

MATERIALS MANAGEMENT ADVISORY COMMITTEE

Meeting Notice:

Who: Materials Management Advisory Committee
Open to the Public

When: Tuesday, April 27, 2021 1:00 pm – 3:00 pm

Due to the COVID-19 outbreak, this meeting will be held remotely. Members of the public are welcome to attend by using any of the connection options listed below.

Attendance via WebEx is preferred to enable participants to view the presentation, raise their hands, or vote by chat.

Meeting number (access code): 289 611 329

Meeting password: J3MrppCgW28

Thursday, April 27, 2021

1:00 pm

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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

Materials Management Advisory Committee

Meeting March 23, 2020

1. Introductions: quorum met at 1:00 PM, James Jennings called the meeting to order.

Committee members present: McKeen, Mummel, Griffith, Jarland, Pausma, Willis, Kaar, Monte, Cowhey, Holcomb, Disbrow, Sauve, Stone, Connell
IEPA employees present: Jennings, Miller, Buis, Metz, Froidcoeur, Fry, Ferree, Foxworth, Suthar, Boring, Jayne
Public: Liz Kunkle, Rose Naseef, Megan Walton Conway, Christina Seibert, Benjamin Krumstok, Joy Hinz, Jenny Hinton, Katie Neary, Andi Dierich
Excused: Rivas, Pai
Absent: Dyer, Gale, Tazelaar, Laird, Westerfield
2. Approval of Past Minutes: Dyer was listed as a committee member and as public member. McKeen motioned to approve February meeting minutes as amended; Jarland seconded. Motion passed unanimously.
3. Motion to Adopt Recommendations to the General Assembly
 - a. Education and Outreach Recommendations. Kay McKeen and Don Buis led the discussion. McKeen moved to adopt the recommendations. Willis seconded. No public comments. Motion passed unanimously.
 - b. Market Development Recommendations. Disbrow and Jennings led group discussion of the Market Development Subcommittee's proposed recommendations. Disbrow moved to adopt the recommendations. Mummel seconded. Motion passed unanimously.
4. Subcommittee Updates
 - a. Measurement Subcommittee: Jennings and Boring led group discussion on Measurement updates. The initial draft is being finalized and will be circulated next month, possibly with the next meeting packet. Received everything except for the City of Chicago. Shantanu's group is consolidating for the map layer and will let the group know when the maps are updated. The maps that haven't been reviewed will be available for comments.
 - b. Local Government: Miller and Jarland led group discussion of Local Government updates. Continued going through the document for additional updates. Will have an additional subcommittee meeting on 4/21. Still taking comments at:
<https://docs.google.com/document/d/1cvTVKNKudPGRdqpos9kqsD6MpzQVTQbh/edit?rtprof=true>
 - c. Infrastructure: Willis led group discussion of Infrastructure updates. Have been reviewing fourth draft. Next meeting is 4/15.
5. Old Business
 - a. State training requirements: It is possible that the committee may need to do a second round of state training. Updates to come.
6. New Business: Willis recommends discussing controversial funding in general as a future agenda item.
7. Adjournment: Willis motions to adjourn, Disbrow seconds. The meeting adjourned at 2:18 PM.

Materials Management Advisory Committee

Meeting March 23, 2020

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 present members of the Materials Management Advisory Committee voted to adopt the recommendations from the Education and Outreach Subcommittee, with minor revisions. Those revisions were:

- Revising the language related to facility mapping to mirror verbiage used in other subcommittees; and
- Removing the appendices from the recommendations document and including them among the supporting documentation to the report to the General Assembly.

Resolution: Adopted, with revisions identified during discussion

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

Votes in Dissent: None

Abstentions: None

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 and Recommendations

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.¹ 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.

¹ <https://resource-recycling.com/recycling/2020/11/10/major-packaging-users-hit-6-2-average-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.

Diversion strategies & Materials to target

Working definitions

Recycling markets:

Recycling markets are referred to customers that accept recyclables that are collected from the MSW stream.

For the purposes of this document, we only consider positive markets, i.e. where the buyer will pay for the materials.

Collection programs:

Collection programs can 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.

Emerging materials:

Materials that have not had collection or recovery technologies as well as materials that are *growing*, *new* or *emerging* to the waste stream.

Access:

Opt-in or opt-out curbside collection programs are considered access in densely populated regions. Access looks different based on the collection program that is appropriate for the region.

One day events that happen periodically and predictably they serve as reasonable access.

Drop-off sites that are widely promoted and accessible to the general public also serve as reasonable access.

Material recovery facility (MRF)

A facility that sorts, processes, and bales different types of aggregated recyclables for sale to processors.

Processing facilities:

Processing facilities can be seen as accepting directly from consumers/ generators (MRFs) but also intermediate facility that sends to further processing or *direct manufacturing*.

Accepting facilities:

Mills, convertors, manufactures accepting post consumer/industrial materials AND actively converting these materials into new consumable products.

Diversion Matrix

The matrix calculation uncovered four quadrants of materials to prioritize. Each with its own set of challenges, opportunities and set of strategies.

Established programs Or Global Markets

Established collection programs
Established infrastructure
Markets and economics support infrastructure investment.
Access to markets across the State

Limited programs Regional Markets

Collection programs exist in some regions
Infrastructure is growing to support commercial volumes
Regional Markets do exist
Limited statewide access

Pilot programs Emerging Markets

Collection programs are being/have been piloted
Processing infrastructure are not effectively accessed
Markets are not mature (established)

No programs presently exist Future Markets

Recovery technologies are not developed
Infrastructure needs to be developed
Market development required to be Economically Sustainable.

Established programs

Global Markets

Established collection programs

Established infrastructure

Established regional markets

Reasonable access across the State

Strategies:

- Increased education on supporting recycling by buying recycled content
- Increased efficiency through contamination reduction
- Increased programing through local planning assistance

Limited programs

Regional Markets

Collection programs exist in some regions

Infrastructure is growing to support commercial volumes

Regional Markets do exist

Limited statewide access

Strategies:

- Increase access through additional infrastructure and collection programs
- Support development of markets through purchasing recycled content.
- Innovate collection programs

Pilot programs

Emerging Markets

Collection programs are being/have been piloted

Processing infrastructure are not effectively accessed

Markets are not mature (established)

Strategies:

- Engage and recruit technologies and programs to the state
- Market development
- Pilot and implement supplemental or alternative strategies for recovery

No programs presently exist

Future Markets

Recovery technologies are not developed

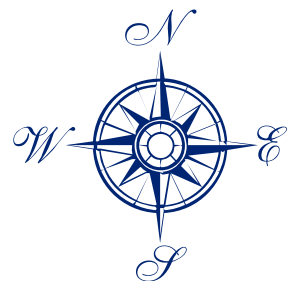
Infrastructure needs to be developed

Market development required to be Economically Sustainable.

Strategies:

- Engage and recruit researchers and innovators to identify recovery solutions
- Engage and recruit researchers, innovators, and manufacturers to identify alternative materials

Material Recovery Facilities



Company	Name	Address
Area Recycling, Inc.	Wilson Gilkerson	14379 IL Route 29 South, Pekin, IL 61554
Diversified Recycling	John Pausma	1501 W 175th Street Homewood, IL 60430
Eagle Enterprises Recycling, Inc.	Adam Jaquet	510 SE Industrial Ave., Galva, IL 61434
Groot Industries	Jordan Berkley	1759 Elmhurst Rd. Elk Grove Village, IL 60007
Lakeshore Recycling Systems	Joshua Connell	6201 W. Canal Bank Rd., Forest View, IL 60402
Midwest Fiber Recycling	Marie	422 S White Oak Rd. Normal, IL 61761
Republic Services	Brent Batliner	6025 Byassee Drive, Hazelwood, MO 63042
Republic Services	Mark Henke	5050 West Lake St., Melrose Park, IL 60160
Resource Management	Greg Maxwell	9999 Andersen Ave, Chicago Ridge, IL
Southern Recycling Center	Tasis Karayiannis	300 W. Chestnut Street, Carbondale, IL 62901
Waste Commission of Scott County	Bryce Stalcup	5640 Carey Ave Davenport, IA 52807
Waste Management	Tomas Vujovic	30869 North Illinois Route 83 Grayslake, IL. 60030

Recommendations from the Measurement Subcommittee:

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

Summary of the Issue: A consistent statewide effort to gather support data of materials both disposed into and diverted from landfills is critical to maximizing the impact of the state's materials management efforts. To that end, the Measurement Subcommittee recommends the General Assembly approve on an annual basis, **necessary funds** to enable the Illinois Environmental Protection Agency (IEPA) to solicit, gather and maintain data with the goal to provide data and evaluation measures in support of programs, grant awards and public-private partnerships to establish markets, recovery technologies and communications programs that will result in recovering materials that may become waste and return those materials to the economic mainstream.

Subcommittee Findings

1. The total tonnage of materials sent to a landfill has decreased consistently since 2009.
2. Barring composting, there lacks a consistent framework to collect and report materials diverted from landfill.
3. Most counties within the state do not collect data on waste diversion or recycling from individual municipalities or facilities that provides waste and recycling services within their region.
4. The statewide characterization study serves as the only data available to track recovery potentials and diversion data both across the state as well as for individual counties and regions.
5. There lacks consistent measures and terminologies for evaluating or measuring the amount and potential for recovery of materials from disposal. We have discovered that timing of data gathering and terminology that identifies materials for their recovery vary across the state and create a challenge in aggregating data for evaluation.
6. There is a need for a standard format and schedule to identify commonly recovered or potentially recoverable items.

Subcommittee Recommendations

Based on our findings the subcommittee recommends the following:

1. **Diversion data:** IEPA with guidance from the Materials Management Market Development Committee utilize a standard form to collect data from facilities that collect materials for diversion. The form, at the minimum should collection data on materials collected and processed, diversion tonnages, contamination rates, and challenges faced. This data should be reported annually along with the landfill capacity reports.
2. **Community data:** IEPA with the guidance of ILCSMA and IRF utilize a standard form to collect data from the individual counties on current practices and progress. The form, at the minimum should collect data on current diversion

collection programs in the region, drop-off locations, and challenges faced. This data should be reported annually along with the landfill capacity reports.

3. **Solid Waste Characterization:** IEPA conduct a statewide solid waste characterization study every five years, beginning in 2022. The study should include at the minimum the amount and composition of municipal solid waste disposed and diverted in Illinois by county.

Local Government Subcommittee Findings and Recommendations

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 has identified information gathering and tracking as one of the core components of successful enhancement 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 to implement data collection and tracking mechanisms. 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, and 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 impacted counties or guarantee 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. *[In general, counties with populations less than 100,000 are less likely to complete an update of their Solid Waste Plan than counties with larger populations.]* In addition, not all Solid Waste Plans are submitted to the Illinois EPA; only plans with necessary and appropriate changes are submitted. This limited representation of county reporting impedes the Illinois EPA's ability to render evaluations that accurately reflect the existing materials management practices across the state.
- 3. Development of initial County Solid Waste Plans were funded in part with grants issued by IEPA, in recognition of the financial burden that the planning requirement would have on counties statewide.** Grants required a 30% match from the receiving counties, and counties were encouraged to jointly develop their Solid Waste Plans for resource and cost efficiency in addition to ensuring a regional, cohesive strategy for long-term waste management. Changes to Solid Waste Plan requirements will similarly have a financial impact to counties through the implementation of a revised standard format, 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.

3. **The standard content required for county Solid Waste Plan updates should be revised to include the materials management opportunities now available to units of local government and the need to track generation information.** More specifically, the amended Plan form should include the following six standard elements: an Executive Summary; Current Plan Implementation; data on the volume (generation) and types (characterization) of materials being managed; a detail of existing infrastructure; a needs assessment; existing diversion programs and opportunities for growth; and a summary of recommendations. As set forth in greater detail below, the section covering opportunities for growth would include discussion of public education campaigns and partnership opportunities. The standard form should be available as a fillable PDF that can be submitted electronically. Counties should be provided an option to affirm they have reviewed their Solid Waste Plan and no changes are necessary after the initial update prepared in accordance with the revised standard content has been completed, with such affirmation constituting the 5-year update to the Solid Waste Plan. The plan form should be structured in a manner that allows counties with a population of less than 100,000 residents the flexibility to tailor the reported information based on their size and resources. Additional information on each reporting element is detailed in the **County Solid Waste Plan Template** section below.

4. **The General Assembly should appropriate \$1 million from the Solid Waste Fund to the IEPA to provide funding support for all counties to develop their first Solid Waste Plan Update incorporating the revised standard content.** Fund appropriation may be distributed over one or multiple budget years to reflect varying due dates for individual counties' Plan Updates. Appropriated funds should be allocated equally to all counties (\$10,000 per county), with funds applied for through IEPA and to be expended (i.e., Plan Update completed and submitted to IEPA) within 12 months of funding. The schedule for completion of updates utilizing the new Solid Waste Plan Update format is recommended as follows:
 - 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)
 - 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. For any applicable county for which a Plan Update is not completed within this timeframe, IEPA should assign staff or retain a consultant to develop a Plan Update on the county's behalf, including consultation with the subject county, with funding for this effort to be provided from reallocation of funds that could have been applied for by the County.

County Solid Waste Plan Template

A thorough template of the contents of Illinois Counties Solid Waste Plans with a menu of potential recommendations for materials management advancement are included in this report as Section **XXX**. Below is a synopsis of the content of that template solid waste plan, which will be reflected in the revised version of the IEPA Reporting Form.

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, and scrap metal yards. This information may be derived in part from IEPA infrastructure mapping resources.

D. Needs Assessment

The Needs Assessment section should identify the County's current waste generation rate and current diversion rate, using locally compiled data where available.¹ If locally-derived rates are not available, the County should use statewide figures generated by the Measurement Subcommittee of the Materials Management Advisory Committee.

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 and 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. More detail is provided in the Template Plan, Section **XX**.

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

¹ The best data available to calculate these rates may be available from waste haulers, which may report this information directly to county solid waste coordinators if local ordinances require such reporting. Requiring submission of this information statewide would require amendments to the Illinois Environmental Protection Act and the Illinois Solid Waste Planning and Recycling Act.

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

- Education campaigns that encourage waste minimization and proper recycling, such as “Recycle Right” campaigns and efforts that publicize the State of Illinois recycling guidelines.
- Promoting sustainable procurement practices that include minimum post-consumer recycled content recommendations.
- Recognizing businesses and other community organizations that meaningfully and positively contribute to new or expanded recycling opportunities within the County. Examples of comparable existing programs include Smart Energy Design Assistance Center certification and Illinois Green Business Certification.
- Exploring ordinances related to recycling opportunities. Illustrative examples of such ordinances include ordinances to increase recycling availability to commercial, industrial, or multifamily locations.
- Exploring franchise agreements for waste and recycling collections. In some jurisdictions, these agreements include a fee that is tied to the actual cost of the services provided.
- Evaluating local pilot programs, including whether the materials included in the local curbside recycling stream or the methods employed for collection should be altered. In some locations, reducing the number of materials collected may be necessary to maximize the volume of material diverted from landfills. In other areas, multi-stream recycling may best facilitate enhanced recycling rates.
- Developing a recycling model for large events. Special events at parks and recreational areas, end-of-year student moves, public events, and restaurants each present unique opportunities to capture a significant volume of recyclable materials that may otherwise be landfilled.
- Develop best practices for property owners, industrial commercial sector, and residents on waste audits.

3. Organics Recycling Efforts

- Promoting the development of additional infrastructure to absorb locally-generated organic materials. Available options include encouraging the development of composting facilities that accept food scraps, food scrap collections, anaerobic digestion facilities, wood chip recycling facilities, clean for used food container swap collections, and seasonal events like pumpkin collections or Christmas tree composting.
- Developing or expanding county-wide or municipality-wide composting practices or leaf and limb collections. Such expansions could include providing educational materials on proper backyard composting and home management of yardwaste and subsidizing the purchase of backyard compost bins.
- Expanding opportunities for food recovery, including connecting local food banks with large scale generators of wasted food.
- Taking local government action such as new ordinances to enhance the potential for local organics recovery. Available options include requiring the use of compost in projects that include soil removal or enhancement, requiring the use of certified end-market compost in local construction projects, and banning or limiting the burning of yardwaste.

4. Non-Traditional Recycling Efforts

- Providing residents information on recycling white goods. This may include informing residents of takeback options that are available at the time of purchase. Counties could also consider partnering with scrap yards and waste haulers to expand collection opportunities for residents.
- Encouraging additional construction and demolition debris recycling. A wide range of options are available to promote further construction and demolition debris recycling. In addition to providing residents information on locally-available facilities, avenues to achieve this include examining ordinances to require recycling of these materials and encouraging the use of deconstruction services as part of government-funded demolition projects.
- Considering participation in the manufacturer-supported electronics collection program established by the Consumer Electronics Recycling Act. Counties have flexibility on how to participate in this program, including hosting permanent drop-off locations, hosting one-day events within their jurisdiction, or partnering with other counties to hold joint events.
- Applying to participate in the Illinois EPA-supported household hazardous waste, medication take back, partners for waste paint solutions, and hazardous educational waste programs. Participating communities are not assessed fees to participate and are not responsible for any transportation or disposal expenses for collected materials.
- Evaluating opportunities for public or private sites to properly collect and manage batteries, tires, oil, other automotive fluids, textiles, scrap metal, Styrofoam, carpet, and other difficult to recycle items.
- Participating in statewide discussions regarding circular economy partnerships and product stewardship programs and encourage residents and businesses to participate in these programs.
- Monitoring legislative actions for advancement in non-traditional recycling efforts.

5. Other Recycling Efforts

- Evaluating and considering support of emerging technologies that transform waste into useful products

F. Public Education and Outreach

- Creating or utilizing educational resources that apply to each and all of the categories above
- Linking to the Illinois EPA's website covering statewide waste management, recycling, and other sustainable materials management initiatives; and
- Providing conveniently accessed online information, including location and contact information for locally-operated waste diversion opportunities
- Create and track measurable outcomes to gauge success

The target audiences for these materials should be broad, capturing the general public, and ideally with supplemental materials specifically tailored for businesses, educators, and government entities. Sample materials are included in the recommendations of the Education and Outreach Subcommittee recommendations. There are a number of methods available to convey this messaging, including videos, direct person-to-person community outreach, K-12 school programming, and broader community advertising, as proposed by the Education and Outreach Subcommittee. Ideally, the educational program should have a means to measure the program's community footprint. Examples of items that may reflect a program's reach include unique website impressions, newsletter contacts, rate of contamination in the local recycling stream, the volume of social media comments and impressions, and responses to County-led surveys of residents.

G. Partnerships, Policy, and Funding

- Forming partnerships with neighboring counties to share research, data, expertise, and resources; and to combine planning efforts.
- Maintaining communication with statewide network of recycling coordinators
- Considering development of municipal joint action agencies and citizens advisory committees

- Developing local ordinances that support sustainable materials management and diversion
- Including a list of all available funding sources accessible by the county for programs and infrastructure improvements.

H. Summary of Recommendations

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

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 and other regions of the State do not collect the amount of landscape waste collected in the more suburban and urban areas of the State.
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 in counties with more than 700,000 residents which limited development of this type of infrastructure.
5. The distribution of permitted compost facilities shown on Figure 5 indicates there is greater geographic coverage and distribution 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 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 ????.
6. The distribution of existing material recovery facilities and consolidation/transload facilities shown on Figure 6 (both in-state and out-of-state) indicates there is likely a need for additional consolidation/transload facilities in rural areas to aggregate recyclables for more efficient transfer to primary MRFs.

7. The distribution of drop-off recycling (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 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. In west central Illinois (Peoria County), a privately operated HHW collection facility is planned to open in the next few years.

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, IEPA annually provides a limited number of one-day collection events for HHW throughout the State. There have been a few years when IEPA has had insufficient funds to provide 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.

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. 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 as the 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, which in turn leads to project developers deciding not to invest in the infrastructure?
2. In order to achieve higher waste diversion 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:
 - a. A minimum of \$1 million from the Solid Waste Fund to the IEPA to issue two rounds of infrastructure grants to ~~material recovery facilities (MRFs)~~ recycling facilities within the next 5 years. ~~The grants should be open to both new and existing MRFs and to new and existing consolidation facilities for recyclables.~~ For the first grant round forty percent of the \$1 million should be allocated to counties with less than 100,000 residents and 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 grant round should be for the remaining sixty percent for counties with more than 100,000 residents and the scope of this grant round should be new and existing MRFs..
 - b. A minimum of \$1 million from the Solid Waste Fund to the IEPA to issue 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. For the first grant round forty percent of the \$1 million should be allocated to counties with less than 100,000 residents and the second grant round should be for the remaining sixty percent for counties with more than 100,000 residents.
 - c. Three additional cumulative appropriations of \$550,000 annually, \$550,000 annually, and \$275,000 annually within the next 5 years from the Solid Waste Fund to the IEPA to have adequate funds to ensure improved statewide coverage for transportation and disposal expenses for five additional HHW collection facilities (once all five facilities are operating the annual appropriation required is approximately \$1.375 million or \$275,000

per facility based on current operating costs for the four existing facilities) to be established in areas of the state sufficiently remote from the network of existing HHW collection facilities.

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 explore other funding mechanisms rather than the landfill surcharges authorized by Section 22.15 of the Act. By way of example other funding mechanisms currently being utilized or evaluated by other States are 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.
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 (still waiting on language from Shantanu as to which entities to reference in this recommendation) should work together 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 donors 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 recycling facilities, MRFs and consolidation/transload facilities, compost facilities, drop-off recycling sites, scrap metal recycling facilities and HHW collection facilities/one-day HHW collection hub locations on an annual basis and include the maps and associated data in the annual landfill capacity report.