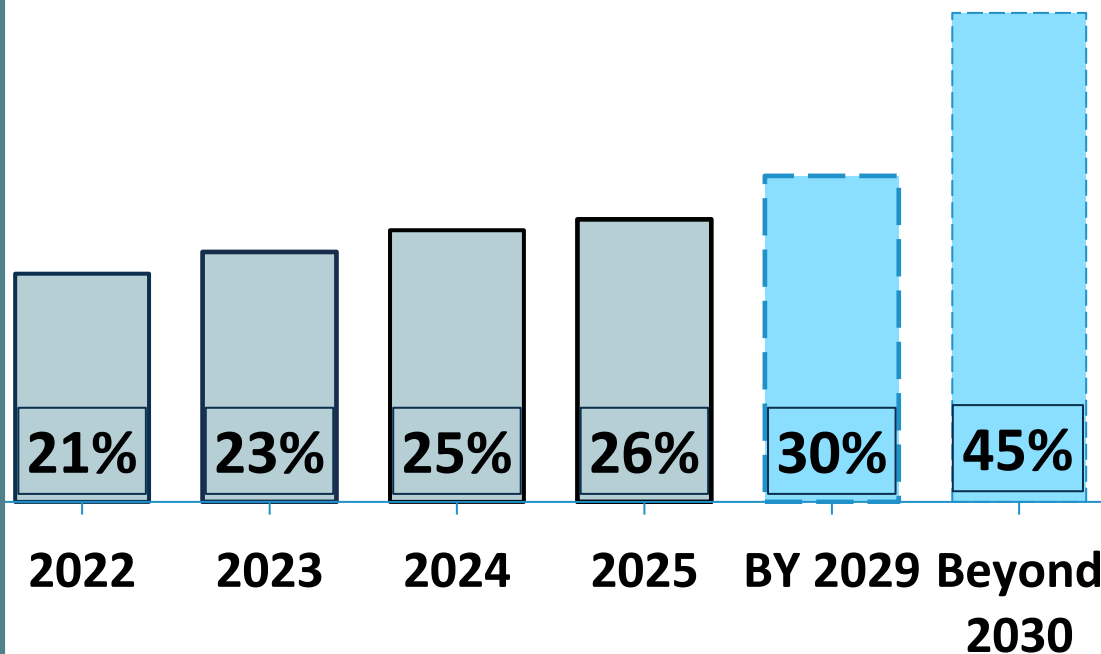


From Waste to Resource: Innovations in Organics Recycling & Food Recovery

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STATE OF MICHIGAN GOALS

Recycling Rate



Food Waste Reduction

50% total reduction
of food loss and waste

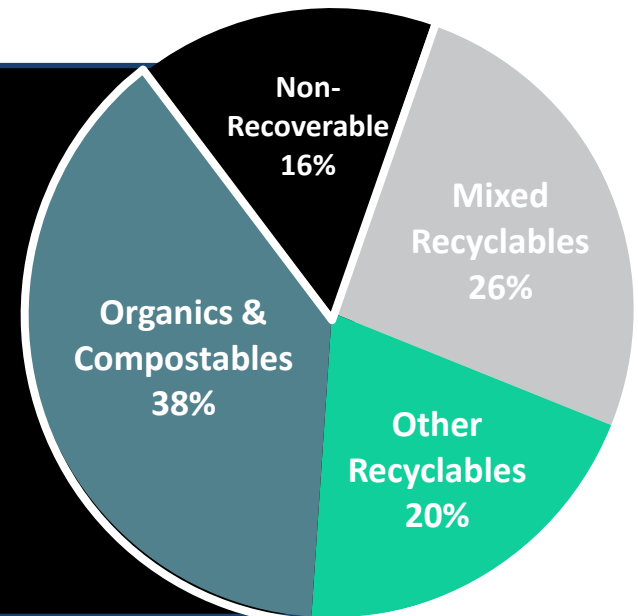
Based on a 2021
baseline

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



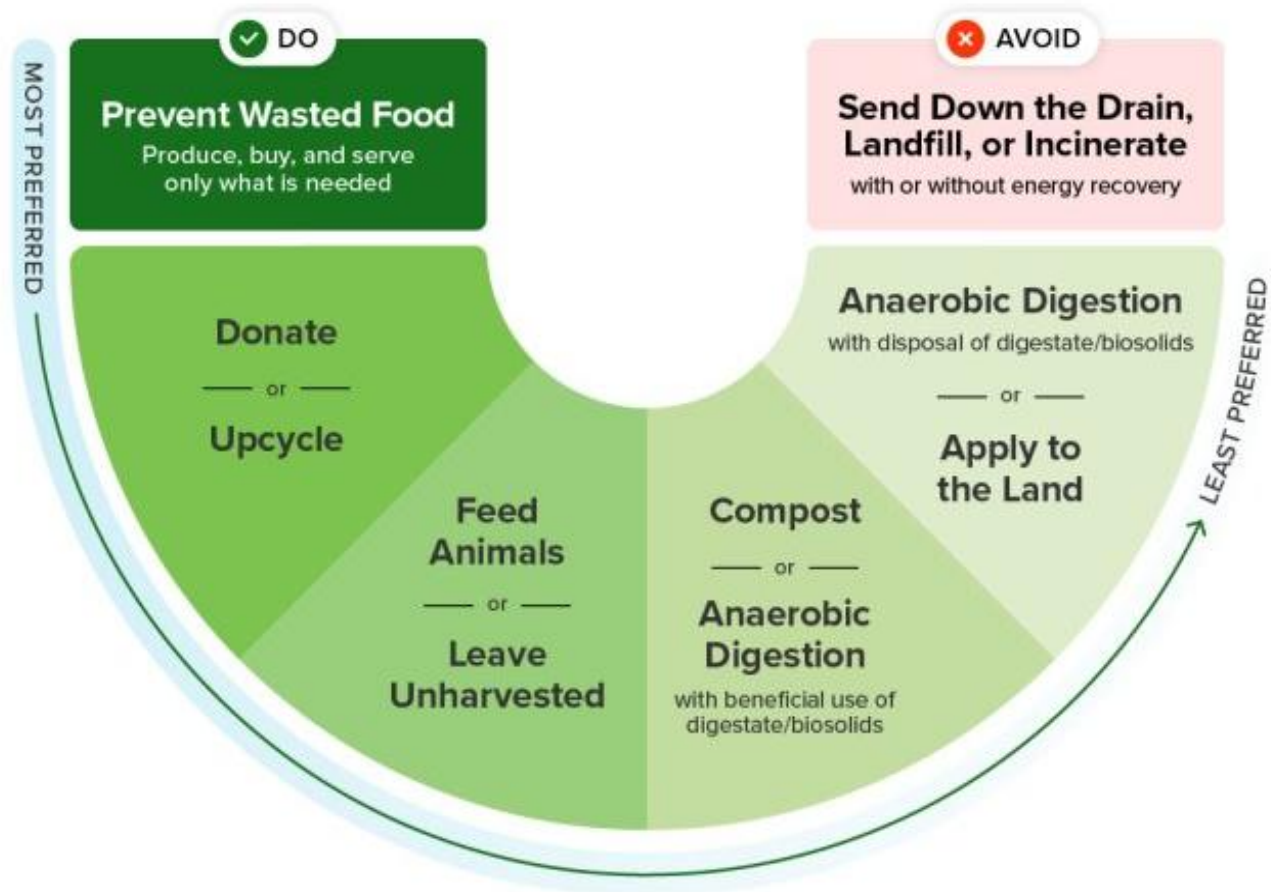
Why Divert Food Waste?

- **Financial benefits** for businesses and residents
- Food waste diversion increases the life of landfills and impacts our **land, water, air, & communities**
- Surplus food diversion to food rescue can increase **food security**.
- **Economic opportunities**: Increased food waste diversion can create new jobs, generate economic activity, make more food available locally, and reduce climate pollution.



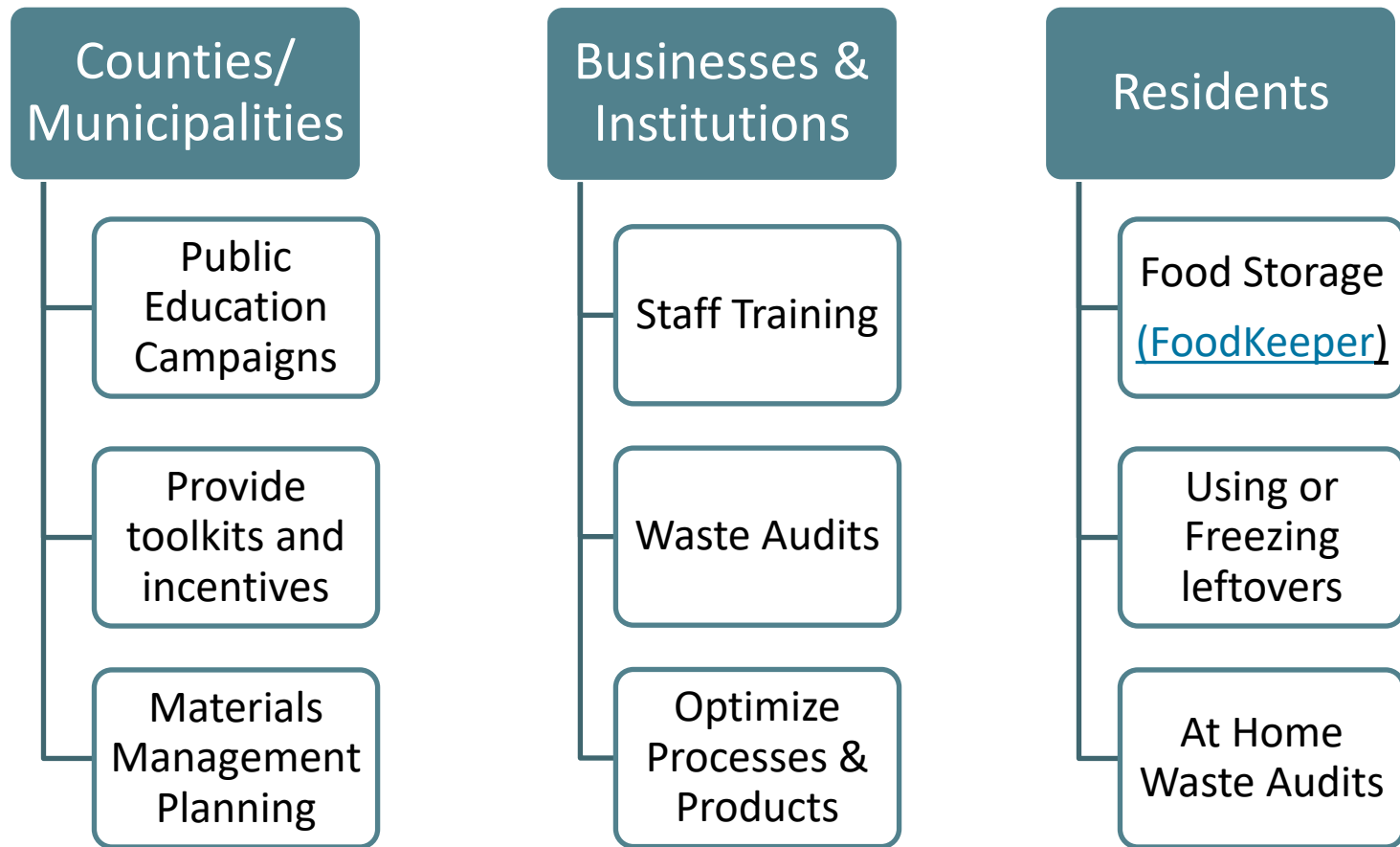
An ideal “local food system” is circular, as shown in this illustration from the Kent County Food System Assessment

EPA Wasted Food Scale





Food Waste Prevention



The redistribution of surplus, edible food to charitable food systems

Province of Ontario | Esri | TomTom | Garmin | USGS | FAO | NOAA | EPA | NPS | USFWS | Food Bank Council of Michigan

- Approximately **100 million lbs.** of surplus food rescued in MI in 2024
- Food Rescue available statewide
- Over 700 Food Access points
- Food Rescue Liability Protection
 - [Bill Emerson Good Samaritan Food Donation Act](#)
 - [Michigan Food Law](#) (289.5104)

Donate

or

Upcycle

Low-cost sales & Upcycling

Low-cost or wholesale

- Apps
- Repackaging
- Michigan Agricultural Surplus System
 - In FY24, Michigan food banks sourced **27,650,098 pounds** of produce, protein, and dairy from Michigan farmers.

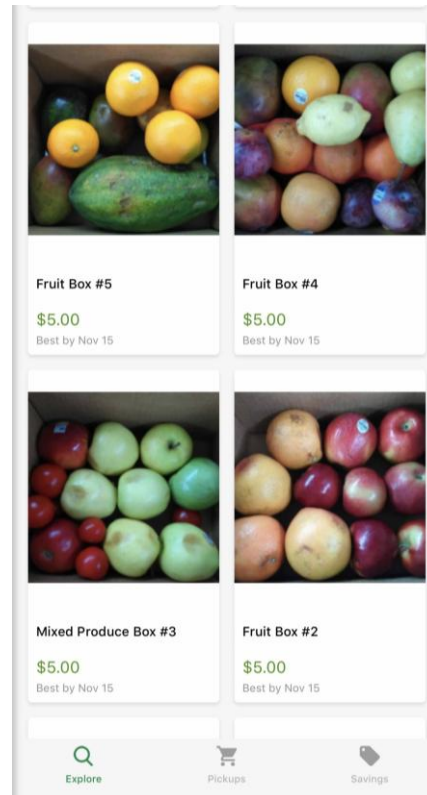


Photo Credit: Flashfood

Food Upcycling

Upcycled products prevent food waste by creating new, high-quality products out of surplus food.

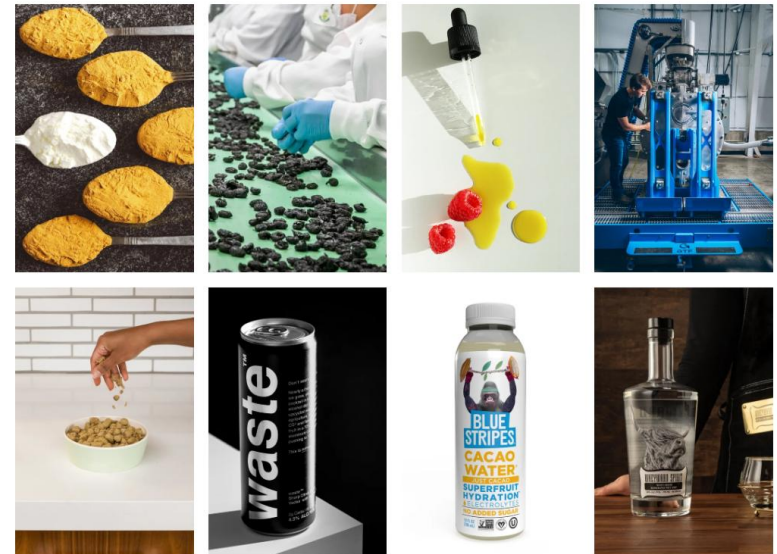


Photo Credit: Upcycled Food Association

Feed Animals

including through rendering

— or —

Leave
Unharvested

Feeding Animals



Short's Brewing Co. in Bellaire and Elk Rapids repurposes nearly all of its spent grain with local farms it has partnerships with, CEO Scott Newman-Bale said. Recently installed grain silos store the leftover grains for local farms to pick up. | Courtesy photo

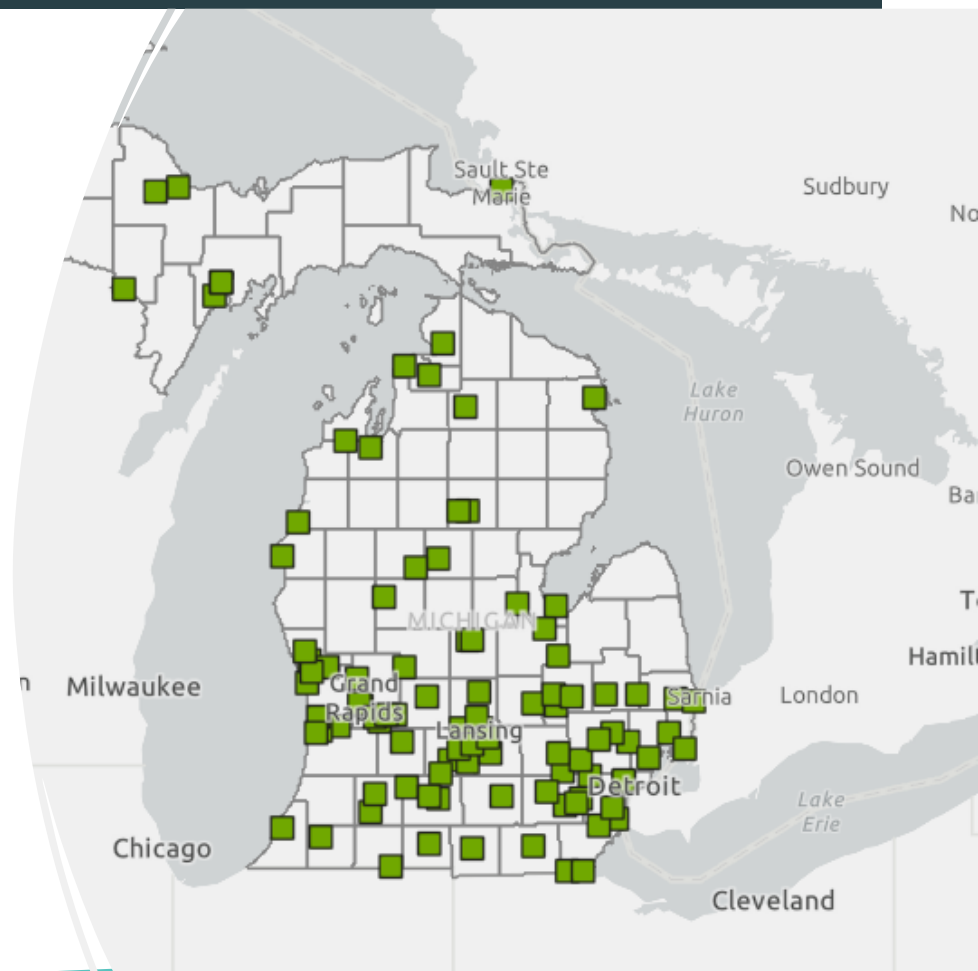
[Photo Credit & Article: Michigan Farm News](#)



- Many foods can be fed to chickens, turkeys, pigs, and cattle
- Fed directly or reprocessed first
- Must be recovered and handled properly
- Resources:
 - [Michigan Legal Fact Sheet: Food Scraps for Animals](#)
 - [Federal Legal Guide – Leftovers for Livestock](#)
 - [Reduce Wasted Food by Feeding Animals | US EPA](#)

Composting in Michigan

- EGLE's interactive map showcases the number of composters across the state.
- This information is being updated as new facilities join the program .
- **Currently, we have 164 facilities in the Organics program in Re-TRAC.**



Compost

— or —
Anaerobic
Digestion

with beneficial use of
digestate/biosolids

MI Compost Regulations

Compostable Materials: Organic material that can be converted to finished compost.

Class 1 Compostable Materials

- Yard Waste
- Food Waste
- Manure or Animal Bedding
- Dead Animals Unless Infectious or Managed Under BODA
- Paunch
- Aquatic Plants
- Wood
- Paper Products
- Other Compostable Products
- Anaerobic Digestate
- Spent Grain from Breweries
- Food Processing Residuals
- Fats, Oils, and Greases (FOGs), and other materials approved by EGLE

Class 2 Compostable Materials

- Mixed Municipal Solid Waste
- Other Compostable Material not Listed or Approved as Class 1
- Biosolids
- State or Federal Controlled Substances

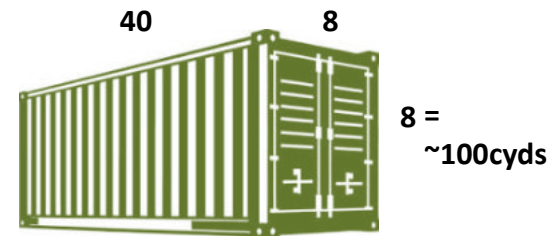
Exempt Compost Activities

- Class 1 compost facilities under 500 yds³
- Temporary accumulation sites
- Sites that generate and use the compostable material on-site
- Farms that make and use compost on-farm

MI Compost Regulations (cont.)

Increased oversight for non-farm, commercial, organics composting facilities

- Annual Inspections and increased site visits
- General Permit and financial assurance for large facilities
- All regulated facilities must submit an Annual Volume Report
- Limits on amounts of certain materials entering smaller facilities to help prevent nuisances



Small Composting Facility

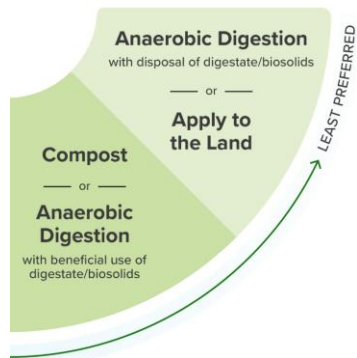
- 500 yds³ - 1,000 yds³
- Must notify EGLE that it is in operation
- Must not contain more than 5% of Class 1 compostable materials other than yard waste

Medium Composting Facility

- 1,000 yds³ - 10,000 yds³
- Must obtain a Registration
- Annual Inspection
- No more than 5,000 yds³ per any acre of the site
- Must not contain more than 10% of Class 1 compostable materials other than yard waste

Large Composting Facility

- Over 10,000 yds³
 - Or over 10% of Class 1 materials
 - Or any size Class 2 facility
- Must obtain General Permit
- Annual Inspection
- Financial Assurance



Food Scrap Processing

Compost and Anaerobic Digestion

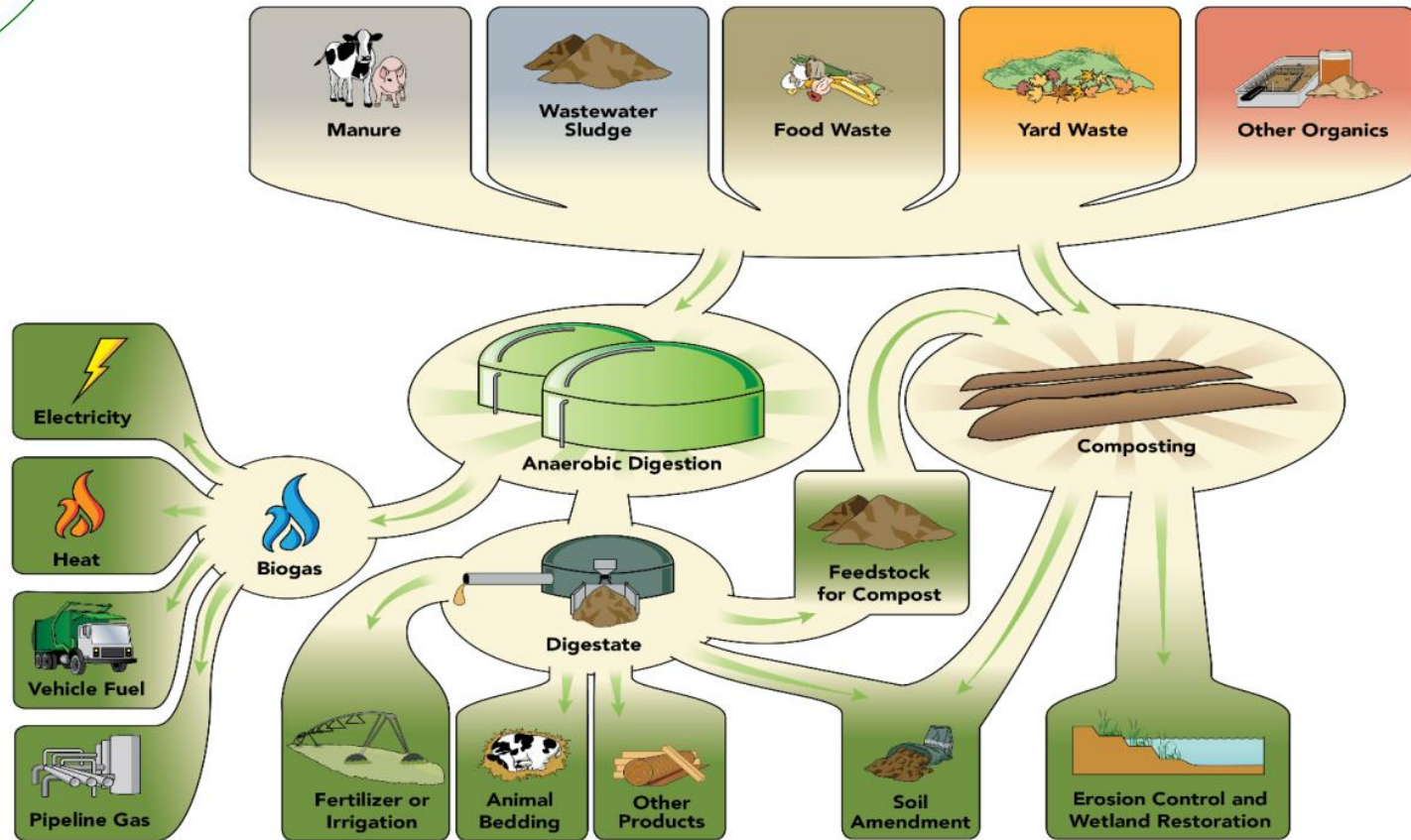
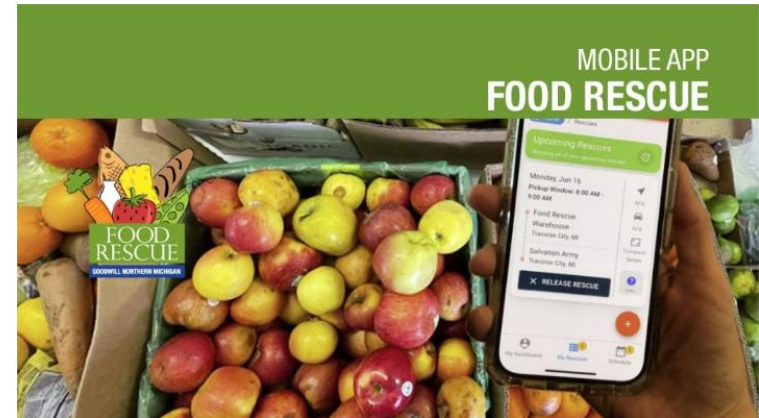


Figure 4-1. Byproducts and Beneficial Uses of Diverted Organic Waste.

Innovations in Food Waste Reduction

- Crop monitoring and sensing tools
- Surplus prediction and smart inventory tools
- Food Rescue Apps
- Micro-distribution hubs
- Food Upcycling into new products
- Waste analytics systems measuring disposed food
- Cold-chain innovations
- Compost and digestion innovations including autonomous robotic pickup, odor minimizing systems, smart compost bins, and small-scale systems
- Food Waste Processing Technology
 - Grinders, Biodigesters, Pulpers, Dehydrators, Aerobic Units



The Michigan Food Waste Roadmap



Identifies strategies and opportunities across the wasted food scale to reduce food loss and waste

Discusses barriers to meeting food waste goals and strategies to overcome them

Roadmap Recommendations:

- **Incentives and support**
Develop incentives, funding mechanisms, technical assistance, outreach, policy changes, etc.
- **Collaboration**
Partnerships, shared language
- **Urgency**

Roadmap Key Opportunities



Food Rescue

Food rescue is Michigan's most effective current strategy.

To meet 50% food waste goal, food rescue must double its current capacity



Organics Recycling

Infrastructure for composting, anaerobic digestion, animal feed needs additional support.

Growth and increased access needed to divert additional food waste from landfills.



Economic Opportunity

There is a strong business case, opportunity for investment, and market development opportunities.

Food Waste reduction can lower costs and increase profitability for businesses.

How is EGLE Advancing this Work?

- Technical Assistance
- Grant Funding
- Materials Management Planning Support
- Partnership Engagement and Support
- Education and Outreach
- [NextCycle Michigan](#) Accelerator
- [Michigan Green Communities & Michigan Green Schools](#)
- Support for strategic projects such as Southfield Zero Food Waste Plan and Food Waste Roadmap



Food Waste in Materials Management Planning

GOAL SETTING:

1. Understand the Food Waste Landscape
2. Prevention campaigns
3. Support Food Rescue
4. Food Scrap Reduction & Diversion
 - Program implementation and support
 - Limit contamination
 - Reduce food to landfills
5. Community Engagement

[County and CVT Food Waste Reduction Template](#)



EGLE Pollution Prevention Project for Food & Beverage Manufacturing

- Technical assistance program for Michigan small businesses to implement Pollution Prevention, sustainability, or recycling projects recommendations.
- This project focuses on:
 - reducing pollutants or contaminants entering waste
 - Increasing recycling of material
 - conserving the use of natural resources.
- P2 National Emphasis Area #1 – Food and Beverage Manufacturing and Processing. Businesses with <500 employees

RETAP

Questions? Call or email

Indu Jayamani

EGLE RETAP Program Manager

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Apply today at:

www.michigan.gov/retap

EGL E Grant Opportunities & NextCycle MI



SEED AWARDS

Application Period: May 1, 2026 - June 30, 2026

Total Funding Available: \$300,000

Award Size: \$8,000 - \$10,000

(No Match Required)

[NEXTCYCLE MICHIGAN 2026 Seed Awards](#)



Grant Project: Metro Food Rescue & Sharing Excess

Project: Detroit Produce Terminal Project

Funding: Circular Economy Grant (NextCycle)

Location: Detroit, MI

Project Summary: Establishing sorting and packing operations at the Detroit Produce Terminal including receiving daily produce donations, sorting and re-packaging the produce in suitable quantities for MFR's partners.

Items funded: Equipment and materials for the set-up of the Sorting/Packaging area, a dedicated refrigerated vehicle for exclusive use of this project, and contract technological and management services provided by Sharing Excess.

Impact:

- **Over 6 million lbs of food rescued** and distributed to feeding partners since May 2025 launch
- Emergency SNAP response at food pantry sites in Detroit
- Launch of Fresh Everyday food pantry program in senior housing sites
- Distribution of excess produce in collaboration with food rescue partners across Michigan
- Food distribution to rural communities with additional support from MDHHS



Grant Project: Partridge Creek Compost

Project: Diverting Food Waste to Compost

Funding: 2022 & 2024 Recycling Organics Infrastructure Grant

Location: Ishpeming, MI in the Upper Peninsula

Project Summary: Partridge Creek Compost is a composter with a general permit. Food waste diversion equipment and supplies were purchased to increase curbside collection and drop-off opportunities and to support commercial partnerships.



Photo Credit: Partridge Creek Farm

Infrastructure funded: 2022: Hydraulic tipping trailers, Mahindra tractor, 64-gallon curbside bins, Ford dump truck, Gooseneck hitch kit, Utility shed, Vehicle wraps, Permanent informational site signage.

2024: Front-end loader and Trommel screener

Impact:

- Successful business and institutional partnerships.
- Development of a curbside food waste pick-up program servicing over 320 residents, local restaurants, and educational institutions as of March 2025. The program is now estimated to be providing services for over 9,500 individuals.
- Expansion of curbside collection and drop-off opportunities.

Grant Project: Grand Traverse Band of Ottawa & Chippewa Indians

Project: Fish Waste Management in NW Lower Michigan

Funding: 2024 Recycling Organics Infrastructure Grant

Location: Peshawbestown, MI (Leelanau County)

Project Summary: Expansion of compost operation utilizing of commercial and public sportfishing waste from NW Lower MI. Building on project supported by 2021 EGLE Recycling Grant.

Infrastructure funded: Farm Tractor, Manure Spreader, Tractor bucket, Compost Screener, Enclosed lean-to, Concrete Block Compost Bay System

Impact:

- Installation of fish waste processing stations in Frankfort, Traverse City, and Leeland
- Expansion of capacity at Peshawbestown site
- **As much as 6000 lbs diverted from landfill weekly**



Photo credit: [Great Lakes Now 09/03/2025](#)

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Resources

- Materials Management Planning
- EGLE Pollution Prevention
- EGLE Food Waste
- EGLE Compost
- EGLE Recycling
- Catalyst Communities
- Local Leaders webinar series
- NextCycle
- Michigan Green Schools
- MRC Residential Education & Outreach Toolkit
- Michigan Green Communities
- MI 2030 Food Waste Coalition
- MDHHS SDOH & Food Donation Initiatives
- MDARD Food Donation Guide for Businesses
- MDE School Food Waste Resources
- Example: Southwest MMPC Food Waste Goals



THANK YOU!

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