



West Michigan Materials Management Coalition

Final Report to Coalition Counties

2022 Materials Management County Engagement Grant

August 2023

Prepared for

Allegan County | Berrien County | Cass County | Kalamazoo County

Kent County | Ottawa County | St. Joseph County | Van Buren County

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Introduction

Even without the substantive changes to solid waste regulations created by recent legislation, materials management in West and Southwest Michigan will change dramatically in the next three to five years as major private and public investments take shape, industry practices evolve, and economic trends impact the value of commodities in the waste stream.

This fall, each county will begin a three-year process to develop a Sustainable Materials Management Plan for their community that will respond to new requirements in the state's Part 115 solid waste management law. Through a series of Materials Management County Engagement grants from the Michigan Department of Environment, Great Lakes and Energy, West Michigan Sustainable Business Forum and the eight-county West Michigan Materials Management Coalition have been working to engage local municipal, business and community stakeholders on materials management in their communities and conduct research on emerging issues relevant to recycling, waste diversion and the creation of a circular economy.

The coalition launched in March 2022 with representatives from Allegan, Berrien, Cass, Kalamazoo, Ottawa, Van Buren and St. Joseph counties. Kent County joined in early 2023. The coalition provides an opportunity for sustainable materials management stakeholders to define shared goals, align education and investment for mutual benefit, and to learn from their peers. This document is the final deliverable report to EGLE.

A version of this material will be presented to county commissions and/or solid waste planning commissions as a slide deck and brief written report.

West Michigan Sustainable Business Forum is a non-profit organization that promotes business practices and public policy that advance climate leadership, social justice and the creation of a circular economy. It also does business as Michigan Sustainable Business Forum, and is generally regarded as one of the state's leading advocates for sustainable materials management.

This report is intended for EGLE, our partners in the Materials Management Coalition, and their partners and collaborators. It is meant to inform the sustainable materials management planning process and the needs of their respective counties. It is not meant to serve as an introduction to sustainable materials management, planning, or sustainable business. We presume the reader has a basic understanding of these concepts and key terms. The scope of work is further detailed in the Executive Summary on the following page.

Executive Summary

The following provides an overview of the MMCE grant Scope of Work as agreed to by the eight participating counties.

Administration of MMCE Grants

West Michigan Sustainable Business Forum administered the MMCE grant and facilitated the West Michigan Materials Management Coalition. This included coordination between EGLE, representatives from all eight county Designated Planning Authorities (DPAs), multiple appearances before five solid-waste planning committees, appearances or multiple appearances before six county commissions, and representation to a long list of regional and statewide stakeholder organizations and collaborators.

- Provided proposals and resolutions to county DPAs and commissions, coordinated approvals and letters of commitment, including submission to EGLE.
- Facilitated correspondence between participating counties and formalized a concept brief for regional collaboration.
- Submitted the grant proposal.
- Facilitated discussions among regional partners.
- Delivered a version of this report to EGLE with documentation (100+ pages).
- Delivered a report of findings to each county, with optional presentations to DPA and Solid Waste Planning Committee.

Research and Data Collection in Support of EGLE MEGA Data Project

WMSBF served as the point of contact for RRS and coordinated the review and completion of the MEGA Datasheets for each county. This included multiple rounds of review for each county. Letters co-signed by county representatives and RRS were submitted to EGLE.

Outreach, Educational Activities for Public and Private Stakeholders in the Region

As explained on page 5, WMSBF hosted five workshops specifically to gather information for the MMCE grant over a six-month period in Allegan, Kalamazoo, Kent, Ottawa, and Van Buren counties, and three additional meetings that discussed specific interest areas (eg: composting in Ottawa County) or discussed materials management with key constituencies (eg: community leaders in City of Benton Harbor, Grand Rapids Latino Community Coalition).

Our original intention was to host three workshops total and facilitate up to six roundtables or presentations per county with local chambers of commerce, rotary clubs, environmental organizations or other meetings, but found that the data gathered from these discussions did not merit the investment of time and resources. Through a separate funding source, we are conducting a “road show” of local community and business organizations this fall in each county that will share our findings and further support the planning process.

We also met with more than 129 stakeholders across the region, with an inventory of contacts found in the Engagement Report on page 7, many of which we conducted formal or informal interviews with in support of the Materials Management Assessment described in the following sections. Note that WMSBF was simultaneously conducting outreach to discuss materials management in the region for other projects. These engagements have been included despite this activity not being supported by MMCE grant funds so that this report recognizes a fuller understanding of activity in the region.

For a substantial portion of the project, our top priority was promoting completion of the Emerge Municipal Measurement Program. EGLE had set a target of 75% of participation among municipalities, and we gave a sincere effort to achieve that goal. Based on feedback from the Emerge vendor, it is our belief that we accomplished more than any other grantee in the state.

- Promoted completion of the Emerge Municipal Measurement Program by sending materials to municipalities and calling or emailing multiple contacts at municipalities, answering questions, and troubleshooting their use of the technology.
- Developed a list of key contacts for all communities in the county, conducting initial outreach and making staff available for dialogue with all interested parties.
- Publicized EGLE, RRS and MRC educational opportunities to municipalities and other stakeholders, including facilitation of five municipalities or local organizations in the NextCycle accelerator program.
- Hosted workshops, events and training for private and public stakeholders.
- Event outcomes can be found in the Appendix.

Materials Management Needs Assessment

Building from our engagement as described above, and incorporating substantial primary and secondary research, WMSBF completed an introductory assessment of materials management needs for the region and each county specifically.

The passage of Part 115 impacted this scope of work considerably, as attention shifted mid-course from voluntary investments and planning to benchmarks, planning requirements, and the complicated politics of multi-county planning collaboration.

We facilitated formal or informal interviews with 129 stakeholders across the region, informing several sections of this report and the findings that we have provided to the counties.

- Reviewed current county/municipal agreements and ordinances.
- Conducted interviews with relevant public and private stakeholders in the county.
- Using interviews, policy review, and MEGA Data Project as reference point, created an assessment report that outlines the
 - Top 5 needs to increase opportunities for materials management
 - A “wishlist” of the Top 3 potential materials management programs or infrastructure investments.

- Summary of opportunities for improved contracting, ordinances, and/or sustainable funding mechanisms.
- Potential impacts to the county from the elimination of import/export authorizations.
- Opportunities for advanced sustainability practices in future materials management planning: energy recovery and savings, decarbonization, sustainability, pollution prevention, social equity, and climate resiliency.

The assessment report described above is represented throughout this report. Again, for county DPAs and solid waste planning committee members reading this report, note that separate reports can be made available that interpret this information for each county in a more digestible format.

Our Regional Vision

As part of this initiative, members of the West Michigan Materials Management Coalition worked to define a set of common principles that could be considered a regional vision for sustainable materials management in western Michigan, through which our activities would support efforts to create a circular economy in West and Southwest Michigan. These principles are outlined below.

- Our region is defined by its natural resources and their contribution to our local economics and high-standard of living. Investment in pollution prevention and sustainable materials management are necessary to protect these assets for recreation and economic development.
- Materials management should be efficient, affordable, and equitable to the needs of local communities and their economies, ideally incentivized and attractive to residents and businesses, enabled by substantial investments in education to all stakeholders.
- Supporting local business and collaborating with the private sector is essential.
- No community should be expected to subsidize another, but a moderately centralized “hub & spoke” model will be necessary to meet the needs of the region, and will require ongoing collaboration and coordination.
- Every community should have a sustainable funding source sufficient to support materials management service, education, and economic development at a county or regional scale, appropriate to local needs, including at minimum a resource recovery coordinator.
- No new landfills should be sited in West or Southwest Michigan.

Engagement Report

West Michigan Materials Management Coalition began meeting in spring of 2022, with its members working with WMSBF staff to define a set of priorities for their respective counties. These are outlined in the Stakeholder Reports Section on the following page. In addition to the Stakeholder Reports, our Engagement Report details events, meetings and direct outreach activities.

WM Materials Management Coalition Events and Workshops March 2022 - June 2023			
Event	Date	Location	Ppl
Kalamazoo County Sustainable Materials Management Workshop	11/01/2022	Western Michigan University College of Engineering and Applied Sciences, Kalamazoo	46
Benton Harbor Community Engagement Meeting	01/20/2023	Citadel Dance and Music Center, Benton Harbor	27
Sustainable Materials Management in Northern Ottawa County	02/13/2023	Shape Corp, Grand Haven	36
Sustainable Materials Management in Van Buren County	02/15/2023	Van Buren Intermediate School District Conference Center, Paw Paw	23
Latino Community Coalition Engagement Meeting	03/09/2023	Blandford Nature Center, Grand Rapids	55
Grand Haven Commercial Composting Forum	05/02/2023	The Unicorn Tavern, Grand Haven	33
Creating a Circular Economy in West and Southwest Michigan	05/25/2023	Perrigo, Allegan	95

Our original intention was to host three workshops total and facilitate up to six roundtables or presentations per county with local chambers of commerce, rotary clubs, environmental organizations or other committees or organizations, but found that the data gathered from these discussions did not merit the investment of time and resources, in comparison to data collected from one-on-one interviews.

At each event, there was at least a presentation from a WMSBF staff member explaining current trends in materials management impacting the state and region. In the five regional workshops, a facilitated discussion followed with three questions designed to collect limited information on needs and challenges, promote dialogue and networking, and to brainstorm the most significant investment opportunities for the county or region. Universally, workshop participants identified education as the greatest need, with some variation on what each discussion group meant by the term.

In various circumstances, education was defined as a need for:

- Understanding of the current infrastructure and capacity in a community, and what a model community would expect to have;
- Understanding of the economics of recycling and the key factors that make materials profitable or not-profitable to recycle;
- Awareness of what can be recycled in each jurisdiction;
- Awareness of common trends and current events, locally and nationally;
- Advocacy to elected officials, key stakeholders and the general community to promote the political will for recycling investment;
- Matchmaking with recycling vendors or technical assistance programs.

By and large, the result was that community and business leaders were largely unprepared or uninterested to discuss specific needs for infrastructure and improvements, but were well prepared to discuss the need for increased understanding and awareness of materials management, be it curbside contamination, product design or elementary school enrichment.

We also met with 129 business and community leaders for informal discussions on materials management or formal interviews, both of which informed the Materials Management Assessment described below.

As part of this engagement, we were able to support substantial opportunities for the region. This included promotion of the Michigan Recycling Coalition annual conference, hosted in Kalamazoo this year, and the NextCycle accelerator program. Our efforts led to five local organizations participating in the NextCycle program during the grant period, two of which won their respective showcases. From this experience, City of Benton Harbor was later able to earn a \$1 million grant to advance sustainable materials management, and a new composting operator was able to provide service to businesses in northern Ottawa County. In addition, we played a key (and unexpected) role educating coalition members on the pending planning needs for Part 115, including the facilitation of multi-county planning partnerships.

**Stakeholders Engaged Through
Conversation, Small Group Meetings or Interviews A to O**
(* indicates interview conducted)

Aldea Coffee	Community Action House*	Haworth
Allegan County*	Community Action of Allegan County*	Heart of West Michigan United Way
Allegan County Community Foundation*	Compass USA	Hispanic Center of Western Michigan
Amway	Congressman Bill Huizenga	Hope College
Aquinas College	Consumers Energy	Inovateus Solar
Arrowaste	Cooper Township*	John Ball Zoo
BASF Chemical	Dawn Foods	Kal-haven Outpost*
Be Healthy Berrien*	Delta College	Kalamazoo County
Berrien County*	Discover Kalamazoo*	Kalamazoo Valley Gleaners
Blue Triton	Eaton County	Kalsec*
Broken Arrow Recycling*	Edward Lowe Foundation*	Kent County Agricultural Preservation
Bronson Healthcare*	El Concillio*	Kent County Department of Public Works
Burnette Foods	Enagon LLC	Ladders of Hope Michigan*
Calvin College	Founders Brewing Company	Let Us R.E.S.T.*
Cass County Solid Waste Committee	Frederik Meijer Gardens and Sculpture Park	Love Creek Nature Center
Chikaming Township	Further Degree	Meijer
City of Allegan*	Gallagher Food & Agribusiness Risk Management	Metro Kalamazoo Branch NAACP*
City of Benton Harbor*	Good Lyfe Farms*	MI Chamber of Commerce
City of Ferndale	Goodwill Industries of West Michigan	MI Pork Producers Association
City of Ferrysburg*	Gordon Food Service	Mich. Assoc. of Conservation Districts
City of Hartford*	Grand Haven Area Community Foundation	Michigan Chemistry Council
City of Holland*	Grand Haven Charter Township*	Michigan State University AgBioResearch Department
Village of Marcellus*	Grand Rapids Events Management	MillerKnoll
City of Niles*	Grand Valley State University*	Nestle
City of South Haven*	GTF Technologies*	Organicycle*
City of St Joseph*	Gun Plain Township*	Ottawa County

**Stakeholders Engaged Through
Conversation, Small Group Meetings or Interviews O to Z**
(* indicates interview conducted)

Ottawa County Dept. Public Health	Shape Corp	United Way of SouthWest Michigan*
Outdoor Discovery Center*	Shinka Sustainability Consultants	Unlimited Recycling
PADNOS*	Sipzee	Van Buren County
Paw Paw Township*	SouthWest Business Association	Van Buren Conservation District
Perfect Circle Recycling	Southwest Michigan First	Borden Waste-Away
Perrigo	Southwest Michigan Land Conservancy*	We Care Outpost*
Pierce Cedar Creek Institute	Southwest Michigan Planning Commission*	West Michigan Hispanic Chamber of Commerce
Pliant Plastics	Spring Lake Township*	West Michigan Whitecaps*
RA Miller	St Joseph County	Whirlpool*
Rachel Mospan Design	The Chamber of Commerce of Grand Haven, Spring Lake, Ferrysburg*	WM*
Republic Services*	The SKI Passport	Steelcase*
Riveridge Packing	The Unicorn Tavern	Camp Friedenswald*
Gentex	Pactiv Evergreen*	Generate Capital*
RRS	Roosevelt Park Neighborhood Association	Urban Core Coalition
Schupan*	Cocoa*	My Green Michigan*
EPA	Congressman Hillary Scholten	West Michigan Food Processing Association
West Michigan Environmental Action Council	Michigan Recycling Coalition	Michigan Office of Rural Development
Eeenhorn Property Management*	Public Thread	Center for Community Transformation
Valley City Electronic Recycling	WK Kellogg Foundation	Generate Capital

eMMP Outreach and Engagement

EGLE is using a planning tool called the Municipal Measurement Program, developed by Emerge Knowledge and nicknamed the eMMP. As part of the MMCE grant, WMSBF developed an outreach campaign to encourage 75% of the municipalities in the original seven-county region to participate in the MMP program, a total of 195 municipalities including cities, villages, townships, and some indigenous government entities. For a substantial portion of the project this was our top priority.

Completion of eMMP included creating an account for a municipal representative and facilitating their completion of a lengthy onboarding survey. Through our efforts, we were able to achieve confirmed participation of no less than 21% of municipalities during the course of the grant. Based on anecdotal evidence and reports from the technology provider, we believe this to be among the best outcomes of any region in the state, and most likely the strongest of any MMCE grantee.

On two occasions, WMSBF received correspondence from Emerge Knowledge Design, Inc., the organization that collects data for the eMMP program, noting that they had seen a significant increase in MMP applications as well as completed surveys in the southwest region of Michigan. This correspondence was submitted to EGLE.

To accomplish this, WMSBF staff did not host webinars or blast emails. As one of the state's leading organizations for sustainability stakeholder engagement, WMSBF has extensive experience in survey-type applications, and knew that direct outreach would be required to promote increased adoption of the tool. Utilizing list-building exercises and online research, a database of contacts for each municipality was created. This included the municipality's website (or social media page if a website was not available), their eMMP status, the Materials Management point of contact name, their title, email address, and phone number, and up to five potential alternative contacts. The primary and alternative contacts varied by municipality size and staffing. Some municipalities assigned materials management responsibilities to the Department of Public Works supervisor, while the main contact in other areas was the Village Manager or Township Supervisor. In several municipalities, the point of contact was the mayor or clerk.

In January 2023, the WMSBF team began outreach to contacts in Ottawa and Kalamazoo County to confirm the contact information, encourage the completion of the eMMP survey, and to extend invitations to local educational events. The other counties began the following month. Correspondence continued throughout the spring and summer 2023, over a span of six months and at least four to six separate outreach attempts to each

municipality. Outreach attempts included email campaigns and phone calls to various contacts.

An example of the introduction email can be found below. Some contacts could only be reached via phone, as there was not an email address set up or available. To date, we have confirmed a reliable point of contact for 61 municipalities.

All of the outreach done by WMSBF included a mention or request concerning the eMMP survey. Some 41 contacts responded to WMSBF confirming that they had completed the survey. However, because we do not have access to the survey data, we believe there are substantially more unreported responses. Additionally, Kent County, which joined the project toward the end of our eMMP engagement, self-reported participation among its municipalities of 76% based on engagement the prior year. A series of emails were sent to Kent County municipalities encouraging them to create or update their profiles, but no follow-up was conducted.

Completion of eMMP By County (Confirmed by Voice or Email)							
Allegan	11% (4/35)	Berrien	16% (5/38)	Cass	38% (8/21)	Kalamazoo	21% (5/24)
Kent	76% (28/37)	Ottawa	25% (6/24)	St. Joseph	21% (6/24)	Van Buren	24% (7/29)

Twelve municipalities (Allegan Township, Gun Plain Township, City of Niles, Village of Shoreham, the Pokagon Band of Potawatomi Indians, Village of Climax, Climax Township, Spring Lake Township, Florence Township, City of Watervliet, Village of Michiana, and Village of Colon) reported that they chose not to complete the survey, for various reasons, listed below:

- Not enough time/staff capacity
- Not comfortable with eMMP program terms of service presented
- Received too many error responses in the process
- Did not feel as though they had a robust enough program/did not know enough information to spend time completing the survey
- Indigenous Groups - type of agency is not listed as an option
- Application and survey process was too cumbersome
- Cannot identify who the best contact in the village would be to complete the survey
- Will not complete the survey unless it is mailed to them (do not have consistent internet/email access)

Example eMMP Outreach Email

I am reaching out to you on behalf of Berrien County and the Michigan Department of Environment, Great Lakes and Energy as part of an effort to engage municipalities in the region on pending updates to the Part 115 solid waste law. [Our organization](#) is working with an eight-county coalition in West and Southwest Michigan to advance sustainable materials management in the region. Copied are my counterparts at the county, (insert names).

In the near future, as you may have heard, this new law will require the county to begin a three-year planning process to create a new materials management plan. We believe that your community will want to be a part of this process, and want to make sure you have the opportunity to be involved. We do think that this will be valuable to you.

To that effect, EGLE has created a resource for municipalities to learn about materials management and track performance in their communities, and against their peers. I am hopeful that you can find time to check this out. This will involve a 30-minute survey (depending on your current level of service), [a sample of which you can find here](#). I don't believe it will require any information that would not readily available to you. You will need to [fill out this form](#) to access the survey.

If you can find time in the next month to do this we would greatly appreciate it. The information provided will help your municipality with meaningful benchmarks and provide data that will help the county, state, and organizations like mine better support you.

If you are not the appropriate contact, I would be very grateful if you could point us in the right direction. Note that we are seeking a response from someone at the municipality. It does not matter if you are contracting with a private company to provide service.

I have attached a flier that talks about the Municipal Measurement Program, and [you can also find out more information on the program here](#).

As part of the eMMP engagement, we developed a list of municipal contacts for all communities in the county, which has been provided to the resource recovery coordinators and/or DPAs for their use.

Stakeholder Engagement

As described above, WMSBF staff met either formally or informally with representatives from 129 stakeholders in the region over the course of the grant. Prior to beginning engagement, we also met with representatives from each county, and in some cases the Solid Waste Planning Committee, to outline specific engagement interests. These are outlined in the county-specific sections. Regional findings are represented in the Materials Management Needs Assessment sections.

A Note on Stakeholder Opinions of Private/Public Sector Recyclers

The majority of stakeholders across the region expressed frustrations with waste haulers, recycling firms, municipalities and county departments of public works or equivalent authorities. Communication and customer service was a common theme, suggesting that there is more at play than the complicated dynamics of materials management and the circular economy.

“One thing that I’ve gotten from the haulers: There is a lot of inconsistency between who we talk to. It seems they are pressed really thin,” said Maaïke Baker, sustainability coordinator for Eenhoorn Property Management, which has facilities throughout West and Southwest Michigan. Waste haulers and recycling firms indicated that they were aware of these frustrations, and that they are more a function of circumstance than business decisions.

“We don’t have enough infrastructure to accommodate the demand from the public to process recycling,” said the regional sales director for one hauler. “We are moving in the right direction but still have a long way to go. The rural areas especially are pain points due to lack of density.”

Further, to give credit where due, municipal stakeholders in two Southwest Michigan counties complimented Best Way Disposal, in addition to the various public and private institutions highlighted in the sections in the county engagement reports below.

Materials Management Assessment - Planning Considerations

The following section examines several issues for consideration in sustainable materials management plans or general efforts to advance a circular economy in the region.

- Ordinances and funding mechanisms
- Import/export authorization and regionalization
- Disaster debris
- Climate solutions and climate resiliency
- Opportunities for closed landfills
- Equity
- Food Waste
- Cannabis
- Defining a regional vision
- Planning process

There are opportunities for improved contracting, ordinances, and sustainable funding mechanisms

Specific suggestions and opportunities for local policies to influence improved materials management are highlighted in the county engagement sections.

- In Kent County, a flow control ordinance is currently being evaluated as part of the Kent County Sustainable Business Park initiative. This is the most consequential policy discussion currently underway in the region, and its passage (or failure to pass) will have a profound impact on the regional wasteshed.
- In Van Buren County, recycling operations are currently being funded through the conservation district operations millage, County contribution, State grants, and local municipal contribution. There is stakeholder support and apparent political will for a new millage or fee that would fund recycling and materials management through a separate mechanism.
- Counties with landfills but limited investment in resource recovery should consider allocating additional funds from landfill receipts.

Elimination of Import/Export Authorization: Regional “Wastesheds”

Updated Part 115 legislation eliminated the use of import/export authorizations for solid waste, which had previously been used to regulate the capacity needs for each county, and to foster beneficial relationships between waste haulers and their communities.

On the following page is a table of the total cubic yards and origin for municipal and commercial solid waste disposed of at Type II landfills within the West Michigan Materials Management Coalition, plus the landfills in adjacent Calhoun and Muskegon counties. This information is taken from the 2022 Michigan Solid Waste Report. Based on current conditions of disposal practices and existing import/export authorizations in county solid waste plans, there does not appear to be any negative impacts to solid waste management in the coalition counties. The counties are already demonstrating open borders.

However, the impact of the Kent County Sustainable Business Park on flow control is currently unknown. The county planning processes will need to consider these impacts, especially for Ottawa County, which stands to lose a large amount of its landfill revenue. (Kent County does currently have limited flow control directing materials to the Kent County Waste to Energy Facility.)

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As with most sustainability considerations, materials management and the circular economy do not adhere to county lines. Regardless of Part 115 requirements, “wastesheds” are becoming increasingly regionalized, especially as private sector stakeholders consolidate assets and operations. Municipal solid waste and recycling are likely to travel across several counties, watersheds, and sometimes state lines.

- After the recent acquisition of Michiana Recycling & Disposal by LRS, virtually all of the recycling in Southwest Michigan is now processed in Elkhart, Indiana.
- Food waste from restaurants and other commercial properties travel from Kalamazoo to the Hammond Farms facility near Lansing.
- The aforementioned Kent County Sustainable Business Park has been marketed as seeking waste from up to 100 miles away.
- Nearly all of the region’s recycling and waste management firms (eg: PADNOS, Green Earth Electronic Recycling, WM, Republic Services, Schupan) have regional footprints and are actively transporting material across counties.

Material Flow by Coalition Landfills (by Cubic Yards)

	Autumn Hills Recycling and Disposal	C & C Sanitary Landfill	Orchard Hill Sanitary Landfill	Ottawa Farms Landfill	Southeast Berrien County	Westside Recycling / Disposal	South Kent Landfill	County of Muskegon	Central Sanitary Landfill
	Ottawa	Calhoun	Berrien	Ottawa	Berrien	St. Joseph	Kent	Musk.	Montcalm
Allegan	42,199		3,661	175,283	0	3,344	70,885	0	50
Barry	50	17	30	1,602	0	0	11,080	0	0
Berrien	0	105,802	233,681	0	463,789	350	0	0	0
Branch	0	53,665	0	0	0	12,273	0	0	0
Cass	0	0	15,495	0	71,202	29,741	0	0	0
Calhoun	0	273,140	22	0	0	133,115	49	0	0
Clinton	0	140	0	0	0	0	0	0	0
Eaton	36	35,548	0	0	0	0	45	0	0
INDIANA*	0	0	173	0	297,479	196,238	0	0	0
Ingham	0	37,309	0	0	0	0	0	0	0
Ionia	153	0	0	48	0	0	623	0	20,509
Kalamazoo	153	492,299	325,026	10	0	45,822	671	0	0
Kent	63,604	0	0	162,331	0	0	599,734	0	474,009
Montcalm	17	0	0	0	0	0	4	0	51,285
Muskegon	47,450	0	0	0	0	0	0	183,374	16
Newaygo	0	0	0	365	0	0	13	44,666	62,016
Oceana	0	0	0	24,579	0	0	30	37,997	0
OTHER**	0	49,008	0	0	0	12	0	8,279	37,218
Ottawa	312,769	0	0	280,088	0	0	12,539	15,665	0
St. Joseph	0	76	22	0	0	109,251	0	0	0
Van Buren	1,005	0	183,056	51	0	8,550	0	0	0

* The State of Indiana

**Non-contiguous counties including Gratiot, Isabella, Hillsdale, Jackson, Lake, Osceola

Materials Management Concerns for Disaster Debris

West and Southwest Michigan are experiencing an increasing number of extreme weather events and similar emergencies that are creating billions of dollars in damage to private and public property. In the past five years, the region has experienced historic high-water levels that created unprecedented damage to coastal property, several 100 or 500-year rain events, chronic and acute flooding, a tornado, several riots, and dozens of fires at large structures.

Many of these occurrences are extreme weather events that are predicted to occur with increasing magnitude and frequency as a result of climate change in the Great Lakes region. Arguably, the most conspicuous and costly of these recent events locally was the high-water crisis that impacted coastal communities, riverfront property and inland lakes. Small and large structures, including docks and homes, were damaged or destroyed by erosion or waves.

The Macatawa Area Coordinating Council received a Trash Free Waters grant from the EPA to conduct beach clean ups in Ottawa and Allegan counties in 2020 in partnership with several organizations throughout the region, partially to remove large debris that had accumulated on local shorelines. Managing these debris requires an investment in heavy equipment and staff time that places an extraordinary burden on local communities.

After a storm event, natural disaster, or man-made disaster, there will likely be an extensive amount of debris, typically comprised of the following:

- Household garbage
- Construction debris
- Vegetative debris
- Household hazardous waste
- White goods
- Electronics

Debris can block roadways or cause environmental issues that pose threats to public health, safety, or welfare. At a minimum, storm or disaster debris will typically require an unplanned municipal public works response.

In Southeast Michigan, where chronic flooding has regularly impacted local communities in recent years, the Resource Recovery and Recycling Authority of Southwest Oakland County and the Southeast Oakland County Resource Recovery Authority are preparing a Storm and Disaster Debris Management Plan that covers their combined 21 communities

collectively and individually. The authorities recently contracted with a consulting firm to create a plan that would be reviewed, approved, and adopted by RRRASOC, SOCRRA, and their 21 communities individually.

Although a regional or countywide plan specific to disaster debris is not likely necessary for West and Southwest Michigan communities, it is a worthy consideration for sustainable materials management plans. Disaster debris management plans could be incorporated into municipal, county, or regional emergency management plans. Having a robust, actionable plan allows communities to more quickly, cost-effectively respond during emergencies or following storm events to meet the health, safety, and welfare needs of their residents and businesses. It also ensures that communities are poised to receive assistance as necessary and appropriate from outside agencies such as county, state, and federal entities.

The Southeast Michigan plan suggests collaboration between emergency management plans and sustainable materials management plans would include the following characteristics:

- Consistency with the recommendations of county, state, and federal authorities;
- Consistency with and complementary to any existing local plans;
- Consistency with best practices for debris and material management;
- Able to serve as a response plan and resource for individual communities, including establishing and/or documenting:
 - Local organizational and contact information, including emergency operations information;
 - County, State, and Federal emergency contact information, including emergency operations information;
 - Mutual aid agreements;
 - Competitively bid private sector service provider agreements;
 - Additional private sector service provider information;
 - Identification of and agreements for use of staging areas, disposal facilities, recycling facilities, composting facilities, hazardous waste facilities, and other facilities so as to ensure that debris can be cost-effectively managed upon collection and managed to maximize materials utilization;
- Capable of being successfully integrated into existing or future local, county, or state Emergency Operations Plans;

The Southeast Michigan plan is being developed with intention for it to serve as a template for other Michigan communities.

Climate Change and Sustainable Materials Management

The Mi Healthy Climate Plan established that improving recycling performance and reducing food waste were essential parts of the state's climate strategy. There is potential for the development of a circular economy to lower emissions, and an opportunity to promote intersectionality by examining embedded carbon and its growing importance to major manufacturers and sustainability practitioners. WMSBF is currently developing a report on that subject which will be released later in the year. In addition, there are numerous issues related to climate change and decarbonization relevant to materials management.

Climate change will impact materials management operations

First, climate change will have an impact on the operations of recyclers, composters and related vendors through increased high-heat events, increased precipitation and potential flooding, high-wind events, new disease vectors, and other concerns that will necessitate a minimum investment in climate adaptation planning. Sustainable materials management plans should be in conversation with climate resiliency plans. As EGLE is providing funds for substantial investments in both over the next three years, there should be ample opportunity to do so.

Solutions will create materials management needs and opportunities

The combined efforts of the public and private sectors will reshape our state's economy and industry over the next two decades, and this will create new waste streams and new materials management needs.

- Anaerobic digestion facilities in the region are providing a means to manage organics waste and decrease methane emissions, with some facilities receiving support through carbon finance mechanisms.
- Advanced recycling technologies (eg: pyrolysis) have drawn attacks from climate activists for their potential to increase emissions.
- In as little as 10 years there will be as many photovoltaic solar panels being decommissioned each year as being installed in Michigan. PV panels are believed to be 95% recyclable, but as with most electronic waste, there are significant cost barriers to doing so and relatively little valuable commodities.
- A robust recycling market is emerging for electric vehicle batteries.
- As the public becomes more aware of emissions and savvy to calculators such as the EPA Waste Reduction Model (WARM), there will be challenges to highly centralized models that ship recyclables or compost long distances for processing.

Opportunities for Closed Landfills

Once a landfill goes into post closure it no longer provides the service benefit to local residents and becomes a “legacy” cost to the community with potential risks to local residents. The planning process should take care to outline future management needs for landfills that are reaching the end of their capacity. This could include redevelopment opportunities appropriate to the challenges of the property.

Some ideas that we have seen or had early conversations about are:

- Training or classroom extensions to teach about landfills, geology, renewable energy, etc.
- Energy park with wind and/or solar. The landfill cover itself could include photovoltaic solar. Wind turbines have been used to pump leachate. This could be coupled with educational exhibits and workforce development (to train people to install and maintain).
- Many closed landfill sites incorporate some type of park, sports complex, walking trails or ski and sledding hills.
- There is dialogue about future mining of resources from older landfills. So far it does not appear to be economically viable, but that could change in the future.

Capacity Remaining for Coalition Landfills and Adjacent		
Landfill	County	Capacity Remaining
Autumn Hills	Ottawa	83 years
Ottawa Farms	Ottawa	44 years
C & C Sanitary	Calhoun	90 years
Muskegon County	Muskegon	2 years
Orchard Hills	Berrien	48 years
Southeast Berrien County	Berrien	14 years
Pitsch	Ionia	6 years
South Kent	Kent	6 years
Westside Recycling and Disposal	St. Joseph	60 years

Equity and Justice in Materials Management in West Michigan

In spirit, sustainable materials management plans are meant to protect public health and the environment, and to support local communities and their economics. In practice, plans and the materials management ecosystem they represent are focused on the movement of commodities or waste, efficient delivery of service, and statutory compliance through a bureaucracy that is not representative of the communities it will serve. The new Materials Management Planning Committees mandated by Part 115 will have limited seats available for community representation, with only one seat each for elected officials representing the county, townships, and cities or villages, and one seat each for a business, the regional planning agency, and an environmental interest group, plus an additional optional seat.

However, for local communities to be satisfied by their materials management, and to have full participation in the opportunities that could be created through a circular economy, consideration must be given to their potential impact or benefit to constituents, and how investments can address social and economic inequities in the region.

As part of our stakeholder engagement, we interviewed formally or informally dozens of representatives from community organizations across the region, including economic development agencies, racial justice and anti-poverty organizations, food security organizations, environmental groups, community foundations and other charities and community groups. WMSBF also has a long history of advancing social justice through sustainable business practices, and has provided translation services, environmental justice training, and neighborhood-scale support throughout the region. In the following pages, we highlight a number of themes that will improve the planning process.

Justice40 opportunities in coalition communities

Justice40 is an initiative of the Biden and Whitmer administrations that commits 40% of all federal and state investments in climate solutions to the communities most impacted by climate change, so-called disadvantaged communities that have been burdened by poverty, stagnant economies, pollution, risks to public health, or inequitable access to resources. Recycling and materials management are considered climate investments in these scenarios.

Many urban and rural communities in Allegan, Berrien, Cass, Kalamazoo, Kent, St. Joseph and Van Buren counties meet Justice40 criteria. Justice40 illustrates how materials management should be viewed as an economic development strategy that can create jobs and generate wealth for lower income communities with thoughtful investments.

Access to service in rural communities

Inequitable access for lower-density communities was a common theme in our stakeholder engagement. Generally acknowledged as a failure of both the private and public sector, residents and businesses in the region's rural communities do not have access to the same services as those in higher-density communities. Businesses in rural communities in several counties complained that they were unable to identify a vendor willing to provide recycling service. Curbside residential service is not available in many rural communities, and long drives are required for drop-off sites in counties where they are available. Where curbside service is available, pick-ups can be infrequent as once a month.

Refuse and recycling in City of Benton Harbor

As a community impacted by the emergency manager law, the City of Benton Harbor in Berrien County is unique in the region. The emergency financial managers employed an austerity approach similar to what was famously attempted in Flint, dramatically reducing municipal staff while experimenting with its water department and service agreements. This created systemic challenges to the delivery of basic municipal service: A recently updated water treatment plant that only uses 12% of its capacity. An emergency order requiring residents to use bottled water for basic needs until water service lines could be replaced. It became a definitive environmental justice community.

Only a few years after a series of unreliable sanitation vendors led to prolonged periods without refuse service, city leaders are working to establish recycling access for its residents. Both the city and a local community organization have been supported by the Michigan NextCycle program. As these conversations advance, Benton Harbor highlights the challenges faced by under-resourced communities throughout the region, rural and urban both:

- Community leaders envision recycling as an economic opportunity.
- State and federal grants, along with non-profit partners, are available to underwrite recycling infrastructure;
- But there is limited to no ability to support ongoing operations through the general fund.
- Elected officials are hesitant to increase fees or taxes.
- Although a drop-off center would be more attainable from a funding perspective, residents do not have transportation available to bring materials to the site.
- Meanwhile, illicit dumping is an ongoing cost to the municipality and general nuisance to the community.

If Benton Harbor is able to develop a successful recycling program, it could serve as a template for other under-resourced communities in the region.

Practical applications of diversity, equity and inclusion

Racial equity can be a charged topic in West and Southwest Michigan, and the degree to which anti-racism, diversity, equity and inclusion (DEI) or justice, equity, diversity and inclusion (JEDI) are incorporated into materials management plans and execution will vary by community and local expectations. Although these terms can elicit a negative response from county commissioners and other stakeholders, some minimal consideration for racial and ethnic demographics is necessary for sustainable materials management in local communities.

Counties comfortable with a more progressive environment should find ample opportunity to involve communities of color in the planning process, especially as focus turns to environmental justice, job creation and increased access to services. Some of this is described in the following pages. If that is not politically feasible, sustainable materials management planning and execution can address most racial equity concerns by foregrounding poverty and geographic inequity. However, we must emphasize that:

1. Human resources are critical to the waste and recycling industries, which are not glamorous or easy careers. Inclusive practices and engagement of diverse communities are important to address staffing needs.
2. Cultural differences, communication barriers, and a general lack of trust will often undermine engagement and education of communities of color.
3. Every coalition county has a sizable Spanish-speaking population. If educational materials and support are not available in Spanish, it will negatively impact program delivery.

Demographics by County Person of Color and Spanish Speaking		
County	Person of Color	Spanish Speaking
Allegan	12.5%	5%
Berrien	25.3%	4%
Cass	13.9%	2%
Kalamazoo	23.3%	3%
Kent	27.3%	7%
Ottawa	16.8%	5%
St. Joseph	13.9%	6%
Van Buren	19.8%	8%

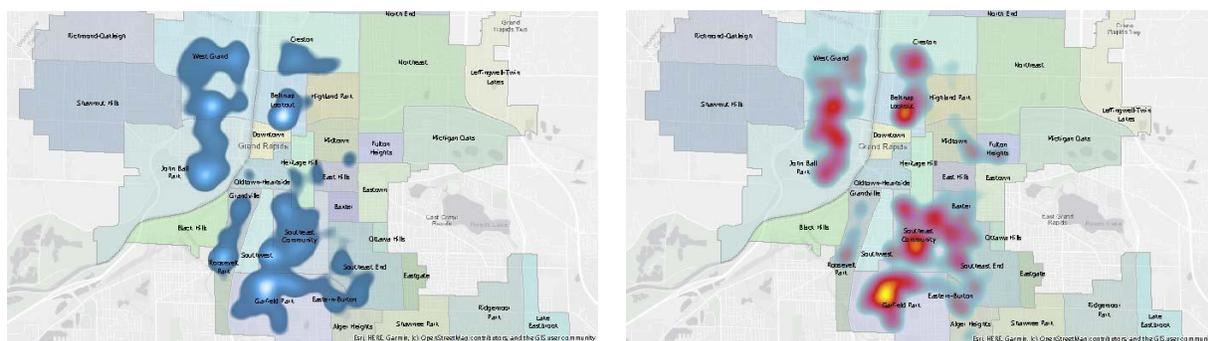
Cultural divides and economic insecurity contribute to recycling contamination

Contamination is a chronic concern for residential recycling programs both in Michigan and nationwide. Particularly acute among curbside, single-stream recycling programs, contamination is impacting the efficiency of operations already under pressure from unfavorable market conditions and global trade. Grand Rapids is one of a handful of urban communities in Michigan that provides free single-stream curbside recycling service to all residents without qualification requirements. Potentially due to its accessibility, the program is experiencing strikingly high rates of contamination.

Typically, industry intervention strategies focus on “Recycle Right” education programs to address so-called aspirational recycling, such as the “Recycling Racoons” campaign currently underway through the State of Michigan. Data suggests that cultural divides and economic insecurity are potentially a more prominent cause of contamination in high-incident neighborhoods than aspirational recycling or a general lack of recycling knowledge.

Analyzing violation data, it became clear that contamination was concentrated in fewer than a dozen routes. When organized by neighborhood, it was most prominent in Garfield Park, Roosevelt Park, John Ball Park, West Grand and Belknap Lookout, lower income neighborhoods and neighborhoods with larger immigrant communities.

- Residents with a free curbside recycling service are placing non-recyclable items in recycling carts as a lower-cost alternative to the pay per throw trash service.
- Residents with a limited knowledge of recycling and waste management, especially within immigrant communities, are placing non-recyclable items in carts due to language barriers and a general lack of familiarity with the concept of recycling.



Geographic concentration of data for 2019 (left) and the five-year period ending in 2019 (right).

Materials management industry supports equity and justice

In 2021, the Institute of Scrap Recycling Industries released a position statement declaring its commitment to environmental justice and the recycling industry's commitment to its communities. The statement noted that the industry has roots in multi-generational family businesses and that its members were committed to environmental stewardship, equal treatment and opportunity for all people, and to contributing positively to their communities.

The region's publicly-traded waste management firms, Republic Services and WM, both have substantial diversity & inclusion programs at the corporate level.

Food security can be a materials management issue

Food insecurity is common to rural and urban communities in West and Southwest Michigan, seemingly universal. Materials management plans should consider food rescue and recovery as a potential strategy to reduce the amount of organic material sent to landfills in their communities. Doing so will provide a tangible benefit to the community and make the materials management plan relevant to a broader community.

Food Waste Prevention is Important to Materials Management

Michigan disposes of more than one million tons of food waste through its municipal waste stream each year, the largest source of material disposed of in the state's landfills and waste-to-energy facilities. According to estimates from the USDA, 30% to 40% of the state's food supply is lost to waste.

With this in mind, the MI Healthy Climate Plan has recommended that Michigan adopt and pursue the joint USDA/USEPA goal to reduce food loss and waste by half no later than 2030. The Michigan Food System Waste Reduction Road Map is coordinating stakeholders throughout Michigan's food system to identify strategies to guide policy makers on potential incentives, funding mechanisms, and programs that could be developed to reduce food waste among Michigan businesses and institutions. Several of the strategies proposed in the roadmap have applicability to county materials management plans.

- Food donation
- Waste reduction technologies, practice improvements, employee training
- Secondary markets
- Infrastructure improvements
- Community awareness and education
- Agency collaboration and leadership

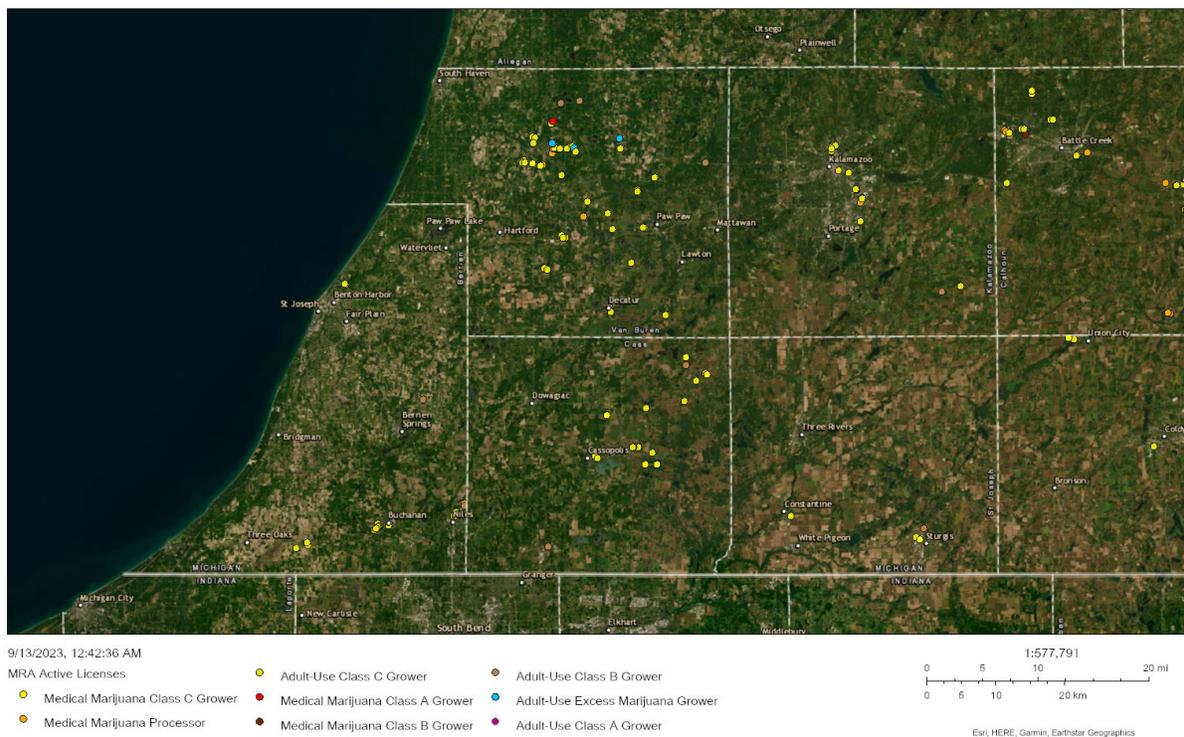
Cannabis Farms are Major Generators of Waste

West and Southwest Michigan have a substantial number of cannabis grow operations. The utility usage of indoor grow operations has been well documented and a focus of engagement programs for Michigan’s electric providers. Waste is also a concern. Cultivation and processing of cannabis produces significant biomass.

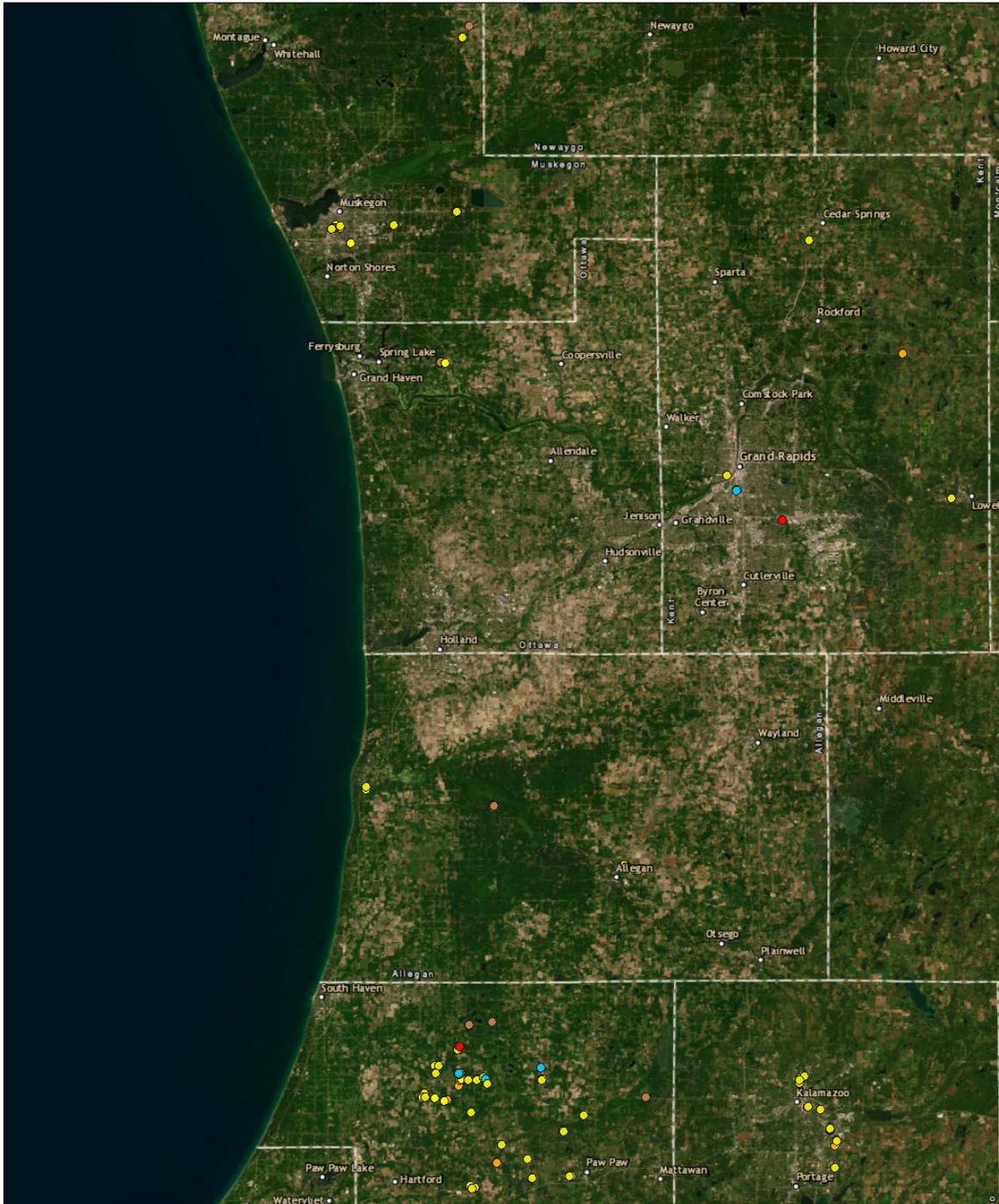
As the cannabis industry continues to grow, so does the concern over the waste generated by the industry. At present, the Cannabis Regulatory Agency requires marijuana waste be rendered unusable before disposal. As a result, growers in the region mix the materials with an equal amount of yard waste at significant expense. While state policy changes may be necessary to facilitate improvements to materials management for the industry, it presents a unique concern not present among other local industries.

This should be a planning consideration for counties with a large concentration of such facilities. Maps of licensed growers and processors can be found below and on the following page. Southwest Michigan has a higher density of licensees than any region in the state.

Marijuana Facilities



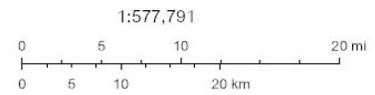
Marijuana Facilities



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MRA Active Licenses

- Medical Marijuana Class C Grower
- Medical Marijuana Processor
- Adult-Use Class C Grower
- Medical Marijuana Class A Grower
- Medical Marijuana Class B Grower
- Adult-Use Class B Grower
- Adult-Use Excess Marijuana Grower
- Adult-Use Class A Grower



Esri, HERE, Garmin, Earthstar Geographics

Michigan Marijuana Regulatory Agency
Earthstar Geographics | Esri, HERE, Garmin |

Defining A Regional Vision for Sustainable Materials Management

As part of this grant-funded initiative, members of the West Michigan Materials Management Coalition worked to define a set of common principles that could be considered a regional vision for sustainable materials management in western Michigan, through which our activities would support efforts to create a circular economy in West and Southwest Michigan.

In doing so, we can create a shared language for success as we advocate for investment and work to educate our communities and stakeholders.

Regional Vision

- Our region is defined by its natural resources and their contribution to our local economics and high-standard of living. Investment in pollution prevention and sustainable materials management are necessary to protect these assets for recreation and economic development.
- Materials management should be efficient, affordable, and equitable to the needs of local communities and their economies, ideally incentivized and attractive to residents and businesses, enabled by substantial investments in education to all stakeholders.
- Supporting local business and collaborating with the private sector is essential.
- No community should be expected to subsidize another, but a moderately centralized “hub & spoke” model will be necessary to meet the needs of the region, and will require ongoing collaboration and coordination.
- Every community should have a sustainable funding source sufficient to support materials management service, education, and economic development at a county or regional scale, appropriate to local needs, including at minimum a resource recovery coordinator.
- No new landfills should be sited in West or Southwest Michigan.

Through the updates to the Michigan Solid Waste Law, or Part 115, that occurred during the lame duck legislative session in late 2022, and to a lesser extent the Mi Healthy Climate Plan and NextCycle Michigan, the State of Michigan and its key stakeholders have provided an initial framework for how to advance sustainable materials management in each region.

This framework has established these goals and objectives:

- Triple Michigan's recycling rate to 45 percent
- Cut food waste in half by 2030
- Grow end-use recycling markets
- Build the foundation for a decarbonized and thriving Michigan economy
- Communities meet minimum standards for recycling access
 - 90% of single family households in municipalities over 5,000 receive curbside recycling service for one or more materials by 2028.
 - Counties with population less than 100,000 to host one drop-off recycling per 10,000 residents.
 - Counties of populations over 100,000 to host at least 1 drop-off for every 50,000 residents
- Communities are working to increase the recycling rate
 - Have set local goals and created an actionable plan for sustainable materials management, including organics and food waste.

Passed well after this project began, Part 115 will prove the most consequential over the next three years, as each county will be required to develop a sustainable materials management plan to accomplish these goals.

Requirement of Materials Management Plan

- Identify all materials management facilities and available capacity
- Focus on utilization capacity
- Determine a MSW recycling rate
- Develop materials management goals for utilization and recycling
 - Organics, recyclables, and other diversion activities
 - Benchmark Recycling Standards
- Contains an enforceable mechanism and responsible parties for implementing the MMP
- Ensures materials management facilities that are needed can be developed and provides avenue for siting of new facilities (MUFs; Waste Diversion Centers; etc.)
- Includes an overview of the transportation infrastructure for all managed materials
- Documents an implementation strategy

To accomplish this, each county will receive five years of grants that can be applied to planning activities, engagement and education, and/or program execution. Each county will receive \$60,000 per year for, plus \$.50 per capita (not to exceed \$300,000), for the first three years, with smaller grants available for an additional two years after.

Expected Funding Per County MMP Grants (Three-year funding for counties adjacent to coalition)		
County	Population	MMP Funding
Allegan	121,210	\$361,815
Barry	63,554	\$275,331
Branch	44,351	\$246,527
Berrien	152,900	\$409,350
Cass	51,403	\$257,105
Calhoun	133,289	\$379,934
Ionia	66,809	\$280,214
Kalamazoo	261,173	\$571,760
Kent	659,083	\$900,000
Montcalm	67,433	\$281,150
Muskegon	176,565	\$444,848
Newaygo	58,886	\$268,329
Ottawa	300,873	\$631,310
St. Joseph	60,874	\$271,311
Van Buren	75,962	\$293,943

In May 2023, the coalition convened a regional dialogue to discuss materials management needs in West and Southwest Michigan. This built on a series of earlier events and formal and informal interviews with 129 stakeholders from across the region.

The meeting highlighted the following challenges, outlined on the next page. Some of these are within the purview of counties and/or the scope of sustainable materials management planning, while others are more systemic challenges. It also outlined a number of potential investments to address these challenges.

Regional Materials Management Challenges May 2023	
SMM /County Relevant	<ul style="list-style-type: none"> ● Electronic Recycling ● Single-stream recycling ● County access, limited staff ● Lack of competition ● Education & administrative costs ● Price of recycling ● Regional or vendor differences in accepted materials ● Scaling infrastructure for small or rural communities ● Lack of options for problem materials, such as office furniture ● Recycling in social districts ● Identifying agency/vendor contacts ● Transportation to recycling center ● Contamination ● Cross-contamination (food waste)
Systemic	<ul style="list-style-type: none"> ● Need to designing products without waste ● Manufacturers using difficult to recycle materials ● Limited staff ● Differentiation of plastic types

Regional Materials Management Investment Suggestions May 2023	
<ul style="list-style-type: none"> ● Automation ● True-cost model (tipping fee represents cost to society, environment) ● Increase local staff capacity for resource recovery ● Organics planning ● Shared assets ● Countywide plan with community buy-in ● Cart contamination education ● Infrastructure for organics management (drop-off) ● More outlets for recyclables ● Advocate for simplicity of participation ● Accessibility 	

Top 5 Needs to Increase Opportunities for Materials Management

Based on the deficiencies and opportunities detailed in the prior sections and the sections that follow, we have identified the following needs to improve materials management in the region with a goal to meet Part 115 benchmarks and contribute to the statewide expansion of the recycling rate:

1. Increased investment in educational programming across all scales and industries, to include matchmaking and directory resources, technical support, K12 education, advocacy and general issue leadership, supported and amplified through collaborations between public and private sector, municipalities and counties, and regional partnership.
2. Empower public sector leadership:
 - a. New or revised funding mechanisms to ensure dedicated resource recovery or environmental services in Berrien, Cass, St. Joseph and Van Buren counties, potentially through regional collaboration, and to improve service in Allegan, Berrien, Cass, St. Joseph and Van Buren counties.
 - b. Passage of a flow control ordinance for Kent County.
 - c. Affirm support for Ottawa County Environmental Services and its programs.
3. Increase processing capacity for traditional recyclables through new Materials Recycling Facilities in at least Berrien, Kalamazoo, Kent, and Ottawa counties, with transfer stations or MRFs in Allegan, Cass, St. Joseph and Van Buren counties. There is currently no MRF in Southwest Michigan.
4. Improve access to recycling services:
 - a. Develop at least one comprehensive drop-off center or CHARM (Center for Hard to Recycle Materials) in each county.
 - b. Increase drop-off sites for traditional materials as required to meet Part 115 benchmarks.
 - c. Facilitate investment in private sector drop-off, curbside service, and processing facilities through funding, strategic partnerships, publicity and referrals, and technical support.
 - d. Facilitate investment in municipalities to establish new curbside service or drop-off sites.
5. Increase diversion of organic materials through commercial or community composting, anaerobic digestion facilities, and/or Food Loss and Waste Reduction (FLWR).

County Reports

This section of the report outlines the current state of affairs of sustainable materials management in West and Southwest Michigan, based on reviews of solid waste plans with clarifications from county resource recovery coordinators, designated planning agencies, and/or solid waste planning committees, plus additional information from the MEGA Data project. Eight of the 16 counties that are generally considered West and Southwest Michigan participated in the West Michigan Materials Management Coalition. With the grant concluded, we expect additional counties to participate moving forward.

West Michigan Regions as Defined by COG *Counties Currently Participating in Coalition			
Region 3	Region 4	Region 8	Region 14
Southcentral Michigan Planning Council	Southwest Michigan Planning Commission	West Michigan Regional Planning Commission	West Michigan Shoreline Regional Development Commission
Barry Branch Kalamazoo* Calhoun Saint Joseph*	Berrien County* Cass* Van Buren*	Allegan* Ionia Kent Mecosta Montcalm Ottawa* Osceola	Lake Mason Muskegon Oceana Newaygo

EGLLE has divided the state according to Council of Government (COG) regions, as outlined above. There is an expectation that COGs participate in the forthcoming sustainable materials management planning process. In Regions 4 and 14 the COG is expected to lead the planning process and write the plan.

In Region 3 and 8, the COG has not been involved in materials management in a meaningful way, and that requirement may prove challenging. For Region 8, that will be a particular challenge. Kent County has declined to participate in the West Michigan Regional Planning Commission (WMRPC), and only the cities of Cedar Springs and Wyoming are affiliated with the COG. The Grand Valley Metro Council fills the planning role for Kent County. Macatawa Area Coordinating Council fills this role for Ottawa County. In Region 3, Barry County is actually a member of WMRPC, not the Southcentral Michigan Planning Commission.

Current State of Affairs by County

West Michigan Sustainable Business Forum senior consultant Jack Schinderle, recently retired from the materials management division at EGLE, reviewed the solid waste management plans and met with staff from Allegan, Berrien, Kalamazoo, Ottawa, St. Joseph and Van Buren counties. The Cass County plan was reviewed, but no clarifying meeting was held with the DPA or solid waste planning committee, as there was no one available to do so. This is found in the county reports. Kent County did not participate in this review. This task is not a specific deliverable to EGLE as defined in its grant contract.

Current County Performance: Renew Michigan Funding

Arguably the best way to assess the current state of the circular economy and sustainable materials management in Michigan counties is through their participation in Renew Michigan Recycling Infrastructure and Market Development grants, which have been the largest source of external investment in local materials management since the fund began awarding grants in 2019.

Communities with active interests in developing a circular economy are best prepared to compete for these grants, either through the county, its municipalities, business or non-profit organizations. It is no coincidence that Emmet County, generally heralded as the best-performing jurisdiction in the state, received the most funding per-capita of any county by a substantial margin. With a population of only 34,000, the northern Michigan community received more total funding than all but Kent, Wayne, Washtenaw and Ingham counties.

Examining further, the Emmet County Department of Public Works received 100% of the funding awarded to its county. Compare this to the coalition-adjacent Muskegon County, which received a healthy \$760,830 in funding over four years, but only 5% of those funds were used to increase service in the community. Only 7% of Kalamazoo County's \$172,350 increased service, through a business-centered collaboration involving Kalamazoo Nature Center; the balance supported a Western Michigan University lab.

In high-performing local communities such as Kent, Ottawa, Calhoun and Emmet counties, the public sector receives a larger proportion of funding, with substantial collaboration with the private sector, and/or a substantial amount of funds granted to local businesses. While all of Ottawa County's grants supported local government projects, each was a public-private partnership, including City of Holland's partnership with Republic Services, and Ottawa County's collaborations with Organicycle and Grand Valley State University.

Emmet County provides commercial recycling and composting services to local businesses in its community.

WMSBF believes that the Michigan communities most prepared to advance a circular economy are ones with a diverse ecosystem of public and private actors, such as those mentioned above, especially Kent County, where 15 different public and private agencies received Recycling Infrastructure or Market Development grants over a four-year period.

Renew Michigan Infrastructure and Market Development Grants Per Coalition County and Adjacent 2019 - 2022			
County	Population	Number of Grants	Dollar Amount
Allegan	121,210	1	\$10,000
Barry	63,554	0	\$0
Berrien	44,351	0	\$0
Branch	152,900	1	\$35,000
Cass	51,403	0	\$0
Calhoun	133,289	3	\$749,944
EMMET	34,163	4	\$998,000
Ionia	66,809	0	\$0
Kalamazoo	261,173	2	\$172,350
Kent	659,083	20	\$2,792,747
Montcalm	67,433	0	\$0
Muskegon	176,565	4	\$760,830
Newaygo	58,886	2	\$67,405
Ottawa	300,873	3	\$1,277,646
St. Joseph	60,874	0	\$0
Van Buren*	75,962*	0*	\$0*

*Van Buren County has a pending award for an estimated \$500,000 for the 2023 grant competition, expected to be announced later this year.

Wishlist and Part 115 Benchmarks

As discussed previously, the passage of Part 115 shifted the scope of this project considerably. The benchmark requirements will presumably take precedence over other interests identified by stakeholders and county leadership. As such, we begin this section with an inventory of expected requirements for Part 115 benchmarks, based on a review of MEGA Data sheets.

Drop-Off Benchmark Requirements for Coalition Counties			
Under 100,000 residents - One per 10,000			
Over 100,000 residents - One per 50,000			
County	Population	Drop-Offs Required	Current Drop-Offs
Allegan	121,210	3	5
Berrien	152,900	3	4
Cass	51,403	5	2
Kalamazoo	261,173	5	3
Kent	659,083	13	5
Ottawa	300,873	6	6
St. Joseph	60,874	6	2
Van Buren	75,962	8	9

For this benchmark, counties with a population less than 100,000 are required to host one drop-off recycling site per 10,000 residents, and counties of populations over 100,000 must host at least one drop-off site for every 50,000 residents. Note that the legislation is not clear on what actually constitutes a drop-off center, only that facilities be open for 24 hours in a month. If interpreted loosely, electronic recyclers or scrap yards would meet this specification, as would grocers that offer bottle redemption and other retailers. For our purposes, we have limited our review to drop-off centers that provide traditional recycling.

The benchmarks also include a requirement that 90% of single family households in municipalities over 5,000 receive curbside recycling service for one or more materials by 2028. In the following pages, we outline the requirements for curbside recycling. Population data has been collected from Wikipedia. A number of growing municipalities with current populations of slightly less than 5,000 were included as well.

As a caveat, the acquisition of Michiana Recycling & Disposal by LRS will have a profound impact on the accuracy of this data in Berrien, Cass and St. Joseph counties.

**Curbside Benchmark Requirements for
Allegan/Berrien/Cass Counties**
Municipalities with population of 5,000 or more

Municipality	County	Curbside Available Now
Allegan (City)	Allegan	No
Dorr Township	Allegan	No
Gun Plain Charter Township	Allegan	Yes - Republic Services
City of Holland	Allegan/Ottawa	Yes - Republic Services
Laketown Township	Allegan	No
Leighton Township	Allegan	Arrowaste
Otsego Township	Allegan	Yes - Republic Services
Salem Township	Allegan	Yes - Republic Services
Valley Township	Allegan	No
Benton Harbor (City)	Berrien	No
Fair Plan (CDP)*	Berrien	No (not clear if CDPs applicable to Part 115)
Niles (City)	Berrien/Cass	Yes - Subscription
Niles Township	Berrien	No
Benton Charter Township	Berrien	Yes - Subscription
Berrien Township	Berrien	No
Coloma Charter Township	Berrien	Yes - Subscription
Lincoln Charter Township	Berrien	Yes - Subscription
Oronoko Charter Township	Berrien	No
St. Joseph Charter Township	Berrien	Yes - Best Way
Royalton Township	Berrien	No
St. Joseph (City)	Berrien	Best Way
Dowagiac (City)	Cass	No
Howard Township	Cass	No
Ontwa Township	Cass	No

**Curbside Benchmark Requirements for
Kalamazoo, St. Joseph and Van Buren Counties**
Municipalities with population of 5,000 or more

Municipality	County	Curbside Available Now
Comstock Charter Township	Kalamazoo	No
Comstock Northwest (CDP)*	Kalamazoo	No (not clear if CDPs applicable to Part 115)
Cooper Charter Township	Kalamazoo	Yes - Republic Services
Eastwood (CDP)*	Kalamazoo	Yes - Republic Services
Kalamazoo (City)	Kalamazoo	Yes - City of Kalamazoo
Kalamazoo Charter Township	Kalamazoo	Yes - Republic Services
Oshemo Charter Township	Kalamazoo	No
Pavilion Township	Kalamazoo	No
Portage (City)	Kalamazoo	Yes - Best Way
Richland Township	Kalamazoo	No
Ross Township	Kalamazoo	No
Schoolcraft Township	Kalamazoo	No
Texas Charter Township	Kalamazoo	Yes - Subscription
Westwood CDP	Kalamazoo	Yes - Republic Services
Sturgis (City)	St. Joseph	Yes - Borden Waste-Away Service
Three Rivers (City)	St. Joseph	No
Almena Township	Van Buren	No
Antwerp Township	Van Buren	Yes - Subscription
Paw Paw Township	Van Buren	No

Curbside Benchmark Requirements for Ottawa County		
Municipality	County	Curbside Available Now
Allendale (CDP)	Ottawa	No (not clear if CDPs applicable to Part 115)
Allendale Charter Township	Ottawa	No
Blendon Township	Ottawa	No
Coopersive (City)	Ottawa	Yes - Republic Services
Georgetown Charter Township	Ottawa	No
Grand Haven Charter Township	Ottawa	No
Grand Haven (City)	Ottawa	Yes - Republic Services
Holland (City)	Allegan/Ottawa	Yes - Republic Services
Holland Charter Township	Ottawa	No
Hudsonville (City)	Ottawa	No
Jamestown Charter Township	Ottawa	No
Jenison CDP	Ottawa	No (not clear if CDPs applicable to Part 115)
Olive Township	Ottawa	No
Park Township	Ottawa	No
Port Sheldon Township	Ottawa	No
Spring Lake Township	Ottawa	No
Robinson Township	Ottawa	No
Tallmadge Charter Township	Ottawa	No
Zeeland Charter Township	Ottawa	No
Zeeland (City)	Ottawa	No

Curbside Benchmark Requirements for Kent County		
Municipality	County	Curbside Available Now
Ada Township	Kent	Yes - Subscription
Algoma Township	Kent	Yes - Subscription
Alpine Township	Kent	Yes - Subscription
Byron Center (CDP)	Kent	Yes - Subscription
Byron Township	Kent	Yes - Subscription
Caledonia Township	Kent	Yes - Subscription
Cannon Township	Kent	Yes - Subscription
Cascade Charter Township	Kent	Yes - Subscription
Comstock Park (CDP)	Kent	Yes - Subscription
Courtland Township	Kent	Yes - Subscription
Cutlerville (CDP)	Kent	Yes - Subscription
East Grand Rapids (City)	Kent	Yes - Subscription
Forest Hills (CDP)	Kent	Yes - Subscription
Gaines Charter Township	Kent	Yes - Subscription
Grand Rapids (City)	Kent	Yes - City of Grand Rapids
Grand Rapids Charter Township	Kent	Yes - Subscription
Grandville (City)	Kent	Yes - Subscription
Kentwood (City)	Kent	Yes - Subscription
Lowell Charter Township	Kent	Yes - Subscription
Nelson Township	Kent	Yes - Subscription
Northview (CDP)	Kent	Yes - Subscription
Oakfield Township	Kent	Yes - Subscription
Plainfield Charter Township	Kent	Yes - Subscription
Sparta Township	Kent	Partial - Subscription
Tyrone Township	Kent	Partial - Subscription
Rockford (City)	Kent	Yes - Subscription
Solon Township	Kent	Partial - Subscription
Vergennes Township	Kent	Partial - Subscription
Walker (City)	Kent	Yes - Subscription
Wyoming (City)	Kent	Yes - Subscription

Allegan County

Allegan County's solid waste management and materials management activities rely on private industry. For future growth within the county, it would be ideal to have imports from other counties. Allegan County leaders are moving toward the idea that some regulation by government involvement could help the overall system to grow and expand and be more successful. Private partnerships will always be important in the county, but there is a benefit to public involvement as well.

Within the county plan, Allegan County has adopted goals to achieve some solid waste management benchmarks. These are based on old state plans and are currently not being used as they are from 1997. The Solid Waste Planning Committee has been talking about setting new goals for the Resource Recovery Program, but have found it challenging to set countywide goals as they do not have a countywide recycling service. There are 18 municipalities, half of which have curbside service, another four have drop sites, another two have transfer stations or access to a regional transfer station. This plan proposal may be as simple as decreasing contamination and increasing utilization.

Within the funding structure in the Solid Waste Management Plan, the county's investment into Materials Management is one employee - the Solid Waste/Recycling Coordinator. The county receives approximately \$1 million from included townships and cities, which is then held in a special revenue fund and the revenue is held in an activity for each municipality. The county does not have discretion with the funding, but rather utilizes the funding to pay for the township and city services that each has opted into. Private industry within the county has limited interest in materials management, to the extent that there is usually only one bid on curbside recycling within a municipality, and the contract amounts are unsustainably rising. The number of household hazardous waste providers operating in the county is decreasing, and their prices are increasing.

Lack of competition among haulers creates another issue as they tend to regularly not pick up according to the schedule. This causes customers to not want the service any more, even if this is something that they voted on. Provider reporting is built into agreements, partially because the hauler wants to charge a tipping fee. Volume collected can be seen on every invoice, however, with only one person in the county to look into any accuracy and issues, the capacity does not exist to collect this data. Residents are constantly wondering if picked up items are actually being recycled or how contaminated bins may be before they are not recycled. Contracts and finances are the biggest issues. Customer service and managing 19 budgets takes up a lot of time and is difficult for one person.

If capacity was available, the Solid Waste/Recycling Coordinator would like to access a countywide funding mechanism, possibly through a mileage and look to an Emmet County model. The Coordinator would like to utilize waste fees to support recycling and other sustainable materials management. It was reported that the lack of harnessing the power of waste disposal to support other endeavors, which is partnered with the lack of control to support the long term sustainability of materials management programs. The county has a need to provide more recycling services, but does not have a landfill to leverage funding. This could be rerouted through a transfer station to recoup some of the funding.

Allegan County is interested in other funding mechanisms that are county wide and increasing competition, as mentioned above. There is also interest in organics management within the county. According to the Solid Waste Management Plan, the Board of Commissioners (5 County Commissioners) are required to bring these objectives forward. After the 2022 election, the Board of Commissioners composition will be decreasing in materials management knowledge and commitment to recycling. It was reported that it would be beneficial to have presentations to educate the interested commissioners to make more informed decisions. National Community Survey Results showed that recycling is important to county residents, while few residents feel they have adequate access to household hazardous waste recycling. When asked whether they would pay more to access additional recycling services, the response was split approximately 50/50.

The Kent County Sustainable Business Park is located in Allegan County, and this is the only regional cooperation between Allegan County & Kent County. Any discussions of partnerships are quite early, but there is cooperation. The SBP falls in the purview of the Allegan County Solid Waste Management Plan. Kent County has requested Allegan County to open siting for their anchor tenant, and they are in the process of doing so, without any obstacles or objections to the project. It is not clear if there will be future partnerships surrounding the Sustainable Business Park.

Allegan County Engagement Interests	
Issue	Outcome
Opinions on proposed Kent County Sustainable Business Park	Stakeholders with awareness were generally supportive of the concept.
Identify potential to increase recycling hauler competition	Although we were able to affirm this as an interest of municipalities, we are not able to offer any specific recommendations. This was mentioned by several municipalities.
Sustainable funding to support expanded curbside service and drop-off sites.	Stakeholders were generally supportive of a millage or other funding mechanism, depending on how service would improve as a result.
Potential for county-owned/operated sites, especially hazardous waste.	There was no awareness of the potential value of such investments, and when asked what improvements were needed in the county, this was not highlighted.
Composting service, especially for the Saugatuck / Douglas area.	Various stakeholders discussed the need for increased organics management capacity. Among those we interviewed, there was a greater interest in anaerobic digestion applications. City of Holland is actively seeking an opportunity to provide compost service to its residents and businesses.

In Allegan County, municipal stakeholders were indeed concerned about the lack of competition for recycling services, and both public and private organizations reported challenges accessing comprehensive recycling service. On the former issue, there are a limited number of qualified curbside recycling firms active in the region, but expectations appear to be fairly low for what a competitive environment would entail (ie: more than two).

Note: One community organization suggested that the prevalence of multiple providers in their community made it impossible for haulers to achieve sufficient volume for increased service; there is not a stated preference for a free-market scenario in local communities.

Largely attributed to its rural nature, stakeholders universally expressed challenges accessing the level of recycling service desired, and many reported frustrations with refuse service as well.

There was general support for new local or countywide funding mechanisms to support sustainable materials management improvements, provided the respective jurisdiction could demonstrate the revenue would be invested thoughtfully. Some did express concerns for the “politics” or public response to new fees

or taxes, but sentiment was generally supportive (albeit from a sample of stakeholders predisposed to support improvements). There was strong support for the county to deploy a Resource Recovery Coordinator and even additional staff to advance these issues. However, there was clearly-stated frustration with the recent turnover of the position, and a belief that this has hindered performance. This was mentioned in five separate interviews.

While Allegan County is definitively a rural community, downtown and main street concerns were a common point of interest, and disproportionately highlighted among the top interests for the county. Holland, Allegan and Saugatuck should be key points of focus in future planning efforts.

"City population is going through a cultural shift," said Joel Dye, City Manager for City of Allegan. "Used to be people who buried things in the backyard, now we're getting a younger population and people who are asking for recycling, and to have better recycling than is currently available. Citizens are requesting downtown municipal recycling."

City of Holland, which is split between Allegan and Ottawa counties, has been more closely aligned with Ottawa, and comments from city staff, businesses, and community organizations predominantly focused on their relationship with and expectations from that county, regardless of their location. Intentional outreach to city staff and city stakeholders, such as the ODC Network, Haworth, and Lakeshore Advantage, could be a focus for the new Allegan County Resource Recovery Coordinator.

To our surprise, there was little to no discussion of the Kent County Sustainable Business Park among Allegan County stakeholders, until asked directly about their opinions or awareness. The project was featured as an in-person meeting held at Perrigo and WMSBF has directly engaged several of the county's manufacturers on the issue, but it was not generally perceived as an Allegan County concern. The exception was regional recycling firms and waste management companies, which expressed skepticism or opposition. We would characterize sentiment from Allegan County material management businesses as "curious."

Illicit dumping was also cited as a concern among local municipalities.

On the following page, we outline the top 3 needs for the county, based on the opinions of stakeholders, current investment opportunities, the NextCycle Gap Analysis, MEGA Data, and Part 115 benchmarks:

Allegan County Wishlist		
Meets Benchmarks?	Drop-off: Yes	Curbside: No
Recommendations		
1	Facilitate curbside recycling service in City of Allegan, Dorr Township, Laketown Township and Valley Township for Part 115 benchmarks.	
2	Invest in a comprehensive drop-off site in the Allegan, Plainwell, Wayland triangle, evaluating the feasibility of a new MRF in this area, (potentially expanding upon existing partnership with Broken Arrow).	
3	Collaborate with cities to support key local concerns, such as social district recycling in City of Allegan or composting in Holland and Saugatuck. Seize opportunities for “wins” to increase profile of Resource Recovery Coordinator.	

Review of Current County and Municipal Agreements and Ordinances

Through primary and secondary research, we conducted a review of county and municipal ordinances within the eight-county area. Generally, the most common waste related municipal ordinances concerned litter and blight. The list below includes examples of the blight and general waste collection ordinances found by county.

Inventory of Current County/Municipal Agreements: Litter and Blight	
Allegan County	
Allegan Township	Blight
Casco Township	Blight
Laketown Township	Anti-Blight
Lee Township	Blight Elimination
Ganges Township Ordinance	Litter
Watson Township	Litter and Blight Ordinance

Examples of local units of government found to have trash, garbage, and refuse collection ordinances are identified below. These ordinances are, in many cases, in addition to litter and blight ordinances.

Inventory of Current County/Municipal Agreements: Recycling Allegan County	
Allegan County	
Dorr Township	Curbside Recycling Available
Monterey Township	Recycling available
Otsego Township	Curbside Recycling Access
Salem Township	Curbside Recycling Available
Valley Township	Recycling vote passed
Wayland Township	Recycling is available and is paid by \$25 fee on winter taxes

Curbside Benchmark Requirements for Allegan County Municipalities with population of 5,000 or more		
Municipality	County	Curbside Available Now
Allegan (City)	Allegan	No
Dorr Township	Allegan	No
Gun Plain Charter Township	Allegan	Yes - Republic Services
City of Holland	Allegan/Ottawa	Yes - Republic Services
Laketown Township	Allegan	No
Leighton Township	Allegan	Arrowaste
Otsego Township	Allegan	Yes - Republic Services
Salem Township	Allegan	Yes - Republic Services
Valley Township	Allegan	No

Berrien County

In 1996, Berrien County first hired a staff person to focus on solid waste management plans. Latest update was the 2001 plan. At the beginning, there were three municipal solid waste landfills. There was a large influx of funding from the three landfills, which was originally allocated to run community recycling and household waste programs, but was eventually removed from the department. By 2001, the county recycling staff no longer received the funds. In 2001, there were two full-time staff running recycling programs and working with K12 schools on recycling. In 2006, these staff positions merged into one full time position, which then was moved to the Parks Department and split responsibilities in 2012. Current funds in the budget go toward programming. As of 2022, 0% of the landfill use fund dollars go to staffing. The County has recognized the dwindling funds and has diverted some landfill funds back into the program and now has an annual allocation to run the solid waste materials management programs, but still shares full time staff with other departments. The Solid Waste Management Plan update process will need to be hired out of the department to a consultant (most likely to Southwest Michigan Planning Commission, which completed the most recent plan). Due to financial concerns, the county has pared their recycling and materials management projects back. Currently, household hazardous waste, electronics, and tire grants are the main focus, but they do not have the funding to add additional projects.

In 2006, Berrien County hired RRS to review their solid waste and recycling efforts. They received a report on potential projects and the cost to put new programs in place. Due to the simultaneous reduction in funding and overload of staff tasks, these programs were not enacted.

Berrien County currently hosts two landfills, and sits in a unique situation with its proximity to Indiana. The county handles interstate transfers, and has access to resources in Indiana that other counties do not. Berrien County works with TriPower out of Elkhart, Ind., to recycle plastics and foam at collection events. Staff has also visited Brightmark in Indiana to tour the facilities in hopes to work with recyclers across the border.

One of the landfills in the county has 50% capacity remaining, while the other has 13% capacity remaining. The Solid Waste Planning Committee has had discussions about capacity planning, but the conversations took place several years ago. The Solid Waste Plan currently includes a landfill fund which brings forward a tipping fee income. The plan does not cover any projects with landfills, but the Solid Waste Planning Committee is involved with recycling drop off centers. However, there is not enough time allocated by full-time staff to check regulations at the recycling drop off centers. The overall philosophy in the county is to rely on private industry to manage the capacity and planning of landfills.

There is legislation anticipated providing funding for counties for three years to work through any Part 115 requirements. The county staff would like to bring County Commissioners up to speed to be aware of how legislation is progressing so that changes do not come as a surprise. The County has a great relationship with the privately owned landfills, but have not discussed the legislation update. There are hopes to create specific baseline education for county commissioners (specifically those in the districts with landfills). The county has a Solid Waste Planning Committee, but they have not met in over 15 years. The staff plans to reconvene this committee and get an update on where legislation stands on the state level and what it means for Berrien County. There are plans to reconvene this group in 2023 Q1, and to provide an update on legislation and requirements.

Berrien County Engagement Interests	
Issue	Outcome
Educate elected officials on sustainable materials management, benchmarks, and funding needs.	With the exception of City of Benton Harbor, there was limited education of elected officials conducted as part of the grant. This is an unmet need we hope to address through ongoing engagement.
Sustainable funding to support expanded service and materials management needs.	Although we believe there is a strong case for increased county funding, there was more support for local funding.
Identify potential members for the solid waste planning committee.	A list has been provided to the expected Designated Planning Authority.
Support the City of Benton Harbor.	Although far from complete, there is momentum for improved materials management in the city, with dedicated staffing and seed funding.

Our engagement efforts disproportionately focused on the City of Benton Harbor and north-county business and community stakeholders. Additional engagement is necessary as the sustainable materials management planning gets underway, and we expect to be active partners with Southwest Michigan Planning Commission in doing so.

Stakeholders in the City of Benton Harbor had strong opinions about the potential for sustainable materials management in their community, with little consensus.

There is an active group of community leaders working to advocate or develop entrepreneurial solutions for recycling service in the city. There is particular disagreement on how programming should be funded (there was a desire for the new service to be free, but budget neutral). Illicit dumping was also cited as a concern for the city, along with other local municipalities.

Business leaders expressed frustration in their ability to access recycling and composting services, specifically and especially for common office waste and food waste. “It is embarrassing that we have a globally-recognized sustainability program but can’t figure out how to get recycling at our corporate headquarters,” said the senior manager for global sustainability of a local manufacturer. (Reportedly, the company was able to identify a vendor after a prolonged search.) There was not an expectation that addressing this need should be the responsibility of the public sector.

The so-called “dirty MRF” in Niles operated by the former Michiana Recycling & Disposal was a topic of significant interest regionally, although less so in Berrien County. Municipalities and other recycling firms questioned the two-bag practice, noting that it created unrealistic expectations for how recycling actually works. “We’re competing with fake recycling.”

Below we outline the top 3 needs for the county, based on the opinions of stakeholders, current investment opportunities, the NextCycle Gap Analysis, MEGA Data, and Part 115 benchmarks:

Berrien County Wishlist		
Meets Benchmarks?	Drop-off: Yes	Curbside: No
Recommendations		
1	Facilitate the development of curbside recycling service in the half-dozen communities with a population of greater than 5,000 that do not currently have this available. This includes the City of Benton Harbor, which is actively working to develop recycling access.	
2	Establish a Materials Recovery Facility in the northern part of the county, per recommendations of the NextCycle Gap Analysis.	
3	Site a compost facility licensed to accept food waste somewhere in the county, or in collaboration with Van Buren or Cass counties.	

Review of Current County and Municipal Agreements and Ordinances

Through primary and secondary research, we conducted a review of county and municipal ordinances within the eight-county area. Generally, the most common waste related municipal ordinances concerned litter and blight. The list below includes examples of the blight and general waste collection ordinances found by county.

Inventory of Current County/Municipal Agreements: Litter and Blight Berrien County

Three Oaks Township	Regulation of open burning, burn permits, prohibition of burning with foul odors, hours of burning, violations and penalties
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Examples of local units of government found to have trash, garbage, and refuse collection ordinances are identified below. These ordinances are, in many cases, in addition to litter and blight ordinances.

Inventory of Current County/Municipal Agreements: Refuse Berrien County

Baroda Township	Collection and disposal of waste
Benton Charter Township	Collection and disposal of waste, establishment of rates, licensure of haulers
City of Benton Harbor	Prohibition of littering and dumping, penalties, collection and disposition of waste, container specifications, establishment of rates, licensure of waste collectors
Berrien Springs	Collection and disposition of waste, restrictions, collection contracts, penalties
City of Bridgman	Regulation of waste material, container and storage specifications, collection and disposition of waste, service frequency, penalties
Eau Claire	Collection and disposition of waste, weekly pickup, establishment of sanitation commissioner, service fees, penalties
City of New Buffalo	Responsibilities of property owners and occupants regarding waste, regulation of refuse placement and accumulations, fines
City of Niles	Pre-collection, collection, and disposal of waste, waste service provider permits, penalties
St. Joseph Charter Township	Storage of garbage, rubbish, and other waste
Three Oaks Village	Collection and disposal of waste, licensure of waste haulers, pre collection rules, penalties, rate payments, application and discontinuation of service, container specifications. Prohibition of open burning, exclusions, violations, penalties

Cass County

Cass County reconvened its solid waste planning committee in 2022, as described in the stakeholder engagement section. It completed an amendment to its solid waste management plan in 2013, adding the former Michiana recycling facility. In 2021 the county disposed of 178,000 cubic yards of solid waste to a mix of Michigan and Indiana landfills. The county exports 100% of its waste, and relies on private industry and non-profit organizations for its infrastructure and services. In 1998, it was believed to have a 14% recycling rate.

The current plan outlines the following goals, which align with the current objectives of the committee, the coalition, and the Part 115 benchmark requirements.

- Develop adequate funding
- Prevent adverse public health effects
- Education
- Reduce residential waste 18% and business 20%
- Foster regional cooperation

The Cass County Solid Waste Planning Committee wants to focus on increasing public awareness about solid waste issues, reducing the generation of solid waste and increasing recycling activities within the County. The Committee also believes it is important to begin to offer residents in the County an opportunity to properly dispose of household hazardous waste materials, such as oil, paint, solvents and other chemicals. It will also pursue opportunities to work with surrounding counties, specifically Kalamazoo and Berrien Counties, to provide household hazardous waste collection options for residents.

Cass County Engagement Interests	
Issue	Outcome
Assess economic development opportunities from the creation of a circular economy.	Cass County is heavily invested in the circular economy and has several positive stories to tell.
Improve management of hazardous waste and other problem materials, increasing access to services available in adjacent counties.	Although this was highlighted by the most knowledgeable stakeholders, including those on the solid waste planning committee, business and community leaders were more concerned about traditional recycling and food waste.
Sustainable funding to support expanded service and materials management needs.	There appears to be stakeholder support for new funding mechanisms at both the local and county level, but not necessarily political support.
Visioning for county: staffing and goals.	This was not possible with the current solid waste planning committee. Stakeholders expressed a need for support to access resources, including grants. Strong interest for a local resource recovery coordinator or regional support staff.

In Cass County, our engagement efforts prioritized the solid waste planning committee for the majority of the project period. The committee was formed after the coalition launched, and we took our cues from the committee chair. Cass County was the only county for which we were not able to develop a Current Scenario worksheet according to the coalition work plan, as the committee chair repeatedly missed or canceled meetings. Although well-meaning, this individual had unrealistic expectations for what was possible through county leadership, preferring a focus on end markets and speculative technologies. After Part 115 passed, the pending requirements of the law confused and overwhelmed the chair, resulting in her departure. Since then, the committee has been preoccupied with reorganizing itself with new leadership and identifying partners for a multi-county collaborative for sustainable materials management.

In general, stakeholder engagement in Cass County has been encouraging. Arguably, it has the best end-use stories of any county in West or Southwest Michigan, with multiple stakeholders highlighting the new Hydro Aluminum facility in Cassopolis. French Paper in Niles is another notable end market. Camp Friedenswald and the Pokagon Band of Potawatomi Indians are remarkable sustainability champions.

“Cass County is behind, obviously. It is more difficult for a rural community to have a successful program, but the community does care and does things. We participate at the regional level, participate in hazardous waste collections; they’re very proud of that,” said

Korie Blyveis, SESC Administrator for the Cass County Conservation District, a member of the county's solid waste planning committee. "People do care. They bring things into St. Joseph County (to use its drop-off sites), they purchased from Michiana on purpose so they can get recycling. Uproar when it shut down. People were disgusted that recycling was taken away."

The so-called "dirty MRF" in Niles operated by the former Michiana Recycling & Disposal was a topic of significant interest among local and regional stakeholders earlier in the engagement process.

Other recycling firms questioned the two-bag practice, noting that it created unrealistic expectations for how recycling actually works. "We're competing with fake recycling." Multiple stakeholders highlighted how this would challenge potential improvements, especially the requirement for the county to determine a recycling rate for its sustainable materials management plan. However, stakeholders reported that residents of municipalities served by Michiana were very satisfied with its model, even "blessed" to have the service available.

With the company's acquisition by LRS earlier this year, it is not known whether the dirty MRF has a future in the region. Several stakeholders reported service interruptions in the spring, and it is believed that the facility has ceased recycling operations, with material to be processed at facilities in Indiana. **While it appears service is slowly returning to at least some communities previously served by Michiana, the acquisition has proven a seismic event.** Cass County curbside information derived from the MEGA Data project, as reported later in this report, is likely now wholly inaccurate.

Following the revitalization of the Village of Cassopolis, there is a renewed sense of pride and citizenship in the county, despite pessimism that the county government is prepared to take a leadership role.

Of the eight counties engaged in this project, Cass County business and community leaders were by far the most enthusiastic, but also the most cynical, about the potential for improved materials management in the community.

Business leaders reported mixed results. Edward Lowe Foundation, a well-resourced campus outside of Cassopolis, identified no issues with attaining recycling for common materials. Camp Friedenswald, also outside of Cassopolis, indicated that it was virtually impossible to reach its zero waste goals through pick-up services, preferring to drive recyclables to Elkhart. It is considering a grant request to EGLE to acquire a baler for cardboard, as service was not available at its location. **Business leaders also flagged the cannabis industry for consideration.**

Below, we outline the top 3 needs for the county, based on the opinions of stakeholders, current investment opportunities, the NextCycle Gap Analysis, MEGA Data, and Part 115 benchmarks:

Cass County Wishlist		
Meets Benchmarks?	Drop-off: No	Curbside: No
Recommendations		
1	Develop a funding mechanism to hire a resource recovery coordinator, potentially using Part 115 planning funds as a pilot to demonstrate feasibility and value. And/or evaluate permanent partnership with an adjacent county to share costs for staffing.	
2	Facilitate curbside service in Dowagiac, Howard Township and Ontwa Township, as well as any communities with service interrupted by Michiana acquisition. Establish three additional drop-off centers to meet Part 115 benchmark requirements.	
3	Conduct a feasibility analysis for an economic development strategy that could encourage attraction of additional end market manufacturers or a compost facility licensed to accept food waste.	

The MEGA Data sheet was reviewed by the solid waste planning committee, but predated the LRS acquisition of Michiana.

Review of Current County and Municipal Agreements and Ordinances

Through primary and secondary research, we conducted a review of county and municipal ordinances within the eight-county area. Generally, the most common waste related municipal ordinances concerned litter and blight.

Inventory of Current County/Municipal Agreements: Litter and Blight Cass County	
Cass County	
Village of Edwardsburg	Blight Ordinance
Calvin Township	Litter Ordinance
Howard Township	Litter Ordinance
Milton Township	Litter Ordinance
Newberg Township	Blight Ordinance
Ontwa Township	Blight Ordinance

Examples of local units of government found to have trash, garbage, and refuse collection ordinances are identified below. These ordinances are, in many cases, in addition to litter and blight ordinances.

Inventory of Current County/Municipal Agreements: Refuse Cass County	
Cass County	
Village of Cassopolis	Contract for Solid Waste Collection

Inventory of Current County/Municipal Agreements: Recycling Cass County	
Cass County	
City of Dowagiac	Compost Site
Pokagon Township	Access to Transfer Station

Kalamazoo County

Coalition staff and Rachael Grover, Director of the Planning and Development Department for Kalamazoo County, completed a review of currently available materials management information through a review of the MEGA Data Project and the county's current Solid Waste Plan.

Written in 1997 and approved in 1998, Kalamazoo County's current Solid Waste Plan was reviewed and amended in 2021, including a Best Way Disposal amendment that was related to recent legislation and included an expansion to a local facility.

The original Solid Waste Management Plan engaged the Michigan Department of Environmental Quality, and the Amendment in 2021 involved Michigan Department of Environment, Great Lakes, and Energy in board meetings and discussions. The discussions and amendments took approximately 18 months to deliberate and solidify. There was a need for changes based on the business sector and there were organizations that were carrying out actions not approved in the plan. EGLE worked with the private sector to solve the issue, but it was evident that there needed to be amendments made.

Kalamazoo County is currently seeing gaps in enforcement between their Solid Waste Management Plan and private sector actions. The county is committed to communicating this to EGLE, and would like to see a more comprehensive and enforced materials management system. There was a previous coordinator in the county who tracked ongoing updates from EGLE and spearheaded this communication, but the position hasn't been staffed in over 15 years due to funding.

There is currently one staff member in charge of Materials Management in the county due to funding. Kalamazoo County would like to see additional funding put toward this budget for training and execution. There was discussion about state tipping fees or Renew Michigan fund money earmarked for recycling activities to be allotted to this budget.

Kalamazoo County has an active Solid Waste Planning Committee that meets monthly. The committee was reactivated in 2021 to discuss updates and amendments to the Solid Waste Plan. The committee has discussed reviews of the plan, but since the significant amendments passed in 2021, members have been stalled on action items. Due to the suspended Michigan legislation, the committee is unsure of their next course of action. In the meantime, members are working to fill the committee with the necessary voices to represent the community and county. The Solid Waste Planning Committee frequently exchanges information with the Kalamazoo Climate Coalition, specifically focused on

materials management. Staff plans to keep the committee engaged by planning events that prioritize networking with and education for the business community.

Collaboration with neighboring communities and counties is at the top of the priority list for Kalamazoo County. Work with surrounding counties is currently focused on Household Hazardous Waste collection, but the capacity needs to be expanded. Kalamazoo is aware that the small communities in the region are very different. It would be ideal to get approval for a matching plan. Discussion surrounded a regional hub and spoke model with other counties to handle waste materials, county planning, and recycling. Kalamazoo is hopeful that this may be a potential allowance within the proposed statewide legislation.

Kalamazoo County Engagement Interests	
Issue	Outcome
Engage solid waste planning committee.	This outcome was moot with the passage of Part 115.
Provide baseline information on private and public materials management activity, including stakeholder interests.	We have been able to map this out somewhat, but further engagement is required to create a full picture of local interests.
Business opportunities and benchmarking for public and private sectors.	Further engagement with the business community is necessary, but we have a general idea of relevant benchmarks.
Engage political leadership and map issue ownership for a new plan.	This did not occur as part of this project in an intentional way, but as we report our findings in the coming months, elected officials will be a more prominent engagement target.

If there is one takeaway for business and community stakeholders in Kalamazoo County, especially from the business community, it is that Kalamazoo expects to be a center of excellence for sustainable materials management and the creation of a circular economy. Stakeholders make a compelling case to support this through leadership from the private sector:

- Bell’s Brewery famously led a collaborative effort that created a novel recycling program for local brewers and other businesses, a model program that has been highlighted consistently by EGLE and has served as a template for communities across the state.
- Kalsec has set corporate goals to address food loss and waste.
- Western Michigan University developed a new compostability lab.
- Schupan facilitates the state’s bottle bill program and is an industry leader in event recycling.
- Pactiv Evergreen, formerly Fabri-Kal, is an industry leader in the development of sustainable food service products.

- Multiple municipalities offer foam recycling, and there was recently a push among local stakeholders to increase availability of service to support the needs of local hospitals. No other coalition county has this available through traditional drop-off recycling sites.
- Due to the efforts of the business community, it is the only Southwest Michigan community with a commercial compost route.

The last point is illustrative of stakeholder sentiment: **Although compost service is available through a Lansing-area vendor, there is a belief that the Kalamazoo area should have a local compost facility capable of processing food waste and food service products.** The general sentiment is that the Kalamazoo area should be keeping pace with Kent County, Emmet County and Southeast Michigan, with local assets and comprehensive service.

“We are on the right track. We took a great step in reinstating the solid waste planning committee for Kalamazoo County,” said Jeffrey Sorensen, Township Supervisor for Cooper Township, chair of the county’s solid waste planning committee. “Now communication and collaboration is going to matter more and more.”

Kalamazoo County business and community leaders have emphasized the need for education and awareness above all else, citing some combination of the following objectives:

- Understanding of the economics of recycling.
- How to “recycle right” and decrease contamination in municipal waste streams.
- Matchmaking with vendors and potential collaborators.
- K12 and higher education to create informed citizens and future professionals,
- And to encourage research and development at local universities.
- Create political will among local institutions and government.
- “Social education” to encourage general adoption of recycling and waste diversion.
- For product development that incorporates “cradle-to-cradle” concepts.
- Increase understanding of emerging issues regarding lithium batteries.
- Integrate circular economy into local climate and sustainability action plans.
- Address misinformation and confusion on recyclability.

Community organizations expressed additional interest in environmental justice and food security, as well as the potential for circular economy investments to create wealth for communities of color. Several community organizations highlighted the need for increased investment in food rescue and recovery, especially from local restaurants. Hispanic businesses appear to be particularly interested in the potential for increased food rescue. (Our understanding is that there is no local food rescue for prepared foods.)

Also of note, **every community organization we interviewed currently recycled at their offices or facility.**

“Education is necessary for families to become responsible for their own purchases and waste,” said Sandra Calderon-Huezo, vice president of YWCA Kalamazoo. “It’s an opportunity to see what the impact that their own actions and decisions can have on their immediate surroundings and overall environment. This also creates a generational commitment to recycling and other responsible choices with regards to waste.”

Illicit dumping was also cited as a concern among local municipalities.

Below, we outline the top 3 needs for the county, based on the opinions of stakeholders, current investment opportunities, the NextCycle Gap Analysis, MEGA Data, and Part 115 benchmarks:

Kalamazoo County Wishlist	
Meets Benchmarks?	Drop-off: No Curbside: No
Recommendations	
1	Develop a funding mechanism to hire a resource recovery coordinator, potentially using Part 115 planning funds as a pilot to demonstrate feasibility and value.
2	Facilitate access to curbside service for the seven communities with a population of more than 5,000 to meet Part 115 benchmark. Increase drop-off sites to five countywide.
3	Convene business and community stakeholders in the development of a commercial-scale Materials Recycling Facility and a compost facility licensed to accept food waste.

Review of Current County, Municipal Agreements and Ordinances

Through primary and secondary research, we conducted a review of county and municipal ordinances within the eight-county area. Generally, the most common waste related municipal ordinances concerned litter and blight.

Inventory of Current County/Municipal Agreements: Litter and Blight Kalamazoo County	
Kalamazoo County	
Village of Climax	Blight & Refuse

Examples of local units of government found to have trash, garbage, and refuse collection ordinances are identified below. These ordinances are, in many cases, in addition to litter and blight ordinances.

Inventory of Current County/Municipal Agreements: Refuse Kalamazoo County	
Kalamazoo County	
Village of Schoolcraft	Refuse Collection Ordinance
Village of Vicksburg	Solid Waste Ordinance

Inventory of Current County/Municipal Agreements: Recycling Kalamazoo County	
Kalamazoo County	
Kalamazoo City	Solid Waste and Garbage Collection Ordinance Define Recycling Facility (must have additional recycling requirements that were not found)
City of Parchment	Waste Pickup and Recycling Contract
Oshtemo Township	Waste Reduction Ordinance , Recycling Regulations Hauler License
Pavilion Township	Residential Waste Reduction
Richland Township	Landfills Ordinance , Residential Waste Reduction
Schoolcraft Township	Residential Waste Ordinance
Texas Township	Recycling Ordinance (Waste Haulers must provide recycling service)

Kent County

Kent County was not part of the coalition when the engagement interests were initially defined. It defines its interests when joining the coalition in its second year:

- 1. Provide regional leadership as the most prominent Materials Recycling Facility and educational stakeholder in West or Southwest Michigan.**
- 2. Increase awareness and solicit feedback for the proposed Kent County Sustainable Business Park.**

Our stakeholder engagement efforts focused on those related items. After several dozen meetings with business and community leaders over the past six months, we have a strong understanding of how Kent County Department of Public Works in general and the Kent County Sustainable Business Park are perceived. We will discuss the latter.

By our perception, every business or community leader we've engaged can be sorted into one of two constituencies. **The first group is what we will refer to as the “status quo” community, composed of waste haulers and local recycling firms, both public and private sector, and at least one institutional stakeholder. This group is opposed to the Sustainable Business Park, with some more vocal in their opposition than others.** Private sector businesses in the “status quo” group are actively communicating to their networks and the broader community the risks associated with the park and the “flow-control” ordinance that would require all waste in the county to be sent to the Sustainable Business Park for processing. In summary, this coalition believes that the SBP initiative will double waste management costs in the county. To a lesser extent, this is being highlighted to sympathetic audiences as a government “taking.” Finally, some have expressed sincere concerns about the technology and the anchor tenants that have been proposed.

The second group is the region’s business and institutional community. We have not identified a single business or community leader that has expressed concern about the potential cost increases, and the vast majority were supportive of the county’s goals, at least in spirit. Many stakeholders have been dismissive of the opposition, given the competitive dynamics involved. A smaller number of businesses indicate that waste removal is not a cost center for their operations, and an increase at the level described by opposition leaders would not harm their business. However, although business leaders were not apt to do so, community leaders, including elected officials and economic development agencies, have expressed apprehension about the scope of the investment and the importance of an anchor tenant. These stakeholders would be more supportive if additional tenants and uses were highlighted.

Multi-unit housing facilities are of particular concern. As curbside service is available virtually everywhere in the county, residents expect it to be available at apartment buildings and condominium sites. “We have a property that is very sustainable, but because of their location, can only have cardboard, not single-stream,” said Maaïke Baker, sustainability coordinator for Eenhoorn Property Management, which has facilities throughout West and Southwest Michigan, and nationally. “And sometimes it can be challenging to even get them to offer service, though not quite as much in West Michigan. Contamination is our biggest concern there. People just walk by and see a dumpster, throw stuff in.”

Education was highlighted by a larger number of stakeholders as a chronic need.

In the multiunit scenario, Eenhoorn has an onboarding program that utilizes Kent County materials locally. Others outlined a broad variety of potential educational needs.

Event recycling was another issue of concern, especially for food waste and large events.

A 30,000-person Grand Rapids event piloted a zero waste program in 2022 using compostable materials and the new Denali compost service housed at the City of Grand Rapids compost site. The compost was rejected due to contamination, despite a \$20,000 investment in food service materials and a 20-person volunteer effort. The program was not used in 2023, and the event organizer indicated that an MSW-based program such as what has been proposed for the Kent County Sustainable Business Park is the only model that would be feasible for their operation.

Another chronic issue: businesses have limited access to traditional recycling.

Cardboard and post-industrial scrap service is widely available for businesses, but single-stream is not. There are large manufacturers in Grand Rapids using a long line of residential city recycling carts each pick-up for lack of a better option.

Kent County Wishlist	
Meets Benchmarks?	Drop-off: No Curbside: Yes
Recommendations	
1	Break ground on Kent County Sustainable Business Park anchor tenant.
2	Approve flow control to ensure necessary material flow.
3	Adopt a food loss and waste reduction goal, leveraging staff relationship with Food Policy Council and other partnerships, seek to make Kent County the state’s FLWR pace-setter, complimenting the end-of-life infrastructure investment made through the SBP tenant.

Ottawa County

Coalition staff and Ottawa County Resource Recovery Coordinator Kimberly Wolters completed a review of currently available materials management information through a review of the MEGA Data Project and the county's current Solid Waste Plan. Ottawa County has an updated Solid Waste Plan that is comprehensive and includes pollution prevention policies and practices.

The Ottawa County Solid Waste Committee is actively meeting and discussing landfill agreements and preemptive landfill planning. There is a goal to remove agreements and utilize the funding mechanism in the Solid Waste Management Plan. A discussion with MiSBF staff identified that staffing is inadequate in Ottawa County for potential additional growth to the Pollution Prevention aspects of the Solid Waste Plan. Ottawa County is eager to partner with nearby counties and can help others to provide resources for household hazardous waste, but involving it in their Solid Waste Plan with no funding is proving to be challenging. The County applied for and received additional funding from an infrastructure grant in 2022.

With regards to Part 115, Ottawa County is looking at how the legislation will impact the county and finding that there will be potential additional funding without additional tasks. Import/export is a material piece of Ottawa County's funding for Solid Waste Planning. Currently there is the potential for the Board of Commissioners to enact flow control, keeping Ottawa County's trash within the county so they can keep a certain amount of materials and funding for the landfills. The potential for Part 115 will not impact this.

The Ottawa County Solid Waste Planning Committee is currently approaching amendments to their Solid Waste Plan, in particular the below section:

"An Ottawa County Landfill must accept non-biosolid Type II waste generated within Ottawa at commercially reasonable rates if no other landfill in this Plan's Michigan county export authorization will accept such waste at commercially reasonable rates. A standing committee of the Solid Waste Management Committee composed of at least one representative from each Landfill and one representative of each POTW serving Ottawa County shall meet at least annually to review issues related to the practical and economic disposition of Landfill Leachate and biosolids generated from within Ottawa County. If the Standing Committee is unable to reach an acceptable solution to either the Landfill Leachate or biosolids disposal, any two representatives on the Standing Committee can send written notice of an impasse on either type of disposal to the Chairperson of the Ottawa County Board of Commissioners and the latter will immediately convene the full Solid Waste Management Committee to develop a solution to the problem."

Ottawa County Engagement Interests	
Issue	Outcome
Advance compost service for commercial customers.	Hosted forum introducing commercial composting options to local businesses.
Improve awareness of assets in the county to advance SMM.	Facilitated several events that highlighted county SMM investments, including its recent EGLE grant, with many stakeholders becoming aware of the RRC for the first time.
Develop a network of SMM stakeholders and service providers.	This is now available as part of WMSBF programs for Ottawa County.
Identify service gaps for commercial and residential SMM.	See recommendations below.

When learning that we were working on behalf of the county, community and business leaders universally expressed reservations about the current political climate in the county. There was no consensus on how the Ottawa Impact movement would affect sustainable materials management, but sentiment that careful positioning was important. Most stakeholders indicated that this was already common practice in Ottawa County, where sustainable business practices have been widely adopted despite (or arguably as a result of) the community’s conservative leanings.

“If environmental services is part of the health department, that is definitely where the fire is at with the new (Ottawa Impact) county commissioners,” said one business leader. “But the concept of recycling and reuse tends to be something that people can get on board with. Especially in this community. If you grew up on a farm or have a farming background, that idea of zero-waste or using everything is right in that wheelhouse.”

There was a general sentiment that Ottawa County was on the right path through the recent investments of the Environmental Services department. Increased availability of drop-off centers, and the materials accepted at them, was highlighted as a potential interest, as was promotion of existing drop-off centers to increase awareness and utilization. Although virtually no one outside of the solid waste planning committee and direct partners were aware of it at the time of our discussion, interview or event, **there was excitement for the new Ottawa County Environmental Sustainability Center that will be located at Grand Valley State University.**

Education and regional leadership were highlighted as the preferred role for the county, and its greatest opportunity for greater impact. Municipalities and community organizations expressed a desire to distribute county-produced educational materials. Businesses that participated in the composting forum were grateful for the opportunity and indicated a desire for the county (or its agents) to facilitate similar programming in the future.

- “Getting the word out is important”
- “Spark change through speaking with community members”
- “The biggest investment is community education, encouraging people to consider how they handle their personal waste.”
- “Investment into education with the community. The community would like to see it and would like to be more proactive with being able to access second-stream services.”
- “We need a centralized resource of information.”
- “Something similar to Kent county, which used to have a dropdown on their website based on the material you were trying to recycle, even if they didn’t deal with it specifically. Example is that you could look up “crayons”, and then find where you could mail a box of crayons to be recycled, although it may not have been something specifically handled by the county.”
- “Simple how-to handouts based on important community needs, as this kind of guide would help make it less intimidating. Would need to identify most relevant community materials and needs for this.”
- “This role could do outreach and education so that people really understand what services are available. This role could also help assess the needs of the community and make a plan for how the needs will be addressed. This should definitely be done by staff at the county level, as it is a public health issue and currently important in the county community, especially relevant as Ottawa County population continues to grow.”

On this note, **we were surprised by how often interested and otherwise engaged business and community leaders were not aware of the county’s efforts.**

Stakeholder preoccupation with education and awareness should be taken as both an identified need and necessary feedback. **The community wants Environmental Services to have a higher profile.**

With that said, **business leaders emphasized the importance of collaboration.** As one indicated, “the public role is to listen to the private sector. The private sector drives everything. There needs to be collaboration to make changes.” Municipal and business leaders alike expressed some skepticism that the county government was in a position to advance improvements that would be meaningful to them in terms of service or infrastructure, as it is not party to their hauler contracts or the vendor relationships of industry. There was not an expectation that the forthcoming sustainable materials management planning process would lead to a paradigm-shifting investment such as a waste-to-energy facility or Kent County’s Sustainable Business Park.

On a different note, several municipalities in Ottawa County responded with enthusiasm to our scripted question regarding how to incentivize reporting of recycling performance to the county. There is an interest in how performance metrics could be included in contracts with private haulers, as an ordinance requiring reporting, or some other incentive.

Among business and community leaders that cited specific materials management challenges, composting, food waste and single-stream business recycling were common trends. For the most part, these are long-standing issues identifying or retaining vendors, and/or managing changing service availability and pricing.

“We can’t do bulk recycling anymore for common materials. It’s 60-gallon carts. Composting waxes and wanes, multiple changes in vendors. Our challenges are just getting reliable services for our needs here,” Michael Westbrook, Director of Safety & Environmental for Shape Corp. in Grand Haven. “In the community, there is definitely interest in improving recycling at smaller firms around town, as well as interest in growing sustainability and recycling at the city level.”

Finally, City of Holland and associated stakeholders (eg: ODC Network) expressed interest in collaboration and partnership with the county to improve programming and address infrastructure gaps. The city is coming off a successful deployment of recycling carts in partnership with Republic Services and is interested in continuing that momentum. Compost infrastructure, food waste and comprehensive drop-off centers capable of processing “hard-to-recycle” materials were specific interests identified.

Below, we outline the top 3 needs for the county, based on the opinions of stakeholders, current investment opportunities, the NextCycle Gap Analysis, MEGA Data, and Part 115 benchmarks:

Ottawa County Wishlist	
Meets Benchmarks?	Drop-off: Yes Curbside: No
Recommendations	
1	Facilitate access to curbside recycling service in the many communities with more than 5,000 people in the county to meet Part 115 benchmarks.
2	Complete the new Ottawa County Environmental Sustainability Center, expand the facility to a comprehensive drop-off site.
3	Develop dedicated funding mechanism for program expansion and affirm political support for Environmental Services. This could include an evaluation of whether the program would be better positioned within a different department. Evaluate partnership opportunities with City of Holland, including the hypothetical MRF highlighted as a need for Holland area in NextCycle Gap Analysis.

Review of Current County and Municipal Agreements and Ordinances

Through primary and secondary research, we conducted a review of county and municipal ordinances within the eight-county area. Generally, the most common waste related municipal ordinances concerned litter and blight. The list below includes examples of the blight and general waste collection ordinances found by county.

Examples of local units of government found to have trash, garbage, and refuse collection ordinances are identified below. These ordinances are, in many cases, in addition to litter and blight ordinances.

Inventory of Current County/Municipal Agreements: Refuse Ottawa County	
Ottawa County	
Zeeland Township	Landfill Zoning Ordinance
City of Grand Haven	Collection and disposition of refuse; scheduling of charges; regulation of dumping

Inventory of Current County/Municipal Agreements: Recycling Ottawa County	
Ottawa County	
Coopersville City Ordinance	Authorization of franchise agreements, collection of costs
City of Ferrysburg	Yard Waste Collection
City of Zeeland	Yard Waste Collection
Jamestown Township	Waste Hauler License
Spring Lake Township	Solid Waste Ordinance (Contract for waste and curbside recycling)
City of Holland	Recycling Mandated; preparation, collection, and disposition of refuse; regulation of scavenging; licensure of haulers; regulation of compost and yard waste

St. Joseph County

Coalition staff and planning director Pat Kulikowski completed a review of currently available materials management information through the MEGA Data Project and the county's current Solid Waste Plan. Written in 1998, the current plan directs material to one landfill, with no additional siting prospects.

The landfill, Westside Recycling and Disposal Facility, consists of an active municipal solid waste landfill which receives non-hazardous residential, commercial, and construction and demolition waste. The landfill's projected capacity is 96 years, and has had some expansions put in place since it was first sited. The Solid Waste Plan calls for the continued use of Westside Landfill for primary disposal, continuation of the recycling drop off box system, the household hazardous waste collection program, the recycling educator and support staff positions as well as the encouragement of municipalities and private waste haulers within the county to explore curbside recycling programs. The plan also has an emphasis on expanding commercial and industrial recycling by working with chambers of commerce, the refinement of the solid waste and recycling database, and the exploration of expanded materials recovery from the waste stream.

St. Joseph County relies heavily upon private industry to provide waste services in the county. The county itself provides two household hazardous waste events annually. The county does receive waste from neighboring counties and from Indiana, and have some recycling services that are provided by Michiana Recycling and Disposal. The County receives some fees from the host community agreement with the Westside Landfill. If there were additional ongoing resources needed, the Solid Waste Committee would submit a request to the Board of Commissioners for funding.

St. Joseph has an active Solid Waste Planning Committee that meets quarterly. The committee meets to discuss ideas and to help coordinate the Household Hazardous Waste and Electronics Collection events. The committee has been discussing the need for benchmarks in the county, as they believe there is quite a bit of recycling activity being done, but don't have reporting from municipalities or businesses. The committee would like to see mandatory reporting to determine the current rate of recycling in the county. The committee has reviewed the MEGA Data Report and has provided comments to RRS.

The Solid Waste Planning Committee has been following and discussing the progression of the state legislature proposals and have discussed preparations for it, such as more frequent meetings and the likelihood of hiring a consultant to review the Solid Waste Plan and update it. There is not currently staff capacity, although there was previously a Resource Recovery Agent employed by the county. Recommendations in the legislation

allows free flow of waste between counties, and the St. Joseph County Solid Waste Plan is already set up on that premise. The County is hopeful to have the capacity to employ a Resource Recovery Agent as a resource to improve their materials management programs.

St. Joseph County Engagement Interests	
Issue	Outcome
Hire a resource recovery coordinator.	General support.
Improve service.	Additional engagement is necessary to identify local interests.

Further stakeholder engagement in St. Joseph County is necessary to provide a clearer understanding of local sentiment and issue awareness. Relevant stakeholders engaged were primarily regional interests, including recycling firms and waste haulers, business and community leaders from adjacent communities, and statewide authorities. These findings are found throughout this report.

The so-called “dirty MRF” in Berrien County operated by the former Michiana Recycling & Disposal was a topic of significant interest among local and regional stakeholders earlier in the engagement process. Other recycling firms that do business in St. Joseph County questioned the two-bag practice, noting that it created unrealistic expectations for how recycling actually works. “We’re competing with fake recycling.” Multiple stakeholders highlighted how this would challenge potential improvements, especially the requirement for the county to determine a recycling rate for its sustainable materials management plan.

With the company’s acquisition by LRS earlier this year, it is not known whether the dirty MRF has a future in the region. Several stakeholders reported service interruptions in the spring, and it is believed that the facility has ceased recycling operations, with material to be processed at facilities in Indiana. While it appears service is slowly returning to at least some communities previously served by Michiana, the acquisition has proven a seismic event for Southwest Michigan.

The solid waste planning committee discussed a recent pilot project in which it paid for curbside recycling service for three communities. After the pilot period ended, Sturgis retained service but the other two communities did not. As City of Three Rivers is a community that will need to have access to curbside recycling to meet Part 115 benchmarks, this was frustrating to committee members.

Food waste from farms and food processing were highlighted as a potential area of interest, given their presence in the county.

Below, we outline the top 3 needs for the county, based on the opinions of stakeholders, current investment opportunities, the NextCycle Gap Analysis, MEGA Data, and Part 115 benchmarks:

St. Joseph County Wishlist		
Meets Benchmarks?	Drop-off: No	Curbside: No
Recommendations		
1	Facilitate access to curbside recycling service in the City of Three Rivers.	
2	Triple the number of drop-off sites from 2 to 6.	
3	Reestablish the position of Resource Recovery Coordinator, potentially using Part 115 planning funds to support the position as a test case. Consider partnering with adjacent communities to pool resources. In either scenario, make a long-term commitment to this role to facilitate service improvements and support public or private sector investments, including grant solicitation.	

Review of Current County and Municipal Agreements and Ordinances

Through primary and secondary research, we conducted a review of county and municipal ordinances within the eight-county area. Generally, the most common waste related municipal ordinances concerned litter and blight. The list below includes examples of the blight and general waste collection ordinances found by county.

Inventory of Current County/Municipal Agreements: Litter and Blight	
St. Joseph County	
St. Joseph County	
Flowerfield Township	Litter Ordinance
Lockport Township	Litter Ordinance
Mottville Township	Litter Ordinance
Park Township	Litter Ordinance
White Pigeon Township	Blight Ordinance

Examples of local units of government found to have trash, garbage, and refuse collection ordinances are identified below. These ordinances are, in many cases, in addition to litter and blight ordinances.

Inventory of Current County/Municipal Agreements: Refuse St. Joseph County	
St. Joseph County	
Fabius Township	Landfill Pass Policy

Inventory of Current County/Municipal Agreements: Recycling St. Joseph County	
St. Joseph County	
Burr Oak Township	Battery Recycling , Styrofoam Recycling
Fawn River Township	Battery Recycling , Styrofoam Recycling
Nottawa Township	Styrofoam Recycling
Sherman Township	Battery Recycling , Styrofoam Recycling
City of Sturgis	Brush, Leaves, and Compost Service , Curbside Recycling , Battery Recycling
Sturgis Township	Battery Recycling , Styrofoam Recycling

Van Buren County

Coalition staff, Emily Hickmott, Deputy Administrator, and Kalli Marshall, Recycling and Materials Management Coordinator for Van Buren Conservation District, completed a review of currently available materials management information through a review of the MEGA Data Project and the county's current Solid Waste Plan.

The Van Buren Conservation District is involved in the materials management for their county. The county contracts the Conservation District to handle all resource recovery and household hazardous waste programs. The Conservation District was contracted by Van Buren County to manage the programs. This stemmed from an original contract between the county and MSU Extension. Part of this relationship prioritized working to keep the county, townships, and municipalities up to date on changes, legislation and materials management. When MSU Extension stopped contracting with the county, Van Buren County didn't want the program to die, so the Van Buren Conservation District took on the work in 2011. There was a written agreement solidified in 2022. The programs through the Conservation District are funded through grants; county, township, and village contributions; and District Operations millage funding (in recent years). The Conservation District is working toward a more sustainable source of funding in the 2023 fiscal year. Currently, the staff attends meetings and sends out email communications but cannot fund additional programs.

Van Buren Conservation District does not currently have a Solid Waste Planning Committee. If there was additional funding provided for the program, time could be dedicated to this committee. Because the Conservation District does not receive the same access to funding as a government entity, it needs an additional source of funding other than the county's general fund. However, the county is undecided about whether or not changes or additional programs for materials management are needed, so the Conservation District is at an impasse until they are able to collaborate further with commissioners and gain their buy-in to represent their voters.

There is not a landfill in Van Buren County, so all waste is exported to other counties. Materials management has been driven from historical wants of the county and its residents. All transfer stations in the County are owned by townships and operated by their respective townships or through contracts. The Van Buren Conservation District is working to open accessibility to all interested parties, not just township residents, but has been unable to enact change. Residents in the county do express interest in recycling, but the spacing of residences makes it difficult to make the program a priority. Residents on the edges of the county have more funding available to pay for recycling if it is made an option. However, residents in the middle of the county continue to burn their trash or bring their

trash to the transfer station once a week to avoid waste fees. Because of this differentiation, a mandate or requirement or financial advantage is necessary to push this change through.

Van Buren Conservation District would be interested in looking at their benchmarking recycling and diversion rates, but the information is difficult to acquire. They do not hold contracts with any of the private entities, nor do all of the municipalities voluntarily report. If the county were to reabsorb the program, there would be a better way to obtain this information. The CD has attempted to send out ReTrack to township staff to help them collect data, but there are still capacity issues and the task is not completed.

The Conservation District staff has been involved with conversations around new legislation and materials planning around EGLE and Michigan Recycling Coalition. They are working to keep County Commissioners informed and to encourage various programs, such as siting an MRF, building transfer stations in the county, and creating a process for compost.

Van Buren Conservation District is eager to partner regionally with other counties, and have engaged County Commissioners and funders on the benefits of partnerships from a financial standpoint. They would encourage a siting for a Household Hazardous Waste facility to help serve Allegan, Cass, and Berrien counties. While Kalamazoo County is nearby, it does not have the capacity to serve the whole Southwest Michigan region. The Conservation District would be interested in the potential for a hub and spoke model from the Sustainable Business Park to develop collection points throughout Southwest Michigan.

Van Buren County Engagement Interests	
Issue	Outcome
Sustainable funding that does not draw from the conservation district budget)	Yes, there was support for new funding. Note that stakeholders generally did not understand the current funding mechanism.
Confirm community needs assessment: HH facility	Stakeholders were supportive, but it was never mentioned without a prompt.
Pollution prevention - regulation/enforcement + practice (eg: burning trash)	Illicit dumping and blight were cited as a concern among stakeholders.
Industry and commercial service	Stakeholder concerns were consistent with other rural communities in the region.

In Van Buren County, municipal stakeholders were quick to celebrate the contributions of the Van Buren Conservation District. Efforts to modernize the

transfer station and make it more inviting for recycling were commended. Those with operational familiarity with the county's operations expressed pride in its performance.

"Van Buren County is one of the most proactive counties, and their recycling efforts are among the best in southwest Michigan," said Sanya Vitale, City Manager for the City of Hartford. "Berrien, Cass, St Joseph could learn from them. The Conservation District helps with engagement and has raised the level of participation."

Largely attributed to its rural nature, stakeholders expressed challenges accessing the level of recycling service desired, or the convenience of it. A community organization highlighted a requirement to schedule pick-up in the City of South Haven the day before the route is serviced. Another noted the challenge of storing tires and electronic waste for several months until the next Conservation District recycling event. A local business expressed a hope that Best Way would expand its coverage area to its location. "I wish I had access to bulk recycling for my business. I have asked and have continuously been told 'no' by our provider."

Municipalities especially expressed frustration about the cost of recycling and related services.

There was general support for a new countywide funding mechanism to support sustainable materials management improvements, but apprehension to do so at the municipal level. Although stakeholders expressed strong support for increased funding, there was no specific interest expressed in transitioning the cost away from the conservation district millage. There was an expressed preference for the conservation district to remain in a leadership role.

Several stakeholders highlighted blight or illicit dumping as a priority concern. Community dump days were the prominent solution highlighted, though cost was again cited as a concern.

Municipalities also expressed anxiety about pending organics recycling and yard waste requirements created by the Part 115 update, with a hope that the county could offer technical support. As another matter, one municipality, Paw Paw Township, highlighted a problem compost facility that had become a nuisance.

Below, we outline the top 3 needs for the county, based on the opinions of stakeholders, current investment opportunities, the NextCycle Gap Analysis, MEGA Data, and Part 115 benchmarks:

Van Buren County Wishlist		
Meets Benchmarks?	Drop-off: Yes	Curbside: No
Recommendations		
1	Establish curbside recycling service in Almena Township and Paw Paw Township.	
2	Expand an existing drop-off site to serve a pilot comprehensive drop-off site. Although NextCycle Gap Analysis does not recommend a Materials Recycling Facility for the county in anything other than the low centralized scenario, with no other MRFs currently available in Southwest Michigan, the county should evaluate potential for developing such an asset, and/or collaborating with an adjacent county to do so. This can build upon momentum from pending transfer station improvements.	
3	Invest in capacity for organics recycling through compost yards and/or anaerobic digestion, empower county personnel to ensure development occurs responsibly. Another opportunity for regional leadership.	
4	Ask voters for a millage to support recycling that will provide municipalities necessary funding mechanisms and protect conservation district millage. As Van Buren County is the best positioned of any in Southwest Michigan, additional resources could allow it to gain momentum toward being Lower Michigan's model community.	

Review of Current County and Municipal Agreements and Ordinances

Through primary and secondary research, we conducted a review of county and municipal ordinances within the eight-county area. Generally, the most common waste related municipal ordinances concerned litter and blight. The list below includes examples of the blight and general waste collection ordinances found by county.

Inventory of Current County/Municipal Agreements: Litter and Blight
Van Buren County

Van Buren County	
Antwerp Township	Blight Ordinance
Geneva Township	Anti-Blight Ordinance
Hartford Township	Litter Ordinance
Waverly Township	Anti-Blight Ordinance
Village of Mattawan	Blight Ordinance

Examples of local units of government found to have trash, garbage, and refuse collection ordinances are identified below. These ordinances are, in many cases, in addition to litter and blight ordinances.

Inventory of Current County/Municipal Agreements: Refuse Van Buren County	
Van Buren County	
City of Bangor	Trash and Rubbish Removal Ordinance (Hauler Contract)
City of Hartford	Solid Waste Ordinance
South Haven Township	Garbage and Refuse Ordinance
Village of Decatur	Solid Waste Ordinance (Hauler Contract)

Inventory of Current County/Municipal Agreements: Recycling Van Buren County	
Van Buren County	
Bangor Township	Drop Off Recycling
Village of Paw Paw	Waste Reduction and Waste Hauler Ordinance (Hauler Registration and Recycling)

Appendix

WM Materials Management Coalition Event Brainstorming Documents		
Kalamazoo County Sustainable Materials Management Workshop	11/01/2022	Western Michigan University College of Engineering and Applied Sciences, Kalamazoo
Sustainable Materials Management in Van Buren County	02/15/2023	Van Buren Intermediate School District Conference Center, Paw Paw
Creating a Circular Economy in West and Southwest Michigan	05/25/2023	Perrigo, Allegan