

**Manistee-Missaukee-Wexford Multi-County
Materials Management Planning Committee Minutes
October 22, 2025 at 10:00 AM
Wexford County Government Center
415 3rd St, Manistee, MI 49660**

MMPC Member Attendance			
Chris Gee, GFL <i>rep. of a solid waste disposal facility</i>	P	Nikki Koons, Manistee County <i>elected official of the county</i>	E
Todd Harland, Republic Services <i>rep. of a hauler</i>	E	Larry Paquette, Cedar Creek Township <i>elected official of a township</i>	P
Rita Meech, Ms. Green <i>rep. of a materials recovery facility</i>	E	Joe Gryzbowski, City of Manton <i>elected official of a city or village</i>	E
Jason Murphy, Waste Management <i>rep. of a composting facility</i>	P	Cory Brown, Northern Disposal <i>business rep. generating material</i>	P
Karla Kasten-Smith, BARC <i>rep. of a diversion, reuse, or reduction</i>	P	Mike Szokola, Networks Northwest <i>rep. of the regional planning area</i>	P
Tyler Dula, Manistee Conservation District - representing Renee Mallison <i>rep. of an environmental interest group,</i>	P	Sherry Blaszak, Missaukee County Planning Commission <i>Member of General Public</i>	P
Jason Baughan, Wexford County <i>multi-county appointment</i>	E		
TO BE APPOINTED <i>Multi-County Elected Official (Wexford)</i>	-	<i>Attendance Key:</i> <i>A – Absent</i>	<i>P – Present</i> <i>E - Excused Absence</i>
Staff in Attendance: Lisa Sagala (Manistee County), Bill Gamble (City of Manistee), Christina Miller (EGLE), Aubree Carlisle (EGLE) Tracy Tomaszewski (EGLE), Kaitlyn Kikstra (SEEDs), Mathew Cooke (DPA-Networks Northwest)			

1. Call to Order

Larry Paquette, Chair, called the meeting to order at 10:05 a.m.

2. Public Comment

None.

3. Review Proposed Agenda

Motion by Karla Kasten-Smith, supported by Joe Gryzbowski, to approve the October 22, 2025 MMPC agenda as presented. Motion carried unanimously.

4. Approval of April 23, 2025 Meeting Minutes

Mathew Cooke noted that corrections to the minutes included correcting the meeting date and Sherry Blaszak not being present.

Motion by Karla Kasten-Smith, supported by Mike Szokola, to approve the August 27, 2025 MMPC Meeting Minutes as amended. Motion carried unanimously.

5. EGLE Food Waste and Goals and Objectives Presentation

Christina Miller, EGLE Planning Specialist, presented on goals and objectives and Aubree Carlise, Food Waste Specialist from EGLE presented on food waste to the committee (see attached presentation).

6. Materials Management Planning

Mathew Cooke provided an update on the MMP process:

- Over 200 Resident responses within the planning area
- Lake City is providing survey business cards in their winter taxes
- Municipal data collection completion
- Business and LUG survey collection continues, identify non-responding units
- Filling compost vacancy on MMPC
- Review of County Resident Survey Analysis at next meeting

7. Public Comment

None.

8. Committee Comments

Antrim ● Benzie ● Charlevoix ● Emmet ● Grand Traverse ● Kalkaska ● Leelanau ● Manistee ● Missaukee ● Wexford
PO Box 506 ● Traverse City, MI 49685-0506 ● Phone (231) 929-5000 ● Fax (231) 929-5012 ● networksnorthwest.org

None.

9. Adjourn

The October 22, 2025 MMPC meeting adjourned at 11:54 am.



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Materials Management Goals

for Sustainable and Productive Results

October 22, 2025

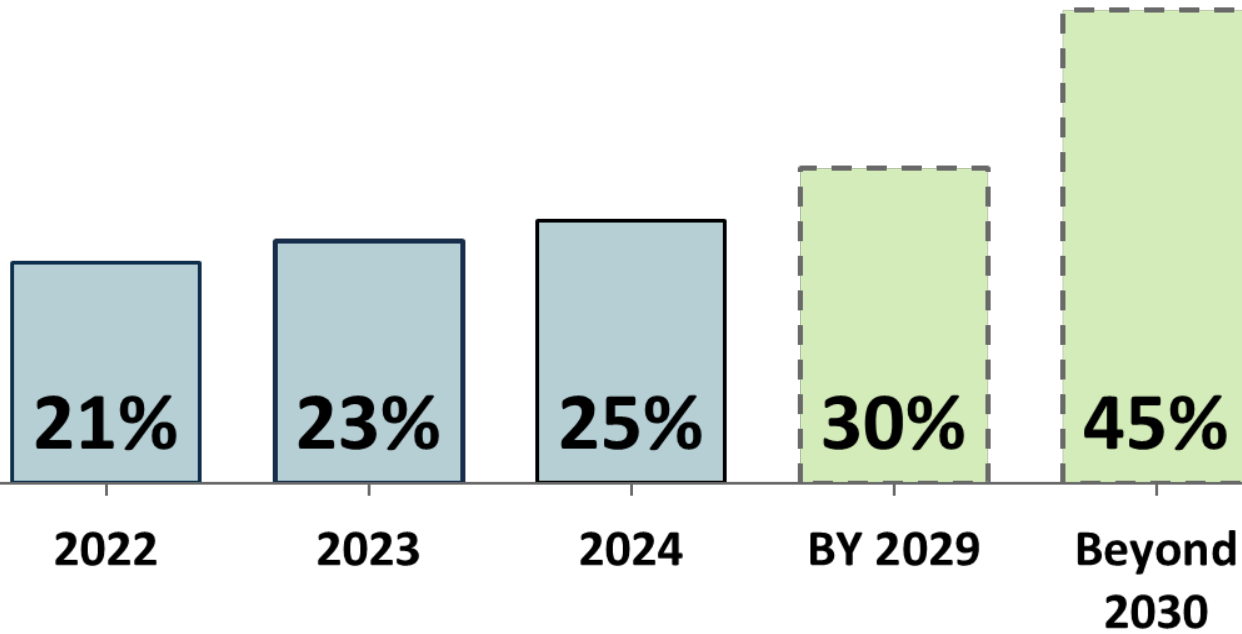
Networks Northwest – South

(Manistee – Missaukee – Wexford)

Materials Management Planning Committee

STATE OF MICHIGAN GOALS

Recycling Rate

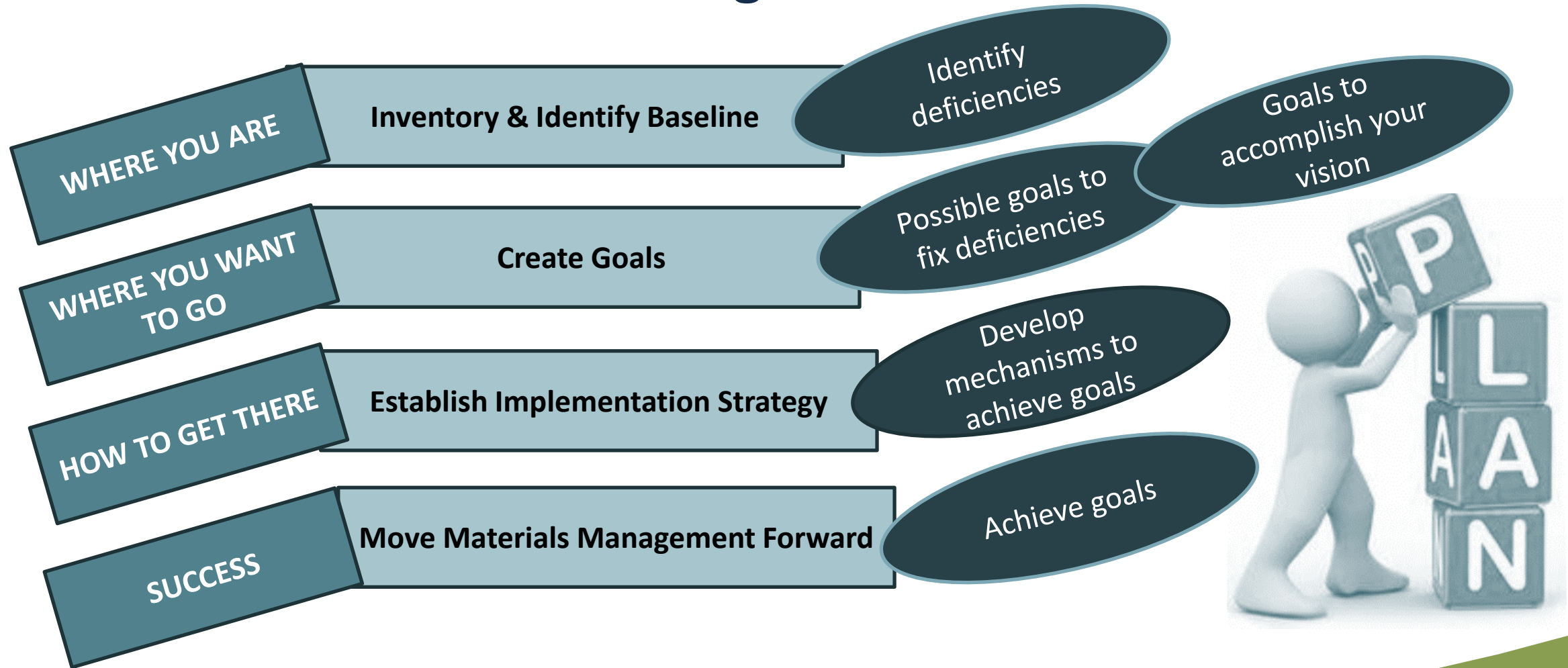


Food Waste Reduction

50% total reduction
of food loss and waste

Based on a 2021 baseline

Materials Management Planning Goal Setting Overview



Planning Area Profile

- ✓ Population
- ✓ Generation
- ✓ Materials Management Infrastructure & Systems
 - ✓ Inventory of all facilities
 - ✓ Hauler Service Providers
 - ✓ Other Collection Events
- ✓ MSW Recycling Rate

Materials Management Goals

- ✓ Diversion of Organics & Recyclables from Disposal
- ✓ Benchmark Recycling Standards
- ✓ Implementation Strategy

Mechanisms

- ✓ Funding and Enforcement
- ✓ Responsible Parties
- ✓ Siting Process

Administration

- ✓ Responsible Parties



MMP GOALS OVERVIEW

- Benchmark Recycling Standards
- Goals to divert organics and recyclables from landfill
- Implementation strategy

[Resource: MMP Goals Presentation Slides](#)

BENCHMARK RECYCLING STANDARDS



January 1, 2026: Urban Areas

January 1, 2028: Municipalities with more than 5,000

January 1, 2032: Counties will be required to provide a number of drop off locations according to the population of residents in the county without access to curbside recycling

CURBSIDE RECYCLING

90 percent of single-family dwellings must have access to curbside recycling

DROP OFF RECYCLING

Locations are available at least 24 hours per month

MMP GOALS

Materials Management Plans should include goals which are:

Specific
&
Objective **Measurable**

GO ABOVE AND BEYOND – BE SMARTIE



GOALS
INDICATE
DIRECTION

Increase School Recycling to all 15 schools by 2028

ACTIONS
TO SHOW
PROGRESS

- Increase awareness of the WHY
 - ✓ Meet with school administration
 - ✓ Hold school assemblies
- Determine starting point & progress
 - ✓ Survey materials needing managed
 - ✓ Survey progress at 6 months & 1 year
- Design a best program for the school
 - ✓ Create GreenTeams
 - ✓ Determine types of materials, space needed, education
 - ✓ Add service to School District solid waste/recycling contract

MMP GOALS – BY SECTOR



Residential



Schools



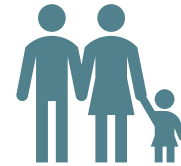
Commercial



Agriculture



Industrial



Tourism



Municipal



Recreation

And more!

MMP GOALS – BY MATERIAL TYPE



Food Waste



Traditional Recycling



Household Haz.



Film/Marina/Ag Plastic



Scrap Tires



E-Waste

And more!

MMP GOALS – Sustainable Operational Mechanisms



Ordinances



Contracts



Agreements



Funding Mechanisms

And more!

KEY TAKEAWAYS

SMARTIE Goals and Action Steps

Measure What You Manage

Convenient, Comprehensive, Cost Effective

Ongoing Education, Funding, and Mechanisms

Do What Works For YOU

Materials Management = Desired Public Service/Utility

The background of the slide is a close-up photograph of several blue cardboard crates filled with fresh raspberries. The raspberries are a vibrant red color. The focus is sharp on the raspberries in the foreground, while the ones in the background are slightly blurred, creating a sense of depth. The lighting is bright and natural, highlighting the texture of the raspberries.

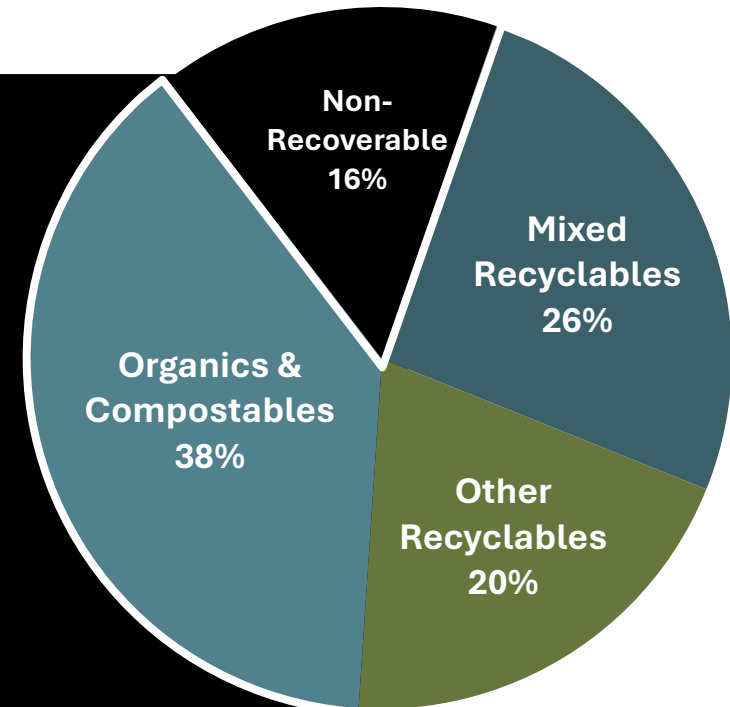
Food Waste Overview & Goal Planning

Michigan Municipal Solid Waste Composition

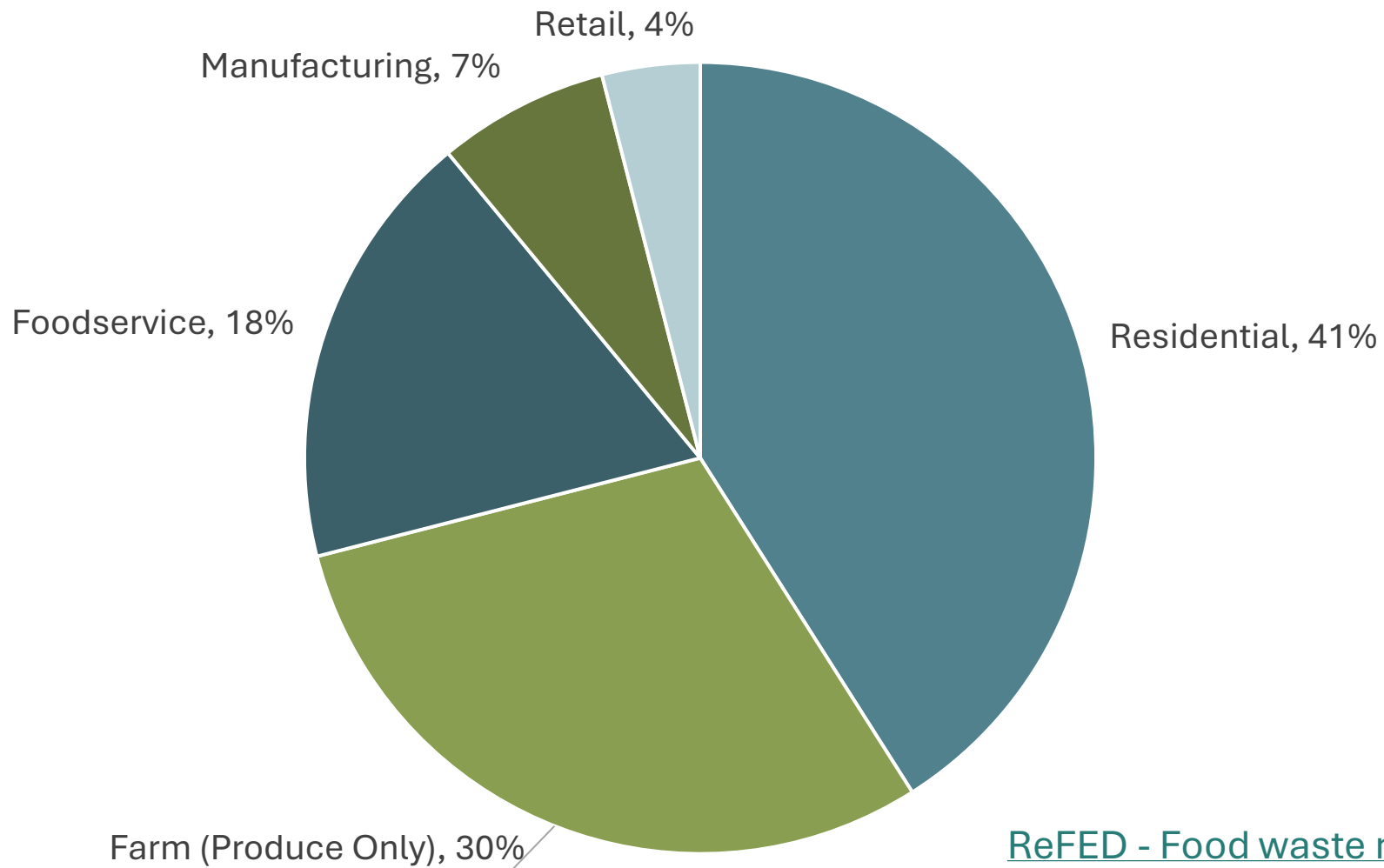
MIXED RECYCLABLES - paper, glass and plastic bottles and jars, plastic tubs and containers, and metal cans

OTHER RECYCLABLES - textiles, appliances, scrap metal, electronics, bulky plastics, and plastics films

ORGANICS & COMPOSTABLES - yard and food waste as well as compostable paper and compostable food service packaging



2023 Percentage of Food Waste by Sector in Michigan - ReFED



[ReFED - Food waste monitor](#)

MI Food Waste Reduction Goals



EGLE's MI Healthy Climate Plan Food Loss & Waste Reduction Goal

Drive clean innovation in industry: Cut food waste in half by 2030



USDA, EPA, and FDA: Federal Interagency Collaboration to Reduce Food Loss & Waste

Joint initiative to reduce the amount of food leaving the human food supply chain by 50 percent by 2030



United Nations Sustainable Development Goal 12.3

By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses

Impacts of Food Waste

- ◆ Financial
- ◆ Social
- ◆ Environmental

Environmental Impacts of U.S. Food Waste: EPA

What resources go into a year of food loss and waste in the U.S.?

*excluding impacts of waste management, such as landfill methane emissions



Greenhouse gas emissions of more than 42 coal-fired power plants

Enough water and energy to supply more than 50 million homes



The **amount of fertilizer** used in the U.S. to grow all plant-based foods for U.S. human consumption

An **area of agricultural land** equal to California and New York



Learn more: www.epa.gov/land-research/farm-kitchen-environmental-impacts-us-food-waste

~30 -40%
of food
produced is
never eaten

Food Waste in Landfills

Municipal solid waste landfills are the third-largest source of methane emissions from human activities in the United States. (EPA)



Why Divert Food Waste?

Methane accounts for 11% of global emissions and traps more heat in the atmosphere than CO₂.

Methane & biogas capture systems are not the most efficient solutions for capturing harmful emissions generated by food waste in an anaerobic environment.

Landfilling food waste does not promote a circular economy.

Food waste diversion increases the life of landfills and impacts our land, water, air, & communities.

Economic opportunities: Sustainability and economic viability can go hand in hand.



Materials Management Planning – Setting Food Waste Goals

County and CVT Food Waste Reduction Template

1. Understand the Food Waste Landscape

- Identify gaps & existing efforts

2. Program Support & New Program Development

- Food waste by sector (school, commercial, residential, etc.)
- Food rescue/donation and upcycling initiatives
- Food scrap processing, collection, & accessibility
- Provide support for municipalities, business, and non-profits

3. Community Engagement

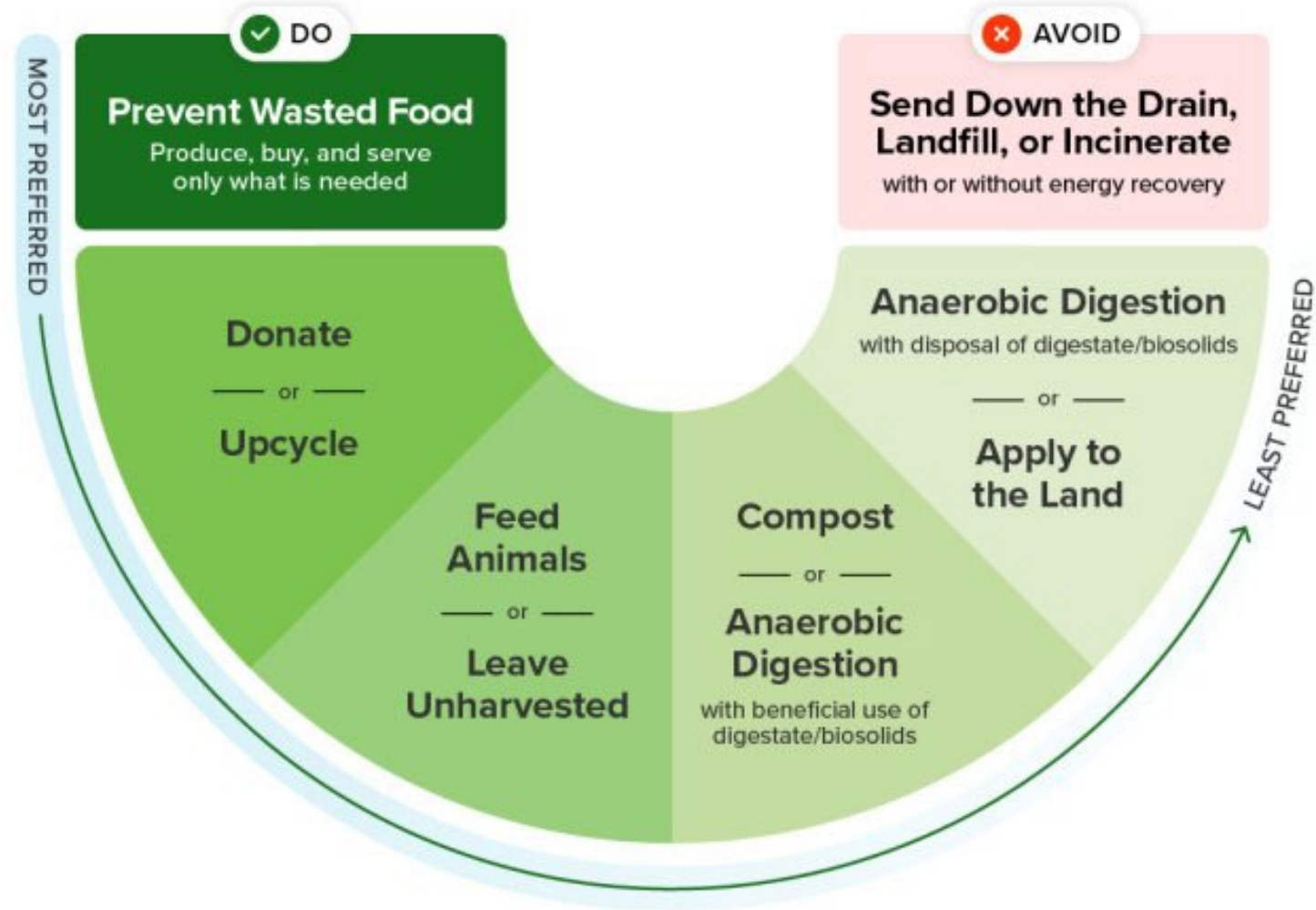
- Food waste education & awareness efforts
- Lead by example at the county level
- Receive community feedback





Wasted Food Scale

How to reduce the environmental impacts of wasted food



Prevent Food Waste

- **Public Education Campaigns:** Promote smart shopping, storage, and leftovers use
 - [EPA Food Too Good to Waste Campaign](#)
 - [NRDC Save The Food Campaign](#)
- **Support waste audits** for schools, residents, etc.
- **Support Local Businesses:** Offer toolkits and incentives for waste prevention
- **Engage Community Partners**

Of the food waste we throw away...



Oregon Department of Environmental Quality, 2019

Donate – or – Upcycle

- Food Rescue/Donation
 - Food Banks, Food Pantries, Soup Kitchens
 - Larger Food Rescue organizations serving Manistee County
 - Goodwill Northwest Food Rescue
 - Lakeshore Food Club
 - TrueNorth Community Assistance Center
 - [The Bill Emerson Good Samaritan Act](#)
 - [Good Samaritan Act FAQs](#)
- Low cost or wholesale avenues
- Upcycling



Feed Animals – or – Leave Unharvested



- Many foods can be fed to chickens, turkeys, pigs, and cattle
 - Grains and Vegetables
- Must be recovered and handled properly
 - [Harvard Legal Fact Sheet - Michigan Food Donation: Food Scraps for Animals](#)
- Fed directly or reprocessed first
- Puts food materials back into the food chain

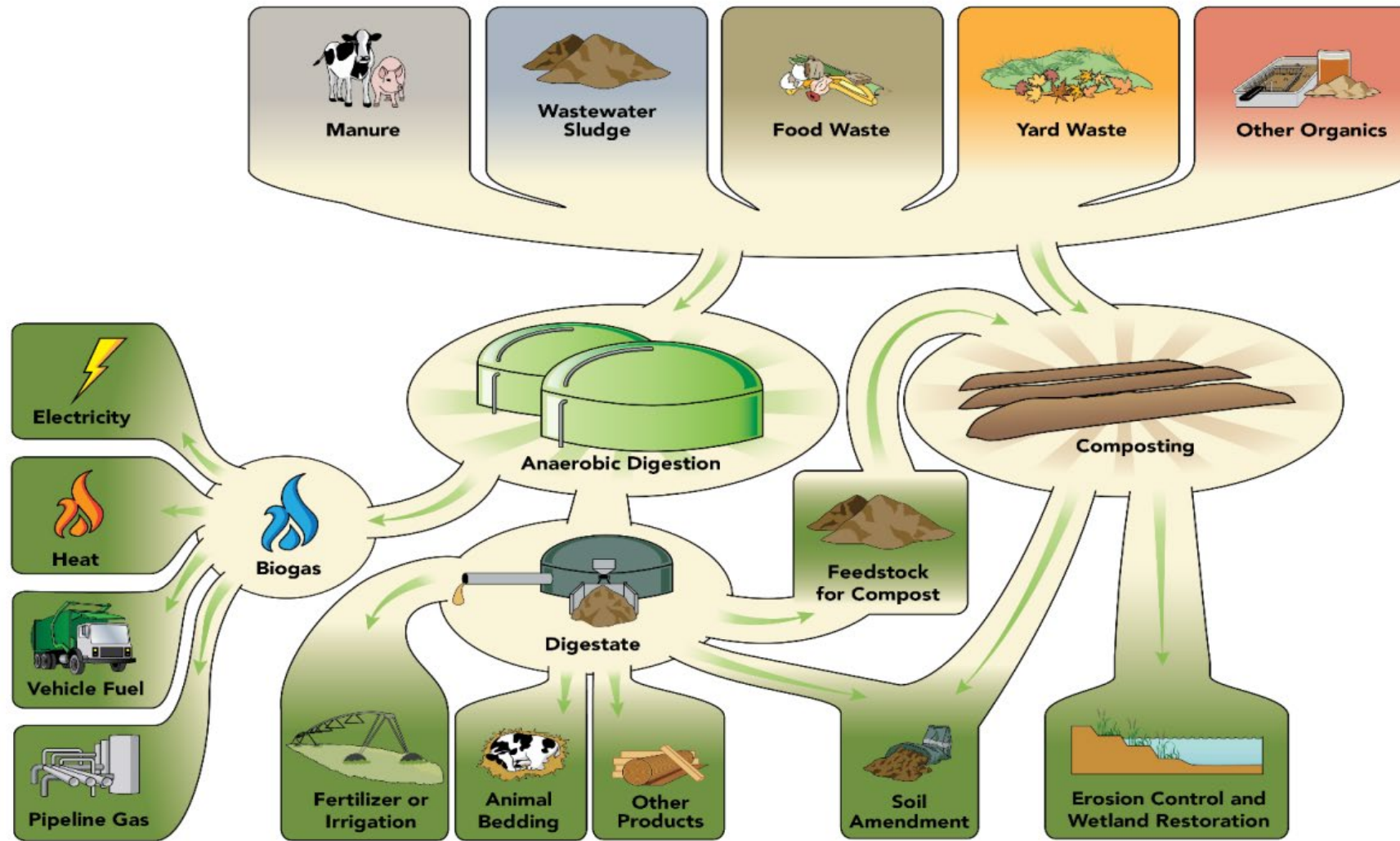
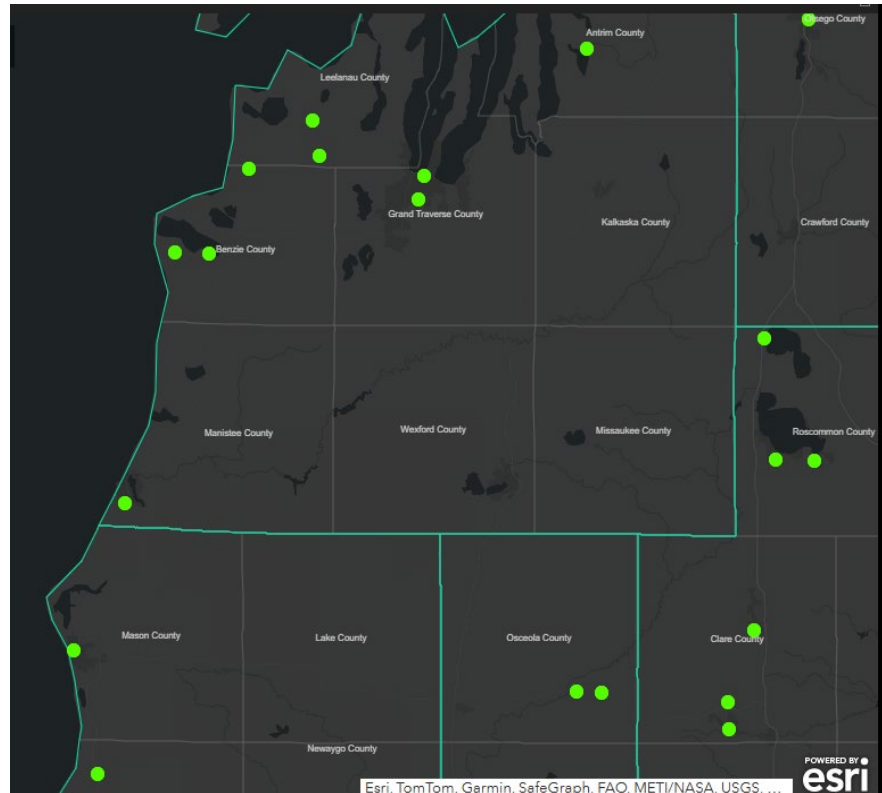


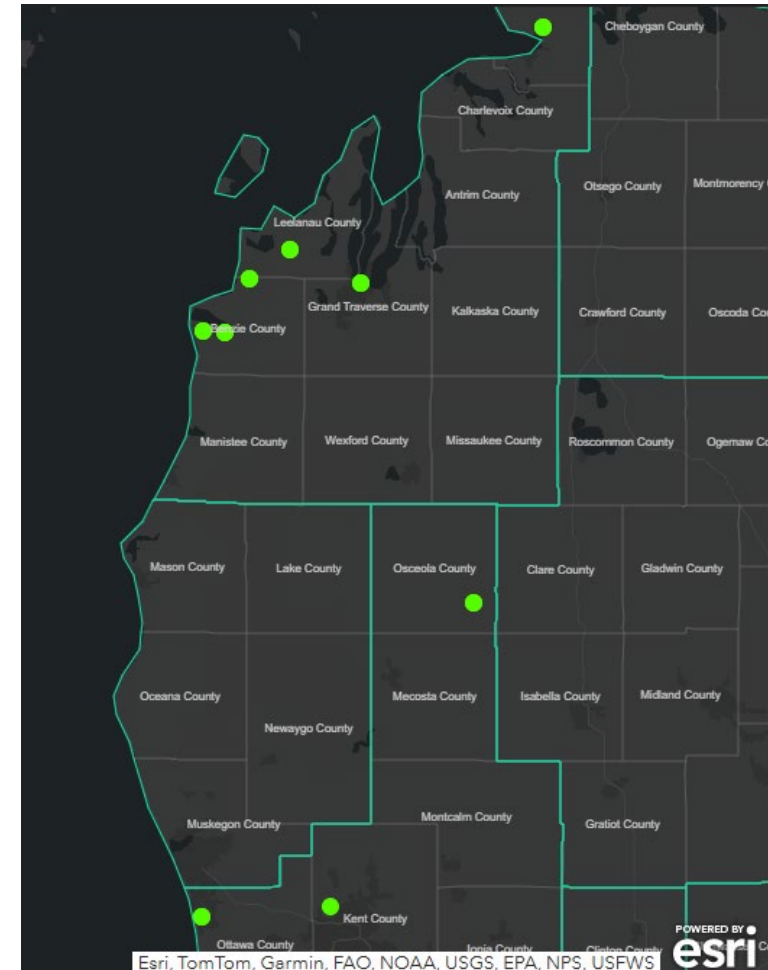
Figure 4-1. Byproducts and Beneficial Uses of Diverted Organic Waste.

Compost Facilities

Accepts yard waste



Accepts food waste



- [Organics Map — NEXTCYCLE MICHIGAN](#)
- [EGLE Michigan Materials Management Facilities map](#)

Pre-processing Technology & Aerobic Digesters



POWER KNOT LFC-70 BIODIGESTER,
FUJITSU CAMPUS CAFETERIA, SUNNYVALE, CALIFORNIA

- Grinders
- Biodigesters
- Pulpers
- Dehydrators
- Aerobic In-Vessel Units

Pros:

- ✓ Reduces volume & weight
- ✓ Reduces odors
- ✓ Enables diversion of food from landfills and can produce a usable by-product.
- ✓ On-site processing can reduce transportation emissions



DT-ENVIRONMENTAL ENVIRODRUM AEROBIC IN-VESSEL UNIT

Cons:

- High upfront costs
- Requires source separation, depackaging, & staff training
- Not all outputs are usable by-products
- Some systems discharge to sewer and have other environmental impacts
- Some systems require other inputs
- Maintenance and operational oversight required

Stakeholder Engagement & Resources

- [NextCycle](#)
- [EGLE Food Waste & Recycling Technical Assistance](#)
- [Grant Funding](#)
- [EGLE Food Waste Website](#)
- [MI 2030 Food Waste Coalition](#)
 - [MI Food Rescue Network](#)
 - [Food Waste Directory Development](#)
- [Michigan Sustainability Conference \(MISCON\)](#)
- [Catalyst Communities](#)
- [MDARD Food Donation Guide for Businesses](#)
- [Michigan Green Communities & Michigan Green Schools](#)
- [MDE School Food Waste Resources](#)



EGLE Funded Grant Projects



Setting Food Waste Goals

County and CVT Food Waste Reduction Template

1. Understand the Food Waste Landscape

- Identify gaps & existing efforts

2. Program Support & New Program Development

- Support efforts focused by sector (school, commercial, residential, etc.)
- Increase food scrap collection and processing infrastructure & access (composting/processing capacity, hauling services, etc.)
 - Expand yard waste facilities to include food waste
- Support food rescue/donation and upcycling initiatives
- Connect with and support local and regional solutions including municipalities, business, non-profits, etc.

3. Community Engagement

- Build public awareness and education on food waste reduction & diversion
- Understand community needs & interest
- Lead by example at the county level
- Ensure food waste services are accessible to all communities



Outlining Trackable Metrics

- **Set short term and long-term targets** that focus on:
 - Food waste reduction at the source
 - Increasing food rescue/food donation
 - Increasing food scrap recycling
- **Develop a plan for ongoing assessment of progress toward goals.**
- [Measure results](#)

Example target metric areas:

- Residential
- Commercial
- County
- Waste Diversion Rate
- Tonnage of Food Waste Collected
- Greenhouse Gas Emission Reductions
- Cost Savings
- Food Rescue metrics
- Composting Outputs





Example Goal Area: Establish and Expand Food Waste Processing Capacity

- Initiate and encourage the development of food scrap recycling sites, digesters or other food waste reduction sites
- Explore yard waste expansion to include food waste
- Develop food scrap recycling drop off programs for communities over *(example)* 5,000 residents
- Develop food scrap recycling curbside programs for communities that have demonstrated interest
- Pilot and scale composting programs

Example Goal Area: School Food Waste

- Encourage schools to commit to reducing food waste and provide guidance for schools to:
 - Donate food or use share tables
 - Track food waste through cafeteria waste audits and kitchen food waste logs
 - Implement food scrap collection in the cafeteria and kitchen
 - Incorporate changes to reduce food waste through menu planning and procurement, Breakfast in the Classroom, or rescheduling lunch
 - Incorporate food waste education into curriculum
 - Participate in Michigan Green Schools.



Example Goal Area: Residential Food Waste

- Food Scrap Drop off sites
- Curbside pickup
- Backyard & community composting
- Food Waste reduction Education/Outreach programs



Example Goal Area: Awareness & Education

- Build public awareness and education on food waste
 - Public education campaigns, social media, workshops, composting courses, community feedback
- Support municipalities, businesses & nonprofits education & outreach efforts
- Include food waste and local food donation information available on county websites.



Instructions

Go to

www.menti.com

Enter the code

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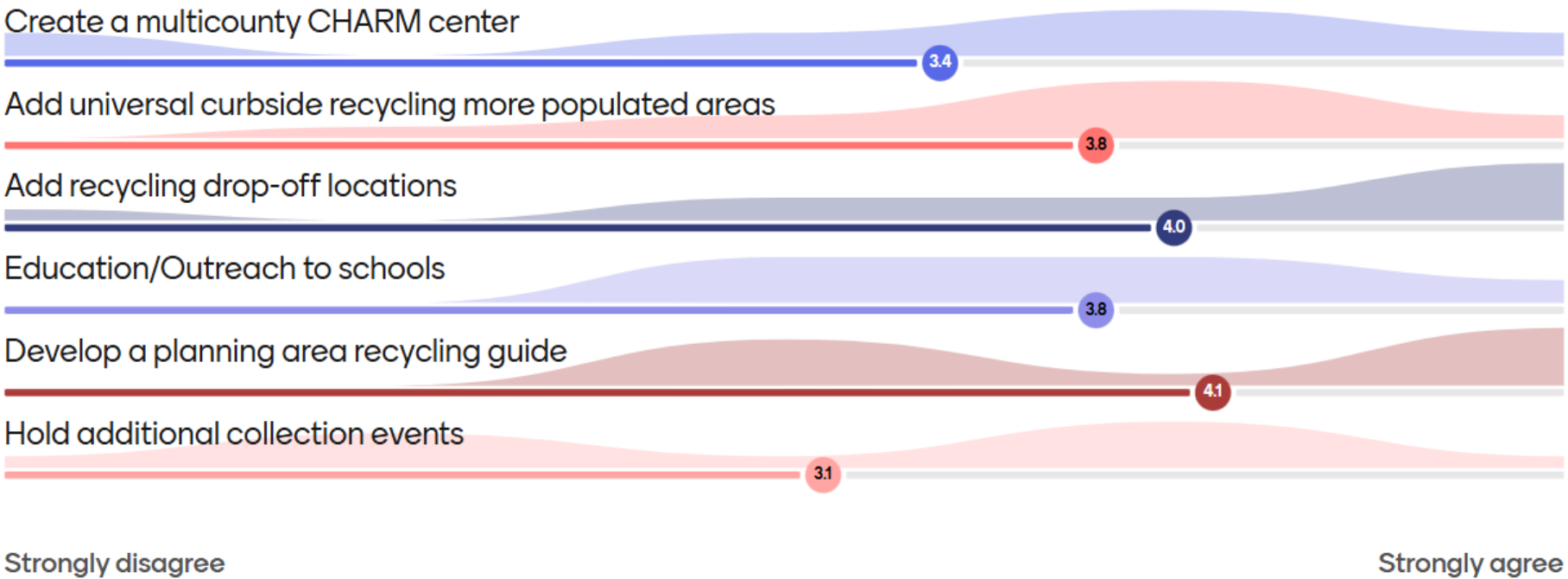
Or use QR code

Join at menti.com | use code 54517874



Create YOUR vision - Together!

Rank each recycling goal:



Are there other recycling goals that you would like to see?

Invasive species organics recycling

Small scale recycling efforts (i.e.: curbside cardboard pickup)

Need consumer awareness to contamination.

More recycling conversations with businesses

Some twps offer trash drop off bi-monthly, this should include bundled service of traditional recycling as well

Municipal offices recycling as an example to the public. Options clearly stated to the public for recycling options.

I believe the best way to increase recycling is to have contracted msw and recycling services with single haulers.

✱ Press **SPACE** to group responses

Agricultural operations connected into food waste system

Food waste drop-off in populated areas

Create an entrepreneurship incubator for small biz to get involved in developing waste diversion services

Share information with all shrink wrap businesses about recycling.

1

9/12

Are there other recycling goals that you would like to see?

More recycling conversations with businesses

I believe the best way to increase recycling is to have contracted msw and recycling services with single haulers.

Share information with all shrink wrap businesses about recycling.

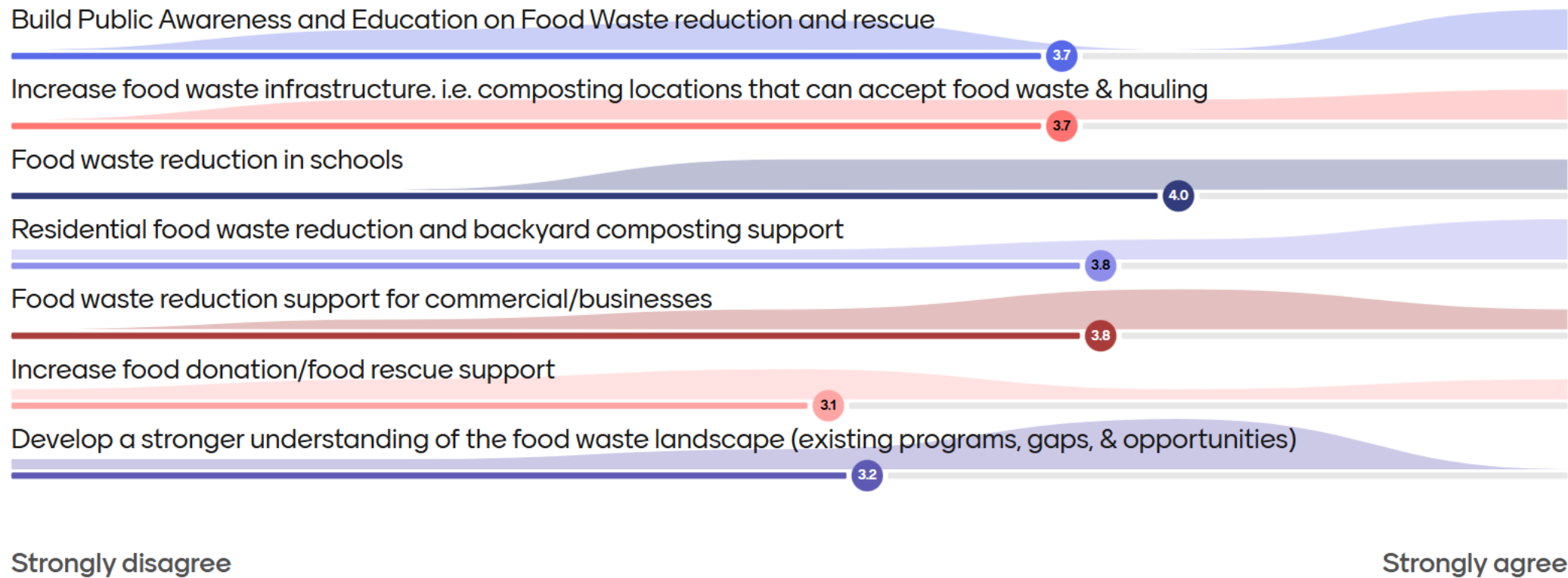
Have more support from landfills for diversion of materials. Agricultural tire recycling

Farm diversion strategies that are accredited through existing MDARD programs like MAEAP and Produce Safety

Provide information to consumers on where recycled materials end up and what end products are.

✦ Press **SPACE** to group responses

Rank each organics goals:



Are there other organic goals that you would like to see?

Lunch

Commercial food scraps to farm operations

Instead of Agricultural producers being forced to dump excess product, the ability to donate to food banks.

Communities should begin with organic food waste being allowed in yard clippings and education around this.

Less restrictive policy (including but not limited to the MMP and trigger mechanism) for new business to fill needs

Opportunities for new composting facilities.

More focus to Agriculture on food waste opportunities

Food to animal feed. Possibilities of reduction in food waste and agriculture costs to drive food market price down

Anaerobic Digester information

Give one goal for each sector: Agriculture

Recycle plastic wrap, time, plastic mesh

Ag tire collection

Gain knowledge and what are opportunities

Give one goal for each sector: Industrial/Manufacturing

Conversation and Education

Give industrial waste generator / waste haulers incentive to turn waste into usable material

Raw rubber waste. Hoses and fittings from mfg

Require manufacturing to dispose of industrial byproduct and waste in a monitored and other capacity than on site storage.

Education about landfill diversion.

What byproducts are not being utilized.

Give one goal for each sector: Tourism/Recreation:

ensure food waste and recycling at popular areas like marinas, beaches, parks, etc.

Get information out to tourists that recycling is available.

Conversation and Education

Recycling drop boxes at recreation trail heads

Aggressive campaign to contact shrink wrap businesses in the winter to be aware of recycling opportunities.

Fishing line recycling options distributed in bait sellers

What resources do you need to accomplish all of these goals?

\$\$\$

Funding mechanism

Money

Local Elected Official support

Participation

Money

Public participation

Business support

Funding,, educational resources

Partnerships to educate various sectors
in the language those sectors best
understand.

Funding opportunity and sustainability

Not chirs

✦ Press **SPACE** to group responses

Who needs to be at the table to help accomplish these goals?

Schools

Townships

Conservation districts, chamber of commerce, dda, local governments,

Local, state , community leaders

Ag, businesses, local leaders

Larry

Country, municipal, and township elected officials

Local Goverment and small businesses

Beautiful!

One or two words describing what your County look like once these goals are achieved

sustainability opportunity
beautiful
clean smaller landfills

CONTACT YOUR REGIONAL RECYCLING SPECIALIST

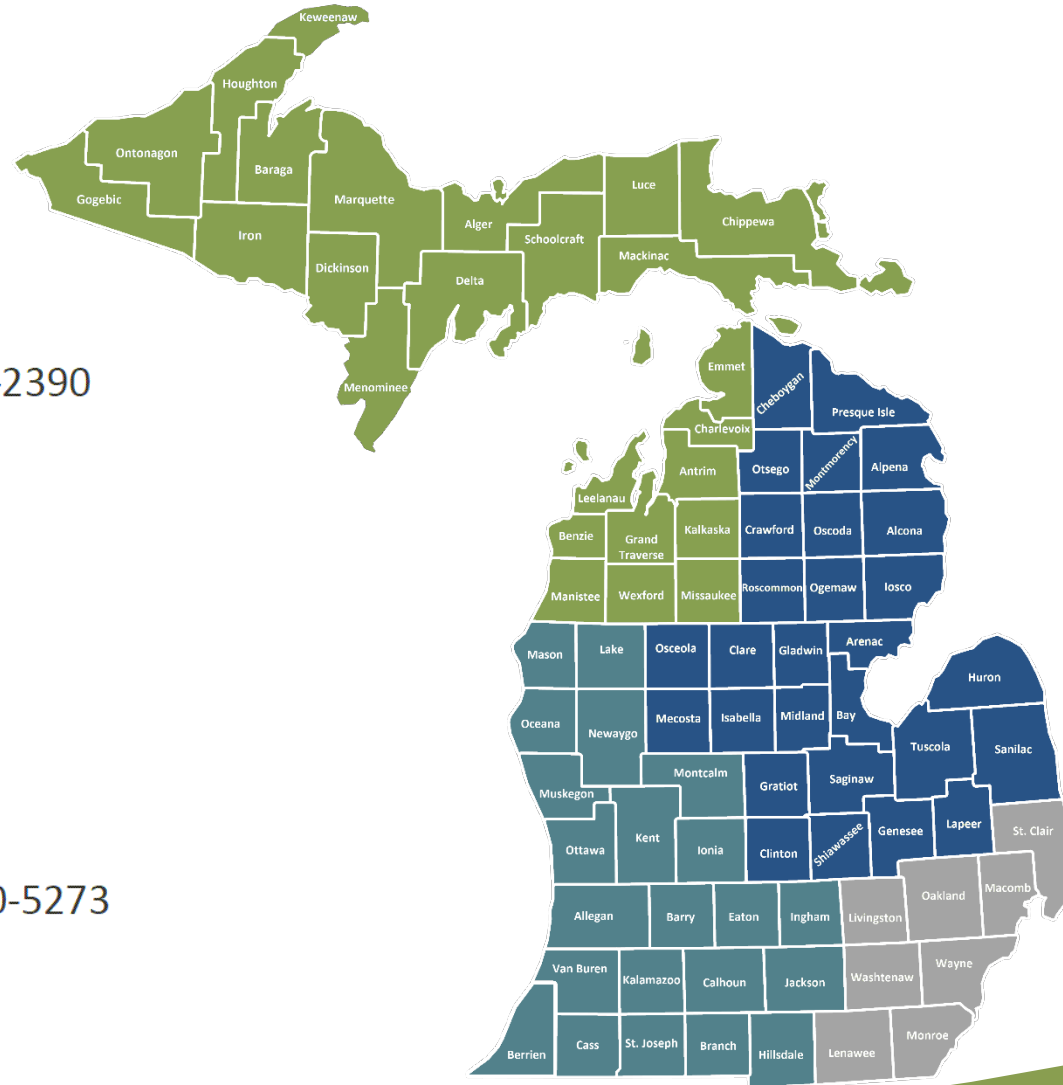
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MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

THANK YOU

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**Environment, Great Lakes, and
Energy**

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STRATEGIC	Reflects an important dimension of what your organization seeks to accomplish (programmatic or capacity-building priorities).
MEASURABLE	Includes standards by which reasonable people can agree on whether the goal has been met (by numbers or defined qualities).
AMBITIOUS/ ATTAINABLE	Challenging enough that achievement would mean significant progress—a “stretch” for the organization.
REALISTIC	Not so challenging as to indicate lack of thought about resources, capacity, or execution; possible to track and worth the time and energy to do so.
TIME-BOUND	Includes a clear deadline.
INCLUSIVE	Brings traditionally marginalized people—particularly those most impacted—into processes, activities, and decision/policy-making in a way that shares power.
EQUITABLE	Seeks to address systemic injustice, inequity, or oppression.

Goal: Curbside Recycling

Why: Benchmark Recycling Standard Requirement for many municipalities

- Universal access
- Outreach and education
- Carts versus bins
- Adequate annual budget
 - Replacement carts
 - Education
 - Maintenance
- Looks different with each community



Overarching Recycling Goals

- Ongoing education to improve quality and quantity of recyclables
- Increase support from local officials
- Engage community stakeholders
- Develop sustainable funding mechanisms
- Collaborate with service providers

Goal: Drop-Off Recycling

Why: *Benchmark Recycling Standard Requirement*



- Access & infrastructure will look different with each community & program
- Hub and spoke access model
- Contamination management:
 - Staffed
 - Fenced
 - Cameras
 - Anti litter ordinance posted
- Adequate collection containers
 - Collection capacity
 - Contamination from weather
 - Bulk items
 - Etc.

Goal: Multi-Family Recycling

Why: Consider this equitable service to your residential population

- Consider a multi-family recycling ordinance
 - Ex. City of Ferndale
- Engage EARLY & OFTEN with property owners, management companies, service providers & tenants
 - Consider diverse populations & transcreating materials



- *Access & infrastructure may look different for each housing structure*
- *Often multi-family services are provided by private sector*

Goal: Commercial Recycling

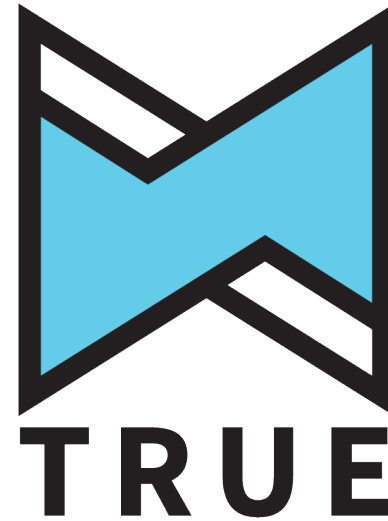
- Have a plan for gathering data & metrics from commercial sector
- Consider a commercial recycling access ordinance
- Engage EARLY & OFTEN with property owners, management companies, service providers & tenants
 - Encourage a green team
 - Provide signage and education



- *Access & infrastructure may look different for each commercial building*
- *Often commercial hauling services are provided by private sector*

Environmental Certifications for Commercial Sector

**Goal: Increase the
number of certified
buildings or organizations
in your area.**



Goal: Comprehensive Drop-Off Sites & CHaRMs

Why: *Permanent & event-based collection sites for specialty materials make recycling more accessible & convenient.*

- Open permanent drop-off sites
 - Consider hub and spoke model
- 3C's: Comprehensive; Convenient; Cost-effective
- Hold CHaRM event(s) each year
- Consider offering access to site and/or events outside your area for a fee
- Reducing contamination
 - Staffing sites
 - Adequate signage
- Increase types of materials collected
 - E-waste, batteries, paint, tires, mattresses, scrap metal, plastic film, food waste, bulky rigid, glass, wood, etc



Goal: Material Specific Programs

- HHW
- Textiles
- E-waste
- Scrap tires
- Consumer batteries
- Plastic bags & film
- EPS
- Appliance & white goods
- Mattresses
- Glass
- Boat/marina plastic
- C&D

Strategies:

- ✓ 3C's: Comprehensive; Convenient; Cost-effective
- ✓ Staffed sites & events
- ✓ Consistent outreach
- ✓ Offer participation access to outside your jurisdiction for a fee

Resources:

- ✓ Extended producer responsibility resources
- ✓ Potential grants
- ✓ End market & manufacturer resources available
- ✓ Michigan based solutions

Goal: School Recycling

- **Contracting** for district level solid waste service and recycling
- **Establish Green Teams** to improve engagement and participation
- **Waste Audits** to establish a baseline and understand needs/cost savings
- **Curriculum** to educate about and encourage participation
- **Infrastructure** to support collection
 - Classroom containers for paper, bottles, and cans
 - Cafeteria containers for recycling, food waste, or food rescue "share table"
- **Low/Zero Waste school events**
 - Reusables in the classroom and cafeteria
 - Recycling and sporting events



State of Michigan EGLE Green Schools Certification

**Goal: Increase the
number of Certified
Green Schools in
your Districts.**



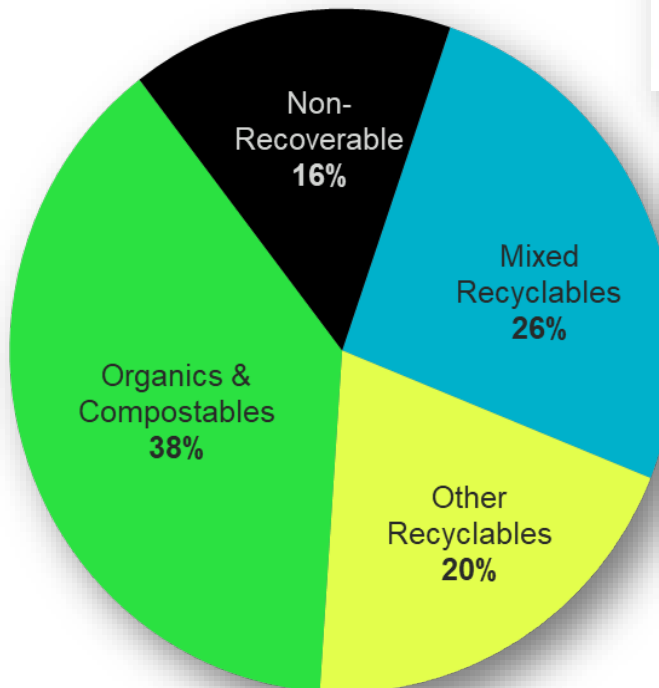
- **Michigan Green School Status:** 10-14 activities
- **Michigan Emerald School:** 15-19 activities
- **Michigan Evergreen School:** 20 or more activities

michigan.gov/egle/public/egle-classroom/michigan-green-schools

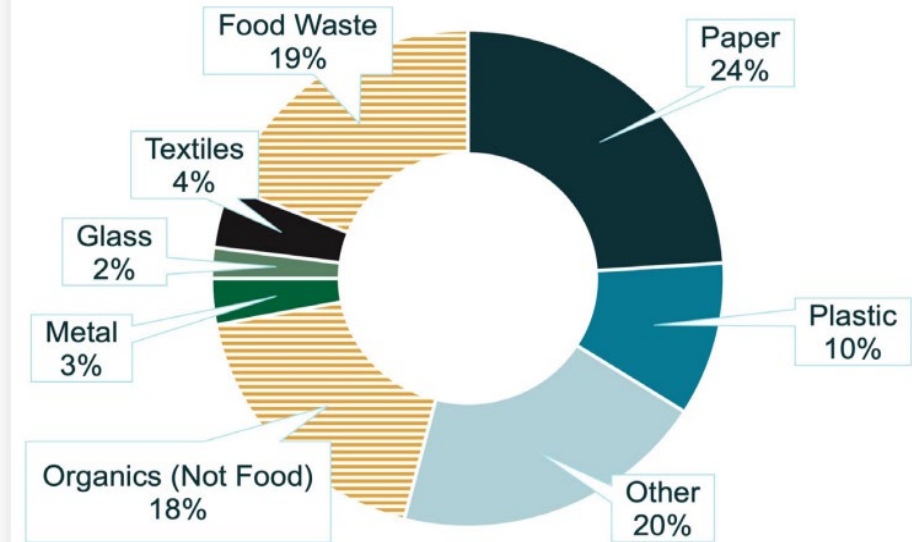
Goal: Encourage Waste Reduction

Why? Reduction is the top of the waste hierarchy.

- The amount of waste generated per person in Michigan = **4.64 lbs/pp/day**
(national average of 4.9 lbs./pp/day)
- Factors:
 - Planned obsolescence
 - Overconsumption
 - Fast fashion
 - Packaging
 - Disposables
 - Food waste



Michigan Municipal Solid Waste Composition
(mean % by weight)



Goal: Sustainable Mechanisms: Ordinances, Agreements, & Contracts

Why: Ongoing policy, contracts, and partnerships to implement successful programs is critical to long term materials management.

- Establish service requirements
- Create fair/consistent operating environment for haulers
 - Hours, routing, etc.
- License haulers
- Opportunity for data collection & metrics gathering
- Authorities provide shared services
 - Potential improved services and cost sharing
- Provide single hauler within a service area
- Identify metrics and data expectations
- Requirement for material flow
- **AND MORE!**



Goal: Sustainable Funding Mechanisms

Why: Ongoing funding to implement, support, and improve programs is critical to long term materials management.

- **General Fund Appropriation**
- **Landfill Surcharge and/or Disposal Facility Surcharge**
- **Community Host Agreement**
- **Franchising/Licensing Fee**
- **PA185** – Public Works Assessment on local parcels
- **PA69** – \$25/year surcharge on residential; voter approval can add commercial up to \$50/year
- **Voter Approved Millage** – millage for services by vote of residents
- **Fee** – household fee collected via property tax by vote of residents to cover costs for specific services
- **Operating revenue** - charging a fee for services that offsets or completely covers the cost for those services.



Goal: Provide Ongoing Education and Outreach

Why: E&O is critical to ensuring materials are managed properly, which reduces contamination and increases materials diverted from landfill.

- **Reduce material contamination**
 - Mailers, cart monitoring, top issue mailers
 - Increased value of materials in the local economy
- **Increase education to residents and stakeholders**
 - Provide online and mailed information, include contact information
 - Improve participation and set out
 - Increase confidence about benefits, rules, and impacts
- **Know your target audience**
 - Provide culturally relevant materials
 - Be inclusive, focus on desired behaviors
- **Make recycling part of your culture**
 - Where you live, work, and play
 - It is a utility and a public service



Goal: Adopt & co-brand statewide education campaign

Know It Before You Throw It

Public Education Campaign

- Join at RecyclingRaccoons.org.



Goal: Create Disaster Debris & Emergency Waste Management Plan

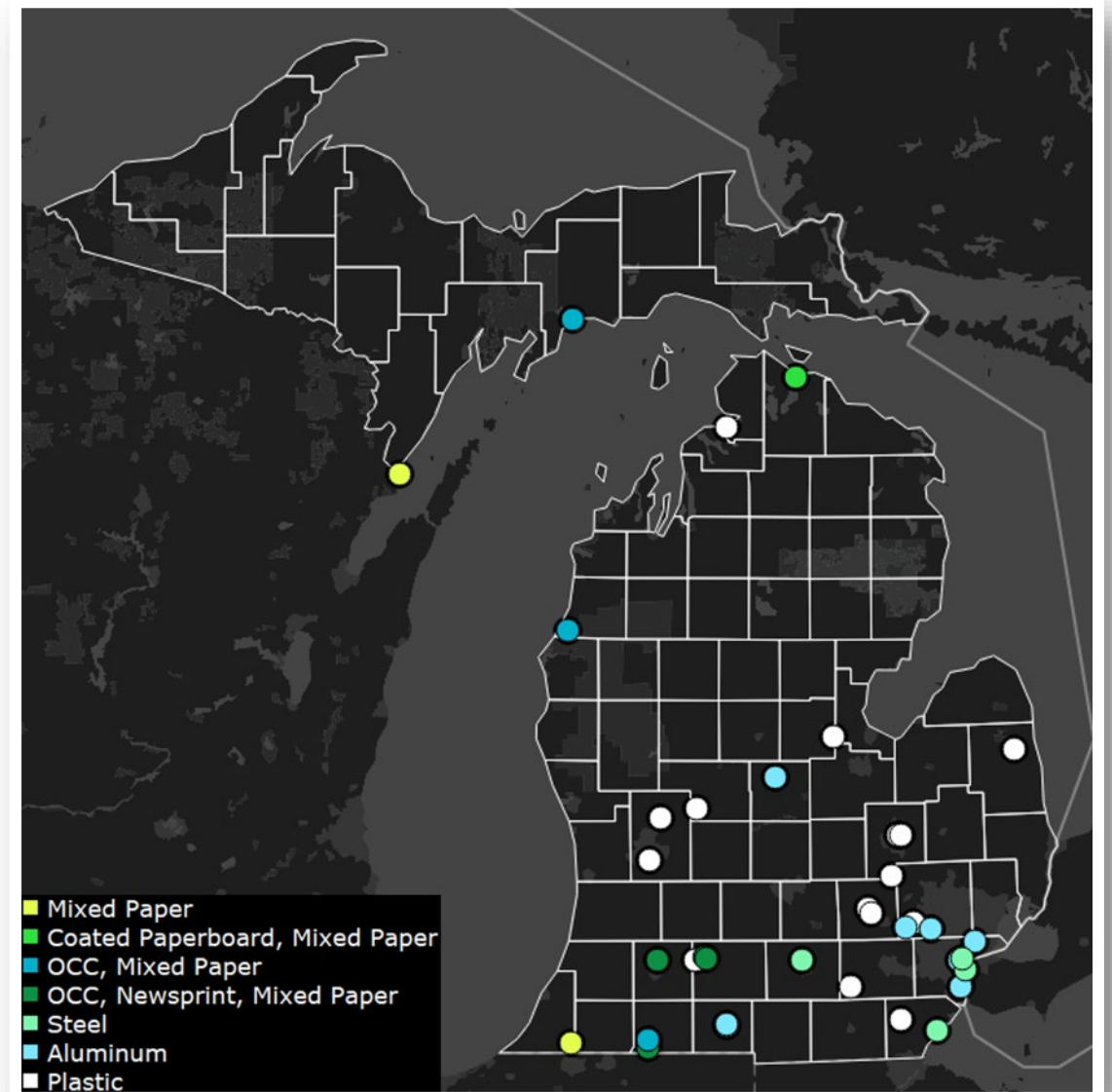
Why: Effective disaster waste management is crucial to community resilience after storms, floods, other natural disasters and health and pandemics.

- Consider the waste hierarchy
 - Opportunities for material reuse & diversion when natural disasters happen?
 - Review and update biannually
- Form Partnerships
 - Back up options
 - Resource sharing between neighboring communities
- Comply with public health and environmental regulations



Goal: Support Local End Markets

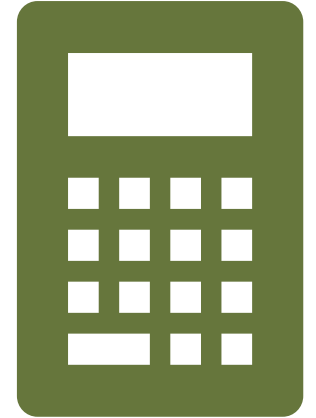
- Work with your MRF, broker, etc., to ensure your recyclables got to as many end markets in Michigan as possible
- Strengthening end-markets helps ensure materials collected for recycling are reused in manufacturing.
- Launch an incentive program to support local businesses using recycled content in manufacturing or products.



Goal: Define Success Metrics

Why: You can't manage what you don't measure.

- **Identify key metrics and performance indicators**
 - **Recycling Rate** = % recycled or composted
 - **Diversion Rate** = % diverted from landfill
 - **Participation Rate** = Number of homes that participate
 - **Set-Out Rate** = Number of carts on the curb
 - **Capture Rate** = Amount of recyclables found in recycling:trash
 - **Contamination Rate** = Amount of trash in recycling stream
 - **Cost Per Ton**
- *Assess equitable and inclusive access to services*
- *Assess your baseline*
- *Ongoing data collection*



Goal: Program Optimization

Why: Continuous improvement

- **Benchmark reporting of key metrics**
 - Regularly collect reliable data for measuring success and informing improvements
 - Compare your data to regional, state, and national averages
 - Publish reports to demonstrate accountability and progress
- **Feedback and engagement**
 - Surveys to assess awareness, satisfaction, and barriers to participation
 - Bringing stakeholders to the table to share findings and promote best practices
- **Tools and technology**
 - GIS mapping dashboards
 - Apps for missed pickups or education



High Performing Communities

- Universal, single stream collection in curbside carts
- Local government incentivizes recycling
 - Licensing agreement to bundle services
- Consistent public engagement, education, and outreach efforts
- >400 lbs/hh/year capture rate
(national average is 357 lbs/hh/year)

Waste characterization and recovery rate studies have shown US households annually generate between 800-1,000 lbs of recyclable that could be placed in a recycling container.

Michigan Green Communities CHALLENGE

**Goal: Increase the
number of
your communities that
are CERTIFIED **Bronze**,
Silver and **Gold****



EGLE Recycling Raccoons Community Education Toolkit

Community Toolkit

Help us spread the word and help Michiganders become better recyclers!

- Promote better recycling within your community.
- Campaign materials for communities to share.
- Opportunity to co-brand with EGLE and the Recycling Raccoons.
- Items consist of video, stickers, postcards, social media materials, newsletter graphics and more!
- Join at **RecyclingRaccoons.org**.





Campaign Goals

Primary: Improve the **quality** of Michigan recycling.

Secondary: Increase the **quantity** of Michigan recycling.

Communication Goals

- Build energy around getting better at recycling.
- Educate the state about the rules.
- Communicate the consequences of not knowing the rules.
- Increase confidence.
- Direct people to local authority.



Campaign is attention grabbing, educational and memorable

- Exceptional recall – 45% – of the campaign across the entire state and among all demographic groups.
- People aren't just remembering the campaign, once they've seen it 4 in 5 people report taking action and changing their recycling habits for the better.
- Know It Before You Throw It with the Recycling Raccoon Squad receives high marks from Michiganders for clarity of rules (71%), providing new information (67%) and increasing consumer confidence (65%).

READY TO BECOME A MEMBER OF THE SQUAD?

Community Toolkit

Help us spread the word and help Michiganders become better recyclers!

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Goal: School Recycling

Goal areas	Objectives
Contracting	<ul style="list-style-type: none"> • Get recycling included on the district level for a solid waste and recycling contract
Establish Green Team	<ul style="list-style-type: none"> • Most often long-term success occurs when efforts led by school and/or district administration • Involves representation from all divisions – custodial, teachers, cafeteria, students, admin, parents, etc.
Waste Audit by School	<ul style="list-style-type: none"> • Can't manage what you don't measure • Establish a baseline
Classroom Recycling	<ul style="list-style-type: none"> • Papers and containers
Cafeteria Recycling	<ul style="list-style-type: none"> • Collection containers • Consider contamination; provide for food waste ; provide for food rescue
Zero or Low Waste School Events	<ul style="list-style-type: none"> • Encourage/Require reusables within the classroom, cafeteria • Encourage/Require recycling at sport events • Make it part of the school culture
Decrease food waste in schools	Encourage schools to commit to reducing food waste by incorporating food waste into curriculum, implementing programs and food scrap collection in the cafeteria, tracking food waste, donating excess food, participating in 10 Cents a Meal and participating in Michigan Green Schools.

Food Waste Reduction Goal: Developing and Supporting Programs

*Why: Setting goals to support new or existing initiatives can **maximize impact of food waste reduction efforts**. These programs can help address the gaps identified in your food waste landscape analysis, support the local economy, increase food access, create value added products, and reduce climate/environmental impacts of food waste.*

Goal areas	Objectives
Lead by example Walk the walk!	<ul style="list-style-type: none">• Add existing information, best practices & food waste reduction efforts to the County website• Create strategies to reduce waste and collect food scraps at County events and properties• Adopt a county-wide color/shape/signage food waste reduction scheme
Prevent food waste in commercial settings	<ul style="list-style-type: none">• Recognize and promote businesses who adopt food waste reduction practices• Create a program for large food waste generators to track, report and divert food waste• Engage businesses and provide technical assistance to prevent and reduce food waste
Increase capacity for food scrap collection	<ul style="list-style-type: none">• Initiate the development of composting sites, digesters or other food waste reduction sites, if needed• Provide municipalities with information related to curbside food scrap collection and drop off programs
Decrease food waste in schools	Encourage schools to commit to reducing food waste by incorporating food waste into curriculum, implementing programs and food scrap collection in the cafeteria, tracking food waste, donating food, participating in 10 Cents a Meal and participating in Michigan Green Schools.
Support innovative technologies	Consider the adoption of or pilots to test technological approaches including: apps and digital marketplaces, composting and aerobic digestion machines, upcycling into value-added food or non-food products, smart bins and robotic food sorting/transporting systems

Food Waste Reduction Goal:

Building partnerships; Engaging and supporting the community

***Why:** Networks, partnerships, and community engagement can help determine MMP organics goals focus areas for your county, facilitate communication, develop innovative solutions, generate buy-in and support from community members and businesses, and promote a more comprehensive approach.*

Goal areas	Objectives
Engage the Community	<ul style="list-style-type: none">• Public education campaigns• Events, workshops, and social media targeting households, businesses, schools, or community groups• Encourage community discussion and feedback
Increase partnerships and regional collaboration	<ul style="list-style-type: none">• Partner with local municipalities, businesses, and nonprofits• Apply for State and federal grants open to government entities on behalf of local municipalities, businesses and nonprofits based in the County to support efforts• Explore joint compost facility infrastructure with neighboring counties to reduce costs• Share information and collaborate with other counties with similar goals and initiatives
Ensure food waste management services are available to all communities	Provide targeted outreach and financial assistance for residents and food pantries who may face barriers to participation
Support municipalities	<ul style="list-style-type: none">• Share the Food Waste Reduction Template for municipalities• Share best practices from other communities for municipalities looking to enhance food waste reduction efforts

Goal: Education and Outreach

85% of Americans strongly believe in RECYCLING, according to The Recycling Partnership

Goal areas	Objectives
Reduce recycling contamination	<ul style="list-style-type: none">• Higher value of recyclables
Increase education to residents	<ul style="list-style-type: none">• Increase set out; increase participation• Higher yield of recyclables• Increases confidence about benefits, practices, impacts• Be sure to provide contact information for questions
Know your target audience	<ul style="list-style-type: none">• Focus on DESIRED behaviors• Be inclusive in your messaging
Make recycling part of your culture	<ul style="list-style-type: none">• It's something we do• Recycle where we live, work, play• It's a utility, public service, amenity• Walk the talk

Goal: Program Monitoring & Evaluation

WHY? You can't manage what you don't measure.

Define Success Metrics	<ul style="list-style-type: none">• Diversion rate; Recycling rate; Participation Rate; Contamination Rate; Cost-effectiveness• Align program goals with local regulations/local sustainability goals; community needs and desired amenities
Baseline Assessment	<ul style="list-style-type: none">• Conduct an initial waste audit/assessment or recyclables audit• Assess current infrastructure; participation levels; public awareness• Survey public about needs/desires/interests
Establish KPIs (Key Performance Indicators)	<ul style="list-style-type: none">• Diversion rate (% waste diverted from landfill)• Recycling rate (% material RECYCLED/amount material landfilled)• Contamination rate (% of non-recyclables and improperly prepared recyclables in recycling stream)• Cost per ton
Implement Regular Data Collection	<ul style="list-style-type: none">• Track waste, recycling and material diverted volumes on a regular schedule (monthly, quarterly). IF using a private hauler – put this in RFP and in contract.

Goal: Program Monitoring & Evalution - Continued

Monitor Contamination	<ul style="list-style-type: none">• Bin/cart/container inspections• Contamination studies with MRFs• Target common contaminants in education/outreach efforts
Community/Participant Feedback & Engagement	<ul style="list-style-type: none">• Occasional surveys/outreach to assess awareness, satisfaction & barriers to participation• Create feedback loops
Utilize Technology & Tools	<ul style="list-style-type: none">• GIS mapping; Dashboard tools for monitoring• Apps for missed pickups OR education and engagement
Continuous Improvement	<ul style="list-style-type: none">• Regularly review programs & progress• Pilot new approaches & programs• Update/refresh education/outreach material as needed
Benchmark & Reporting	<ul style="list-style-type: none">• Reliable data is essential for measuring success and improving systems• Compare your program to regional, state or national averages• Publish reports/share data to demonstrate accountability & progress
Partner Collaboration	<ul style="list-style-type: none">• Engage & bring all players to the table to share findings & promote best practices

Goal: Program Optimization

Goal Areas	Objective
Equitable recycling access	<ul style="list-style-type: none">• Utilizing the tenets of access; outreach/education; infrastructure• Meet people & communities where they are• Increase equitable access to ALL people; in ALL housing types in
Participation rate	<ul style="list-style-type: none">• The average number of homes that participate at least 1x/month in the recycling program.
Set out rate	<ul style="list-style-type: none">• The average number of carts/bins at the curb at any one collection time.
Capture rate	<ul style="list-style-type: none">• The weight of recyclables collected (minus contaminants) divided by the weight of recyclables generated (or in the waste stream).
Recyclable material quality	<ul style="list-style-type: none">• Restricting contamination – the wrong materials AND the correct materials improperly prepared

Goal: Adopt a Zero Waste Action Plan

Why? Envision thriving, resilient communities where waste is reduced, resources are reused, & sustainability is a shared responsibility ensuring a cleaner, healthier environment for current & future generations.

Reduce waste to landfill for your area	<ul style="list-style-type: none"> Metrics -- what percentage by what year
Universal curbside recycling & composting access by a certain year	<ul style="list-style-type: none"> Identify a timeline for when this will happen Universal access where appropriate
Drop-off site recycling & composting access for multi-family sector	<ul style="list-style-type: none"> Identify timeline for when this will happen
Infrastructure of hard-to-recycle items (e-waste, textiles, HHW, tires, bulky items)	<ul style="list-style-type: none"> Facilities, events, partnerships, etc.
Public events and public space	<ul style="list-style-type: none"> Recycling & composting opportunities
Support local circular-economy initiatives	<ul style="list-style-type: none"> Repair cafes, tool libraries, second-hand markets, etc
Equity-based education & outreach	<ul style="list-style-type: none"> Engage underserved communities with culturally relevant materials & resources to participate
Sustainable purchasing policies	<ul style="list-style-type: none"> Buy reusable, recyclable, compostable, low-impact Share this with county & communities within the county