watch?app=desktop&v=YOQD6jKAXaQ&feature=youtu.be

Waste Management Recycling Information
https://www.wm.com/us/en/recycle-right

Cambridge, MA recycling contamination video
youtube.com/watch?v=tabMxnrPSNE&feature=emb_logo

Will County, IL educational games
willcountygreen.com/education/games.aspx

Appendix F- Materials Management Metric Strategies of Various States

ISTC compiled information on the types of materials management being collected, the processes utilized as well as how they were being maintained by the following states; Minnesota, Michigan, Massachusetts, Oregon, Pennsylvania, Wisconsin.

Minnesota

The Minnesota Pollution Control Agency (MPCA) serves the primary role in collecting, monitoring and tracking various metrics and stakeholders, and publicizing various solid waste information and data from across the state through assorted mechanisms that continue to be expanded and refined. Many of the resources listed below, as well as forms, fact sheets, guidance documents and educational assets are compiled and readily accessible on the MPCA's Solid waste publications webpage.

Statewide Annual Reports

- Waste Hauler Reporting: Waste Haulers in Greater Minnesota are required to submit data on mixed municipal solid waste and recyclables annually. Haulers in the 7-county Metro are required to report this same data quarterly. Haulers must use Re-TRAC Connect, an online system, to submit a General Information Form. Based on responses, additional forms are assigned to the hauler's Re-TRAC account in order to collect additional data. MPCA shares reporting submissions with respective counties. Instructional videos provide guidance on reporting.
  - Metro Hauling Reporting Forms: The forms referenced in this section are filled out for each county in which the hauler is licensed to operate. The Collection Information Form asks about residential recycling, organics and trash collection frequency and if collection occurs on the same day as trash. These selections are completed by the hauler for each city serviced with that county. The Long Form – Collected and Delivered has the hauler document the total tonnage collected for each residential recycling, trash, organics, source separated organics and yard waste material streams, and tonnage of commercial recycling, trash and organics material streams collected. Numbers are input by the hauler for each city serviced with that county. The delivered tonnage of each material category is then completed for all destination facilities.
  - Greater Minnesota Reporting Forms: A response is required for each county and destination facility for which a hauler collects and delivers materials. Once the county and destination facility are selected in drop down menus the hauler inputs residential and commercial tonnage for trash, recycling and organics (select source separated or combined).
- Solid Waste Facility Reporting: Required forms for solid waste facilities are also hosted on Re-TRAC. Upon completing the General Information Form additional forms are assigned to the facility's Re-TRAC account based on activities at the facility, including land disposal (open and closed), transfer station, composting, recycling, waste-to-energy, and refuse-derived fuel. Information is collected on waste received at the facility, documented by material type, unit of measure, and disposal methods including land disposed, processed, transferred, composted/chipped/burned, and stored on site. The total amounts on this page must match the total entered on the following pages. For a MRF where source separated

recyclables are received, tonnage received, recycled and residue are also collected to generate a contamination rate. For a waste to energy facility, whether recyclable materials (e.g. metals) are separated from municipal solid waste (MSW) and type of processing – waste-to-energy or refuse derived fuel - is documented. A facility must select any counties served, and respective MSW, MSW combustor ash, construction and demolition (C&D), and industrial tonnage accepted from each. Likewise, facility must select any counties served by recycling services, and respective single stream recyclables, materials collected for beneficial use, source separated recyclables, source separated organic material, yard waste, and brush/wood waste tonnage accepted from each. The average price at gate page is collects average tip fees, county fees and city/town fees for each waste type accepted by the facility. The form also documents permit required monitoring data - such as surface and groundwater, leachate, gas, and existing conditions surveys and monitoring data – that respective facilities must submit as separate reports. Additional forms collect data on capacity and activity for accepted material types. Form-specific video tutorials provide guidance on required information, supporting documents and report submittal. These include Recycling activity, Composting, Solid waste land disposal activity, Waste received for land disposal, Solid waste transfer area, Waste-to-energy and refuse-derived fuel processing and Annual report submittal form. Additionally, it is required to submit a file copy of all data recorded through the system. MPCA uses the Annual Report Submittal Form in ReTRAC to complete the annual SCORE Report.

- Annual Report on SCORE Programs: The Select Committee on Recycling and the Environment (SCORE) Report is an annual examination of Minnesota waste management programs and data, and provides detailed data by county. SCORE integrates waste generation, management, and disposal data submitted by facilities and haulers on Re-TRAC, and program details, source reduction, revenues and expenditures, and materials collected for recycling reported by 87 counties, which is all used to support the development of sound policy and plans to manage waste. SCORE data is presented on MPCA's website for public access, and engages visitors with concise and customizable waste and recycling charts, graphs and tables on an appealing tableau format.
    - Report on 2018 SCORE programs: The most recent annual SCORE report provides an overview of the year and comparison to the prior year's tonnage generation, material stream breakdown and management method. Source reduction analysis is followed by a 10-year composition of recycling tons by category display, capture rate vs. recycling rate, a focus on food: organic reuse and recycling, 28-year history of combined recycling and organics rate, waste-to-energy updates, landfill and illegal on-site disposal tracking, programming revenue and expenditures, and more about the SCORE program.
    - SCORE overview and data (1991-2018) webpage: Utilizing nearly 30 years of data, users can scroll through the following displays and customize by county and by year: a summary of MSW management methods by tonnage, share and tons per capita for recycling, organics and waste, a 28-year chart of MSW tons by waste management method over time, materials collected for recycling – tonnage and representation of each material, a 28-year graph of percent recycled by weight of total solid waste generated, a 21-year history of project source reduction based on waste generation and Personal

Consumption Expenditure, annual revenues and expenditures customizable for each year 2014-2018, and background on SCORE legislation.
  - SCORE reports archive: Twenty years of SCORE Program reports are available for reference, providing useful snapshots in time of waste and disposal recycling around Minnesota. With the exception of the 2017 interactive tableau reporting display (like that utilized in 2018), all previous reports are extensive PDF reports. Data collection began in 1989 with the State, and in 1991 on an annual basis at the County level. Over time, data collection and distribution formats have greatly improved, including reporting placement online for greater public access.

Statewide Multi-Year and One-Time Reports, Studies and Plans

- 2019 Solid Waste Policy Report (SWPR): Crafted for the Legislature every four years per state statute, the solid waste policy report must contain information on the status of solid waste management in the state and make recommendations for new or modified policies to advance the management of waste in the state. The report utilizes data, results and recommendations from many sources. First, the 2013 Statewide Waste Characterization study, the 2015 Office of Legislative Auditor's (OLA) report, the 2015 Recycling and Solid Waste Infrastructure Evaluation, and other solid waste data helped guide the MPCA recommendations for the 2015 Solid Waste Policy Report. Those recommendations, combined with the MPCA Strategic Plan, and the Metropolitan Solid Waste Management Policy Plan 2016-2036 helped refine and prioritize the 2019 SWPR recommendations. All of these resources are introduced below. A few additional resources enable MPCA to present important solid waste facets included in this report:
  - Source scenarios, and economic output and jobs for the recycling, reuse, rental and repair sectors of economy was generated using Regional Economic Models Inc. (REMI) of MPCA.
  - Annual Construction & Demolition waste generation estimate, and the projected end destinations of the waste using a 2019 national C&D report, CDDPath: A method for quantifying the loss and recovery of construction and demolition debris in the United States.
  - The population resorting to illegal on-site disposal (burn or bury) reported by counties was compared to county household counts and hauler MSW collection service counts.
  - Minnesota's 2012 consumptions emissions by category and life cycle phase, which includes post-consumer disposal, utilized a Consumption-Based Emission Inventory.
  - Percentage of residents with access to curbside organics recycling including drop sites, and residents within a 15-mile radius of paint, e-waste and pharmaceutical collection sites was calculated.
  - The state's emissions and solid waste disposal cost avoidance through sustainable IT purchasing with EPEAT registered products was calculated.
- MPCA Strategic Plan: This concise, two-page five-year strategic plan charts long-term goals and cross-agency strategic plan goals, including the role of solid waste in climate adaptation, environmental justice and community engagement goals.

- Metropolitan Solid Waste Management Policy Plan 2016-2036: Prepared every six years with input from state agencies, county staff, and a variety of stakeholders including representatives of the waste industry, environmental groups, businesses, and citizens, the policy plan establishes the plan for managing the Metropolitan Area's solid waste. It is not stated how this input was collected.
    - Report data was primarily sourced from SCORE and Certification Reports (compliance). These reports pre-date introduction of the Re-TRAC reporting system as this plan notes the current transition to a new data reporting structure which enables comparison of annual data from facilities and counties.
    - Additional data was sourced from MPCA's 2014 Source Separated Compost Study Preliminary Summary and Data, 2012 study The Benefits of Organized Collection - Waste Collection Service Arrangements, and EPA.
- 2013 Statewide Waste Characterization: MPCA, Burns & McDonnell, Inc., MSW Consultants and GRG Analysis conducted this study of over 39,000 pounds of waste from six representative facilities of which was sampled and sorted into fifty material categories in order to achieve a statewide waste characterization by material category and tonnage quantity. Results were compared with the 2000 statewide waste characterization study.
- 2015 Solid Waste Policy Report: This report draws from foundational information from The Office of the Legislative Auditor's (OLA) 2014 Evaluation of Recycling and Waste Reduction (below), MPCA's 2015 Recycling and Solid Waste Infrastructure Evaluation (below), and waste composition data from SCORE reports, the most recent being 2013. Additional data and information was sourced from EPA, the 2014 source separated compost study (above), and historic Minnesota surveys on curbside recycling (2013), burn barrels (2010) and CFLs (2009).
- 2015 Recycling and Solid Waste Infrastructure Evaluation and Survey (Appendix D) - This report presents the results of an assessment of Minnesota's recycling and mixed municipal solid waste (MMSW) management infrastructure in context of the state's needs, and includes an analysis of Minnesota's recycled materials and markets to enable the state to identify investment needs and recycling economic development opportunities. Existing waste and recycling generation and flow data utilized in this report came from annual SCORE and facilities permit reports, Re-TRAC, County Solid waste management plans and the 2013 Statewide Waste Characterization. New data presented by this report included survey results from permitted solid waste facilities including MRFs, transfer stations, and landfills that had reported handling recycling in the most recent annual reports. Of the 161 facilities receiving the survey, 48 responded representing a 30% response rate. Twenty-two respondents were classified as MRFs, which represented a 50% response rate of the 44 facilities considered MRFs. The survey verified material quantities managed, ownership and types of customers, and collected information on the breakdown of types of materials accepted, age of the facility, processing equipment and processing type, adequacy of the facility's capacity for the next 5 to 10 years, facility costs and revenues, and recycling end markets. Some material quantities matched reporting to MPCA, while some did not. The team found it difficult to classify facilities as means and methods of recycling processing varied across the state. Information from four site-visits supplemented the report.

- 2014 Recycling and Waste Reduction Evaluation Report: Developed by the Office of the Legislative Auditor (OLA), the office surveyed county solid waste officers (87% response rate) about residential access to curbside recycling, organics collection, garbage service and opportunities to properly manage household hazardous waste, recycling educational methods, MPCA's effectiveness at market development for recyclable materials, SCORE money uses, documented and estimated SCORE data submissions and more. Survey results were displayed and described. MPCA data on solid waste facilities and annual tonnage disposed available through SCORE reports was also utilized.

Other Studies and Plans

- Upon adoption of the 2016-2036 Metropolitan Solid Waste Management Policy Plan all seven metro counties are required to develop more detailed County Master Plans. These plans address the specific projects and programs to be implemented within the counties to meet the goals, policies and objectives of the Policy Plan, and are approved by MPCA. These 2018 solid waste master plans include:
  - Anoka County
  - Carver County
  - Dakota County
  - Hennepin County
  - Ramsey County
  - Scott County
  - Washington County

  In Anoka County, for example, the 2018 plan was a revision the 2012 master plan. It incorporated 2016-2016 Policy Plan goals, utilized recycling data collected from businesses, tonnage collected through municipal contracts, regional and state affairs (SCORE reports), input from county agencies and the county's Solid Waste Advisory Committee established to aid in the development of the plan, as well as feedback from 141 residents who completed surveys capturing how they felt recycling could be improved in the county. The counties also conduct their own studies, such as Hennepin County's 2017 multifamily waste study and Polk County's 2014 Solid Waste Composition Study.
- Per the 2015 Solid Waste Policy Report waste-to-energy facilities are currently required to conduct waste composition studies every five years. A few of these study reports accessible on MPCA's website include that of the Red Wing Solid Waste Boiler Facility (2009), Newport (Xcel Energy) Resource Recovery Facility (2012) and Covanta Hennepin (2012).

Michigan

Both the Michigan Department of Environment, Great Lakes and Energy (EGLE) and the Michigan Department of Environmental Quality (DEQ) serve important roles in collecting and publicizing statewide solid waste metrics.

Online Tools Collecting Waste Data

- Currently, EGLE is in the process of transforming its Solid Waste Management program to encompass all managed materials. This includes, but is not limited to, recyclables, organics, and solid wastes. The Mega Data Collection Project of 2020 is a data driven component of this Michigan Materials Management (M3) transformation. As of early-2021 EGLE was

developing a series of online reporting tools utilizing the Re-TRAC Connect in order to ensure easy and consistent documentation and inventory of current materials management systems in all municipalities within Michigan's 83 counties. EGLE states, "The primary objective for the Mega Data Collection Project is to provide the baseline of data necessary for counties to develop future materials management plans* and provide a roadmap for materials management moving forward. *While no specific timing for the call for plan updates, the online data entry process utilized here by municipalities will automate data to streamline the future process."

- The DEQ's Waste Data System (WDS) tracks activities at sites regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs. The website provides the public information on ownership and operation of sites, the status of any required permits, licenses, registrations, or certifications, compliance status, authorized transporters, shipments of hazardous waste, and user fees. For the **Scrap Tire Program**, registrations and annual reporting for 2021 and future years will be completed through a Re-TRAC reporting platform**, impacting Scrap Tire Haulers, Scrap Tire Collection Sites, and Scrap Tire End Users reporting. Previously, required forms were available on an** EGLE webpage **in PDF and MS-Word formats.**

Annual Reports

- Report of Solid Waste Landfilled in Michigan (1996-2019): State public act requires all landfills in Michigan to "annually submit a report to the state (*EGLE*) and the county and municipality in which the landfill is located that contains information on the amount of solid waste received by the landfill during the year itemized, to the extent possible, by county, state, or country of origin and the amount of remaining disposal capacity at the landfill." The 2019 report is the twenty fourth annual Report of Solid Waste Landfilled in Michigan compiled by EGLE from the data submitted by the individual landfills. Landfills report the waste received by category using the Combined Solid Waste Landfill Waste Receipt Report (Combined Report) form. Audits are performed by EGLE to reconcile quantities reported by the landfills with surcharge payments and Perpetual Care Fund deposits.
- Report on Activities Funded by the Staff Account of the Solid Waste Management Fund (2019): This report details the activities of the previous fiscal year funded by the staff account of the solid waste management fund. Metrics reported include full-time equivalent positions, construction permit application decisions, annual number of operating licenses applications received, number of inspections of licensed disposal areas, numbers of contested case hearings and civil actions initiated and completed, fines and penalties, corrective actions required, number of solid waste complaints received, investigated, resolved and not resolved by EGLE, and amount of revenue remaining in the staff account at the end of the fiscal year.
- Scrap Tire Reports webpage: Annual and triennial scrap tire reports are hosted on this webpage. Annual reports cover the utilization of scrap tire fund revenues for each fiscal year, scrap tire clean up and market development grants, regulatory program datapoints, end user reports listing reported calendar year use measured in tons and passenger tire equivalent, and historic use (if available) for reuse/retread entities, landfills, tire derived fuel (TDF) enterprises, out of state users, and other product companies. A Use Comparison table of the

calendar year and the prior year concludes the report. The table totals tonnage and passenger tire equivalent for end use (landfill and TDF), diversion (reuse/retread and out of state), and products (aggregate, buffings, crumb, drainfield, etc.) categories. Triennial reports provide overviews of the Scrap Tire Program, priorities, funding, processes and recommendations. Additional scrap tire program information and resources are housed on the Scrap Tires webpage.

Multi-Year and One-Time Reports

- County Solid Waste Management Plans website: All currently DEQ-approved county solid waste plans and amendments are readily accessible on this webpage. This resource includes notations identifying if and when amendments to the County plans were made, and if entire plans have been amended. Plan update guidance and formats, and example amendment letters and resolutions are provided by DEQ for county use, as is import and export authorization report standards in order "to make the Plan authorizations more accessible to the public". DEQ helps ensure that the five-year Plan update cycle or an alternative update cycle is maintained consistently. Counties must submit plans to DEQ.
- Economic Impact Potential and Characterization of Municipal Solid Waste in Michigan 2016 This study provides information and analysis on the composition of municipal solid waste currently landfilled and incinerated in Michigan, and the economic value of this material. Its findings are derived from field studies, verifiable market prices for recycled commodities, peer-reviewed academic studies and similar waste characterization reports from other Great Lakes states. The study performed statistically significant waste sorts at sites regionally and statewide, and included those many datasets. Through this and landfill reports of volume received (submitted to DEQ) the study provided a market valuation for waste diversion in terms of real material value compared to net recycling value, employment and financial impact, and various other economic and environmental impacts. The report also compares two respective MSW disposal estimates from the MDEQ Solid Waste Annual Report and Michigan Recycling Index.
- Measuring Recycling in the State of Michigan (2015): The Michigan Recycling Coalition introduced the Michigan Recycling Index (MRI) in this report, which provided information on the percentage of households with convenient access to curbside and drop-off recycling, and access to curbside and drop-off composting, percentage of households that participate in these programs, the rate of recycling of various materials in the state, and general information on the performance of the recycling industry. The MRI project team conducted a series of voluntary information-gathering surveys with direct outreach to Michigan municipalities, counties, material recovery facilities, and haulers, and reached out to Michigan-based paper mills, plastics re-processors and a variety of take-back programs. Through this process, sources and quantities of materials from Michigan curbside and drop-off programs were collected from respondents and analyzed, in addition to analysis of materials that are sent from commercial sources and recycled into new products. In addition to curbside and drop-off collection programs, direct outreach and research was conducted to measure materials collected through take-back programs for e-waste, tires, organics, beverage container deposits, textiles, hazardous household waste and batteries. Community-specific and facility

data was submitted to the MRI project team, then directly applied to the specific communities which it represented. Due to the voluntary nature of information sharing for all stakeholders, a sophisticated model was built to leverage the data that was provided and enable extrapolations to be made to account for data gaps. In addition to a base recycling rate calculation, conservative and aggressive scenarios were examined for each material category to reflect levels of certainty and is expressed as a range.

- Measuring Recycling in the State of Michigan: 2014 Recycling Rate. In 2015 MDEQ sought to update the Michigan Recycling Index (MRI) though modeling supported by surveys and reported data sets. In general, the study measured material collected by communities, counties, and take-back programs, and assessed material that may have been sorted at out-of-state MRFs. As far as data collection, the project team contacted 129 communities that participated in the previous survey, receiving responses from 37. While at least two outreach attempts were made to each of the 42 MRF operators in the state, information was collected from 10 MRF operators representing 14 facilities in Michigan as many declined to participate or did not respond to phone calls and emails. The survey administered to MRFs obtained tonnages of material recycled by communities or facilities. Materials disposed statewide were quantified through DEQ's reports of solid waste landfilled in Michigan and public reports on the quantity of solid waste disposed at Michigan incinerators. The project team collected data on compostable materials via surveys of counties and compost facilities and via data from the DEQ's annual report required for licensed compost facilities. To account for textiles, prominent non-profit and for-profit textile collectors were contacted to provide information concerning the amount recycled in Michigan and collected information on the market and supply chain for these materials. Data on household hazardous waste was obtained directly from MRFs that responded to the MRF questionnaire. Additionally, data was provided by ePaint Recycling, Call2Recycle (batteries). A variety of data was also collected from DEQ and the Michigan Department of Treasury, including the value of returned bottle deposits, the amount of organic material delivered to registered compost sites, tire recycling data and the weight of electronics recycled in 2014. Ultimately all of this data was used in the Michigan Recycling Index (MRI) model to paint a complete picture of recycling in Michigan. In addition to a base recycling rate calculation, a low case and a high case for each modeled material category was developed to establish the upper and lower bounds of a range that reflects the rate to a high level of certainty based on modeled assumptions.

Massachusetts

The Massachusetts Department of Environmental Protection (MassDEP) serves the primary role in collecting and publicizing statewide solid waste metrics. Many of the resources listed below are readily accessible on the MassDEP's Solid Waste Master Plan webpage.

Annual Reports

- Annual Facility Reports (AFR): Solid waste handling facilities and transfer stations are required to report annually on their activities to MassDEP. The reporting form is available

online in both MS Word and PDF formats, and is to be returned both via email and US mail. The information collected in these forms is analyzed and publicized in a variety of ways, some of which are detailed below. The form collects the following information: General site and reporting contact; suggestions to improve reporting; facility operational status; tons of each type of material accepted and state of origin; tonnage, types and vendor/end-user of material diverted from disposal; tonnage and facility name of waste disposed; waste ban compliance; tonnage and sources (in state or out of state sources) of materials accepted for recycling; and type of generator, material type, tonnage and sources (in or out of state) of organic materials accepted for composting. Completed, individual reports were not found.

- Annual Solid Waste Data Update reports (2014-2019): These online, MassDEP reports are created to show progress in meeting the current disposal reduction milestone identified in the 2020 Solid Waste Master Plan. The displayed MSW and C&D debris data exported and imported for disposal by state was collected from annual facility reports (AFR) submitted to MassDEP and from direct correspondence with other states. Annual municipal waste combustor ash management and ash landfills anticipated capacity data tables integrates tonnage ash disposed, pre-combustion metals recovery, and post-combustion metals recovery data pulled from AFRs. While not explicitly stated, it is assumed the other data included in the report – annual solid waste disposal tonnage update; year-over-year change and tracking for various streams of in-state disposal; gross domestic product vs. disposal; capacity projections; rail transfer capacity; and landfill cover material tonnage – are also gathered from AFRs.

Multi-Year and One-Time Reports, Studies and Plans

- 2010-2020 Solid Waste Master Plan: A Pathway to Zero Waste and Plan Appendices: Also known as the 2020 Solid Waste Master Plan, this report provides the public robust background, objectives, action items and success stories of material streams, generation sectors, goals and policies. The various data points utilized to support plan objectives are sourced from reports listed in the Plan Appendices, and the supporting tables in these appendices. The reports include Annual Facility Reports (AFR), survey of other states' data, recycling processor reports, bottle bill tonnage, compost site reports, and the 2010 solid waste data update report. Data tables include Residential Solid Waste and Recycling Data (tonnage) by Municipality; Residential Solid Waste and Recycling Program Information by Municipality; solid waste disposal, processing and handling facilities location and capacity maps; and Summary of Grants Awarded from the Massachusetts Recycling Loan Fund. Additionally, this master plan builds on previous master plans including the 2006 Solid Waste Master Plan Revision and Beyond 2000 Solid Waste Master Plan: A Policy Framework.
- Draft 2030 Solid Waste Master Plan: While this plan is still being drafted, it connects the data presented in the annual solid waste data update reports (above), the 2019 capacity study (below), and the 2020 Solid Waste Master Plan with drafted programs, goals, strategies and recommendations.
- Massachusetts Materials Management Capacity Study, February 2019: To prepare for the upcoming master plan, MassDEP undertook a study of the waste management system to

assess the overall capacities of possible material endpoints including facilities involved in disposal (landfill and combustion), transfer, recycling, composting, anaerobic digestion, animal feed operations, food rescue, and materials reuse operations. The study also included an assessment of the current and future material capacities of disposal and processing facilities in surrounding states. Thus the report includes aggregated tonnage and capacity data on all of these material streams and affiliated endpoints, for both in-state and out-of-state endpoints. The numerous sources utilized to create this report are listed in the 5-page Appendix A. These data and resource sources range from dozens of recent Massachusetts permitting and reporting data sets, to active leaf composting facilities in Connecticut, to New York municipal waste combustion facility capacity reports.

- Summary of Waste Combustor Class II Recycling Program Waste Characterization Studies (Includes 2010, 2013, 2016 & 2019 Data): State statute requires Massachusetts combustion facilities to conduct waste characterization studies within 18 months of receiving their Class II Recycling Program certifications from MassDEP. These triennial studies are posted on the MassDEP website along with this summary analysis. This analysis provides a weighted average composition by primary material category (paper, plastics, metal, etc.) and detailed material category (OCC, newsprint, high grade office paper, etc.) based on the amount of in-state waste that each facility received in the calendar year for each year 2010, 2013, 2016 and 2019. The report also summarizes tonnage combusted by each facility, and the facilities' percent combustion representation for the state, for a statewide combustion snapshot. Linked below are the 2019 Waste Characterization Studies on which this summary's data is based in-part:
    - Covanta Energy Haverhill
    - Eco Springfield LLC
    - Wheelabrator North Andover
    - Covanta Energy SEMASS
    - Wheelabrator Millbury
    - Wheelabrator Saugus

Oregon

The Oregon Department of Environmental Quality's (DEQ) Materials Management Program generates dozens of reports a year, ranging from highly technical, scientific papers to more accessible studies, such as annual reports about recycling rates in Oregon. State agencies, local governments, partner organizations, businesses and Oregonians rely on DEQ's reports to make decisions and stay informed. The Materials Management Reports webpage captures some of the program's more substantial reports, including the state's 2050 Vision and Framework for Action (Material Management's credo), various strategic plans - such as those on food waste and reuse and repair, life cycle analyses, and technical reports.

Annual Surveys and Reports

- 2018 Oregon Material Recovery and Waste Generation Rates Report: In 1991 the Oregon Legislature enacted a law requiring all publicly and privately-operated recycling and material recovery operations complete an annual Material Recovery Survey form. This includes landfills, local recycling collectors, private recycling collection companies and depots,

transfer stations, material recovery facilities, composters, local governments and any other operation that handles post-consumer recoverable materials. Companies handling only scrap metal are not required to report on privately obtained post-consumer scrap metal, but many do report on a voluntary basis. This was the 27th year DEQ has used a survey to compile data on municipal post-consumer waste that includes recovery and disposal numbers in order to provide an overview of the amount of waste generated and recovered by Oregonians, as well as estimate energy savings and greenhouse gas reductions. **This report claims to provide one of the most complete and accurate collections of state-level disposal and recycling data in the country.** *Note:* ***The 2019 Oregon Material Recovery and Waste Generation Rate Report's publishing has been delayed to Spring 2021.***

- **Individual (Private) Recyclers**, Scrap Metal Dealers, and Electronics Recyclers are required to complete and submit the Individual (Private) Recyclers Survey to DEQ each year. This survey tracks incoming material source (by county or city), direct or indirect collection and tonnage, total tons sorted from commingled mix, total tons collected from outside the state, and total tons collected for that year. It also tracks outgoing material sold, shipped, transferred or used domestically, and exported to out-of-country markets, tonnage used by the company to make a product, material disposed, shrinkage or other outgoing means, for a total outgoing tons for that year. Ending inventory is calculated and balance validated or justified.
- The Recycling Collector (Hauler) Survey forms are required to be completed for each wasteshed the hauler serves and submitted annually to their Wasteshed Representative. The survey collects tonnage of post-consumer materials handed that year, for the single wasteshed, for over 20 material categories from audiences including curbside residential, commercial, multi-family, disposal sites and transfer stations, other depots and other residential, construction and demolition, and amount received from other companies. Compiling all wastesheds data, the survey asks haulers to submit tonnage of post-consumer materials sold, delivered and/or used and the end use markets for each material category for that year. The survey concludes with out-of-state solid waste disposal tonnage. Instructions are available for each survey. Survey data is combined with data gathered from quarterly and annual disposal site reporting forms. Together, recovery and disposal numbers make up the amount of waste generated by people in Oregon each year.

Calculations in this report include GHG emissions and BTU's of energy equivalents of Oregon's actual and conceivable recovery activity in 2018. Data tables and visuals in this report include State Recovered Tons and Recovery Rates (1992-2018); breakdown of materials recovered by percent; approximate composition of materials disposed; generation, disposal and recovery per capita 1992-2018; wasteshed recovery rates; tons and pounds per capita generated, recovered and disposed by wasteshed 1992-2018; Oregon Materials Recovered, 1992-2018 by material type; and wasteshed-level disposition of recovered materials.

- Oregon Calculated Recovery Rates by Wasteshed lists the 2017 and 2018 recovery rate next to the wasteshed representative contact name and phone for each wasteshed.
- Full Material Recovery and Waste Generation Rate Reports for 2015, 2016 and 2017 are accessible on DEQ's Material Recovery and Waste Generation Survey webpage.

Statewide Multi-Year Reports and Studies

- 2016/2017 Oregon Solid Waste Characterization and Composition Study: In May 2016, DEQ began field work on a year-long statewide waste composition study, with assistance from Metro, Marion County, Lane County, Washington County, and the cities of Portland and Beaverton. Field work for the study was conducted by Sky Valley Associates, and involved collecting and sorting 974 samples of solid waste weighing on average more than 200 pounds each, collected at 55 landfills, transfer stations, and mixed solid waste processing facilities throughout an entire calendar year. Samples were sorted into 138 material categories, which are detailed on the Material Categories file. All beverage containers in the samples were counted by beverage type and container material type. In all, 103.7 tons of solid waste were sorted, and 17,727 beverage containers were counted throughout Oregon. As of early-2021 DEQ is still completing analysis of the data and preparing a final report. The Excel tables linked below give preliminary detailed information on the composition of wastes disposed in different parts of the state. Data sets from previous studies in 2009/2010 and 2005/2006 are also available on the Waste Composition Study webpage.
    - Statewide results 2016
    - City of Portland 2016
    - Rest of Metro Area 2016
    - Marion County 2016
    - Rest of Oregon 2016 (all Oregon except Metro area and Marion and Lane Counties)
    - Metro Tri-county area 2016
    - Washington County 2016
    - Downstate 2016 (all except Metro area)
    - Lane County 2016
- Oregon's Greenhouse Gas Emissions through 2015 and Appendices: This report evaluates Oregon's greenhouse gas emissions with data from the sector-based and consumption-based inventories. DEQ publishes this comprehensive report every five years. Beyond the annual Oregon Material Recovery and Waste Generation Rates reports, the primary data sources of this report are the DEQ's Greenhouse Gas Mandatory reporting requirements, EPA State Inventory Tool, Oregon sector-based inventory, U.S. GHG inventory (EPA), CICERO global trade and emissions model, IMPLAN economic model, Oregon Clean Fuels Program, Northwest Power and Conservation Council, and numerous federal agencies.
- Wasted Food Measurement Study - Oregon Households: There are three phases of this Portland State University's Community Environmental Services study. Phase I consisted of open-ended interviews with 32 Oregon residents. These interviews (results) were designed to identify key themes applicable to the larger topic of wasted food in Oregon households, themes that informed subsequent research in Phases II and III. In Phase II, the researchers conducted a telephone survey of 486 Oregonians statewide. Survey questions covered the following: What are the perceived barriers to reducing wasted food? What are the perceived reasons for wasted food? What habits or behaviors do households engage in that promote or avoid wasting food? What level of knowledge do people have about ways to reduce wasted food? What beliefs, attitudes or values are related to food waste behaviors? The final report of this 2017 phone survey includes dozens of tables and figures on various topics including frequency of shopping trips and fridge cleaning, amount money spent weekly, date labels,

meal planning, freezing leftovers and more. Phase III of the study culminated in an intensive mixed methods study to track wasted food and wasted food behaviors in 299 households, recruited from five communities. This phase was conducted over a several weeks through waste sorts, kitchen diaries and pre-and post-diary surveys. The study team conducted waste sorts of the trash and (where applicable) curbside compost discarded by participating households in order to evaluate the accuracy of the kitchen diary. Of the 299 recruited households, 230 had trash sorted and 58 had compost collected sorted. Of the 299 households, 182 completed the seven-day kitchen diary utilized to track food waste, and of the 299 households, 216 completed the pre-survey which replicated the phone survey conducted in Phase II, and 184 completed the post-survey, which repeated some of the pre-diary questions for comparisons of behaviors and beliefs after the diary exercise. Of the 299 households recruited for the study, 164 completed all four activities. The waste sort, diary and survey study report shares nearly 100 tables and charts analyzing study results, and includes a copy of the surveys and diary prompts. This study's results supported, in part, the Strategy for Preventing the Wasting of Food. This plan outlines DEQ's five-year work priorities to encourage reductions in wasted food across the supply chain.

- Reuse, Repair and Product Lifespan Extension Strategic Plan: This DEQ plan describes the strategies, actions and priority materials for reuse, repair and product lifespan extension for 2016 - 2021. The first strategy identified is the need for foundational research to inform and shape actions in the other three strategies, as there are no statewide reuse, repair or product lifespan extension metrics to support this plan. Studies and reports containing data on the local economics of reuse and repair from Minnesota, Portland (OR) and Eugene (OR), as well as literature, industry reports, and discussions with individuals all supported this planning process.
- Materials Management in Oregon: 2050 Vision and Framework: Adopted in 2012, the 2050 Vision describes a desired future where Oregonians live within the limits of their sustainable share of the world's natural resources. This document outlines a framework for action to help the state achieve the 2050 Vision. Various reports, studies and datapoints identified in these summaries supplement the stakeholder feedback collected for the development of this framework.

Regional and Wasteshed/County Level Studies and Reporting

- Metro 2030 Regional Waste Plan: Oregon Metro serves more than 1.5 million people of 3 different counties in the Portland metropolitan area. The plan combines and leverages significant data from other state and metro reports in an effort to conduct a system level analysis that identifies values, principles and vision to guide garbage and recycling system improvements, supports 19 specific goals and 108 related actions to enable the region to achieve its vision by 2030, and develops specific indicators that will be used to measure progress over time. Affiliated reports containing various data that support this plan include:
  - Oregon Material Recovery and Waste Generation Rates
  - 2016/2017 Oregon Solid Waste Characterization and Composition Study
  - Oregon's Greenhouse Gas Emissions through 2015

- Metro Solid Waste System Economic Footprint Report 2018: Produced by Portland State University's Northwest Economic Research Center (NERC), the report focuses on annual economic activity, jobs, size and scope attributed to garbage, recycling and related sectors. It was essential to first understand the industry in order for Metro to effectively inform its 2030 Regional Plan. NERC's economic footprint analysis of the solid waste industry in Metro counties broke the industry into seven subindustries: collection, transfer, material recovery, transport, government, disposal, and recycling and composting. This analysis does not include the treatment of hazardous waste, the activity of reuse facilities, or solid waste employment or spending that takes place outside of the three Metro counties. Over 115 firms across the seven subindustries were surveyed by NERC in order to determine full-time equivalent (FTE) employment, gross wages, and spending patterns. Some firms either chose not to respond to the survey, or were not able to provide complete information, so calculated data was produced using conservative assumptions. Combined with employment data from the Oregon Employment Department (OED), NERC was able to produce FTE employment estimates for each subsector as well as gross wages. Using this spending pattern data and economic impact modelling software (IMPLAN), NERC estimated the direct, indirect and induced effect on employment and economic activity supported by these employees, firms and each of the seven subindustries for each of the three counties and for the Metro area.
- Metro Multifamily Recycling Report 2017: The Multifamily Recycling Project focused on gathering and analyzing data about garbage and recycling in apartment and condominium buildings with five or more units, called "multifamily," across greater Portland. The purpose of the project was to define what opportunities for improvement exist in multifamily garbage and recycling collection related to policy, infrastructure, and education. Data sources for this report included service volumes of over 4,000 multifamily garbage and recycling accounts to calculate median service volumes and identify number and percent of sites with access to services; the first regional, multifamily-specific waste characterization study to include measures on recyclables remaining in the garbage, contaminants in the recycling, per household generation and total generation (below); and household data from the 2013 American Community Survey and Metro's Urban Growth Report. Additionally, interviews with 20 local governments identified successful program characteristics and interviews with 54 low-income multifamily residents and multifamily residents of color shared experiences with garbage and recycling services. This feedback was categorized into project findings, such as: Lack of service and volume; and bulky waste inadequately managed; and options that could be implemented or considered for the regional waste plan, such as: set a standard for bin colors; and require regular bulky waste service.
- Metro Single-family Recycling and Waste Composition Studies 2014-2015: Metro completed two studies on the region's single-family household recycling programs. More than 300,000 pounds of household garbage and recycling were collected and sorted over a seven-month period. Study 1 was on curbside recycling program performance for weekly vs. less frequent collection programs by looking at the percentage of recyclables in the garbage, and Study 2 was on contaminants in recycling carts. The first study

utilized 860 garbage samples, from 5 jurisdictions, with both comingled recyclables and glass collection programs. Visuals of study results communicated the percent of recyclables in the garbage overall, by jurisdictions with weekly recycling collection programs, by jurisdictions with alternative programs with less frequent collection, by jurisdiction of all recycling programs and aggregated data by program type. Also displayed is a table by jurisdiction, by material category, are the percent of curbside recyclables in the garbage. Recyclables tonnage disposed and greenhouse gas benefits of recycling this material set were also calculated. The study incorporated additional material categories (broken into sub-categories), including organics, household hazardous waste and electronics as a percent of the garbage stream for each jurisdiction. Study 2 on contaminants in recycling compared different garbage collection program frequencies based on data from 287 samples of more than 78,000 pounds of material in recycling carts from weekly and every-other-week garbage collection programs. Visuals show the percent of contaminants in the recycling carts, broken out by the 11 material sorting categories and into bar charts of each of the sorting categories, by garbage collection service frequency. The study also looked at deposit containers in recycling, publicizing average weight and count per commingled recyclables sample.

- Individual wastesheds use the data in the annual Material Recover and Waste Generation Rates Reports to implement and improve their waste prevention and material recovery programs. For the most part, individual Oregon counties are designated as wastesheds. Examples of these solid waste plans include the Deschutes County Solid Waste Management Plan and the Lane County Solid Waste Management Plan 2019.

Pennsylvania

The Pennsylvania Department of Environmental Protection's (DEP) Bureau of Waste Management (BWM) manages statewide hazardous, municipal, and residual waste programs, and oversees implementation of municipal waste planning and recycling, waste transportation, and the Covered Device Recycling Act. Through assorted processes based on the audience, DEP serves the primary role in collecting and publicizing various solid waste metrics from across the state. In addition to DEP, the Professional Recyclers of Pennsylvania (PROP) provides resources and assistance with recycling reporting at the local level, while DEP, the Governor's Center for Local Government Services and Pennsylvania State Association of Township Supervisors (PSATS) have formed a Recycling Technical Assistance partnership to support Pennsylvania's local governments interested in achieving higher recycling rates. All of these entities play key roles in the reporting of quarterly, annual, biennial, and even one-time solid waste datasets, reports and studies. It should be noted that Pennsylvania's reporting approach differs from that of the other states covered.

Statewide Data Collection and Accessible Data

- Annual Recycling Report Forms: The Recycling 520 Data Management presentation thoroughly explains the steps and timelines for annual form completion of the following forms by the following audiences. Commercial, municipal and institutional establishments

(FM-11 if submitted to municipality, FM-13 if submitted to county), and waste and/or recycling haulers, document destruction companies, and other company transporting recyclables (FM-12 if submitted to municipality, FM-13 if submitted to county) submit forms to either the municipality or the county where the entity is are located or where the recyclables were collected. To insure tonnage is not double counted, each entity must discuss submission with their respective County Recycling Coordinator, who would agree to accept the entity's recycling data at the county level. It is then the responsibility of the county to provide the tonnages to the municipalities. Any data submitted only to the municipality is aggregated and submitted (form) to the county. The county aggregates all data received and submits all data to DEP electronically utilizing Re-TRAC. About 30 large corporate reports are distributed by the Professional Recyclers of Pennsylvania (PROP) data management committee through the statewide network.

- Statewide Recycling Data webpage: This webpage concisely summarizes statewide tonnage generation and emissions equivalents from 2017 and 2016, provides a bar graph of total recycling in Pennsylvania in millions of tons from 1990-2017 and hosts links to the following resources:
  - Summary of Environmental Benefits Analysis: This domestic equivalencies table identifies the millions of tons recycled each year from 2012-2015, and presents the following equivalents in millions: amount of CO2 saved per year, passenger vehicles taken off the road for one year, and homes worth of electricity use per year saved.
  - County Recycling Data 2013-2017: These PDFs display recycled material tonnage grouped by material category for each respective county for both residential and commercial generation. Residential tonnage reported includes total tons, single stream and comingled, tonnage for 6 categories of glass, 9 categories of papers, 10 categories of plastics, 14 categories of metal, 8 categories of household hazardous waste, 7 categories of residential other, and 3 categories of residential organics. The same totals and categorical tonnage is reported for commercial entities in each respective county, with the exception of 8 categories of hazardous waste rather than household hazardous waste. The data concludes with total tons for each county of both residential and commercial tonnage totals. This data depends of accurate reporting by municipalities/counties detailed in Annual Recycling Report Forms above.
- Quarterly Municipal Waste Landfill and Resource Recovery Operations and Fee Report: Municipal waste landfills and resource recovery facilities are required to submit quarterly reports and payments either through the DEP GreenPort, a web-based application, or via mail. Data collected by these reports includes general information, recycling fee, disposal fee and environmental stewardship fee computations, monthly tonnage totals for each type of waste received (municipal, residual, sewage sludge, processed, C&D, ash and asbestos), tonnage of waste by origin, and total waste tonnage.
- Residual Waste Biennial Reports: Any Pennsylvania generator of more than 13 tons of residual waste in 2020 is required to submit this report. The 2020 Biennial Report must be submitted electronically through DEP GreenPort. Detailed instructions on portal use and the data and information required for submission are provided. Historic reports each include 8,500 to 10,000 lines capturing each waste type disposed by each generator. Line details

include generator information, waste type and tonnage disposed, and disposal facility information.

- 2018 Residual Waste Biennial Report Data
- 2016 Residual Waste Biennial Report Data
- 2014 Residual Waste Biennial Report Data
- 2012 Residual Waste Biennial Report Data
- 2010 Residual Waste Biennial Report Data

- Waste Program Reports webpage: To maximize transparency and improve efficiency, DEP provides easy access to dozens of online reports and key data about the many programs the agency administers. The quarterly report data submitted by Municipal Waste Landfills and Resource Recovery Facilities (above) is aggregated and made available by facility, year, quarter, origin and waste type. Users can select one or more filters, which will automatically update the visuals. The information can also be exported for further analysis.
  - The Solid Waste Disposal Information PowerBI dashboard offers viewers 4 tabs of the information generated from the required reports. The Waste Received tab offers disposal facilities names, year, quarter and by county of waste origin filters while, listing total tonnage disposed and tonnage of each disposal category – Municipal, Residual, Sewage Sludge, Processed Medical, Construction, Waste-to-Energy, Ash Residue and Asbestos. Tab Waste Disposal Trends, enables selection of a disposal facility, year, quarter, and origin, and displays waste composition pie chart, graph per year and quarter and material type from 1989 onward, and origin per year and quarter, by material type. Waste Received by Type displays like features by Waste Type, and Maps overlays disposal by charts on the state map to identify disposal points and types.
  - The Municipal and Residual Waste Landfills in Pennsylvania dashboard enables users to view statewide information, or filter by county, municipality, primary facility status and sub facility. General information is provided. Select entries have maximum and average daily volume metrics.
- Benefits of Recycling Data webpage: Based on historic recycling data, DEP contextualizes the value of such efforts through statewide counts of facilities and jobs, and payroll and sales value of hauling, processing, reuse and remanufacturing, materials-based energy conservation equivalencies and resource conservation connections. Sources of this information are not identified and there are no actual reports linked to this page.
- Local Recycling Program Reports webpage: Counts and percent's of statewide population and municipality representation of municipalities by recycling program type (mandated or voluntary, curbside or drop-off collection only, municipalities in program) are presented on this page. This data originates from the annual recycling report municipalities complete. There are no actual reports linked to this page.
- Household Hazardous Waste Reports webpage: Household hazardous waste collection programs participation and tonnage collected by fiscal year is publicized on this page. This data is likely collected through one of the waste management forms linked in the library described below. There are no actual reports linked to this page.
- Waste Management Forms Library: Over 100 forms, permits, reports, plan, certifications, orders and other important documents from 2012-2021 are hosted on PA.GOV Official

App's eLibrary. In each item's folder is a Word and PDF document of said item. These forms collect a lot of details and data that enable DEP to keep track of specialty recycling programs. For example, electronics recycling forms include the following, which enable tracking of annual type and quantity of electronics sold in the state, recycling outreach and plans, and actual electronic recycling type and tonnage collected for recycling:
    - Manufacturer of Covered Electronic Devices Registration Form for Calendar Year 2021: Form collects manufacturer's information, list of manufacture's brands and covered devices, pounds sold in Pennsylvania and nationally, and more.
    - Recycling Plan for Electronics Manufacturers for Calendar Year 2021: Form collects manufacturer's information, devices collected for recycling, recycling facilities utilized, recycling plan and public education components, and goal pounds to recycle that year.
    - Annual Report for Electronics Manufacturers for Calendar Year 2020: Form collects manufacturer's information, recyclers' information, sales and collection pounds, differences between collection site/events and approved plan (above form), CRT collection, mail back program collection, percent of state residents who have access to recycling via this plan, notification of customers, and more.
- 2021 Statewide Waste Characterization Study: MSW Consultants are currently conducting a statewide waste and recycling study. PROP is assisting with volunteer recruitment for waste sorts in March through May 2021. The last waste characterization study was conducted in 2003 (report).

Local Analysis, Reporting and Program Development Metrics

Recycling Technical Assistance website: To upgrade recycling programs to maximize material recovery and ensure program sustainability, recycling technical assistance, up to a value of $7,500, is available at no charge to Pennsylvania local governments selected to participate. This program has yielded nearly 400 reports generated for counties, cities, townships, boroughs, educational institutions and others on dozens of topics including 5-year strategic transition plans, improving program efficiency and residential recycling participation, MRF feasibility, paper processing facility design, organics collection and processing evaluation, and more. Over 100 of these reports are available on the main Recycling Technical Assistance website, while the remaining are organized on the following technical assistance webpages. Anyone with internet access can reference these resources full of metrics, analysis and recommendations:

- Commercial and Institutional Recycling Programs: Over 30 different reports.
- Drop-Off Recycling Programs: Nearly 30 different reports.
- Collection and Transportation: Over 20 different reports.
- Facility Designs: Over 20 different reports.
- Pay-As-You-Throw Programs: Over 20 different reports.
- Program Development: Over 40 different reports.
- Program Assessments: Nearly 100 different reports.

While local factors are critical to each of these reports, many are supported by existing solid waste data collected by DEP through the county, municipality, hauler, institution and commercial reporting requirements, and made available through DEP's accessible online

systems.

Wisconsin

The Wisconsin Department of Natural Resources (DNR) collects and shares various solid waste data through annual, multi-year and one-time reports, studies and surveys. Since Wisconsin's recycling law took effect in the mid-1990s, the DNR has used annual reports and surveys to monitor the progress and success of Wisconsin's recycling efforts. These reports and surveys come from local government "responsible unit" recycling programs, material recovery facilities and landfill operators as well as from residential households. Additionally, the University of Wisconsin Extension's Solid & Hazardous Waste Education Center (SHWEC) has conducted various waste and recycling related surveys.

Annual Reporting

- Municipal and Industrial Waste Landfill Tonnage Reports 1990-2019: Landfill operators must submit an annual report to the DNR that includes categories of waste received from Wisconsin and out-of-state sources, broken out by, municipal solid waste generated by residences and commercial establishments, and non-municipal solid waste generated primarily by industries. Available in both a PDF and Excel format, the resulting annual landfill tonnage reports utilize a material type key (e.g. Municipal Waste, POTW Sludges, Foundry Waste, etc.), display all landfill facilities, their original capacity and the cubic yards of capacity as of January the following year. Each facility line includes the tonnage disposed from each material type category and tonnage imported from neighboring states for that year, before concluding with the estimated site life in years. This data is based on state statutes and administrative code authorized environmental fees per ton of material received (tip fees) for the various waste categories.
- Wisconsin's Waste Imports and Exports webpage: Utilizing the landfill tonnage report data referenced above, the webpage hosts various files presenting this data including: sources of out of state waste reported by Wisconsin landfills annually for 2005-2018, broken down by state, MSW, non-MSW and total tonnage presented in data tables, graphs and bar charts; data table and bar graphs of the origin of all solid waste – MSW and non-MSW – in Wisconsin Landfills 2005-2018; and top Wisconsin landfills (by tons) receiving out of state waste in 2017.
    - A data table of Wisconsin waste disposed in other states annually for 2005-2017, broken down by state, MSW, non-MSW and total tonnage is also accessible on this webpage. As stated on this file "The source of data is from the annual EPA ReTrac Report". Since Wisconsin does not use the ReTrac system for intrastate reporting it is assumed this data set comes from interstate reporting.

Multi-Year and One-Time Reports

- Wisconsin Recycling Trends and Behaviors (2017): This report share results of the DNR's Waste and Material Management Program 2016 Household Recycling Survey. This mail survey tracking the progress of residential recycling in Wisconsin is the 11th of its kind since solid waste reduction, recovery and recycling state statues were enacted. Surveys were

mailed to 1,600 randomly selected, purchased household names and addresses from across the state followed by a reminder postcard and reminder letter to non-respondents. DNR received 692 completed surveys. Geographical oversampling was corrected during survey analysis. Showcasing survey results, this report contains charts representing respondents with curbside recycling pick-up by region, knowledge of recycling laws, common barriers to recycling, frequency of recycling by material type by respondents with and without curbside pick-up, methods of disposal of recyclable materials, management of organic waste, management of other potentially harmful waste, disposal methods, accessibility of drop-off locations and information about plastic bags and wrap. The survey, and thus the report, also gauged residents commitment to recycling and recycling outreach preferences.

- Paint management methods and costs for Wisconsin household hazardous waste collection programs (2015). The DNR and the Department of Agriculture, Trade and Consumer Protection (DATCP) conducted an online survey of 34 household hazardous waste (HHW) collection programs to learn more about how they manage latex and oil-based paint. The survey was sent to programs that received Clean Sweep grants from DATCP between 2012 and 2014. Thirty HHW programs responded, enabling collection of general program information, types of HHW sites operated (seasonal, permanent, event), oil-based and latex paint acceptance, audiences latex and oil-based paint are received from, disposal methods for latex and oil-based paint, amount (pounds) of each latex and oil-based paint received and management costs (handle, dispose, user fees). DNR does acknowledge there are paint collection programs operating outside the HHW network, such as 70 local government recycling programs that responded to a 2013 DNR survey.
- Cost of Providing Solid Waste and Recycling Services Survey Results (2013): The University of Wisconsin Extension Solid & Hazardous Waste Education Center (SHWEC) surveyed 50 communities between July and August of 2013 to collect information regarding the cost of providing waste management services to residential units in 2012. The survey was emailed to the 50 communities chosen based upon their status as a Wisconsin Responsible Unit (RU) and population. This sample set represented the 50 most populous RUs. A total of 21 responses were received resulting in a 42% response rate. RUs were surveyed on whether household services were provided in-house or through a private hauler. Communities were asked to report the volume of materials collected and associated cost for solid waste, recycling and yard materials; program costs including all collection, disposal and processing costs; revenue from the sale of recyclables or compost was deducted from collection and processing costs; and finally respondents were also asked to provide the number of households their programs serve. This information enabled calculation and publication of average costs and high-low ranges on a per ton, per household and per capita basis for waste, recycling and yard materials (only household and per capita averages). A recycling rate with and without yard materials was calculated.
- Household Hazardous Waste Survey (2013): SHWEC's 18-question online survey was completed by 35 Wisconsin Clean Sweep Program managers. Three emails were sent out containing information about the survey and to serve as a reminder for each recipient to complete the survey. The survey collected data on types of HHW facilities (seasonal, permanent, event), total operation cost per year and program funding sources, types of fees

for service, program participants and households, additional items collected for proper disposal, and latex paint acceptance.

- Compost Facility Survey (2012): SHWEC conducted a 28-question, online survey of the 239 compost facilities licensed by the DNR. Following the initial email to facility managers explaining the purpose of the survey and how results would be shared, three reminder emails were sent at one-week intervals. A total of 97 responses were received for a response rate of 41%. Information and data collected by the survey included facility size, volume handled annually, testing on finished compost, tipping fee ranges, compost sale ranges, averages and percent volume sold as bagged compost, operator educational needs, and regulations training interest. A narrative of this information was included in the report. Surveyed information displayed in bar graphs and pie charts in the report included types of feedstocks accepted (choice of 13 different materials and write in option), type of compost management strategies, temperature monitoring during management, finished compost testing parameters (if tested), changes in practices and prices since the last Compost Facility Survey in 2007, audiences material is received from, if compost is sold, if facility accepts compostable plastic bags, how compost is sold, if a tipping fee is charged, if the site uses the compost it makes, if finish compost is tested, and an awareness scale of changes to compost facility rules made by the DNR.
- Wisconsin Plastics Recycling Study: Options for Improvement (2012): The study, conducted by Foth Infrastructure & Environment, LLC and Moore Recycling Associates, Inc., acknowledges the state's disposal ban on plastic containers, reviews barriers to plastic recycling, job growth potential and economic development resources, and identifies 40 potential action steps and planning scenarios. This report utilized annual waste and recycling datasets from the DNR, as well as data from statewide waste composition studies and local recyclables capture rate studies. Dozens of additional, relevant, publicly available documents, data and resources about the national plastics recycling systems were also used to develop the study.
- Wisconsin State-Wide Waste Characterization Study (2009): The study, conducted by Recycling Connections Corporation and MidAtlantic Solid Waste Consultants, consisted of sorting over 350 regionally distributed samples of material from four generation sectors – single family, industrial/commercial/institutional (ICI), transfer trailers and multi-family, and over 600 regionally distributed C&D samples. Utilizing many tables and much narrative, the resulting report identifies statewide aggregate composition by weight for each material type going to Wisconsin landfills, as well as the composition of residential, ICI, and C&D waste individually. The report shares the top 10 most prevalent waste in each category, compares the top 5 most prevalent categories by generator sector, showcases changes in disposed ton and composition percentage material category from 2002 (the previous study) to 2009. This study also published separately characterized waste from the multi-family residential sector, identifies incidences of special wastes, such as sharps, mercury containing devices, reusable construction-related items and materials both in a current ban and upcoming ban from disposal in Wisconsin landfills.

Appendix G.1- Supporting data and individual site information for asset maps (Municipal Landfills with Available Capacity)

ID	Site Name	BOL Region	Operator Address	Operator City	Op State	Capacity (cy)	Disposal Volume	Life Expectancy
0	Orchard Hills Landfill	1	8290 RTE 251 S	DAVIS JUNCTION	IL	41986998	9286698	4.5
1	Valley View Landfill Inc.	4	1145 BEAR RD	DECATUR	IL	17707125	568300	31.2
2	Zion Landfill	2	701 GREEN BAY RD	ZION	IL	17725365	1706160	10.4
3	Eco Hill	3	6132 OAKTON ST	MORTON GROVE	IL	33008523	191432	172.4
4	Brickyard Disposal and Recycling Inc.	4	601 E BRICKYARD RD	DANVILLE	IL	11371703	689585	16.5
5	Clinton Landfill #3	4	9550 HERITAGE ROAD	CLINTON		55230467	1369028	40.3
6	Cottonwood Hills RDF	6	601 MADISON RD	EAST ST LOUIS	IL	77442480	991488	78.1
7	Countryside Landfill Inc.	2	31725 N RTE 83	GRAYSLAKE	IL	6656403	1143435	5.8
8	DeKalb County Landfill	1	18370 SOMONAUK RD	DEKALB	IL	67852217	2396885	28.3
9	Envirofil of Illinois Inc.	3	13998 E 1400TH ST-A	MACOMB	IL	17078304	174717	97.7
10	Five Oaks Recycling and Disposal Facility	5	890E 1500N RD	TAYLORVILLE	IL	14977169	692301	21.6
11	Hickory Ridge Landfill	5	4700 STERLING AVE	PEORIA	IL	28381912	479071	59.2
12	Illinois Landfill	4		DANVILLE	IL	20160580	105235	191.6
13	Indian Creek Landfill No. 2	3		PEORIA	IL	35912756	1189547	30.2
14	Knox County Landfill #3	3	200 S CHERRY ST	GALESBURG	IL	2814921	280241	10
15	LandComp Landfill	1	2840 E 13TH RD	OTTAWA	IL	14729878	870644	16.9
16	Landfill #33 Ltd.	4	1713 S WILLOW	EFFINGHAM	IL	972012	305506	3.2
17	Laraway Recycling and Disposal Facility	2	21233 W LARAWAY RD	JOLIET	IL	12927133	2120010	6.1
18	Lee County Landfill Inc.	1	1214 S BATAAN RD	DIXON	IL	53600570	658583	81.4
19	Litchfield-Hillsboro Landfill	5	2782 LANDFILL TRL	LITCHFIELD	IL	2157810	160051	13.5
20	Livingston Landfill	4	14206 E 2100 NORTH RD	PONTIAC	IL	69254530	2877159	24.1
21	Milam Recycling and Disposal Facility	6	601 MADISON RD	EAST ST LOUIS	IL	255150	9325	27.4
22	North Milam Landfill	6	601 MADISON RD	EAST ST LOUIS	IL	32213700	2398149	13.4
23	Peoria City/County Landfill #2	3	11501 W COTTONWOOD RD	BRIMFIELD	IL	2900562	724631	4

ID	Site Name	BOL Region	Operator Address	Operator City	Op State	Capacity (cy)	Disposal Volume	Life Expectancy
24	Perry Ridge Landfill Inc.	7	290 S MAIN PL	CAROL STREAM	IL	11449735	176693	64.8
25	Prairie Hill Recycling and Disposal Facility	1	18762 LINCOLN RD	MORRISON	IL	35600762	1224418	29.1
26	Prairie View Recycling and Disposal Facility	2	29755 S PRAIRIE VIEW DR	WILMINGTON	IL	61391636	3840723	16
27	Quad Cities Landfill, Phase IV	3	13606 KNOXVILLE RD	MILAN	IL	46685800	1486908	31.4
28	Rochelle Municipal Landfill No.2	1	5450 WANSFORDWAY STE 201	ROCKFORD	IL	11673840	164115	71.1
29	Roxana Landfill LLC	6	4601 CAHOKIA CREEK RD	EDWARDSVILLE	IL	61980002	4126858	15
30	Sangamon Valley Landfill Inc.	5	2931 N DIRKSEN PKWY	SPRINGFIELD	IL	4863410	386017	12.6
31	Southern Illinois Regional Landfill Inc.	7	1540 LANDFILL RD	DESOTO	IL	38498490	1240696	31
32	Sumner Landfill Inc.	7	12820 CUMINSVILLE RD	PIMENTO	IN	5438468	233438	23.3
33	Upper Rock Island County Landfill	3	17201 20TH AVE N	EAST MOLINE	IL	12074418	876536	13.8
34	Wayne County Landfill Inc.	7	1700 HOLZER DR	ARNOLD	MO	4218856	5335	790.8
35	West End Disposal Facility	7	1010 N WEBSTER ST	HARRISBURG	IL	22475946	291433	77.1
36	Winnebago Landfill	1	5450 WANSFORD WAY STE 201	ROCKFORD	IL	278684249	17992552	15.5

Appendix G.2- Supporting data and individual site information for asset maps (Waste Transfer Stations)

ID	Name	Address	City	County
27	GFL Rolling Meadows TS	3851 Berdnick St.	Rolling Meadows	Cook
28	Waste Management Chicago Metro Transfer Station - Laramie	3815 S. Laramie Ave	Cicero	Cook
29	Roscoe Transfer Station	13125 N. Second St	Roscoe	Winnebago
30	SWANCC Glenview TS	3 Providence Drive	Glenview	Cook
31	Waste Mgt.-Northwest/Wheeling Transfer Station	260 Sumac Road	Wheeling	Cook
32	Waste Management/ Batavia TS	766 Hunter Dr	Batavia	Kane
33	Lakeshore Recycling Systems Inc.	3152 S. California Ave.	Chicago	Cook
34	Republic Services McCook Transer Station	5100 S. Lawndale Ave.	McCook	Cook
35	Waste Management/Springfield Transfer Station	3000 E. Ash St.	Springfield	Sangamon
36	Waste Management Prairie Lakes Recycling and Transfer	21860 S. Central Ave	Matteson	Cook
37	Republic Services Northlake Transfer Station	605 Northwest Ave.	Northlake	Cook
38	Republic Services Loop Transfer Station	2351 S. Laflin St.	Chicago	Cook
39	Tri-State Disposal Transfer Station	13903 S. Ashland Ave	Riverdale	Cook
40	River Bend Prairie Recycling & Transfer Facility	1258 E. 138th St.	Chicago	Cook
41	Groot Industries DuKane Transfer Facility	1995 Powis Road	West Chicago	DuPage
42	MDI Environmental Systems Transfer Station #1	30687 Rte. 52	Lanark	Carroll
44	Markham Transfer & Recycling	2300 W. 167th Street	Markham	Cook
45	Illinois Valley Recycling (IVR)	1365 North, 2803 E 13th Rd	Ottawa	LaSalle
46	Waste Transfer & Material Recovery Facility	10 E. St. Mary's Road	Champaign	Champaign
47	Landcomp	2840 E 13th St	Ottawa	LaSalle
48	Massac County Transfer	Joppa Road	Metropolis	Massac

ID	Name	Address	City	County
49	Jeff Guisewite Inc	16153 E 1100 Rd	Mt Carmel	Wabash
50	Greenwood Transfer, LLC	1201 Greenwood Ave.	Maywood	Cook
51	Waste Management/Tazewell Transfer Station	3550 E. Washington St	East Peoria	Tazewell
52	Nine Mile Transfer Station	900 W Fortune St	Virden	Macoupin, Sangamon
53	Star Disposal Service Transfer Station	25 South St	Park Forest	Cook
54	Waste Management Chicago Metro Transfer Station - Alsip	11601 S. Austin Ave.	Alsip	Cook
55	Waste Management Hooker Street Transfer Station	1500 N. Hooker St.	Chicago	Cook
56	Groot Industries-Plano	4705 Kendall Farms Road	Plano	Kendall
57	Waste Management/Virginia Road Transfer Facility	1400 S. Virginia Road	Crystal Lake	McHenry
58	Republic Services Calumet Transfer Station	2040 E. 106th St.	Chicago	Cook
59	Heartland Recycling	6201 W. Canal Bank Road	Forest View	Cook
60	Groot Industries Chicago Transfer Station	1759 N. Elmhurst Road	Elk Grove Village	Cook, DuPage
61	Waste Management Melrose Park TS	4700 W. Lake St.	Melrose Park	Cook
62	Princeton Solid Waste Transfer Station	1530 Peggy Lane	Princeton	Bureau
63	Urbana Transfer Station	915 W. Saline Ct	Urbana	Champaign
64	United Disposal of Bradley Transfer Station	1000 E. Liberty	Bradley	Kankakee
65	Morgan County Recycling and Transfer Facility	2263 Route 104	Jacksonville	Morgan
66	Waste Management/Bluff City Transfer Station	1225 Gifford Road	Elgin	Cook
67	Wigand Recycling & Transfer Facility	19908 N. Route 29	Chillicothe	Peoria
68	Montgomery Trucking	1504 Route 20 West	Elizabeth	Jo Daviess
69	Republic Services Medill Material Recovery & Recycling Facility	1633 W. Medill Ave	Chicago	Cook

ID	Name	Address	City	County
70	GFL Northbrook TS	2750 Shermer Road	Northbrook	Cook
71	American Disposal Services of Bloomington Transfer Station	2112 W. Washington	Bloomington	McLean
104	Groot Industries Lake Transfer Station	201 Porter Drive	Round Lake Park	Lake
105	Monmouth Municipal Transfer Station	836 186th Ave	Monmouth	Warren
106	Waste Management/Rockdale Transfer Station	2100 Moen Ave	Rockdale	Will
107	Groot Industries/McCook Transfer Station	8475 W. 53rd St.	McCook	Cook
108	Republic Services Groen Transfer Station	13701 S Kostner Ave	Crestwood	Cook
109	Freeport Transfer Station	2133 S. Walnut Road	Freeport	Stephenson
110	Bethalto Waste Transfer Facility	1100 Albers Lane	Bethalto	Madison
111	Monticello Transfer Station	904 Allerton Road	Monticello	Paitt
112	Mt. Vernon Transfer Station	1106 Rackaway Dr.	Mt. Vernon	Jefferson
113	Herrin Solid Waste Transfer Station	13129 Bandyville Road	Herrin	Williamson
114	Waste Management Evanston TS	1711 Church St.	Evanston	Cook
115	CID Transfer Station	13707 S. Jeffery Ave.	Chicago	Cook
116	Peoria City/County Compost LSW Transfer Station	11501 W. Cottonwood Road	Brimfield	Peoria
117	Republic Services Loop Transfer Station (64th Street)	16 W. 64th St	Chicago	Cook
118	Republic Service of Mt. Prospect	2101 S. Busse Road	Mt. Prospect	Cook
119	Waste Management ES SW Midwest LLC/Charleston	6111 W. State St.	Charleston	Coles
120	GFL Elburn TS	1 N. 138th Linlar St.	Elburn	Kane
121	Effingham County Transfer Station	2184 N. 300 St. (Co. Rt. 25)	Mason	Effingham
122	Randolph County Transfer Station	8384 Valley Steel Road	Sparta	Randolph
123	Homewood Scavenger Service Transfer Station	17415 S. Ashland Ave.	East Hazel Crest	Cook

ID	Name	Address	City	County
124	Republic Services Transfer Station	120 E. Industrial Drive	Momence	Kankakee
125	Environmental Recycling & Disposal	2145 W Moen Ave	Rockdale	Will
126	Republic Services Planet Recovery Transfer Station	1800 W. Carroll Ave.	Chicago	Cook
127	Savanna Solid Waste Transfer Station	Chamber of Commerce Industrial Park, Portland Avenue	Savanna	Carroll
128	Republic Services Shred-All Recycling Systems Transfer Station	1234 W 43rd St	Chicago	Cook
129	Marion Transfer Station	1410 W. Longstreet Road	Marion	Williamson
134	Glenview Material and Supply	2100 Johns Ct.	Glenview	
135	Water Integrated Treatment Systems, LLC	1040 Maryland Ave	Dolton	Cook
136	Water Integrated Treatment Systems, LLC	10453 Greenwood Ave	Dolton	Cook
137	Chicago Heights Transfer Facility	1055 State St.)	Chicago Heights	Cook
138	Forest Preserve of Cook County	2199 S. 1st Ave.	Maywood	Cook
139	At Your Door Collection Facility	5050 W. Pershing Rd.	Stickney	Cook

Appendix G.3 Supporting data and individual site information for asset maps (Landscape Waste Transfer Stations)

OID	BOL_ID	Name	Address	City	County
20	0314490002	American Wood Recycling Transfer Station	1601 Beverly Road & Prairie Stone	Hoffman Estates	Cook
22	0311830002	American Disposal & Recycling	2100 W. Madison Street	Maywood	Cook
23	0894250020	Midwest Materials Transfer	32W007 IL-72	East Dundee	Kane
24	0311860039	Waste Management Melrose Park TS	3800 W. Lake Avenue - A	Melrose Park	Cook
25	0310635229	Des Plaines Material	1269 E Golf RD	Des Plaines	Cook
26	0310630073	Des Plaines Transfer Station	1111 Joseph J. Schwab Rd.	Des Plaines	Cook
27	0312730009	GFL Rolling Meadows TS	3851 Berdnick St.	Rolling Meadows	Cook
28	0313000001	Waste Management Chicago Metro Transfer Station - Laramie	3815 S. Laramie Ave	Cicero	Cook
29	2010400008	Roscoe Transfer Station	13125 N. Second St	Roscoe	Winnebago
30	0310630059	SWANCC Glenview TS	3 Providence Drive	Glenview	Cook
31	0313240004	Waste Mgt.-Northwest/Wheeling Transfer Station	260 Sumac Road	Wheeling	Cook
32	0894138157	Waste Management/ Batavia TS	766 Hunter Dr	Batavia	Kane
33	0316605037	Lakeshore Recycling Systems Inc.	3152 S. California Ave.	Chicago	Cook
35	1671200127	Waste Management/Springfield Transfer Station	3000 E. Ash St.	Springfield	Sangamon
36	0311805071	Waste Management Prairie Lakes Recycling and Transfer	21860 S. Central Ave	Matteson	Cook
37	0314715200	Republic Services Northlake Transfer Station	605 Northwest Ave.	Northlake	Cook
38	0316310014	Republic Services Loop Transfer Station	2351 S. Laflin St.	Chicago	Cook
39	0312580014	Tri-State Disposal Transfer Station	13903 S. Ashland Ave	Riverdale	Cook
40	0316550016	River Bend Prairie Recycling & Transfer Facility	1258 E. 138th St.	Chicago	Cook
41	0430905819	Groot Industries DuKane Transfer Facility	1995 Powis Road	West Chicago	DuPage
42	0150100001	MDI Environmental Systems Transfer Station #1	30687 Rte. 52	Lanark	Carroll
43	1978093002	Republic Waste Joliet Transfer Station	808 S. Joliet St.	Joliet	Will
72	1150150066	Macon County Composting Facility (LSW Transfer Station)	4225 N. Bearsdale Road	Decatur	Macon
73	1030205110	Lee Co. Landfill LSW Transfer Facility	1214 S. Bataan Road	Dixon	Lee
74	0010655258	Evans Recycling Inc.	711 W. Radio Rd.	Quincy	Adams
75	1671205529	Evans Recycling 3	2100 J David Jones Pkwy-B	Springfield	Sangamon
76	1190405136	Granite City Landscape Transfer	800 25th St	Granite City	Madison
77	0313065042	Best Lawns Transfer Station	1435 Yorkshire Drive	Streamwood	Cook

OID	BOL_ID	Name	Address	City	County
78	0310815283	Evanston Organics	2533 Oakton Street	Evanston	Cook
80	0310810013	James Park LSW Transfer Station	2222 Oakton St.	Evanston	Cook
81	0311775096	Markham Landscape Transfer	2300 W. 167th Street	Markham	Cook
82	0314385091	Midwest Compost LLC	1320 Spaulding Road	Elgin	Cook
83	0312460019	Mr. K's Garden & Material Center Transfer Station	1440 W. Higgins Road	Park Ridge	Cook
84	0312195064	Oak Forest Public Works	15759 Lorel Ave	Oak Forest	Cook
85	0312075189	Red's Garden Center LLC	3460 Dundee Road	Northbrook	Cook
86	0310455101	Republic Services C & L Landscape Waste Transfer Station	56 E. 25th St	Chicago Heights	Cook
87	0314745050	Star Disposal Service LSW Transfer Station	27 South St.	Park Forest	Cook
88	0313305030	Wilmette Village Yard	711 Laramie Ave.	Wilmette	Cook
89	0313330001	Winnetka Municipal Landscape Waste Transfer Facility	1390 Willow Road	Winnetka	Cook
90	0430805078	A.K. Mulch	631 E Wildwood Ave	Villa Park	DuPage
91	4330055900	Addlawn Landscaping	960 N lombard Rd	Lombard	DuPage
92	0434350047	Anderson Landscape Supplies	787 IL-83	Elmhurst	DuPage
93	0430905794	Midwest Compost LLC - West Chicago	1195 W. Washington St.	West Chicago	DuPage
94	0434675335	Western DuPage Landscaping		Naperville	DuPage
95	0894690004	Montgomery Landscape Waste Collection Site	891 Knell Road	Montgomery	Kane, Kendall
96	0970755113	DK Organics	29307 N. Skokie Hwy.	Lake Bluff	Lake
97	0970500007	Highland Park LSW Transfer Station	1150 Half Day Road	Highland Park	Lake
98	0970805082	Lake Forest Transfer Facility	1381 W. Kennedy Road-B	Lake Forest	Lake
99	0970755119	Mariani Landscape Transfer	300 Rockland Road - C	Lake Bluff	Lake
100	0970505108	Menoni and Mocogni, Inc.	2160 Skokie Valley Road	Highland Park	Lake
101	0971775009	Perricone Brothers Landscaping Inc.	31600 Fisher Road	Volo	Lake
102	0971405015	SiteONe Hardscap Cetner, Aspen Valley LSW Transfer Station	600 Chestnut Street	Park City	Lake
103	1978030003	Land & Lakes Willow Ranch	1371 N. Joliet Road	Romeoville	Will
104	0971605017	Groot Industries Lake Transfer Station	201 Porter Drive	Round Lake Park	Lake
105	1878080001	Monmouth Municipal Transfer Station	836 186th Ave	Monmouth	Warren
106	1970850012	Waste Management/Rockdale Transfer Station	2100 Moen Ave	Rockdale	Will
107	0311740016	Groot Industries/McCook Transfer Station	8475 W. 53rd St.	McCook	Cook
108	0310600001	Republic Services Groen Transfer Station	13701 S Kostner Ave	Crestwood	Cook

OID	BOL_ID	Name	Address	City	County
109	1770200002	Freeport Transfer Station	2133 S. Walnut Road	Freeport	Stephenson
130	1130200073	Bloomington Bulk Transfer Station	401 S. East St	Bloomington	McLean
134	0311025053	Glenview Material and Supply	2100 Johns Ct.	Glenview	Cook

Appendix G.4 Supporting data and individual site information for asset maps (Construction and Demolition Debris Recycling Facilities)

ID	BOL_ID	Site Name	Street	City	Zip
0	0310125177	Maddend Group Inc C&D	6660 S. Nashville Ave	Bedford Park	60638
1	0310455173	Contractor's Recycling Svc Inc.	201 N STATE ST	Chicago Heights	60411
2	0311715020	Reliable Lyons CCDD	4226 S LAWNDALE AVE	Lyons	60534
3	0312075306	Lakeshore Recycling Systems, LLC ("LRS")	2300 CARLSON DR	Northbrook	60062
4	0312585041	Riverdale Materials	1201 W 138TH ST	Riverdale	60627
5	0312585104	Riverdale Recycling Facility	13050 S State St	Riverdale	60827
6	0312975173	Midway Building Supply, LLC	16850 S State St	South Holland	60473
7	0314125049	Bluff City Recycling Ctr C&D	1950 VULCAN BLVD	Bartlett	60103
8	0314625019	Route 83 Materials	13011 Grant Rd	Lemont	60439
9	0316305037	Greenway Transfer Station	2100 S Kilborn Ave	Chicago	60623
10	0316505066	B&B Langley Transfer Station	10823 S Langley-C	Chicago	60628
11	0316616500	Stockyards Recycling	1300 W EXCHANGE AVE	Chicago	60609
12	0316616500	Lakeshore Recycling Systems, LLC ("LRS")	1300 W Exchange Ave	Chicago	60609
13	0316616560	Stockyards Materials	4031 S Ashland Ave	Chicago	60609
14	0398080006	Clinton Transfer Station	9550 Heritage Rd - B	Clinton	61727
15	0430905942	Lakeshore Recycling Systems, LLC ("LRS")	1655 Powis Rd-B	West Chicago	60185-1668
16	0850105023	T&T Iron & Metals Inc	5158 BARGE TERMINAL RD	East Dubuque	61025
17	0894075963	Aurora Recycling Center, LLC	Rte 25E & 213 Mettel Rd S	Aurora	60505
18	0971605015	Groot Industries Eco-Campus	200 S Porter Dr	Round Lake Park	60073
19	0971855077	Berger Excavating Contractors	1205 Garland	Wauconda	60084
20	0971905548	TKG Environmental Services	345 Lakewood Ave	Waukegan	60085
21	0971905556	Construction Recycling of Lake County	3000 Apple Ave	Waukegan	60085
22	0978155001	ECS Roofing Professionals Inc	3920 W HAWTHORNE CT	Waukegan	60087
23	1110105025	Southwind RAS	8813 Rte 31	Lake In The Hills	60156

ID	BOL_ID	Site Name	Street	City	Zip
24	1110105100	Lowe Enterprises GCDD Processing Center	3410 Northwest Hwy	Cary	60013
25	1110605269	Reliable Recycling	2121 S River Rd	McHenry	60051-9228
26	1138045002	Henson Disposal Inc	2148 TRI LAKES LN	Bloomington	61701
27	1198030002	Keller Construction	13 Cougar Rd	Edwardsville	62025
28	1850205013	Jeff Guiswite, Inc.	16153 E 1100 Rd	Mt Carmel	62863
29	1970505151	Lockport Recycling & Scrap	14617 S New Ave	Lockport	60441-6333
30	1970805144	WillCo Green C&D Recycling Facility	12152 S Plainfld/Naprvl-B	Plainfield	60544
31	1974450138	Joliet Recycling Services LLC	2851 MOUND RD-C	Joliet	60431
32	1990555257	Ashalex Transfer Station	11581 N SKYLINE DR-B	Marion	62959
33	0190105292	Champaign/Illini Recycling	420 Paul Ave	Champaign	61822
34	0298010005	Charleston/Coles County Sanitation & Recycling	1900 E Coles Co Rd	Charleston	61920
35	0310245126	Cook County Waste & Recycling Inc	12807 S Homan Ave	Blue Island	60406
36	0310605495	Illinois Mining Corp Crestwood Yard 28	4700 W Cal Sag Rd	Crestwood	60445
37	0310605514	K & R Service	4438 W 137th Place	Crestwood	60445
38	0311115128	156th Commercial Avenue LLC	15600 Commercial Ave	Harvey	60426
39	0311745068	TAZ Construction and Demolition Recycling	5300 S Lawndale Ave-C	McCook	60525
40	0311775003	Wright Concrete Recycling	16501 Crawford	Markham	60428
41	0311775109	Markham Transfer and Recycling	2300 W 167th St-D	Markham	60428
42	0311835117	Greenwood C&D Recovery Facility	1301 Greenwood Ave -c	Maywood	60153-2334
43	0311835143	American Waste Industries, Inc.	2100 W Madison St	Maywood	60153
44	0312340033	MBL Recycling Inc.	630 S Hicks Rd	Palatine	60067-6944
45	0313005036	City Wide Disposal	5001 W 40th	Cicero	60402
46	0314385095	American Wood Recycling	1100 Brandt Dr-c	Elgin	60140
47	0318055013	Prairie Trls C&D Facility	21900 S Central Ave-C	Matteson	60443

ID	BOL_ID	Site Name	Street	City	Zip
48	0434625034	WasteBox, Inc.	11 S. 373 Jeans Rd	Lemont	60439
49	1130205326	Kirk C&D Recycling	1010 Old Farm Rd	Bloomington	61701
50	1138045001	Kirk C&D Recycling, Inc.	Tri Lakes Ln	Bloomington	61704
51	1138045002	Henson Disposal Inc	2148 Tri lakes Ln	Bloomington	61701
52	0311860039	JKS Ventures inc.	3800 W. Lake Avenue - A	Melrose Park	

Appendix G.5 Supporting data and individual site information for asset maps (Permitted Compost Facilities)

OID	Site Name	Address	City	State	Who does it accept from?
1	Midwest Organics Recycling LLC	29353 N Darrell Rd	McHenry	IL	Drop Off- Residential, Drop Off- Commercial, Drop Off- Municipal
2	LHF Compost Inc	1400 S Cameron Ln	Peoria	IL	Drop Off- Commercial
3	McNabb Broders Composting LLC	17224 Hill Rd	Paris	IL	Drop Off- Commercial
6	Compost Supply Inc	2970 Rte 52	Newark	IL	Drop Off- Commercial
15	North Milam RDF	601 Madison Rd	East St Louis	IL	Drop Off- Residential, Drop Off- Commercial, Drop Off- Municipal
20	BFI Modern Landfill-> Now St. Louis Composting	5841 Mine Haul Rd	Belleville	IL	Drop Off- Residential, Drop Off- Commercial
21	Christiansen Farms	12151 W Wilmington Rd	Peotone	IL	Drop Off- Residential, Drop Off- Commercial
29	Land & Lakes Co-Willow Ranch	1371 Joliet Rd	Romeoville	IL	Drop Off- Residential, Drop Off- Commercial, Drop Off- Municipal
31	Green Soils Mgmt. Compost	32W007 IL-72, East Dundee, IL 60118	East Dundee	IL	Drop Off- Residential, Drop Off- Commercial, Drop Off- Municipal
38	Southern Illinois University-University Farms	3689 W. Pleasant Hill Road, Carbondale	Carbondale	IL	No outside material is accepted
42	Land & Lakes 1&2	1220 E. 138th Street	Chicago	IL	Drop Off- Commercial
47	Harbor View Compost Facility	2000 E. 122nd Street	Chicago	IL	Drop Off- Commercial
4	Semper Fi Land Inc	1996 Cannonball Trail	Bristol	IL	Drop Off- Commercial
5	Waukegan Landscape Waste Comp	1700 Mcaree	Waukegan	IL	Drop Off- Commercial
7	Illinois State University Farm Compost	25578 ISU Farm Lane	Lexington	IL	Drop Off- Commercial, Drop Off- Municipal
8	Winnebago Landfill	8403 Lindenwood Rd	Rockford	IL	Drop Off- Commercial, Drop Off- Municipal
9	Garden Prairie Organics LLC	11887 Rte 20	Garden Prairie	IL	Drop Off- Commercial, Drop Off- Municipal
10	Heyworth Composting Facility	108 S Buchanan St	Heyworth	IL	Drop Off- Municipal

OID	Site Name	Address	City	State	Who does it accept from?
11	City of Salem Landfill	101 S Broadway	Salem	IL	Drop Off- Municipal
12	Roxana Landfill Compost Site	4601 Cahokia Creek Rd.	Edwardsville	IL	Drop Off- Residential, Drop Off- Commercial
13	Thelen Sand & Gravel Inc	28955 W Rte 173	Antioch	IL	Drop Off- Residential, Drop Off- Commercial, Drop Off- Municipal
14	Macon Co Composting Facility	3520 N Bearsdale Rd, Decatur, IL 62526	Murrayville	IL	Drop Off- Residential, Drop Off- Commercial, Drop Off- Municipal
16	Wood River Compost Facility	400 Smith Ct.	Wood River	IL	Drop Off- Residential
17	Monmouth Municipal	100 E Broadway	Monmouth	IL	Drop Off- Residential
18	Hazel Crest Composting	2700 W 170th Street	Hazel Crest	IL	Drop Off- Residential
19	Upper Rock Island County Landfill	17201 20th Ave N	East Moline	IL	Drop Off- Residential, Drop Off- Commercial
22	Urbana Landfill	706 S Glover Ave	Urbana	IL	Drop Off- Residential, Drop Off- Commercial
23	Lake Bluff Municipal 2	640 Rockland Road	Lake Bluff	IL	Drop Off- Residential, Drop Off- Commercial
24	CHDS LLC	25199 west, IL-120	Round Lake	IL	Drop Off- Residential, Drop Off- Commercial
25	Perricone Bros LW Compost Fac	31600 Fisher Rd - B	Volo	IL	Drop Off- Residential, Drop Off- Commercial
26	Nashville Compost Facility	9384 N Washington Rd	Nashville	IL	Drop Off- Residential, Drop Off- Commercial (Within City Limits)
27	Quad Cities Landfill Phase IV	13606 Knoxville Rd	Milan	IL	Drop Off- Residential, Drop Off- Commercial, Drop Off- Municipal
28	Liberty Lane Landscape Waste Com	17 W Main St	Danville	IL	Drop Off- Residential, Drop Off- Commercial, Drop Off- Municipal
30	New Earth	11189 Samuel Rd	Carterville	IL	Drop Off- Residential, Drop Off- Commercial, Drop Off- Municipal
32	Green Organics Inc	1270 E. Beecher	Bristol	IL	Drop Off- Residential, Drop Off- Commercial, Drop Off- Municipal
33	Knox Co LF Compost Site	1361 W Fremont St	Galesburg	IL	Drop Off- Residential, Drop Off- Commercial, Drop Off- Municipal

OID	Site Name	Address	City	State	Who does it accept from?
34	Rock River Valley Composting Facility	6200 Baxter Road	Cherry Valley	IL	Drop Off- Residential, Drop Off-Municipal
35	Lake Forest Recycling & Composting Center	1381 W. Kennedy Road; Route 60	Lake Forest	IL	Drop Off- Residential, Drop Off-Municipal
36	DeKalb County Landfill	18370 Somonauk Rd	Dekalb	IL	Drop Off- Residential, Drop Off-Commercial
37	Dirksen Pkwy Compost Facility	501 S 2nd St	Springfield	IL	No outside material is accepted
39	Schmechtig Landscape Co Compost	20860 W Indian Creek Rd	Mundelein	IL	No outside material is accepted
41	MWRDGC HASMA	100 E Erie St	Chicago	IL	No outside material is accepted
43	Calumet East Solids Mgmt. Area Composting	12600 S Doty Ave	Chicago	IL	No outside material is accepted
44	Joyce Farms	222 N Industrial Dr	Bradley	IL	No outside material is accepted
45	Mariani Landscape Design	300 Rockland Rd-b	Lake Bluff	IL	No outside material is accepted
46	Van Zelst Landscape Development	39400 N Rte 41	Wadsworth	IL	No outside material is accepted
48	River Bend Prairie Transfer Station	1258 E. 138th Street	Chicago	IL	Drop Off- Commercial
49	Whole Earth Organics LLC	Casimer Pulaski Dr. (between Rte 41 and Rte 131)	North Chicago	IL	Drop Off-Municipal, Drop Off-Commercial

While included in the map the following sites do not accept outside material.

OID	Site Name	Address	City	State
37	Dirksen Pkwy Compost Facility	501 S 2nd St	Springfield	IL
38	Southern Illinois University-University Farms	3689 W. Pleasant Hill Road, Carbondale	Carbondale	IL
39	Schmechtig Landscape Co Compost	20860 W Indian Creek Rd	Mundelein	IL
41	MWRDGC HASMA	100 E Erie St	Chicago	IL
43	Calumet East Solids Mgmt. Area Composting	12600 S Doty Ave	Chicago	IL
44	Joyce Farms	222 N Industrial Dr	Bradley	IL

OID	Site Name	Address	City	State
45	Mariani Landscape Design	300 Rockland Rd-b	Lake Bluff	IL
46	Van Zelst Landscape Development	39400 N Rte 41	Wadsworth	IL

Appendix G.6 Supporting data and individual site information for asset maps (Materials Recovery Facilities)

FID	Company	Address	Type
0	Area Recycling, Inc.	14379 IL Route 29 South, Pekin, IL 61554	Single Stream MRF
1	Midwest Fiber Recycling	422 S White Oak Rd. Normal, IL 61761	Single Stream MRF
2	Republic Services	6025 Byassee Drive, Hazelwood, MO 63042	Single Stream MRF
3	Waste Management	30869 North Illinois Route 83 Grayslake, IL. 60030	Single Stream MRF
4	Diversified Recycling	1501 W 175th Street Homewood, IL 60430	Single Stream MRF
5	Republic Services	5050 West Lake St., Melrose Park, IL 60160	Single Stream MRF
6	Groot Industries	1759 Elmhurst Rd. Elk Grove Village, IL 60007	Single Stream MRF
7	Waste Commission of Scott County	5640 Carey Ave Davenport, IA 52807	Single Stream MRF
8	Eagle Enterprises Recycling, Inc.	510 SE Industrial Ave., Galva, IL 61434	Single Stream MRF
9	Resource Management	9999 Andersen Ave, Chicago Ridge, IL	Single Stream MRF
10	Lakeshore Recycling Systems	6201 W. Canal Bank Rd., Forest View, IL 60402	Single Stream MRF
11	Waste Management of Illinois, Inc.	6120 River Road Hodgkins, IL 60525	Single Stream MRF
12	RSI (Waste Management of Illinois, Inc.)	3301 W 48th Place Chicago, IL 60632	Single Stream MRF
13	Groot Industries	10244 CLOW CREEK RD, Plainfield IL, 60585	Single Stream MRF
14	GFL Environmental MRF	5421 46th St. Kenosha, Wi 53144	Single Stream MRF
15	Independent Recycling Services	2401 S Laflin St. Chicago, IL 60608	Single Stream MRF
38	Lakeshore Recycling Systems	3152 S. California Ave.. Chicago IL 60608	Single Stream MRF
16	Loop Paper Recycling	509 Rowell Ave, Joliet, IL 60433	Consolidation Facility
17	Loop Paper Recycling	301 W Lake St., Northlake, IL 60164	Consolidation Facility
18	Loop Paper Recycling	13050 S. State Street, Riverdale, IL 60827	Consolidation Facility
19	Greenway Recycling Services	2100 S. Kilbourn Ave, Chicago, IL 60623	Consolidation Facility
20	Elgin Recycling	660 Schiller St. Elgin, IL 60123	Consolidation Facility
21	The Paper Tigers	5600 Proviso Drive in Berkeley, Illinois 60163	Consolidation Facility
22	Quincy Recycling	12313 S. Lombard Ln. Alsip, IL 60803	Consolidation Facility
23	C&M Recycling	1600 Morrow Ave. North Chicago, IL 60064	Consolidation Facility
24	Quincy Recycling	526 S. 6th St. Quincy, IL 62301	Consolidation Facility
25	Menard Correctional Facility	711 E Kaskaskia St, Menard, IL 62259	Consolidation Facility
26	University of Illinois	10 St. Mary's Road in Champaign IL 61820	Consolidation Facility
27	Freeport Recycling	657 N Van Buren Road Freeport, IL 61032	Consolidation Facility
28	Paper Recovery Service Corp	7972 Crest Hills Dr, Loves Park, IL 61111	Consolidation Facility
29	Cardinal Recycling	2600 Beyer Rd, Morris, IL 60450	Consolidation Facility
30	Huron Paper Stock	2545 W Fulton St, Chicago, IL 60612	Consolidation Facility

FID	Company	Address	Type
31	Eagle Enterprises Recycling, Inc.	510 SE Industrial Ave, Galva, IL 61434	Consolidation Facility
32	Midwest Fiber Recycling	1201 E University Ave, Urbana, IL 61802	Consolidation Facility
33	Midwest Fiber Recycling	11709 N. Galena Road, Chillicothe, IL 61523	Consolidation Facility
34	Midwest Fiber Recycling	1781 Hubbard Ave, Decatur, IL 62526	Consolidation Facility
35	Midwest Fiber Recycling	2000 E. Moffat Ave. Springfield, IL 62702	Consolidation Facility
36	Centralia Recycling Center	1758 W. McCord St, Centralia, IL, 62801	Consolidation Facility
37	DuPage Paper	1001 Phoenix Lake Ave, Streamwood, IL 60107	Consolidation Facility
39	Lake Area Disposal	2742 S. 6th Street, Springfield, IL	Consolidation Facility
40	Alan Josephson Co.	3801 Hawthorn Ct., Waukegan, IL	Consolidation Facility

Appendix G.7 Supporting data and individual site information for asset maps (Drop-Off Recycling Locations)

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
1	Republic Services Citizen Recycling Drop off Center	15e0 Peggy Ln	Princeton	Bureau	https://www.princeton-il.com/recycling-drop-off-center/	M-F 7am-pm, Sat 7am-11am, Residents only	Plastics #1-5, 7, Paper (junk mail, phone books, brochures, magazines, typing paper, computer paper, notebook paper), Glass (bottles and jars), Cardboard (ream wrappers, file folders, poster board, frozen food boxes, milk cartons, cereal boxes, carboard tubes)
2	Orchard Hills Landfill	8290 Highway 251 S	Davis Junction	Ogle	https://www.oglecounty.org/departments/solid_waste/recycling_info.php	M-F 7am-pm, Sat 7am-11am	
3	Naperville Recycling Drop off Center	156 Fort Hill Drive	Naperville	DuPage	https://www.naperville.il.us/services/garbage-and-recycling/recycling-drop-off-center/	Wed, Sat 8am-4pm	Paper (newspaper, junk mail, magazines, catalogs, phone books, books, office paper, post-it notes, gift wrap, paper bags, chipboard, cardboard), Containers (glass bottles and jars, aluminum cans foil and trays, tin or steel cans,

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
							empty aerosol and paint cans, plastic containers #1-7 except #6, plastic 6-pack rings, milk cartons and drink boxes), scrap metal (cast iron, aluminum or steel scrap, metal drain spouts, metal siding, metal fencing, metal pipes, metal fixtures, metal hangers)
4	Addison Recycling Center	711 N. Addison Road	Addison	DuPage	https://www.addisonadvantage.org/services/trash_removal/recycling.php	Saturday 8am-12pm Resident Only	Plastics (#1-5, 7), Glass bottles, Steel/aluminum/bi-metal cans, newspaper, office paper, magazines, cardboard, chipboard, E-scrap
5	Advanced Recycling Transfer Station	766 Hunter Dr.	Batavia	Kane	https://www.countyofkane.org/Recycling/Pages/dropoffLocations.aspx	M-F 6am-5pm, Sat 6am-10am	Paper, Containers, Cardboard, Household Recycling, Roofing shingles, yard waste
6	Association for Individual Development (AID) Recycling Drop-offs	309 W. New Indian Trail Court	Aurora	Kane	https://www.countyofkane.org/Recycling/Pages/dropoffLocations.aspx	M-F 930am-330pm for electronics and shoes,	Aluminum cans, scrap metal, electronics (no TVs or monitors), shoes

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
						24/7 for aluminum and scrap metal	
7	Village Hall	1200 Besinger Drive	Carpentersville	Kane	https://www.countyofkane.org/Recycling/Pages/dropoffLocations.aspx#cardboard	24/7	Household containers, paper
8	Virgil Township Office	49W181 Winters Rd.	Maple Park	Kane	https://www.countyofkane.org/Recycling/Pages/dropoffLocations.aspx#cardboard	24/7	Household containers, paper
9	WM - Elgin	1225 Giffrd Rd	Elgin	Kane	https://www.countyofkane.org/Recycling/Pages/dropoffLocations.aspx#cardboard	M-F 8am-3pm, Sat 8am-Noon	Metal (aluminum cans, foil, trays, empty aerosol and paint cans, steel or tin cans), glass (bottles and jars), Paper (cardboard, magazines, catalogs, newspapers, shredded paper in brown paper bag), Plastic #1,2,3,5,7, Household batteries
10	Grayslake Public Works	585 Berry Ave.	Grayslake	Lake	http://www.villageofgrayslake.com/181/Recycling	M-F 8am-3pm, Sat 8am-12pm	Newspapers, aluminum cans, cardboard, washed glass, plastic, food scraps,

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
							electronics, shoes, clothing/textiles, no scrap metal
11	Aid Association for Lutherans Drop-off	4206 W Rt. 120	McHenry	McHenry	https://www.mchenrycountyil.gov/home/showdocument?id=73693	24/7	Paper, books, aluminum cans, cardboard
12	Algonquin Township Road District	3702 U.S. Hwy 14	Crystal Lake	McHenry	https://www.mchenrycountyil.gov/home/showdocument?id=73693	Daily + Monthly Specialized Program for township residents Only (Last Saturday of the month, April-October, 8-12pm) + Monthly Brush (last two Saturday and Sundays April - October)	Daily: aluminum and metal cans, glass bottles and jars, plastics (beverage containers, laundry and other household containers), newspaper, cardboard, magazines, clothing, shoes, flags, Styrofoam, eyeglasses, cellphones, hearing aids, children's books, electronics (not TV's and monitors). Specialized Program: Latex Paint $3/gallon, $10/5gallon (no aerosol paint), Oil Paint $9/gallon, $21/5gallon, Tv's and Monitors (one per family per month), Car and Boat

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
							batteries (no alkaline), Used motor and cooking oil. Brush.
13	Prairieland Drop-off Recycling Center	21988 N. Pepper Rd.	Lake Barrington	McHenry	www.prairielanddisposal.com	M-F 8am-3pm, Sat 8am-Noon	Batteries (no alkaline), food scraps, athletic shoes, electronics, flower vases, textiles. TVs and Monitors for $35 fee for residents who live outside of Lake County, Lake County residents do not have to pay the fee.
14	McHenry Township Road District	3703 N Richmond Rd.	Johnsburg	McHenry	https://www.mchenrycountyil.gov/home/showdocument?id=73693	Third Sat. of the month, Apr. - Nov. (Not Sept). 8-12pm. Residents only	TVs and monitors ($0.50 cents/lb. per unit, max $50), batteries ($0.50/lb.), Styrofoam, CFLs ($0.50/lb., fluorescent tubes ($0.50 for 4ft tube, $1 for 8ft tube), brush (8"

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
							diameter max, 10ft max)
15	Environmental Defenders of McHenry County	Check mcdef.org for updated locations		McHenry	www.mcdef.org	2nd Saturday of every month, 9-12pm	Electronics (TVs and monitors for suggested donation $0.50/lb. max $50), clean Styrofoam, reusable bubble wrap, fluorescent tubes (suggested donation $0.50 to $1 per tube), household batteries (alkaline & rechargeable, suggested donation $0.50/lb.), car batteries, video and audio media (CDs, DVDs, cassettes, VHS), clothes, shoes, aluminum cans.
16	Nunda Township Road District	3518 Bay Rd.	Crystal Lake	McHenry	www.nundaroaddistrict.com	24/7, Township Residents Only, Paints April 1 - October 31, Tires Saturday 7-12pm	Can (aluminum and metal), glass bottles and jars, plastics bottles and jugs, newspaper, cardboard, magazines, landscape brush, sticks, and branches, scrap steel, latex and oil

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
							paint (April 1- Oct 31), electronics (no TVs or monitors), light bulbs, waste oils, tires (Saturdays 7-12pm), textiles, batters (car only)
17	Washington Township	30200 Town Center	Beecher	Will	http://www.willcountygreen.com/greenguide/recycle_drop_offs.aspx	T, TH, 7-3pm	Paper, junk mail, gift wrap, paper bags, magazines, soft cover books, chipboard, cardboard, aluminum, steel or tin cans, plastic bottles with lid on, plastic containers, glass bottles, empty aerosol cans, empty dry paint cans, beverage carriers straps, 6-pack rings
18	Reed-Custer Admin/Braidwood HS	255 Comet Drive	Braidwood	Will	http://www.willcountygreen.com/greenguide/recycle_drop_offs.aspx	6am-7pm	Paper, junk mail, gift wrap, paper bags, magazines, soft cover books, chipboard, cardboard, aluminum, steel or tin cans, plastic bottles with lid on, plastic containers, glass bottles, empty aerosol cans, empty dry paint cans, beverage carriers

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
							straps, 6-pack rings
19	Channahon Township	25461 S Fryer Street	Channahon	Will	http://www.willcountygreen.com/greenguide/recycle_drop_offs.aspx	Wed 3pm-7pm (April-Sept), Saturdays 8am-2pm	Paper, junk mail, gift wrap, paper bags, magazines, soft cover books, chipboard, cardboard, aluminum, steel or tin cans, plastic bottles with lid on, plastic containers, glass bottles, empty aerosol cans, empty dry paint cans, beverage carriers straps, 6-pack rings
20	Crete Lions Club	1215 Douglas Rd	Crete	Will	http://www.willcountygreen.com/greenguide/recycle_drop_offs.aspx	M-F 7am-9am, Sat 7am-12pm	Paper, junk mail, gift wrap, paper bags, magazines, soft cover books, chipboard, cardboard, aluminum, steel or tin cans, plastic bottles with lid on, plastic containers, glass bottles, empty aerosol cans, empty dry paint cans, beverage carriers

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
							straps, 6-pack rings
21	Godley Park District	500 S Kankakee St.	Godley	Will	http://www.willcountygreen.com/greenguide/recycle_drop_offs.aspx	M-F 7am-430pm	Paper, junk mail, gift wrap, paper bags, magazines, soft cover books, chipboard, cardboard, aluminum, steel or tin cans, plastic bottles with lid on, plastic containers, glass bottles, empty aerosol cans, empty dry paint cans, beverage carriers straps, 6-pack rings
22	New Lenox Township	1100 S. Cedar	New Lenox	Will	http://www.willcountygreen.com/greenguide/recycle_drop_offs.aspx	M-F 1pm-330pm, 4th Saturday of the month 8am-12pm	Paper, junk mail, gift wrap, paper bags, magazines, soft cover books, chipboard, cardboard, aluminum, steel or tin cans, plastic bottles with lid on, plastic containers, glass bottles, empty aerosol cans, empty dry paint cans, beverage carriers

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
							straps, 6-pack rings
23	City of Lockport	17112 Prime Blvd	Lockport	Will	http://www.willcountygreen.com/greenguide/recycle_drop_offs.aspx	M-F 7am-3pm	Paper, junk mail, gift wrap, paper bags, magazines, soft cover books, chipboard, cardboard, aluminum, steel or tin cans, plastic bottles with lid on, plastic containers, glass bottles, empty aerosol cans, empty dry paint cans, beverage carriers straps, 6-pack rings
24	Tory Township Highway Department	25358 Seil Road	Shorewood	Will	http://www.willcountygreen.com/greenguide/recycle_drop_offs.aspx	M-F 7am-3pm, 1st and 3rd Saturday of the month 8am-2pm	Paper, junk mail, gift wrap, paper bags, magazines, soft cover books, chipboard, cardboard, aluminum, steel or tin cans, plastic bottles with lid on, plastic containers, glass bottles, empty aerosol cans, empty dry paint cans, beverage carriers

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
							straps, 6-pack rings
25	Prairie View Landfill	29755 S. Prairie View Drive	Wilmington	Will	http://www.willcountygreen.com/greenguide/recycle_drop_offs.aspx	M-F 6am-3pm	Paper, junk mail, gift wrap, paper bags, magazines, soft cover books, chipboard, cardboard, aluminum, steel or tin cans, plastic bottles with lid on, plastic containers, glass bottles, empty aerosol cans, empty dry paint cans, beverage carriers straps, 6-pack rings

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
26	Midwest Fiber Recycling	11709 N Galena Road	Chillcothe	Peoria	https://www.cityofeastpeoria.com/DocumentCenter/View/1511/Midwest-Fiber-Recycling-details-PDF	M-F 7am-4pm	Paper (newspapers, magazines, catalogs, phone books, junk mail and envelopes, office paper, copy paper, school paper, hard back and soft back books, brown paper sacks, shredded paper (placed in a clear plastic bag), Plastic (clear and colored coded #1, #2, #3, #4, #5, #7; water and soda bottles, milk jugs, juice beverage jugs, detergent and fabric softener bottles, household cleaner bottles, yogurt containers, margarine tubs, ketchup containers), Metal (aluminum cans, aluminum foil, aluminum trays, steel cans, tin containers, aerosol cans, metal lids), Glass (beverage containers, food containers, jars),

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
							Cardboard (cereal boxes, paperboard boxes, soda and beer cases, shoe boxes, frozen food boxes)
27	Rock Island Drop Off	701 2nd Street	Rock Island	Rock Island	https://www.rigov.org/148/Recycling-Drop-Off-Center	24/7, Rock Island County Residents	Plastics (#1-7), Tin and aluminum cans, cardboard, chipboard, newspapers, magazines, paper, phonebooks/textbooks, brown paper bags

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
28	East Moline Drop off	1200 13th Ave	East Moline	Rock Island	https://ricwma.org/recycling/drop-off-sites-and-guidelines	24/7, Rock Island County Residents	Plastics (#1-7), Tin and aluminum cans, cardboard, chipboard, newspapers, magazines, paper, phonebooks/textbooks, brown paper bags
29	Milan Drop off	451 West 4th Street	Milan	Rock Island	https://ricwma.org/recycling/drop-off-sites-and-guidelines	24/7, Rock Island County Residents	Plastics (#1-7), Tin and aluminum cans, cardboard, chipboard, newspapers, magazines, paper, phonebooks/textbooks, brown paper bags

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
30	Area Recycling Inc.	14379 Illinois Route 29	Pekin	Tazewell	https://www.cityofeastpeoria.com/DocumentCenter/View/1513/Area-Recycling-Inc-details-PDF	24/7	Aluminum and steel cans, paper, cardboard, plastics #1 and #2, glass, shredded paper (in clear plastic bag or brown paper bag)
31	Illini Recycling Center	420 Paul Ave	Champaign	Champaign	https://illinirecycling.com/recycling/recycling-center/	24/7	Cardboard, magazines, newspaper, office paper, #1-7 plastic bottles, tin food cans, aluminum cans, aluminum foil/pans

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
32	Austin Township	12528 Lincoln Memorial Pkwy	Warrensburg	Macon	https://www.macongreen.com/wp-content/uploads/Accepted-Items-List-Locations_Drop-off-Recycling_08-29-2016.pdf	24/7	Cardboard (flattened), Paper (newspaper, magazines, catalogs, junk mail, hard and soft books, shredded paper in clear plastic bag), Plastic (#1-5 & 7, beverage bottles & jugs, household cleaner bottles, yogurt containers, margarine tubs, ketchup bottles), Metal (aluminum cans/foil/trays, steel cans, tin containers, aerosol cans, metal lids)
33	Blue Mound Township	5016 Boody Rd.	Blue Mound	Macon	https://www.macongreen.com/wp-content/uploads/Accepted-Items-List-Locations_Drop-off-Recycling_08-29-2016.pdf	24/7	Cardboard (flattened), Paper (newspaper, magazines, catalogs, junk mail, hard and soft books, shredded paper in clear plastic bag), Plastic (#1-5 & 7, beverage bottles & jugs, household cleaner bottles, yogurt containers, margarine tubs, ketchup bottles), Metal (aluminum

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
							cans/foil/trays, steel cans, tin containers, aerosol cans, metal lids)
34	Village of Blue Mound	229 Railroad Ave	Blue Mound	Macon	https://www.macongreen.com/wp-content/uploads/Accepted-Items-List-Locations_Drop-off-Recycling_08-29-2016.pdf	24/7	Cardboard (flattened), Paper (newspaper, magazines, catalogs, junk mail, hard and soft books, shredded paper in clear plastic bag), Plastic (#1-5 & 7, beverage bottles & jugs, household cleaner bottles, yogurt containers, margarine tubs, ketchup bottles), Metal (aluminum cans/foil/trays, steel cans, tin containers, aerosol cans, metal lids)

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
35	Long Creek Township	70th st under water tower	Long Creek	Macon	https://www.macongreen.com/wp-content/uploads/Accepted-Items-List-Locations_Drop-off-Recycling_08-29-2016.pdf	24/7	Cardboard (flattened), Paper (newspaper, magazines, catalogs, junk mail, hard and soft books, shredded paper in clear plastic bag), Plastic (#1-5 & 7, beverage bottles & jugs, household cleaner bottles, yogurt containers, margarine tubs, ketchup bottles), Metal (aluminum cans/foil/trays, steel cans, tin containers, aerosol cans, metal lids)
36	City of Maroa	120 S. Locust St.	Maroa	Macon	https://www.macongreen.com/wp-content/uploads/Accepted-Items-List-Locations_Drop-off-Recycling_08-29-2016.pdf	24/7	Cardboard (flattened), Paper (newspaper, magazines, catalogs, junk mail, hard and soft books, shredded paper in clear plastic bag), Plastic (#1-5 & 7, beverage bottles & jugs, household cleaner bottles, yogurt containers, margarine tubs, ketchup bottles), Metal (aluminum

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
							cans/foil/trays, steel cans, tin containers, aerosol cans, metal lids)
37	Village of Harristown	185 N. Kembark	Harristown	Macon	https://www.macongreen.com/wp-content/uploads/Accepted-Items-List-Locations_Drop-off-Recycling_08-29-2016.pdf	24/7	Cardboard (flattened), Paper (newspaper, magazines, catalogs, junk mail, hard and soft books, shredded paper in clear plastic bag), Plastic (#1-5 & 7, beverage bottles & jugs, household cleaner bottles, yogurt containers, margarine tubs, ketchup bottles), Metal (aluminum cans/foil/trays, steel cans, tin containers, aerosol cans, metal lids)

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
38	Village of Niantic	108. N Illinois St.	Niantic	Macon	https://www.macongreen.com/wp-content/uploads/Accepted-Items-List-Locations_Drop-off-Recycling_08-29-2016.pdf	24/7	Cardboard (flattened), Paper (newspaper, magazines, catalogs, junk mail, hard and soft books, shredded paper in clear plastic bag), Plastic (#1-5 & 7, beverage bottles & jugs, household cleaner bottles, yogurt containers, margarine tubs, ketchup bottles), Metal (aluminum cans/foil/trays, steel cans, tin containers, aerosol cans, metal lids)
39	Oakley Township	221 Sangamon St.	Oakley	Macon	https://www.macongreen.com/wp-content/uploads/Accepted-Items-List-Locations_Drop-off-Recycling_08-29-2016.pdf	24/7	Cardboard (flattened), Paper (newspaper, magazines, catalogs, junk mail, hard and soft books, shredded paper in clear plastic bag), Plastic (#1-5 & 7, beverage bottles & jugs, household cleaner bottles, yogurt containers, margarine tubs, ketchup bottles), Metal (aluminum

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
							cans/foil/trays, steel cans, tin containers, aerosol cans, metal lids)
40	South Wheatland Township	3987 W. Elwin Rd.	South Wheatland	Macon	https://www.macongreen.com/wp-content/uploads/Accepted-Items-List-Locations_Drop-off-Recycling_08-29-2016.pdf	24/7	Cardboard (flattened), Paper (newspaper, magazines, catalogs, junk mail, hard and soft books, shredded paper in clear plastic bag), Plastic (#1-5 & 7, beverage bottles & jugs, household cleaner bottles, yogurt containers, margarine tubs, ketchup bottles), Metal (aluminum cans/foil/trays, steel cans, tin containers, aerosol cans, metal lids)

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
41	Whitmore Township	Prairie Rd. and Kirby Rd.	Whitmore	Macon	https://www.macongreen.com/wp-content/uploads/Accepted-Items-List-Locations_Drop-off-Recycling_08-29-2016.pdf	24/7	Cardboard (flattened), Paper (newspaper, magazines, catalogs, junk mail, hard and soft books, shredded paper in clear plastic bag), Plastic (#1-5 & 7, beverage bottles & jugs, household cleaner bottles, yogurt containers, margarine tubs, ketchup bottles), Metal (aluminum cans/foil/trays, steel cans, tin containers, aerosol cans, metal lids)
42	Midwest Fiber Recycling - Chiddix Jr. High School/Anderson Park	300 S. Walut St	Normal	McLean	https://www.normal.org/BusinessDirectoryII.aspx?lngBusinessCategoryID=22	24/7	Cardboard, Containers (metal cans, trays, and foil, glass bottles and jars, milk/juice/water jugs, #1-5 and #7 plastic containers, 5-gallon max plastic buckets, PVC containers), Paper (newspaper, books, phone books, paper, junk mail, magazines, envelopes,

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
							paperboard, paper egg cartons, shredded paper in clear plastic bag)
43	Midwest Fiber Recycling - Jewel-Osco	901 S. Cottage Ave	Normal	McLean	https://www.normal.org/BusinessDirectoryII.aspx?lngBusinessCategoryID=22	24/7	Cardboard, Containers (metal cans, trays, and foil, glass bottles and jars, milk/juice/water jugs, #1-5 and #7 plastic containers, 5-gallon max plastic buckets, PVC containers), Paper (newspaper, books, phone books, paper, junk mail, magazines, envelopes, paperboard, paper egg cartons, shredded paper in clear plastic bag)

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
44	Midwest Fiber Recycling - University Center	1101 N. Main St.	Normal	McLean	https://www.normal.org/BusinessDirectoryII.aspx?lngBusinessCategoryID=22	24/7	Cardboard, Containers (metal cans, trays, and foil, glass bottles and jars, milk/juice/water jugs, #1-5 and #7 plastic containers, 5-gallon max plastic buckets, PVC containers), Paper (newspaper, books, phone books, paper, junk mail, magazines, envelopes, paperboard, paper egg cartons, shredded paper in clear plastic bag)
45	Midwest Fiber Recycling - Wal-Mart	300 Greenbriar Ave	Normal	McLean	https://www.normal.org/BusinessDirectoryII.aspx?lngBusinessCategoryID=22	24/7	Cardboard, Containers (metal cans, trays, and foil, glass bottles and jars, milk/juice/water jugs, #1-5 and #7 plastic containers, 5-gallon max plastic buckets, PVC containers), Paper (newspaper, books, phone books, paper, junk mail, magazines, envelopes,

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
							paperboard, paper egg cartons, shredded paper in clear plastic bag)
46	Lake Area Disposal Service	2742 S. 6th Street	Springfield	Sangamon	https://www.springfield.il.us/Departments/PublicWorks/allRecycle.aspx	M-F 8am-3pm, Customers only	Paper (newspaper, junk mail, magazines, chipboard, cardboard), Plastics (#1-5, #7), Tin and aluminum cans, Glass jars and bottles
47	Republic Services - Sangamon Valley Landfill	2565 Sandhill Road	Springfield	Sangamon	https://www.springfield.il.us/Departments/PublicWorks/allRecycle.aspx	M-F 7am-3pm, Customers only	Paper, shredded paper, cardboard, plastics #1-5, #7, glass, aluminum and tin cans
48	Waste Management	3000 E. Ash Street	Springfield	Sangamon	https://www.springfield.il.us/Departments/PublicWorks/allRecycle.aspx	M-F 8am-12pm, Customers only	
49	Edwardsville Drop off - Home Depot Parking Lot	2500 Troy Road	Edwardsville	Madison	https://www.co.madison.il.us/departments/planning_and_development/sustainability.php	M-F (removed Fridays 10am)	Paper, glass, plastics, metals

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
50	Alton Drop off - Downtown aross from Federal building	400 Piasa St.	Alton	Madison	https://www.co.madison.il.us/departments/planning_and_development/sustainability.php	24/7	Paper, glass, plastics, metals
51	Collinsville Drop off - Fletcher Field Parking Lot	1600 Olive St.	Collinsville	Madison	https://www.co.madison.il.us/departments/planning_and_development/sustainability.php	24/7	Paper, glass, plastics, metals
52	Hamel Drop off - Hamel Community Fire Protection Distrcit Office	403 Old US Route 66	Hamel	Madison	https://www.co.madison.il.us/departments/planning_and_development/sustainability.php	24/7	Paper, glass, plastics, metals
53	Marine Drop off - Marine Highway Township Garage	630 W Leopold St	Marine	Madison	https://www.co.madison.il.us/departments/planning_and_development/sustainability.php	24/7	Paper, glass, plastics, metals
54	Maryville Drop off - Public Works Department and Community Library	8 Schiber Court	Maryville	Madison	https://www.co.madison.il.us/departments/planning_and_development/sustainability.php	24/7	Paper, glass, plastics, metals
55	New Douglas Drop off	8363 East Frontage Road	New Douglas	Madison	https://www.co.madison.il.us/departments/planning_and_development/sustainability.php	24/7	Paper, glass, plastics, metals

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
56	Chester Recycling Center	802 Servant Street	Chester	Randolph	http://www.chesterill.com/utilities/clean-up-pick-up-program/	24/7	Cardboard, Plastics (#1 and 2), Tin, Paper
57	Boys & Girls Club of Carbondale	250 N. Springer Street	Carbondale	Jackson	http://www.explorecarbondale.com/DocumentCenter/View/169/Recycling-Drop-Off-Guidelines-PDF	24/7	Plastic (#1, 2), glass bottles and jars, steel and aluminum food/beverage cans, paper, newspapers, junk mail, magazines, catalogs, books, phone books, paperboard boxes, shredded paper (in bag)
58	Near Fire Statino #1	610 E. College Street	Carbondale	Jackson	http://www.explorecarbondale.com/DocumentCenter/View/169/Recycling-Drop-Off-Guidelines-PDF	24/7	Plastic (#1, 2), glass bottles and jars, steel and aluminum food/beverage cans, paper, newspapers, junk mail, magazines, catalogs, books, phone books, paperboard boxes, shredded paper (in bag)

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
59	University Baptist Church	700 S. Oakland Avenue	Carbondale	Jackson	http://www.explorecarbondale.com/DocumentCenter/View/169/Recycling-Drop-Off-Guidelines-PDF	24/7	Plastic (#1, 2), glass bottles and jars, steel and aluminum food/beverage cans, paper, newspapers, junk mail, magazines, catalogs, books, phone books, paperboard boxes, shredded paper (in bag)
60	Southern Recycling Center	300 W Chestnut Street	Carbondale	Jackson	https://www.southernrecyclingcenter.com/	M-TH 9am-430pm, Friday 8am-330pm, Saturday 8am-130pm	Plastics (#1,2), glass, window pane glass, aluminum cans, steel/tin cans, miscellaneous metals, newspaper, magazines, catalogs, office paper, shredded paper, colored paper, junk mail, cardboard, boxboard, books, phone books, envelopes, electronics (computers, cell phones, monitors, printers, scanners, fax machines, keyboards, mice, televisions, cable and satellite receivers, portable digital

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
							music players, VCR and DVD players, video game players, small-scale servers, cords, cables)
63	Mattoon West Drop-Off (Catholic Charities parking lot)	4217 W Dewitt Ave	Mattoon	Coles	https://mattoon.illinois.gov/residents/utilities/	24/7 Mattoon city residents only	cardboard, office paper, newspaper, aluminum cans, tin cans, or plastic bottles
64	Mattoon East Drop-Off (Yard Waste Drop-Off)	Logan & Shelby Ave.	Mattoon	Coles	https://mattoon.illinois.gov/residents/utilities/	24/7 Mattoon city residents only	cardboard, office paper, newspaper, aluminum cans, tin cans, or plastic bottles
65	Oakland High School	310 N. Teeter St.	Oakland	Coles		24/7, Oakland and Hindsboro residents only	In accordance with Advanced Disposal recycling requirements

OID	Location Name	Address	City	County	Website	Hours and Eligibility	Materials Accepted and Fees
66	Windsor Drop-Off (Fire Dept. parking lot)	1515 Maine St.	Windsor	Shelby		2nd and 4th Tuesday through Wednesday of the Month. Windsor residents only.	Cardboard, newspaper, plastics, and aluminum
67	Mattoon Central Drop-Off (behind City Hall)	2018 N 19th St.	Mattoon	Coles	https://mattoon.illinois.gov/residents/utilities/	24/7 Mattoon city residents only	cardboard, office paper, newspaper, aluminum cans, tin cans, or plastic bottles.

Appendix G.8 Supporting data and individual site information for asset maps (Scrap Metal Recycling Facilities)

OID	Company Name	Street Address	City	State	County	Zip
1	Executive Recycling, Inc.	1545 W Wrightwood CT	Addison	IL	DuPage	60101
2	American Scrap Metal Services, Inc	3837 W 127th St	Alsip	IL	Cook	60803
3	Luckman Recycling LLC	12841 S Pulaski Rd	Alsip	IL	Cook	60803
4	Alton Materials Inc	15 HULL LN	Alton	IL	Madison	62002
5	All American Recycling Inc.	1137 Mitchell Rd Ste A	Aurora	IL	Kane	60505
6	Aurora Metal Recycling LLC	619 Spruce St	Aurora	IL	Kane	60506
7	Universal Metal Recycling LLC	720 New Haven Ave	Aurora	IL	Kane	60506
8	Alter Recycling Company, L.L.C.	7000 S Adams St	Bartonville	IL	Peoria	61607
9	Belleville Recycling Inc	501 Hecker St	Belleville	IL	St. Clair	62221
10	American Recycling	110 Iowa Ave	Belleville	IL	St. Clair	62220
11	Cozzi Recycling, LLC	2501 Grant Ave	Bellwood	IL	Cook	60104
12	Leyva Recycling Inc.	334 Evergreen Ave	Bensenville	IL	DuPage	60106
13	T&T Recycling	7533 State Highway 37	Benton	IL	Franklin	62812
14	Scrap Metal Services LLC	3000 W 139th St	Blue Island	IL	Cook	60406
15	Belson Steel Center, Inc.	1685 N State Route 50	Bourbonnais	IL	Kankakee	60914
16	Core Scientific	700 Industrial Dr Ste K	Cary	IL	McHenry	60013
17	Kusterman Scrap Iron	`1648 E 950th Rd.	Casey	IL	Clark	61938
18	All American Recycling Inc.	11900 S Cottage Grove Ave	Chicago	IL	Cook	60628
19	Barry's Metal Inc	820 W Cermak Rd	Chicago	IL	Cook	60608
20	Central Metal Recycling LLC	5618 W Fillmore St	Chicago	IL	Cook	60644
21	Chuangyi Metals Corp.	3939 S Karlov Ave	Chicago	IL	Cook	60632
22	Earthlink Recycling Corp	3333 W 36th St	Chicago	IL	Cook	60632
23	Family Recycling Center Inc	1851 S Clinton St	Chicago	IL	Cook	60616
24	Greenway Metal Recycling Inc	901 N KILPATRICK AVE	Chicago	IL	Cook	60651
25	Jayben Scrap Metals	6301 S Bell Ave	Chicago	IL	Cook	60636
26	Jayben Scrap Metals	2910 W Carroll Ave	Chicago	IL	Cook	60612
27	Onstate Recycling, Inc	5825 S State St	Chicago	IL	Cook	60621
28	Optimus Recycling	830 E 114th St	Chicago	IL	Cook	60628
29	Sims Metals	2500 S Paulina St	Chicago	IL	Cook	60608

OID	Company Name	Street Address	City	State	County	Zip
30	Reserve Management Group South Shore Recycling LLC	11610 S Avenue O	Chicago	IL	Cook	60617
31	USA Recycling Prof. Inc.	7601 S KEDZIE AVE	Chicago	IL	Cook	60652
32	USM- Charter Alloys	2500 W Fulton St	Chicago	IL	Cook	60612
33	Windy City Metals Recycling LLC	4617 W Division St	Chicago	IL	Cook	60651
34	Real Alloy Recycling	400 E Lincoln Hwy	Chicago Heights	IL	Cook	60411
35	Big Daddy Scrap, Inc.	1111 Washington St	Chicago Heights	IL	Cook	60411
36	United Scrap	1545 South Cicero Ave	Cicero	IL	Cook	60804
37	Constructive Works Organization	18635 S Laramie Road	Country Club Hills	IL	Cook	60478
38	Mervis Industries, Inc.	2313 Cannon St	Danville	IL	Vermilion	61832
39	Zimmerman Recycling Inc	301 Industrial Dr	Dekalb	IL	DeKalb	60115
40	Maine Scrap Metal, L.L.C.	1274 Rand Rd	Des Plaines	IL	Cook	60016
41	Cremation Recycling Services	1841 Busse Highway	Des Plaines	IL	Cook	60016
42	Mid States Recycling & Refining	1841 Busse Hwy	Des Plaines	IL	Cook	60016
43	Universal Metal Uno Recycling LLC	14059 Cottage Grove Ave	Dolton	IL	Cook	60419
44	Apex Recycling Services, LLC	1245 N 1st St	East Saint Louis	IL	St. Clair	62201
45	McMahon Recycling, LLC	805 S Maple St	Effingham	IL	Effingham	62401
46	TNT Recycling	15150 E 1800th Ave	Effingham	IL	Effingham	62401
47	Bens Global Recycling	368 Bluff City Blvd	Elgin	IL	Kane	60120
48	Industrial Metals Recycling Corp.	955 Brandt Dr	Elgin	IL	Kane	60120
49	G&M Metal	1970 Estes Ave	Elk Grove Village	IL	Cook	60007
50	Infinity Metals Recycling	120 E Graham St 221	Eureka	IL	Woodford	61530
51	Route 185 Recycling, LLC	22291 Illinois Route 185	Fillmore	IL	Montgomery	62032
52	Sims Lifecycle Services	3700 Runge St	Franklin Park	IL	Cook	60131
53	Totall Metal Recycling, Inc.	2700 Missouri Ave	Granite City	IL	Madison	62040
54	Suburban Scrap Metal Company	3849 Swanson CT	Gurnee	IL	Lake	60031
55	Clearview Recycling	216 W Belvidere Rd	Hainesville	IL	Lake	60030
56	Central Metals Recycling	1175 N, IL-96	Hamilton	IL	Hancock	62341
57	Recovered Asset Management	16400 Lathrop Ave	Harvey	IL	Cook	60426
58	Pro Metal Recycling Inc.	16745 Lathrop Ave	Harvey	IL	Cook	60426

OID	Company Name	Street Address	City	State	County	Zip
59	G T All Metals Recycling	1396 1/2 Woods Ln	Jacksonville	IL	Morgan	62650
60	All American Recycling Inc.	2285 New Lenox Rd	Joliet	IL	Will	60433
61	Legend Smelting and Recycling, Inc.	3404 Mound Rd	Joliet	IL	Will	60436
62	Area Material, Inc.	1000 N. Washington Avenue	Kankakee	IL	Kankakee	60901
63	River Valley Recycling, LLC	288 W South Tec Dr.	Kankakee	IL	Kankakee	60901
64	Big Daddy Scrap Inc	4441 W. 1000 S Rd.	Kankakee	IL	Kankakee	60901
65	Buckman Iron & Metal Co Inc	153 Canal St	La Salle	IL	LaSalle	61301
66	Lockport Metal Recycling	20630 Gaskin Dr	Lockport	IL	Will	60441
67	Cimco Recycling Loves Park, Inc.	1616 Windsor Rd	Loves Park	IL	Winnebago	61111
68	Potempa Recycling - Lynwood Recycling Center	21540 E Lincoln Hwy	Lynwood	IL	Cook	60411
69	Mighty River Recycling, LLC	116 State St	Madison	IL	Madison	62060
70	Cimco Recycling Marion, Inc.	9450 State Rte. 148	Marion	IL	Williamson	62959
71	Mervis Industries, Inc.	612 N Logan St	Mattoon	IL	Coles	61938
72	Harris Metal	1213 N 11th St.	Mattoon	IL	Coles	61938
73	Cozzi Recycling, LLC	1 N 25th Ave	Melrose Park	IL	Cook	60160
74	Cozzi Recycling, LLC	2400 Main St.	Melrose Park	IL	Cook	60160
75	Holy Recycling	910 E 2nd St	Metropolis	IL	Massac	62960
76	River Metals Recycling LLC	1324 E 3rd St.	Metropolis	IL	Massac	62960
77	Cimco Recycling Milan, Inc.	1709 1st Ave. E.	Milan	IL	Rock Island	61264
78	Cantero Recycling, Inc.	11116 W 189th Pl	Mokena	IL	Will	60448
79	B & B Recyclers, Inc.	9634 E 1000th Ave	Newton	IL	Jasper	62448
80	Midwest Industrial Metals	615 Northwest Avenue	Northlake	IL	Cook	60164
81	Buckman Iron & Metal Co Inc	1520 Warehouse Dr.	Ottawa	IL	LaSalle	61350
82	Welburn Salvage	101 N Elm St.	Pana	IL	Christian	61938
83	Pontiac Recycling	15355 E 1830 North Rd	Pontiac	IL	Livingston	61764
84	Jl Scrap Metals	1601 N 30th St.	Quincy	IL	Adams	62301
85	Sic Recycling, Inc.	2200 Overpass Rd	Riverton	IL	Sangamon	62561
86	Area Salvage and Recycling	207 Peoples Ave	Rockford	IL	Winnebago	61104
87	Schaumburg Recycling Company	1107 Lunt Ave Ste 1	Schaumburg	IL	Cook	60193

OID	Company Name	Street Address	City	State	County	Zip
88	Olson's Auto Scrap Metal Recycling	354 W Jackson St	Seneca	IL	LaSalle	61360
89	Alton Materials Inc	806 Industrial Dr	Sparta	IL	Randolph	62286
90	Mervis Industries, Inc.	1100 S 9th St	Springfield	IL	Sangamon	62703
91	Cimco Recycling Sterling, Inc.	13509 Galt Road	Sterling	IL	Whiteside	61081
92	GM Recycling and Disposal Inc	1212 E 12th St	Streator	IL	LaSalle	61364
93	B & O Iron & Metal	800 Brickville Rd	Sycamore	IL	DeKalb	60178
94	B&B Metal Recycling Inc	108 S Bell St	Tallula	IL	Menard	62688
95	E Z Recycling Corp	7307 Duvan Dr	Tinley Park	IL	Cook	60477
96	Mervis Industries, Inc.	3008 N Cunningham Ave	Urbana	IL	Champaign	61802
97	Macks Twin City Recycling Inc	2808 N Lincoln Ave	Urbana	IL	Champaign	61802
98	Metals Recycling LLC	4345 S Verona Rd	Verona	IL	Grundy	60479
99	B & B Scrap Metal	427 N Iowa Ave	Villa Park	IL	DuPage	60181
100	Potempa Recycling - Wauconda Recycling Center	441 W Bonner Rd	Wauconda	IL	Lake	60084
101	St. Charles Scrap	3n780 Powis Rd	West Chicago	IL	DuPage	60185
102	The Auto Crusher Inc	651 W Washington St	West Chicago	IL	DuPage	60185
103	Ace Recycling Solution LLC	50 Messner Dr	Wheeling	IL	Cook	60090
104	Contemporary Refining and Recycling Solutions LLC	133 S Wheeling Road	Wheeling	IL	Cook	60090
105	Alter Trading Corporation	13914 Washington St	Woodstock	IL	McHenry	60098
106	Regal Johnson Co.	6548 S Narragansett AVE	Bedford Park	IL	Cook	60638
107	A & A Midwest	13033 S California ST	Blue Island	IL	Cook	60406
108	A-Reliable Auto Parts & Wreckers,Inc. d.b.a LKQ A-Reliable	2247 W 139th ST	Blue Island	IL	Cook	60406
109	Broadway Auto Wreckers,Ltd	13545 S Sacramento AVE	Blue Island	IL	Cook	60406
110	Fernandez Four Inc. DBA W&W Auto Parts	12301 Vincennes RD	Blue Island	IL	Cook	60406
111	Four Star Auto Parts Inc.	13601 S Sacramento Watt AVE	Blue Island	IL	Cook	60406
112	LKQ Pick Your Part Midwest	2247 W 141st ST	Blue Island	IL	Cook	60406
113	Metro Recycling	13546 S Western AVE	Blue Island	IL	Cook	60406
114	New Cats Auto Parts	13538 S Western AVE	Blue Island	IL	Cook	60406

OID	Company Name	Street Address	City	State	County	Zip
115	C&A Metals Inc	8928 S Oketo AVE	Bridgeview	IL	Cook	60455
116	Marr Recyclers	8650 S Thomas AVE	Bridgeview	IL	Cook	60455
117	Vanallen Recycling	8248 S Roberts RD	Bridgeview	IL	Cook	60455
118	Calumet City Auto Wreckers	630 State ST	Calumet City	IL	Cook	60409
119	City Auto Parts and Glass	1901 E Dolton RD	Calumet City	IL	Cook	60409
120	Brookfield Iron and Metal	171 E 12th ST	Chicago Heights	IL	Cook	60411
121	Cash For Junk Cars, LLC	650 E Joe Orr RD	Chicago Heights	IL	Cook	60411
122	Chicago Heights Processing	2710 State ST	Chicago Heights	IL	Cook	60411
123	Gaby Iron and Metal Co	2611 East End AVE	Chicago Heights	IL	Cook	60411
124	LKQ Pick Your Part Midwest	551 E Lincoln HWY	Chicago Heights	IL	Cook	60411
125	Omaha Track, Inc.	901 State ST	Chicago Heights	IL	Cook	60411
126	Solares Scrap & Truck Export	350 E 14th ST	Chicago Heights	IL	Cook	60411
127	Wilkins Rebuilders Supply, Inc.	171 E 12th ST	Chicago Heights	IL	Cook	60411
128	Cicero Iron Metal & Paper Inc	5901 W Ogden AVE	Cicero	IL	Cook	60804
129	Dulin Metals Company	301 N 3rd AVE	Des Plaines	IL	Cook	60016
130	Bluff City Metal Recycling	980 Bluff City BLVD	Elgin	IL	Cook	60120
131	Bluff City Metal Recycling	1375 Spaulding RD	Elgin	IL	Cook	60120
132	Ohare Kars Inc.	31W450 Spaulding RD	Elgin	IL	Cook	60120
133	Redline Metals,Inc.	1255 Gifford RD	Elgin	IL	Cook	60120
134	North Shore Recycling	2527 Oakton ST	Evanston	IL	Cook	60202
135	Big Top Auto	20877 Cottage Grove AVE	Ford Heights	IL	Cook	60411
136	B. L. Duke,Inc.	6470 W Canal Bank RD	Forest View	IL	Cook	60402
137	All Metal Recycling,LLC	1925 N 25th AVE	Franklin Park	IL	Cook	60131
138	10 W 147th Inc	10 W 147th ST	Harvey	IL	Cook	60426
139	All City Harvey Used Auto Parts	264 W 155th ST	Harvey	IL	Cook	60426
140	American Metal Recycling	14736 Spaulding AVE	Harvey	IL	Cook	60426
141	Quality Metals Corporation	14600 S Wood ST	Harvey	IL	Cook	60426
142	Witvoet Auto Parts	18310 Dorchester AVE	Lansing	IL	Cook	60438
143	Lemont Scrap Processing,Ltd.	16229 New AVE	Lemont	IL	Cook	60439
144	TonCar Used Auto Parts	4613 W Lake ST	Melrose Park	IL	Cook	60160

OID	Company Name	Street Address	City	State	County	Zip
145	West Melrose Metal Recyclers	4699 W Lake ST	Melrose Park	IL	Cook	60160
146	ABC Auto Parts & Sales Inc.	13741 S Ashland AVE	Riverdale	IL	Cook	60827
147	Circus Auto Parts Inc	13701 S Ashland AVE	Riverdale	IL	Cook	60827
148	Universal Scrap Metals Inc.	13527 S Halsted ST	Riverdale	IL	Cook	60827
149	AGF Transport	2955 Claire BLVD	Robbins	IL	Cook	60472
150	Poole's Pull A Part	3021 W 135th ST	Robbins	IL	Cook	60406
151	Thompson & Sons Auto Parts	13801 S Sacramento AVE	Robbins	IL	Cook	60472
152	Tiger Enterprise	406 E 217th ST	Sauk Village	IL	Cook	60411
153	AM Greentek,Inc.	3241 East End AVE	South Chicago Heights	IL	Cook	60411
154	Summit Pick-n-Pull Auto Dismantlers,Store #30	7800 W 61st PL	Summit	IL	Cook	60501

Appendix G.9 Supporting data and individual site information for asset maps (Household Hazardous Waste Collection)

Rotating IEPA Sponsored One-Day HHW Collection Facilities

FID	Co_Sponsor	Contact	Public Contact	Town	County	Address_1	Date
0	Village of Glencoe*	Megan Olson	847-835-4111	Glencoe	Cook	275 Park Ave. Glencoe, IL 60022	2021-06-12
1	Montgomery County	Katie Wilson	217-532-6171	Butler	Montgomery	Montgomery County Farm Bureau 102 N. Main St. Hillsboro, IL 62049	2021-03-27
2	Hancock Co. Farm Bureau	Kristin Huls	217-357-3141	Carthage	Hancock	550 N Madison St. Carthage, IL 62321	2021-04-17
3	Sterling	Brad Schrader	815-632-6657	Sterling	Whiteside	202 Wallace St. Sterling, IL 61081	2021-05-01
4	NCICG	Kevin Lindeman	815-433-5830	Henry	Marshall-Putnam	Marshall-Putnam County Fairgrounds 915 University Ave Henry, IL 61537	2021-05-15
5	City of Columbia	Sue Spargo	618-281-7144	Columbia	Monroe	Monroe County Fairgrounds 4177 IL-156 Waterloo, IL 62298	2021-05-22
6	Herscher CUSD #2	Julie LaLone	815-426-2103 x6153	Herscher	Kankakee	501 N. Main St. Herscher, IL 60941	2021-05-22
7	Kane County*	Kelvin Beene	630-450-4657	Aurora	Kane	200 N River St Aurora, IL 60506	2021-06-05
8	Lake in the Hills Sanitary District	Mike Nelson	847-658-5122	Lake in the Hills	McHenry	Lake in the Hills Sanitary District 515 Plum Street Lake in the Hills, IL 60156	2021-06-26

Long-Term HHW Collection Facilities

FID	Site	Address	Special Instructions	Phone	Saturday	Sunday	Tuesday	Thursday
0	Naperville	156 Fort Hill Drive	(immediately north of Naperville Public Works at 180 Fort Hill Drive)	(630)420-6095	9 am - 2 pm	9am - 2 pm		
1	City of Chicago	1150 N. North Branch on Goose Island		(312) 744-3060	First of each month: 8 am - 3 pm		7 am - noon	2 pm - 7 pm
2	Rockford	3333Kishwaukee	Rock Riverr Reclamation District	(815) 987-5570	8 am - 4 pm	Noon - 4 pm		
3	Lake County	The Solid Waste Agency of Lake County (SWALCO) currently operates a long-term household chemical waste collection program. Information and a collection schedule can be found on the SWALCO website or by telephone.		(847)336-9340				

Annual IEPA Partner Hub One-Day HHW Collections

The annual collection program is still in the planning phases. The IEPA anticipates additional annualized collection events in Adams, Champaign, Effingham, Jackson, McLean, Peoria, Rock Island, and Sangamon Counties pending arrangements with impacted local governments.

Private Long-Term Facilities

A private household hazardous waste collection facility is currently being planned in the Peoria area, though there is little information about this site. There is also a private in operation located in Stickney, IL.

Appendix H- Diversion Martix

The framework uses 2018 landill data and utilizes the waste generation and diversion data from the 2015 Illinois Commodity/Waste Generation and Characterization Study (Characterization Study) commissioned by the Department of Commerce and Economic Opportunity (DCEO) to create diversion and recovery rates for 2018. For GHG impact factors the framework utilizes the USEPA WARM model.

Material	Group	Group	Diversion Rate	IL Generated Tons 2018	Disposed Tons 2018	Recovery Tons* 2018	GHG Impact Factor	GHG Impact mTCO2 Reduction Potential
Food Scraps	Limited programs	Organics	1%	2,672,665	2,637,076	35,589	(0.72)	(1,898,695)
Uncoated OCC/Kraft	Established program	Paper	57%	3,074,785	1,331,915	1,742,870	(3.39)	(4,515,192)
Compostable Paper	Pilot Programs	Paper	5%	586,871	560,242	26,630	(0.38)	(212,892)
Other Film	Limited programs	Plastic	0%	472,277	472,277	-	(1.05)	(495,891)
Painted Wood	Limited programs	C&D	0%	456,187	456,187	-	(1.46)	(666,033)
Bottom Fines & Dirt	No programs	Organics	0%	454,843	454,843	-	-	-
Mixed Paper - Recyclable	Established program	Paper	4%	427,803	410,880	16,923	(3.76)	(1,544,908)
Yard Waste - Compostable	Established program	Organics	59%	943,434	390,559	552,875	(0.28)	(109,357)
Recyclable Glass Bottles & Jars	Established program	Glass	29%	547,524	389,116	158,409	(0.30)	(116,735)
Other Rigid Plastic Products	Established program	Plastic	18%	465,844	383,839	82,004	(1.05)	(403,031)
Wood Pallets	Limited programs	C&D	31%	526,295	364,278	162,017	(1.46)	(531,846)
Household Bulky Items	Pilot Programs	Inorganics	31%	506,796	351,498	155,298	-	-
Other Organic	Pilot Programs	Organics	0%	337,711	337,711	-	(0.38)	(128,330)
Boxboard	Established program	Paper	23%	438,555	336,765	101,790	(3.39)	(1,141,633)
Diapers	No programs	Organics	0%	297,716	297,716	-	-	-
Other C&D	No programs	C&D	57%	692,444	296,982	395,462	-	-
Other Plastic	Pilot Programs	Plastic	1%	285,646	283,779	1,867	(1.05)	(297,968)
Newsprint	Established program	Paper	60%	698,927	282,684	416,243	(1.89)	(534,273)
Clothing	Limited programs	Textiles	34%	425,775	279,188	146,587	-	-

Material	Group	Group	Diversion Rate	IL Generated Tons 2018	Disposed Tons 2018	Recovery Tons* 2018	GHG Impact Factor	GHG Impact mTCO2 Reduction Potential
Commercial & Industrial Film	Limited programs	Plastic	11%	308,841	273,750	35,091	(0.87)	(238,162)
Trash Bags	No programs	Plastic	0%	269,108	269,108	-	-	-
Clean Engineered Wood	Established program	C&D	65%	724,599	250,119	474,480	(1.59)	(397,689)
Other Textiles	Pilot Programs	Textiles	4%	246,597	235,523	11,075	-	-
Composition Shingles	Established program	C&D	52%	479,793	230,918	248,875	-	-
Clean Dimensional Lumber	Established program	C&D	68%	695,567	221,088	474,480	(1.46)	(322,788)
High Grade Office Paper	Established program	Paper	51%	404,956	200,381	204,575	(4.11)	(823,568)
Other Ferrous	Established program	Metal	53%	411,601	193,338	218,263	(4.41)	(852,622)
Carpet	Pilot Programs	Textiles	7%	196,599	182,039	14,559	(2.40)	(436,895)
#1 PET Bottles/Jars	Established program	Plastic	9%	182,363	165,564	16,799	(1.17)	(193,710)
Concrete	Established program	C&D	75%	631,893	157,413	474,480	(0.03)	(4,722)
Magazines/Catalogs	Established program	Paper	35%	240,189	156,318	83,871	(2.68)	(418,933)
#6 Exp. Polystyrene Packaging	Limited programs	Plastic	1%	147,657	145,915	1,742	(1.05)	(153,211)
Plastic C&D Materials	Pilot Programs	C&D	58%	342,153	144,422	197,731	-	-
Ferrous Containers (Tin Cans)	Established program	Metal	26%	183,495	135,462	48,033	(1.85)	(250,606)
Gypsum Board	Limited programs	C&D	56%	284,613	126,453	158,160	0.09	11,381
Grocery & Merchandise Bags	Established program	Plastic	1%	109,916	109,169	747	(0.87)	(94,977)
#3-#7 Other - All	Limited programs	Plastic	1%	104,863	103,619	1,244	(1.05)	(108,800)
Other Metal + mixed C&D metals	Established program	Metal	80%	523,209	103,233	419,976	(4.41)	(455,259)
Other Paper	Established program	Paper	4%	99,587	95,107	4,480	(3.76)	(357,604)
Rock & Other Aggregates	Established program	C&D	78%	407,059	90,740	316,320	-	-
Ceramics/Porcelain	No programs	C&D	0%	86,260	86,260	-	-	-
Flat Glass	No programs	Glass	0%	80,635	80,635	-	(0.30)	(24,191)

Material	Group	Group	Diversion Rate	IL Generated Tons 2018	Disposed Tons 2018	Recovery Tons* 2018	GHG Impact Factor	GHG Impact mTCO2 Reduction Potential
Yard Waste - Woody	Established program	Organics	59%	186,619	77,238	109,380	0.35	27,033
Aluminum Beverage Containers	Established program	Metal	39%	123,653	75,247	48,406	(9.15)	(688,512)
Electronic Equipment	Established program	Inorganics	36%	116,162	74,725	41,438	(1.09)	(81,450)
Other Non-Ferrous	Established program	Metal	15%	72,821	62,244	10,577	(4.41)	(274,494)
#2 HDPE Bottles/Jars - Clear	Established program	Plastic	35%	92,084	59,605	32,478	(1.17)	(69,738)
#2 HDPE Bottles/Jars - Color	Established program	Plastic	35%	85,202	55,088	30,114	(1.17)	(64,453)
White Goods - Not refrigerated	Established program	Inorganics	73%	185,822	50,434	135,388	(0.81)	(40,852)
Carpet Padding	Pilot Programs	Textiles	6%	53,185	49,825	3,360	(2.40)	(119,579)
#1 Other PET Containers	Established program	Plastic	9%	51,131	46,403	4,729	(1.17)	(54,291)
Other Glass	No programs	Glass	26%	62,505	46,079	16,426	(0.30)	(13,824)
Other Aluminum	Established program	Metal	36%	69,921	44,785	25,136	(9.15)	(409,783)
Milk & Juice Cartons/Boxes - Coated	Established program	Beverage Containers	6%	46,054	43,068	2,986	(4.11)	(177,009)
Other Roofing	No programs	C&D	0%	42,670	42,670	-	-	-
Bricks	Established program	C&D	88%	335,956	39,422	296,534	(0.27)	(10,644)
Other Household Batteries	Limited programs	Inorganics	6%	34,855	32,864	1,991	-	-
Asphalt Paving	Established program	C&D	0%	30,039	30,039	-	(0.11)	(3,304)
Other HHW	No programs	Household Hazardous Waste	3%	26,505	25,634	871	-	-
Tires	Established program	Inorganics	88%	207,375	23,954	183,421	(0.40)	(9,582)
Televisions	Established program	Inorganics	42%	40,479	23,680	16,799	(0.59)	(13,971)
Computer Equipment/Peripherals	Established program	Inorganics	58%	57,017	23,668	33,349	(0.39)	(9,231)

Material	Group	Group	Diversion Rate	IL Generated Tons 2018	Disposed Tons 2018	Recovery Tons* 2018	GHG Impact Factor	GHG Impact mTCO2 Reduction Potential
Used Oil/Filters	Established program	Household Hazardous Waste	86%	129,888	18,765	111,123	-	-
Treated Wood	Limited programs	C&D	0%	15,754	15,754	-	(1.46)	(23,001)
Ash, Sludge, & Industrial Wastes	No programs	Household Hazardous Waste	3%	15,928	15,430	498	-	-
Latex Paint	Limited programs	Household Hazardous Waste	2%	12,531	12,282	249	-	-
Computer Monitors	Established program	Inorganics	55%	25,497	11,560	13,937	(1.51)	(17,456)
White Goods - Refrigerated	Established program	Inorganics	89%	83,323	8,910	74,414	(0.81)	(7,217)
Oil Paint	Limited programs	Household Hazardous Waste	5%	4,754	4,505	249	-	-
Sharps & Infectious Waste	No programs	Household Hazardous Waste	0%	4,480	4,480	-	-	-
#2 Other HDPE Containers	Established program	Plastic	36%	5,961	3,845	2,115	(1.17)	(4,499)
Fluorescent Lights/Ballasts	Limited programs	Inorganics	14%	3,634	3,136	498	-	-
Reinforced Concrete	Established program	C&D	98%	120,468	1,879	118,589	0.03	56
HVAC Ducting	Established program	Metal	98%	60,601	1,244	59,357	(4.41)	(5,488)
Other Automotive Fluids	Established program	Household Hazardous Waste	100%	21,279	25	21,254	-	-
Mercury-Containing Items	No programs	Household Hazardous Waste	0%	12	12	-	-	-
Lead-acid Batteries	Established program	Inorganics	100%	-	-	-	-	-
Sewage Solids	No programs	Household Hazardous Waste	0%	-	-	-	-	-
Other MSW	No programs	C&D	100%	-	-	-	-	-

Material	Group	Group	Diversion Rate	IL Generated Tons 2018	Disposed Tons 2018	Recovery Tons* 2018	GHG Impact Factor	GHG Impact mTCO2 Reduction Potential
Plant/Organism/Pest Control/Growth	No programs	Household Hazardous Waste	100%	-	-	-	-	-
Total				**23,897,820**	**15,102,613**	**8,795,207**		**(19,790,427)**