



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Fall Joint Conference

November 8, 2021

RECYCLING:

**A simple idea
operating within a
complex system.**

EGLE Recycling Program

- Using **Data** to Drive Recycling Decisions
- Recycling to Move Michigan's Economy to a **Low Carbon Future**
- **Equitably** and Inclusively expanding recycling to Michigan's diverse communities
- Informing residents and businesses on **how, where and why to recycle**
- Growing **Access** and **Participation** in Michigan's Recycling System

EGLE Recycling Program

- Improving the **Quality** of Michigan's recycling stream
- Expanding **Infrastructure** to grow Michigan's supply chain
- **Training** the recycling professionals of tomorrow
- Fostering Strong Recycling **Markets**
- Growing Michigan's Circular Economy through **Partnerships**

RECYCLING DATA:

**We can't improve it if
we can't measure it.**



GAP ANALYSIS 2021 UPDATE3

Overview of the 2021 Gap Analysis3

Summary of Gaps3

Opportunities for the NextCycle Michigan Initiative.....6

DATA INFORMING THE 2021 GAP ANALYSIS UPDATE9

Introduction.....9

Recycling Rate Update.....10

Investment Updates.....17

Infrastructure Updates and Potential Additional Recovery19

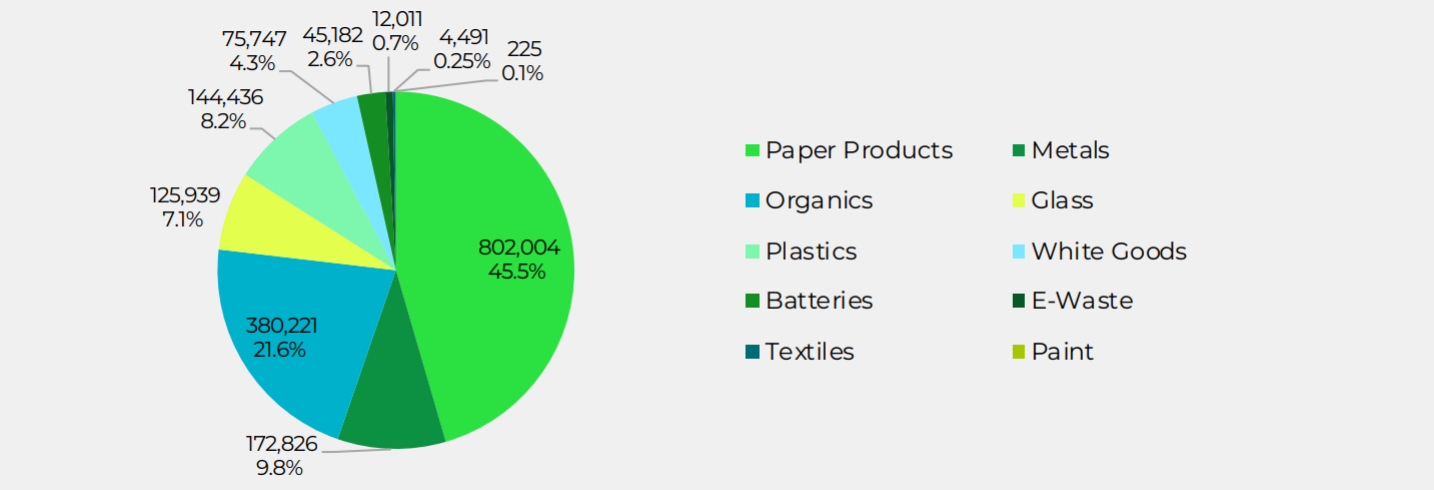
Community Program Communication Access Updates.....29

End Markets Update.....45

FUTURE DATA COLLECTION AND RESEARCH CONSIDERATIONS58

<https://www.nextcyclemichigan.com/resource-library>

2021 Gap Analysis



**Paper, metal, glass, and plastics = 70%
= 1,234K tons**

Material	Percent	Total Tons
Paper Products	45.49%	802,004
Ferrous Metals	6.60%	116,445
Nonferrous Metals	3.20%	56,381
Glass	7.14%	125,939
Plastics	8.19%	144,436
Organics	21.57%	380,221
White Goods	4.30%	75,747
Batteries	2.56%	45,182
E-Waste	0.68%	12,011
Textiles	0.25%	4,491
Paint	0.01%	225
Total	100%	1,763,083

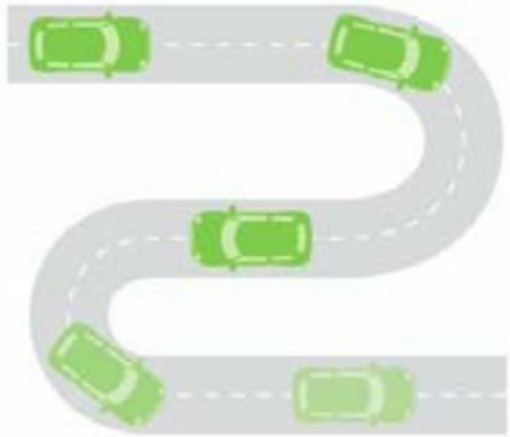
*Deposit Glass was 95,949 tons or 76.1% of the estimated glass recover

<https://www.michiganrecycles.org/wp-content/uploads/2018/01/MRIP2Objective1ReportFinal.pdf>

**RECYCLING = Positive
Climate Impacts**

**Moving Michigan to a
Low Carbon Future.**

GREENHOUSE GAS EMISSION REDUCTIONS AT 45%



GHG emissions from:

1,498,030

Passenger vehicles driven for one year



Greenhouse gas emissions avoided by:

760,731

Households' Annual Energy Consumption

Council For Climate Solutions

THE OFFICE OF
GOVERNOR GRETCHEN WHITMER

ABOUT NEWS ISSUES APPOINTMENTS LT GOVERNOR

WHITMER / NEWS / EXECUTIVE ORDERS

Executive Order 2020-182: Council on Climate Solutions

EXECUTIVE ORDER

No. 2020-182

Council on Climate Solutions

Department of Environment, Great Lakes, and Energy

The science is clear, and message urgent: the earth's climate is now changing faster than at any point in the history of modern civilization, and human activities are largely responsible for this change. Climate change already degrades Michigan's environment, hurts our economy, and threatens the health and well-being of our residents, with communities of color and low-income Michiganders suffering most. Inaction over the last half-century has already wrought

RECYCLING =

An opportunity to **Equitably**
and inclusively expand
services to Michigan's
diverse communities.

Economic Benefits of reaching 45% in Michigan

If Michigan's recycling rate tripled, the recycling, reuse, and recovery industry would total...



138K
JOBS IN MI



\$9.0B
TOTAL ANNUAL
LABOR INCOME



\$33.8B
ECONOMIC
OUTPUT

RECYCLING Education=

Helping residents and businesses know How, Why, and Where to recycle ... and do it **correctly!**

Know It Before You Throw It



KNOW IT BEFORE YOU THROW IT:

PUBLIC EDUCATION CAMPAIGN



SIGNIFICANT IMPROVEMENT ON RECYCLING KNOWLEDGE



36%↓

Decreased belief
that plastic bags
are recyclable
curbside



29%↑

Increased
knowledge that
food residue
ruins recycling



23%↑

Increased
knowledge that
recyclables shouldn't
be bagged

RECYCLING :

**Training the recycling
professionals of
tomorrow.**

New Training & Curriculum!

- Training to serve the public and private sector along with new and existing recycling leaders.
- EGLE, MSU Extension, and Michigan Recycling Coalition is developing a recycling curriculum for Recycling Professionals.

RECYCLING Policy :
Creating the conditions
where recycling in
Michigan can thrive.

EGLE Recycling Policy Activities

- Part 115 amendments
- Organics, Ewaste, Batteries
- Shared responsibility through product stewardship
- Materials Management Planning

RECYCLING Access=

Expanding Convenient and
Comprehensive recycling
opportunities in all
Communities

Recycling Infrastructure Grants

FY 2022 Application opens soon
Grants for Communities to grow
collection (curbside and drop-off)
and processing infrastructure



<https://webportalapp.com/sp/login/egle> recycling grant program

RECYCLING Markets=

Growing Michigan's
Circular Economy

Recycling Market Development Grants

FY 2022 Application opens soon

Grants for Businesses and Communities

to grow the Recycling supply chain and to provide

Michigan Manufacturers with the quantity

and quality recycled materials they need as well as

Create the demand pull for Michigan's

circular economy.

https://webportalapp.com/sp/login/egle_recycling_grant_program

2020-2021 FILM PLASTICS

BOAT SHRINK WRAP:

From marinas, boaters, and boat storage businesses.

Clean compactable LDPE and polyethylene.

AGRICULTURAL PLASTIC:

From Farms, Greenhouses,
Cooperatives

Greenhouse Covers – clean,
large and bulky, LDPE

Mixed Agriculture Plastics

(Dirty, various bulk, HDPE and
LDPE)

Varieties Include:

- Grain Bags
- Bunker Silo Covers
- Mulch Film
- Silage Bags
- Drip Tape
- Bale Wrap
- Pallet Wrap
- Bin Liners

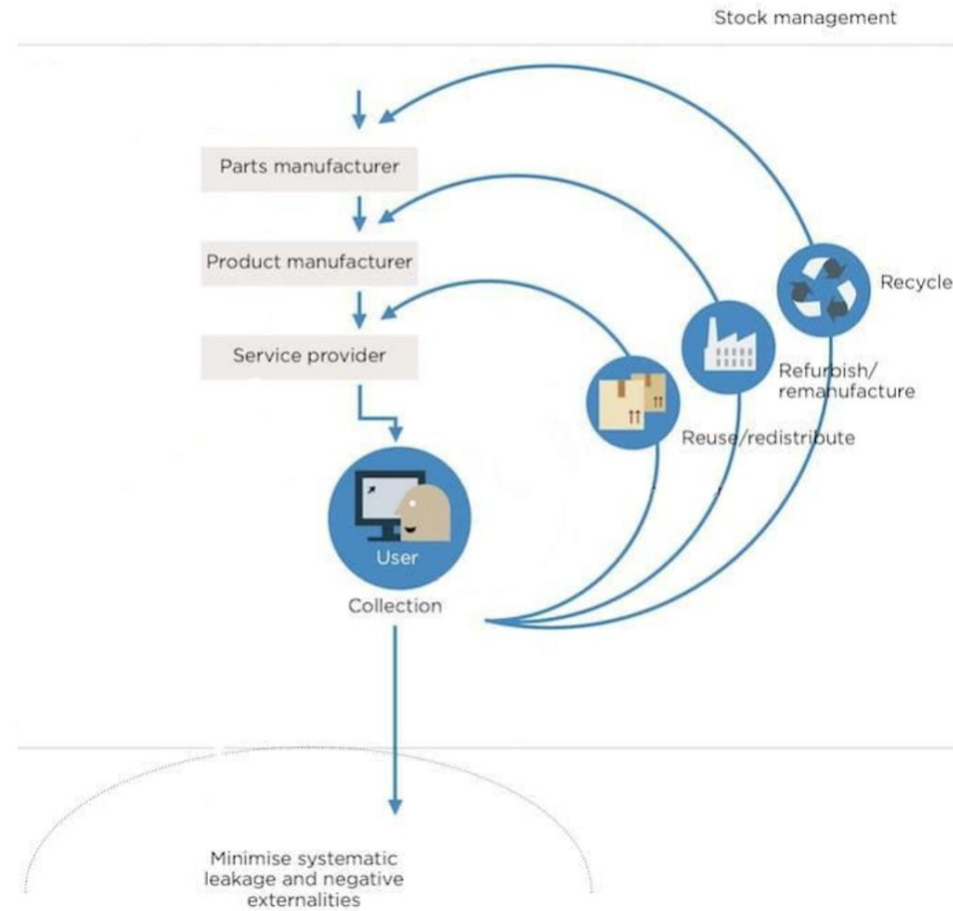


michigan.materialsmarketplace.org



michigan **materials marketplace**

The Michigan Materials Marketplace connects businesses to develop and scale new reuse and recycling market opportunities.



RECYCLING =

Growing Michigan's
Circular Economy through
partnerships and
innovation.

NEXTCYCLE MICHIGAN

...the largest push in state history to promote recycling activities...

Lisel Clark
EGLE Director





NEXTCYCLE MICHIGAN

BUILDING A CIRCULAR ECONOMY

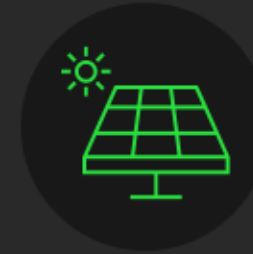
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6 INNOVATION
CHALLENGES



DATA GUIDING
OPPORTUNITIES



CLIMATE
SOLUTIONS



PUBLIC-PRIVATE
PARTNERSHIPS



EQUITABLE
IMPACT



ECONOMIC
ADVANTAGES

EGLE

mrc
michiganrecyclingcoalition

Accelerator
CENTREPOLIS
at Lawrence Technological University

RRS ♦



NEXTCYCLE MICHIGAN



6 Innovation
Challenges



Data & Mentoring
Resources



Public-private
Partnerships



Public & Private
Funding



Economic
Advantages



Equitable
Impact



Circular Economy
Creation



Climate Change
Reduction

PUBLIC AND PRIVATE INVESTMENT IN RECYCLING, COMPOSTING AND SUPPORTING ACTIVITIES

\$1 Billion

in public and private capital investment is required to support 45% goal

\$381,374,787

tracked to date, for completed and underway projects. 26% of investment supported by EGLE Recycling Grant funds

\$62,180,696

Additional tracked for in planning and under discussion investments

Over 250

Projects tracked in varying stages of conceptualization, planning, and completion.

104

Partners in the NextCycle network with 122 partner projects tracked

48

NextCycle Michigan teams pursuing projects

NEXTCYCLE MOMENTUM

126 applications received showing need across the state.

48 teams selected with projects addressing...



Organics Processing



Glass



AI and Robotics



Textile waste



Wood Waste



Byproduct Utilization



Food scrap collection



Automotive streams



Packaging

Watch for these things coming down the conveyor

- 2022 Recycling Market Development and Infrastructure Grants
- Training Support
- Connecting Recycling with Climate and Equity
- Quality Improvement and Local Education opportunities
- Funding opportunities through NextCycle



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