Emmet County
Department of
Public Works

MATERIALS MANAGEMENT PLAN

2026



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Cover Page

DATE SUBMITTED TO EGLE:

EGLE APPROVAL DATE:

PARTICIPATING COUNTIES:

All counties participating in this Plan are listed below and will be referenced throughout this Plan as the planning area or county, as applicable:

Emmet County

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Executive Summary

This Materials Management Plan (MMP) fulfills Emmet County's planning obligations under Part 115 of the Natural Resources and Environmental Protection Act (NREPA), as amended in 2022, while building on a system that has served the county successfully for more than four decades. Emmet County closed its last township dumps in response to new state requirements in 1979 and established the Department (and Board) of Public Works under Act 185 that same year. The Emmet County Transfer Station on Pleasantview Road opened the following year and remains the hub of the county's system, alongside a co-located Materials Recovery Facility (MRF) and compost facility. According to the U.S. Census, Emmet County had a permanent population of 34,112 residents as of 2020, concentrated in and around Petoskey and Harbor Springs, and seasonal residents and visitors increase that population by as much as 163% in July each year (2022 Seasonal Population Study for Northwest Lower Michigan estimated). That seasonal swing shapes collection scheduling, drop-off site staffing, and material volumes throughout this Plan.

The Emmet County Department of Public Works (ECDPW) operates on a self-sustaining enterprise fund model, meaning the county's recycling, composting, and transfer operations are funded through tip fees, commodity sales, and contracted services rather than general fund dollars or a household millage, a structure that has supported the system for more than three decades without a general fund draw. Emmet County Recycling (ECR), a program of the ECDPW, provides weekly curbside recycling under municipal contract in six communities, reaching approximately 59% of county residents, supplemented by twelve year-round drop-off sites, including a super drop-off for electronics, batteries, mattresses, tires, and paint at Pleasantview Road, and the county's Give All Food A Future (GAFAF) food scrap program. Emmet County’s Solid Waste Ordinance No. 11-04 directs all solid waste collected in the county to the Transfer Station, licenses haulers, and requires Pay-As-You-Throw (PAYT) pricing, giving the county the enforceable mechanism it needs to sustain these programs and keep disposal costs consistent across large and small haulers alike.

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Building on this foundation, this Plan sets an overarching goal of increasing the county's measurable municipal solid waste recycling rate, supported by nine implementation goals for the current planning period. These address commercial and industrial recycling, cardboard and multifamily diversion, expanded curbside and drop-off access, an expanded organics and food waste program anchored by a Compost Facility expansion, disaster debris management aligned with the county's Hazard Mitigation Plan, continued work on household hazardous waste (HHW) and other special materials, and data and performance tracking to support ongoing evaluation. Each goal identifies responsible parties, potential partners, and resources needed, and each build on programs the county already operates.

The Plan also carries forward the siting process Emmet County has operated under since its Solid Waste Management Plan Update was approved by the Board of Commissioners in 1999 and by the State in 2000. This process includes the same minimum siting criteria, application requirements, and review timeline, and it is updated where the 2022 amendments to Part 115 require it. Those updates include a three-pathway consistency framework, capacity-based exemptions, and a host community approval requirement for facilities not otherwise addressed by the Plan. Responsibility for carrying out the Plan rests with the Emmet County Board of Commissioners, which holds ultimate statutory authority under Part 115. ECDPW carries out day-to-day administration including funding, hauler licensing, and facility and program operations. The Materials Management Planning Committee (MMPC) guided development of this Plan through a series of public meetings and continues in an oversight role, tracking progress toward its goals and coordinating the county's five-year Plan review.

This Plan positions Emmet County to build on a materials management system with a strong operating history, clear governance, and established public support, while meeting the requirements Part 115 now sets for every Michigan county.

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Section 1 - Planning Area Profile

1.1 - REGIONAL SETTING & CHARACTERISTICS

Emmet County is located at the northern tip of Michigan's Lower Peninsula, bounded by Lake Michigan to the west and the Straits of Mackinac to the north. The county encompasses approximately 468 square miles of land and 882 square miles in total when surface water is included, with roughly 68 miles of Lake Michigan shoreline. Emmet County's landscape is defined by northern forests, inland lakes, and coastal resources that have long drawn visitors and seasonal residents to the region.



Figure 1: Emmet County Location within Michigan

Emmet County includes two cities, which are Petoskey, the county seat, and Harbor Springs. It also contains three villages (Alanson, Mackinaw City, and Pellston) and 16 townships. Emmet County is also home to the Little Traverse Bay Bands of Odawa Indians (LTBB), a federally recognized sovereign nation whose ancestral homeland comprises present-day Emmet County. The LTBB are an active governmental, cultural, and economic presence in the region.

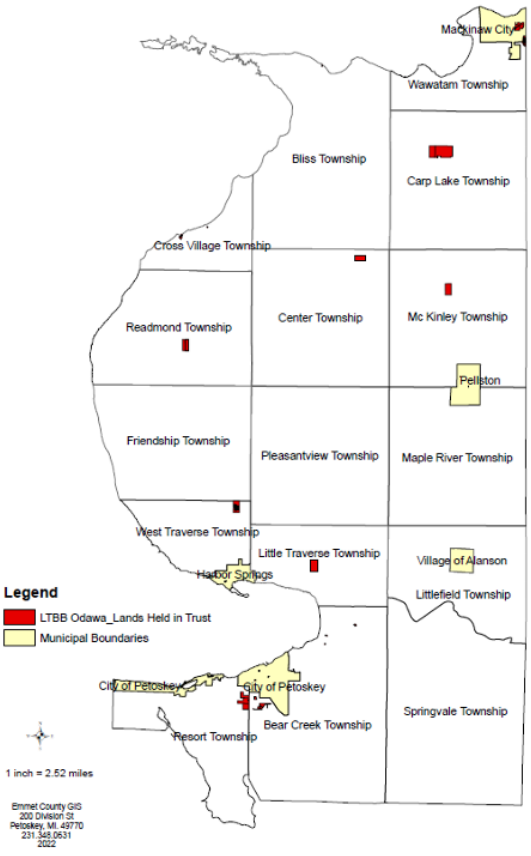


Figure 2: Emmet County Municipalities and Townships

According to the 2020 U.S. Census, Emmet County has a permanent population of approximately 34,112 residents. However, that figure significantly understates the population the county's systems must serve. Seasonal residents and visitors more than double the county's population each July, as described in Section 1.4 - Population & Population Projections. This seasonal influx directly shapes demand on the county's materials management infrastructure and is a central planning consideration throughout this Materials Management Plan (MMP).

The county's economy is anchored by tourism, healthcare, agriculture, manufacturing, and construction. Food service and accommodation together represent the largest employment sectors, consistent with the county's role as a regional visitor destination. In total, according to the U.S. Bureau of Labor Statistics, the county has roughly 1,600 different employers, providing 14,525 jobs. The

largest employer for the county is McLaren Northern Michigan, a nationally recognized hospital system based in Petoskey.

The combination of a small permanent population, a large and variable seasonal influx, and an economy built around hospitality and outdoor recreation makes Emmet County a distinctive planning area. Therefore, it requires a materials management system designed not just for its residents, but for the full range of people it serves throughout the year.

1.2 - CURRENT MATERIALS MANAGEMENT LANDSCAPE



Emmet County administers a comprehensive, county-operated recycling and waste management program through the Emmet County Department of Public Works (ECDPW).

The county's recycling program grew out of its 1988 Solid Waste Management Plan Update, which called for establishing countywide recycling and household hazardous waste programs. Emmet County Recycling (ECR) was initially equipped through a two-year millage that paid for a collection truck, drop-off containers, and processing equipment, while state grants helped fund initial construction. Since then, the program has grown steadily without relying on ongoing tax support. Today, ECDPW operates as a self-sustaining enterprise fund rather than relying on county general fund tax dollars; its funding sources are described in Section 3.1.1 - Funding Sources.

Following a hub-and-spoke model, ECDPW manages the county's Materials Recovery Facility (MRF), Processing and Transfer Station, Compost Facility, the Pleasantview Road Drop-off Center and countywide drop-off network, curbside recycling services, and household hazardous waste (HHW) programs. ECDPW currently has 28 county employees, including a seven-person management and administrative team, eleven attendants and drivers who run the drop-off center, transfer station, and collection routes, and a ten-person team that sorts and bales recyclables at the MRF. Staffing has grown as ECDPW services have expanded.

Unlike many Michigan counties that structure recycling access through voluntary municipal participation, ECR functions as a direct county service available to all residents, serving as the primary materials management solution for all local units under a countywide Solid Waste Ordinance that establishes the county's flow control system. More information about the program is available at emmetrecycling.org.

Residential solid waste collection in Emmet County is not provided by ECDPW. This service is handled through individual subscriptions with private haulers. All haulers must be licensed by the county, which requires them to submit annual reports; the Solid Waste Ordinance's hauler requirements are described in Section 1.3 - Government & Policies.



Recycling access throughout the county is provided through ECDPW's countywide drop-off network and curbside collection in select communities. In addition to the Pleasantview Road Drop-Off Center, there are eleven standard drop-off sites distributed across the county that are open 24 hours a day, 365 days a year. Curbside recycling is available in six communities served by ECDPW (the Village of Alanson, Bear Creek Township, the City of Harbor Springs, Little Traverse Township, the City of Petoskey, and Resort Township), which cover approximately 59% of county residents according to 2020 U.S. Census data. Service is not extended to less densely populated rural areas, where operational costs and travel distances make county-managed collection impractical. On the commercial side, ECDPW provides recycling services to over 400 businesses, while commercial disposal services are primarily provided by private haulers.

The Pleasantview Road Drop-Off Center serves as the hub of the county's materials management system and accepts a significantly broader range of materials than any other access point in the county. Open six days per week, the facility handles construction and demolition debris (C&D), rubble materials (including concrete, brick, and asphalt), scrap metal, wood, tires, electronics, batteries, motor oil, antifreeze, bulky plastics (both rigid and film), and mattresses, in addition to standard recyclables. For locals, the center functions as a one-stop drop-off location.

Organics diversion is a notable component of the county's program. The Emmet County Compost Facility is also located on Pleasantview Road and accepts yard debris and food scraps and converts woody materials into mulch and wood chip products. Food scrap drop-off is available year-round at the Pleasantview Road site and at several downtown locations in Petoskey and Harbor Springs, with seasonal access at both cities' Farmers Markets. The county also provides commercial food scrap collection for restaurants and businesses in Petoskey and Harbor Springs. While most commercial restaurants contract directly with independent grease haulers for fats, oils, and grease (FOG) removal, a FOGs receptacle is available for public use at the Pleasantview Road Drop-Off Center.

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While the Emmet County Compost Facility serves as the primary facility for organics management countywide, limited municipal yard debris services are also available. The City of Harbor Springs provides seasonal curbside leaf and brush collection and allows city residents and property owners to deliver leaves, grass, and other yard debris generated within city limits to the municipal compost pile at Kiwanis Park. Similarly, the City of Petoskey offers seasonal curbside collection of leaves and brush. Additionally, the Village of Alanson, Resort Township, and Mackinaw City operate drop-off locations for yard debris. These municipal programs supplement the county's centralized composting operations but are limited in scope and geographic coverage.

In addition to its core infrastructure, ECDPW extends its reach through targeted programming serving specific audiences and material streams. ECDPW provides recycling services and education to schools and offers a multi-family program for apartment and condominium communities through either curbside collection or cart-based depots. ECDPW supports zero-waste event recycling, providing equipment, signage, and coordination assistance to event organizers. ECDPW also hosts frequent HHW collection events at the Pleasantview Road Drop-Off Center. Furthermore, the department demonstrates responsiveness to community needs beyond routine operations; most recently, Emmet County launched a Flood Debris Cleanup Voucher Program in response to the spring 2026 flooding event, which was funded by a grant from the Petoskey–Harbor Springs Area Community Foundation. This program offered vouchers to eligible households for the disposal of up to two cubic yards of flood-damaged debris at the Emmet County Transfer Station.

Emmet County has no active landfills within its boundaries. All waste collected in the county is delivered to the county's Transfer Station on Pleasantview Road under the county's flow control system and then transferred to out-of-county landfills, as described in Section 1.7.3 - Disposal Areas

1.3 - GOVERNMENT & POLICIES

Emmet County is governed by an elected Board of Commissioners, which sets county policy, adopts budgets, and provides oversight of county departments. ECDPW, which operates under the direction of the county's Board of Public Works, is responsible for countywide materials management. The Department and Board of Public Works were established under Act 185, Michigan's Public Works Act, when new state requirements led the county to close its last active landfill and township dumps by 1979. The Emmet County Transfer Station on Pleasantview Road was constructed the following year. Act 185 grants the county broad authority to establish and operate public works functions, including solid waste, recycling, and organics management, and to set budgets and fees, enter into contracts, and acquire and operate facilities in support of those functions. Emmet County's governance context also includes the Little Traverse Bay Bands of Odawa Indians.

Materials management in Emmet County operates within a framework of state policies established under Part 115 of the Natural Resources and Environmental Protection Act (NREPA) and related Michigan statutes. Key state requirements include the 1995-yard debris landfill disposal ban, Michigan's Bottle Deposit Law (Public Act 1 of 1979) and its accompanying landfill disposal prohibition

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on covered containers (PA 34 of 2004), the electronic waste take-back and landfill ban program, scrap tire management requirements, and lead acid battery take-back requirements for retailers. Taken together, these policies establish minimum statewide diversion standards and shape the materials that county programs are expected to manage outside of the landfill.

The county's authority over the waste stream is established through its Solid Waste Ordinance (Ordinance 11-04), which requires all waste haulers operating in Emmet County to be licensed by the county and to deliver solid waste to the Emmet County Transfer Station as a condition of that license. The Ordinance also includes a PAYT provision specifying that disposal fees must be based on volume rather than a flat rate, creating a built-in incentive for residents and businesses to reduce waste and increase recycling. Another key provision in Ordinance 11-04 is the requirement that licensed haulers need to offer cardboard collection services to commercial customers at a rate lower than their general waste collection fee. This is a requirement designed to actively incentivize diversion at the business level.

Emmet County's solid waste ordinance also includes explicit anti-scavenging provisions prohibiting the removal of materials that have been set out for collection or deposited at county drop-off and recycling facilities. Once recyclables or other materials are placed for collection, they are considered the property of the county's recycling program. Unauthorized removal undermines the commodity revenues that support the ECDPW's self-sustaining funding model, and violations are subject to enforcement under the ordinance. This protection is particularly important given Emmet County’s reliance on recyclable sales as a primary revenue stream.

1.4 - POPULATION & POPULATION PROJECTIONS

This section provides a snapshot of current population conditions, recent trends, and projections that inform the generation estimates. Population projections are included in this MMP to evaluate future material generation and ensure that adequate materials management capacity exists to serve current and future residents of Emmet County. Projected population growth and density help identify population centers and areas where managed material generation is expected to be concentrated over time.

As of 2020, Emmet County had a permanent population of 34,112 residents (U.S. Census). According to the Networks Northwest 2025 Benchmark Data Report, Emmet County has a population density of approximately 73 people per square mile, based on the county spanning 468 square land miles. That density figure reflects the county's predominantly rural character, with population concentrated in the Cities of Petoskey and Harbor Springs and their surrounding townships. Table D-2 in the Appendix contains population and household data for each community in Emmet County

Emmet County's permanent population totals understate the true population the county’s system must serve. According to the 2022 Seasonal Population Study for Northwest Lower Michigan, seasonal residents and visitors can increase the county's population by as much as 163% during the peak tourist month of July, growing from approximately 34,000 to nearly 90,000.

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Table 1-1: Emmet County Population Projection

EMMET COUNTY	2020	2025	2030	2035	2040	2045	2050
Population Density (per sq mile)	73	74	75	75	74	72	70
Permanent/Year-Round Population	34,112	34,431	34,899	34,996	34,626	33,718	32,857
Additional Peak Seasonal Population (July)	55,261	55,778	56,536	56,694	56,094	54,623	53,228
Total Peak Population	89,373	90,209	91,435	91,690	90,720	88,341	86,085

Sources: Population density and peak seasonal population: Networks Northwest. Population projections: Michigan Department of Technology, Management and Budget (DTMB), Michigan Labor Market Information, Population Projections.

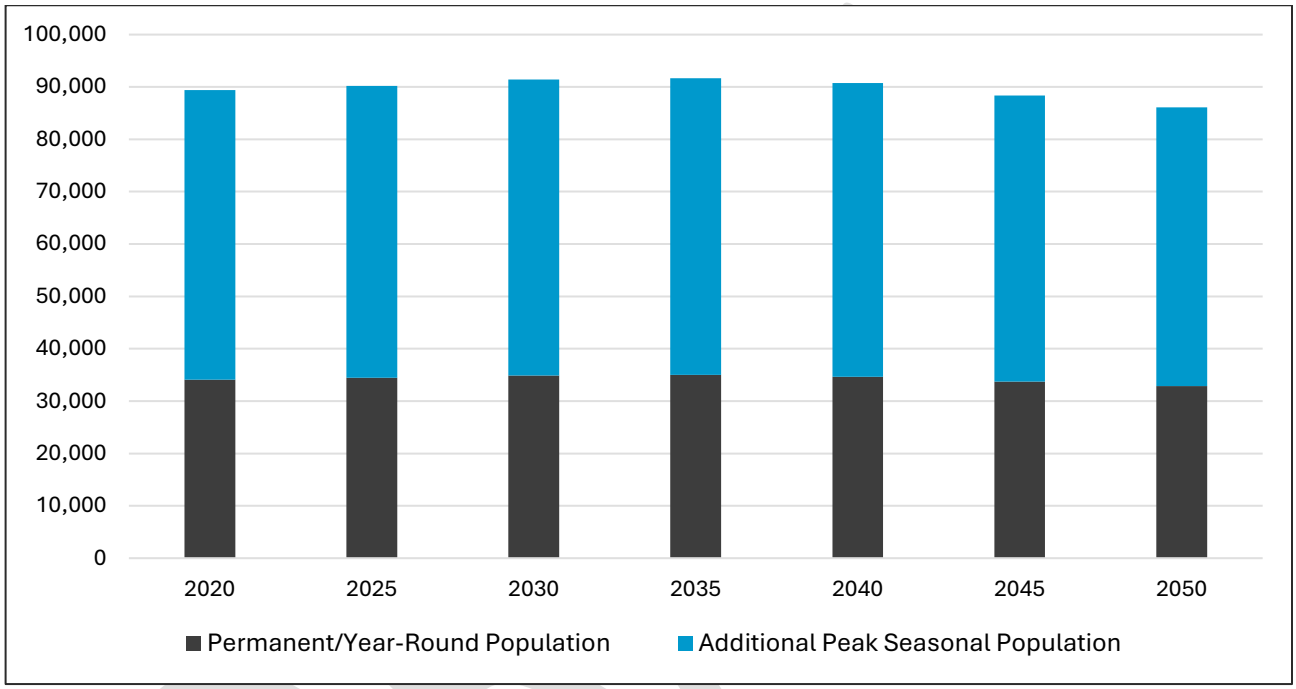


Figure 3: Emmet County Population Projection, 2020-2050

While Emmet County experiences a varied population throughout the year, the projected permanent population is predicted to decline into 2050. These trends reflect broader demographic pressures common to rural Northern Michigan, including an aging resident population. Emmet County's median age of approximately 47 years is notably higher than the Michigan state median of 39.5 years, suggesting the county has a sizable population of retired and near-retirement residents. This is important when considering service availability and accessibility.

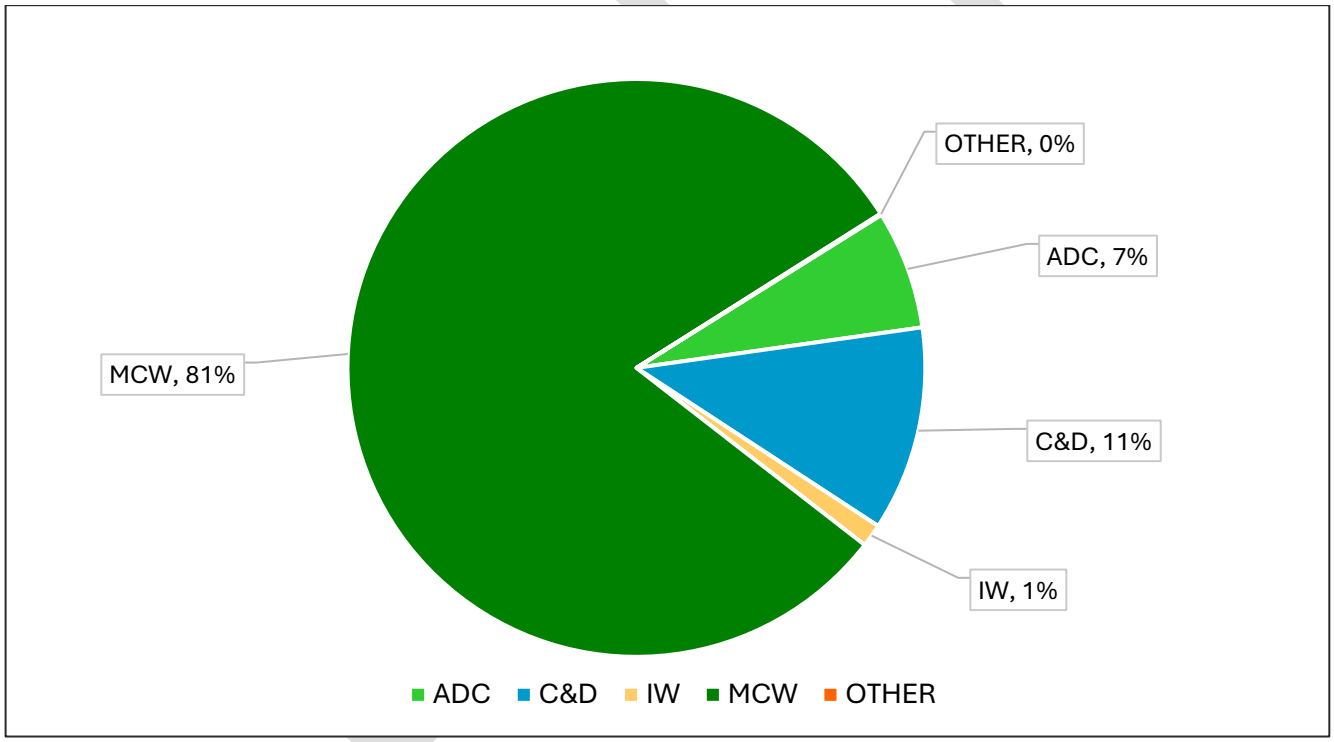
1.5 - MATERIAL GENERATION

This section identifies the type and tonnage of materials generated within Emmet County. Estimates rely primarily on the three-year average landfill tonnage reported to Michigan Department of Environment, Great Lakes, and Energy (EGLE) for FY 2022 through FY 2024[1], as well as the county's recycling and diversion reporting. The section covers total municipal and commercial waste (MCW) generation and projections through 2050 then addresses the county's other major material streams, including recycling, yard debris, and food waste.

1.5.1 - MCW Generation, Projections, and Capacity

Of Emmet County's landfilled waste between FY 2022 and FY 2024, MCW accounted for 81% of total tonnage. Construction and demolition debris made up 11%, alternative daily cover (ADC) 7%, and industrial waste (IW) 1% (Figure 4).

Figure 4: Michigan Landfill Waste Generated by Emmet County by Types in Tons, Average 2022-2024



Source: Michigan Department of Environment, Great Lakes, and Energy

Emmet County's landfilled MCW totaled 45,647 tons in FY 2022, 35,277 tons in FY 2023, and 35,414 tons in FY 2024, for a three-year average of 38,779 tons. FY 2022 quantities were originally reported in cubic yards. They were standardized to tons using EGLE's published conversion factor of three cubic yards per ton for MCW. Only waste generated by the county's residents and businesses is captured in

[1] Table D-1 in Appendix D: Supporting Data

this calculation. Industrial waste, construction and demolition debris, alternative daily cover, and other non-MCW categories were excluded.

Emmet County also tracks its own waste tonnage separately from the EGLE landfill reports. The two sources differ most in FY 2022, when the county recorded 34,249 tons compared to EGLE's 45,647 tons. Much of that gap likely reflects the cubic yard conversion. In FY 2023 and FY 2024, the two sources are within about 1% of each other. For example, in 2024, the county recorded 34,946 tons and EGLE reported 35,414 tons. On a per person basis, this equals roughly 5.61 pounds per person per day. This is still higher than the statewide average (4.64 pounds per person per day).

Several factors likely contribute to the county's elevated per capita figures. Commercial activity and tourism add landfilled tonnage without increasing resident population used in the calculation, which inflates the per capita rate. Recent growth in residential and commercial construction may also be adding C&D to the waste stream. Another possible factor is how C&D is categorized when it is disposed. The Emmet County Transfer Station received about 44,700 cubic yards of C&D per year on average between 2022 and 2024.[2] This material is shipped to the landfill with other waste, so this amount could be unintentionally included in MCW totals rather than counted as C&D. The available data cannot confirm whether this occurs or how much material is involved. For these reasons, this Plan uses the EGLE and county tonnage as reported. Objective 9.5 sets steps to weigh C&D and track it separately from MCW to improve data quality.

To evaluate how these rates translate into future system demand, county-level demographic data from the Michigan Department of Technology, Management & Budget and the Michigan Center for Data Analytics was utilized. Table 1-2 applies the county's own disposal rate, the three year county average disposal rate from EGLE's landfill reports, and the state average disposal rate to the projected population to estimate the range of MCW volumes the county can expect to manage over the planning period and beyond.

Table 1-2: Projected Annual MCW Generation, Emmet County, EGLE 3-Year Average, and State Average Basis[3]

YEAR	PROJECTED POPULATION	ANNUAL MCW TONS, EMMET COUNTY BASIS	ANNUAL MCW TONS, EGLE 3-YR AVG. BASIS	ANNUAL MCW TONS, STATE AVG. BASIS
2025	34,431	35,273	39,142	28,905
2030	34,899	35,752	39,674	29,298
2035	34,996	35,852	39,784	29,379
2040	34,626	35,473	39,364	29,069
2045	33,718	34,543	38,332	28,306
2050	32,857	33,661	37,353	27,583

Sources - Michigan Department of Technology, Management and Budget and Michigan Center for Data Analytics; EGLE Report of Solid Waste Landfilled in Michigan; ECDPW.

[2] C&D volumes from ECDPW G-CD material reports (45,188, 44,049 and 44,908 cubic yards for 2022–2024).
[3] Emmet County basis = 5.61 lbs. / person / day; EGLE 3-Year Average basis = 6.23 lbs. / person / day; State Average basis = 4.64 lbs. / person / day

These projections rely on permanent-resident population estimates and therefore understate the seasonal shifts that impact Emmet County's services. The county's July population can climb as much as 163% with seasonal residents and visitors (see Section 1.4 - Population & Population Projections).

Those population surges have direct impacts on county waste systems. Collection routes, processing capacity, and disposal infrastructure all experience peak period loads that annualized per capita figures cannot capture. Emmet County has managed these dynamics proactively, offering waste reduction and diversion services at large seasonal events and increasing drop-off site servicing during high-demand months. Carrying seasonal population dynamics forward into infrastructure sizing, program design, and implementation planning will help ensure the system remains resilient under peak conditions.

1.5.2 - Recycling Generation

Emmet County tracks recycling generation through several channels. In 2024, the Emmet County Recycling Materials Recovery Facility processed 5,389 tons of recyclables collected through curbside service and the drop-off network. This figure includes the recycling tonnage that is brought to the MRF from Cheboygan and Presque Isle Counties, which was 1,071 tons in 2024. Non-MRF materials, which are tracked separately by the county, added a further 1,149 tons of recyclables, including scrap metal[4], electronics, batteries, and household hazardous waste. Combined, the county's directly measured recycling programs recovered 6,538 tons in 2024. This amounts to approximately 383 pounds recycled per person per year.

The 2017 *Parallel Recycling Study (Commercial Recycling Generated in Emmet County Bypassing the County MRF)* conducted by ECDPW estimated that 8,712 tons of recyclable material are collected annually from commercial customers through private haulers operating outside the county system. This figure is dated but remains the county's only estimate of this activity, and it is held flat across projection years pending an updated study.

Additionally, Michigan's bottle deposit program recovers approximately 512 tons of beverage containers annually in Emmet County. This is based on a statewide average of 30 pounds of beverage containers per person per year applied to the 2020 Census population total. There is also an estimated 1,300 tons of scrap metal recovered per year by private processors servicing Emmet County residents, businesses, and institutions. A smaller drop-off program collects used cooking oil for biodiesel production, recovering an estimated 2.5 tons in 2024. Restaurants in Harbor Springs and Petoskey are subject to local wastewater requirements mandating fats, oil, and grease collection, though tonnage data for that stream is not tracked at the county level.

Together, these measured and estimated components put total recycling generation, excluding yard debris and food scraps, at approximately 17,060 tons in 2024. The total is reported before deducting material processed at the county MRF under contract for Cheboygan and Presque Isle Counties. The

[4] Refers to the 497 tons of scrap metal collected through the county's drop-off program, separate from the additional 1,300 tons recovered annually by private processors.

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deduction is applied before calculating the county's recycling rate, which is discussed in later sections.

A substantial amount of recyclable material remains in the disposal stream. The composition of the county's landfilled MCW is estimated in Figure 5:

- Readily recyclable materials are accepted in almost all curbside programs, such as cardboard, #1 and #2 plastics, and aluminum cans (about 9,000 tons or 23% of landfilled MCW)
- Compostable materials including food waste, yard waste, and compostable paper (about 12,000 tons or 31% of landfilled MCW)
- Recyclability Variable by Municipality covers materials that some programs accept and others do not, such as plastic film and textiles (about 10,000 tons or 26% of landfilled MCW)
- Minimal Access or Specialty Recycling covers materials that require drop-off or specialized programs, such as bulky items, tires, and polystyrene (about 4,000 tons or 10% of landfilled MCW)
- Not recyclable covers materials with no current recovery option (about 4,000 tons or 10% of landfilled MCW).

Together, the readily recyclable and compostable categories total about 21,000 tons or 54% of landfilled MCW. This is the material the county is best positioned to recover with its existing programs. Cardboard (about 2,700 tons) and compostable paper (about 2,500 tons) are the largest single materials in these two categories. Plastic film (about 3,200 tons) is the largest material in the variable category and is a good fit for drop-off collection.

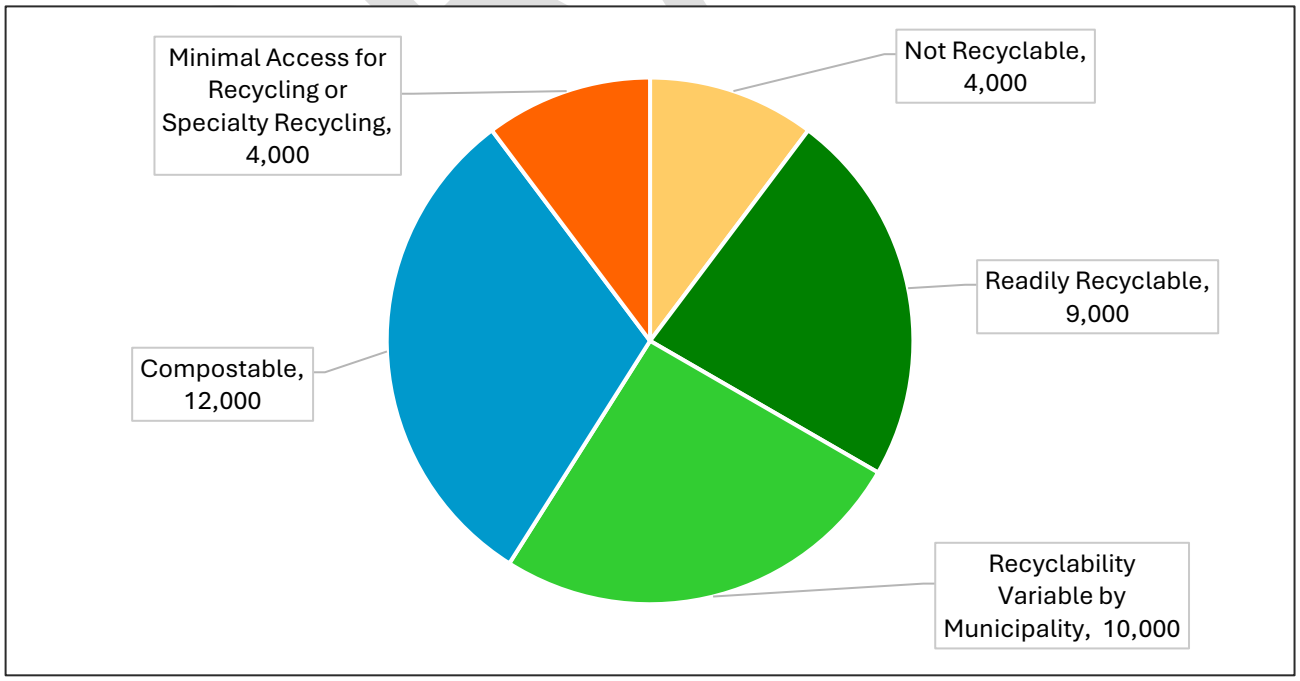


Figure 5: Landfilled MCW Material Recyclability in Tons

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1.5.3 - Food Waste Generation

Food waste is the largest single material category in Emmet County's disposal stream. It is estimated that Emmet County generates approximately 9,870 tons of food waste annually, or about 589 pounds per person per year. This estimate was calculated using the Natural Resources Defense Council's (NRDC) Food Waste Generation and Food Rescue Potential Baseline Calculator. The tool relies on national conversion factors rather than local waste audit data and does not account for food rescue or composting activity already occurring in the county. Results should be treated as planning-level estimates, and this baseline supports the organics goal in Section 2 - Materials Management Goals.

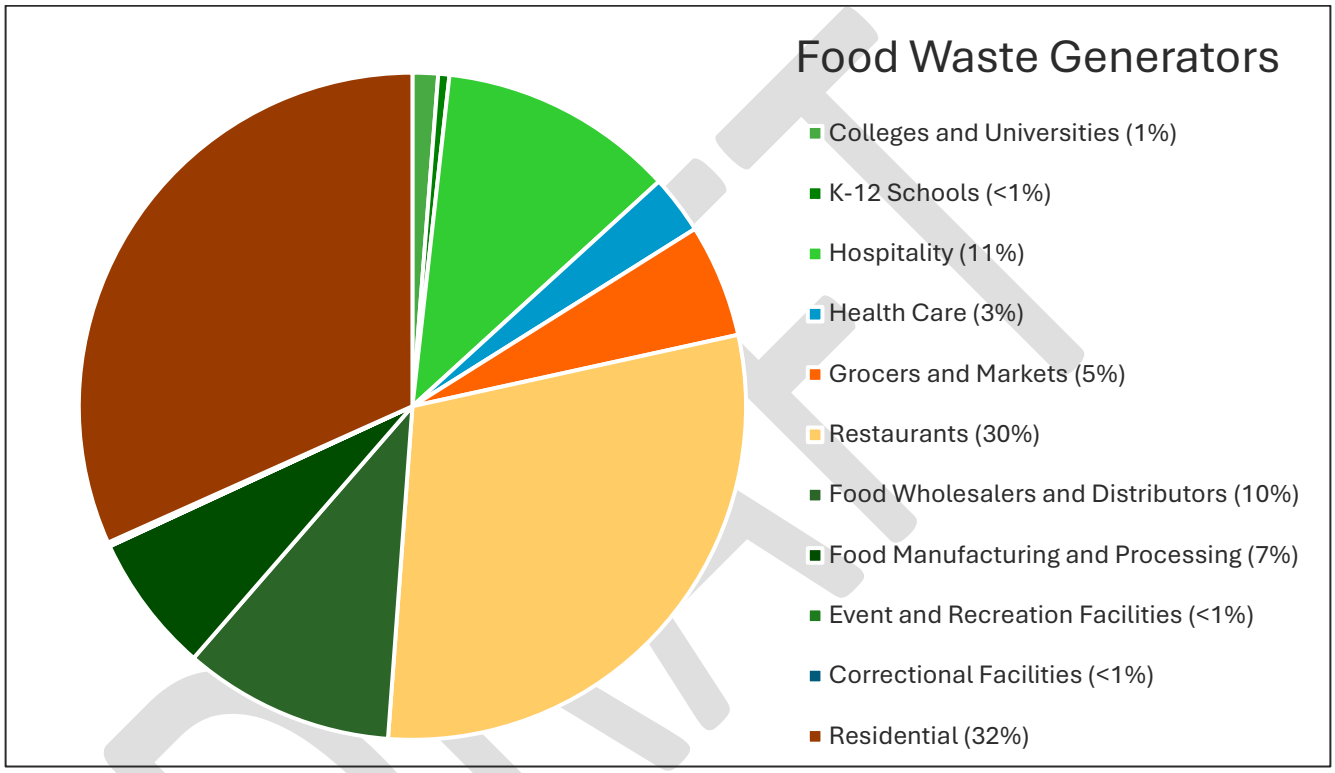


Figure 6: Estimated Tons of Food Waste Generated per Sector per Year (NRDC)

NRDC's model splits food waste generation by sector. Residential households account for an estimated 3,129 tons of food waste, or 32% of the total, of which 2,167 tons is edible food that is disposed. The remaining 68%, approximately 6,741 tons, is generated by the commercial, institutional, and industrial sectors. Grocers and markets represent the largest single recovery opportunity, at up to 171.5 tons under a maximum rescue scenario. The next largest opportunity is for hospitality businesses, for which an estimated 80.3 tons could be recovered. This is followed by healthcare institutions at 10 to 30 tons of potential recovery.

Under a Maximum Rescue Scenario, the county could recover up to approximately 470 tons of food per year. This would reduce the per capita rate to 562 pounds. Using Feeding America's 1.2 pounds per meal conversion, the Ambitious and Maximum Scenarios equal approximately 328,000 and 783,000 meals, respectively. These totals address an estimated 34 to more than 81% of the county's

unmet annual meal needs. The Manna Food Project, which serves Antrim, Charlevoix, and Emmet Counties, already rescues more than 250,000 pounds of food per year, or approximately 125 tons.

Emmet County's composting program collected only 207 tons of food scraps in 2024, a small fraction of the modeled 9,870-ton baseline. Most of that difference is currently landfilled rather than diverted. This figure should also not be combined with the organics generation range cited elsewhere in this Plan. A 2021 regional study estimated combined food and yard debris generation at 8,006 tons per year. Updated 2024 modeling places landfilled organics at approximately 12,048 tons per year. Together, these yield a recommended planning range of 9,054 to 12,048 tons annually. That range covers a broader material scope, including yard debris, brush, leaves, and trimmings.

1.5.4 - Yard Debris Generation

Emmet County measures yard debris generation directly through Compost Facility intake records. In 2024, the county collected 3,524 tons of yard debris and 584 tons of wood and brush, for a combined total of approximately 4,108 tons, or 241 pounds per person per year. Yard debris tonnage is calculated using a US Environmental Protection Agency conversion factor of 1,500 pounds per cubic yard; wood and brush use separate factors of 169 pounds per cubic yard for wood and 500 pounds per cubic yard for brush.

Municipal yard debris programs in Harbor Springs, Petoskey, Alanson, Resort Township, and Mackinaw City Village (described in Section 1.7.5 - Organics Facilities) supplement the county's centralized composting operations but do not report tonnage to the county. As a result, actual yard debris diversion is likely higher than the measured total above.

As a rural county, an unquantified additional share of yard debris is likely managed through on-site residential composting, brush management, and informal land application, particularly in lower-density areas. None of this activity is captured in county tonnage records. As such, the measured total in this section should be read as a conservative baseline of yard debris diversion in the county.

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1.6 - RECYCLING ACCESS & BENCHMARK RECYCLING STANDARDS STATUS



Emmet County is in compliance with Michigan's Part 115 Benchmark Recycling Standards (BRS), which are intended to ensure that counties provide convenient and accessible recycling opportunities for residents and businesses in support of the State's broader recycling goals.

The first BRS requires that, by January 1, 2026, at least 90% of single-family dwellings in urban areas, as identified by the most recent federal decennial census, and by January 1, 2028, at least 90% of single-family dwellings in municipalities with more than 5,000 residents, have access to curbside recycling. Emmet County satisfies this first BRS requirement because (1) the county census-designated urban areas are limited in extent, and (2) the municipalities with populations exceeding 5,000, Bear Creek Township and the City of Petoskey, provide municipally-funded, county-operated weekly curbside recycling services that meet the statutory criteria.

For counties with a population under 100,000, the second BRS requirement, effective January 1, 2032, is that there must be at least one drop-off location for every 10,000 residents without curbside access and each location must be available at least 24 hours per month. There are approximately 19,960 residents with confirmed access to curbside recycling and14,150 residents without. Applying the 2032 standard to this population requires a minimum of two drop-off locations available at least 24 hours per month. Emmet County provides 12 such locations, including the Pleasantview Road Drop-Off Center and 11 additional recycling drop-off sites. The hours of operation across these sites exceed the 24-hour per month minimum. All sites are open 24/7 (approximately 720 hours per month) except for the Pleasantview Road Drop-off Center, which is open six days/week.

A full breakdown of curbside and drop-off access by community is provided in Table D-2 of Appendix D: Supporting Data. Across these programs, the Plan establishes a recommended minimum level of recycling service. Residents should have access to collection of standard recyclables (paper, cardboard, plastics, metal, and glass), provided either through curbside service at least twice per month or through a drop-off location available at least 24 hours per month. This standard is consistent with the state's Benchmark Recycling Standards, and the county's existing curbside and drop-off network already exceeds it.

Beyond meeting the Benchmark Recycling Standards, recycling offers the county and its residents many other benefits. Because Emmet County has no active landfills, every ton recycled avoids the cost of hauling it out of the county, and material sales help fund the county's program without tax dollars. Recycling also conserves natural resources and uses less energy than making products from

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raw materials. It extends the life of regional landfills and prevents pollution of the soil, groundwater, and Lake Michigan shoreline that support the county's tourism. It also sustains local jobs and supplies materials to Michigan manufacturers.

1.7 - INFRASTRUCTURE - EXISTING & PLANNED



This section documents the facilities that support materials management in Emmet County. It also describes the collection options available to county residents and businesses and draws on the Facility Descriptions presented in Appendix A.

1.7.1 - In-County Materials Management Infrastructure

The materials management infrastructure in Emmet County is mapped in Figure 7. The county-owned and operated facilities located at 7363 S Pleasantview Road in Harbor Springs serve multiple functions and include the MRF, processing and transfer facility, and compost facility. The location also serves as a public super drop-off center and hosts household hazardous waste collection events. Emmet County is evaluating site access and infrastructure improvements to keep pace with the growing use of this location.

In addition to the super drop-off center, ECDPW coordinates eleven drop-off recycling sites, as well as seasonal and year-round food scrap recycling drop-off sites. A network of seven battery recycling drop-off sites also exists in the county, and there is one village-owned and operated facility registered with EGLE, which is the Village stump dump in Mackinaw City Village.

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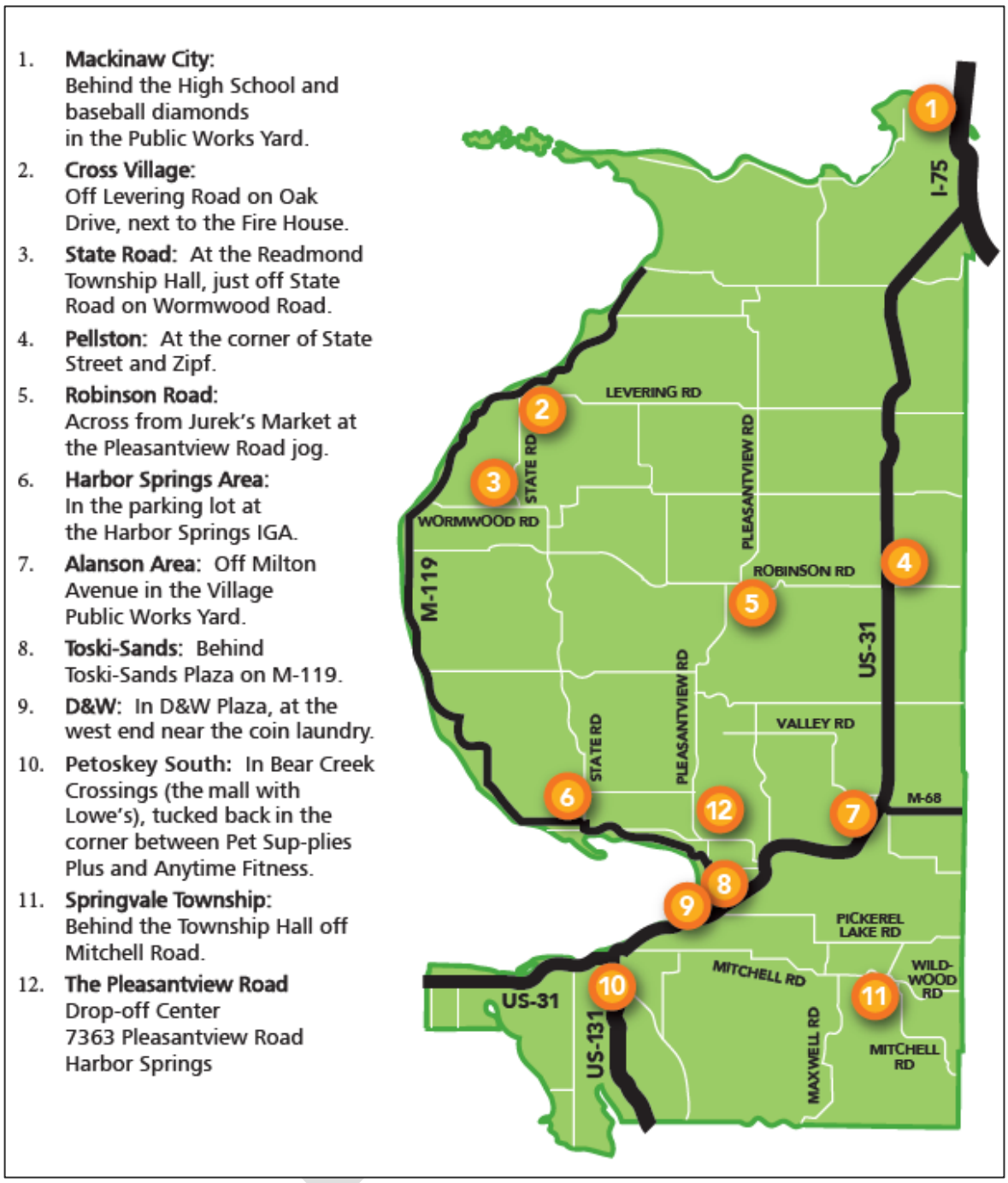


Figure 7: Materials Management Facilities Map

Table 1-3a: Materials Management Infrastructure, Facilities Located within Emmet County

NAME	ADDRESS	FACILITY TYPE
Emmet County Transfer Station	7363 S Pleasantview Rd, Harbor Springs	Processing & Transfer Facility

NAME	ADDRESS	FACILITY TYPE
Emmet County Recycling MRF	7363 S Pleasantview Rd, Harbor Springs	Materials Recovery Facility
Emmet County Pleasantview Road Drop-Off Center	7363 S Pleasantview Rd, Harbor Springs	Drop-Off Center
Emmet County Compost Facility	7363 S Pleasantview Rd, Harbor Springs	Compost Facility
Village Stump Dump	Trails End Rd, Mackinaw City	Compost Facility
Alanson Area Recycling Drop Site	6180 West Street, Alanson	Recycling Drop-Off Site
Bear Creek Crossings Drop Site	2170 Anderson Rd, Petoskey	Recycling Drop-Off Site
Cross Village Recycling Drop Site	6315 Oak Drive, Harbor Springs	Recycling Drop-Off Site
D&W Plaza Recycling Drop-Off Site	1214 Rice Street, Petoskey	Recycling Drop-Off Site
Harbor Springs Area Recycling Drop Site	715 Traverse Street, Harbor Springs	Recycling Drop-Off Site
Mackinaw City Recycling Drop Site	605 Pond Street, Mackinaw City	Recycling Drop-Off Site
Pellston Area Recycling Drop Site	212 Zipf Street, Pellston	Recycling Drop-Off Site
Robinson Road Recycling Drop Site	1550 Robinson Road, Pellston	Recycling Drop-Off Site
Springvale Township Recycling Drop Site	8198 East Mitchell Road, Petoskey	Recycling Drop-Off Site
State Road Recycling Drop Site	6008 Wormwood Lane, Harbor Springs	Recycling Drop-Off Site
Toski-Sands Recycling Drop Site	3354 Lakeside Drive South, Petoskey	Recycling Drop-Off Site





1.7.2 - Out-of-County Materials Management Infrastructure

Emmet County also relies on materials management infrastructure located outside of the county. Between FY 2022 and FY 2024, Emmet County's MCW was sent to five different active landfills in Michigan (Table 1-3b). GFL North Michigan Landfill in Presque Isle County received essentially all the county's landfilled MCW, which averages 38,779 tons per year across FY 2022 through FY 2024. The remaining four landfills, including City Environmental Services Inc. of Waters in Crawford County, received negligible MCW tonnage over the same period. The material they do receive from Emmet County is not MCW but primarily construction and demolition debris and industrial waste.

Table 1-3b: Materials Management Infrastructure, Out-of-County Landfills

NAME	ADDRESS	FACILITY TYPE
City Environmental Services Inc of Waters	11375 Sherman Rd, Frederic	Type II Landfill
GFL North Michigan Landfill, LLC	20667 5 Mile Hwy, Onaway	Type II Landfill
Montmorency-Oscoda-Alpena SWMA	6751 Landfill Rd, Atlanta	Type II Landfill
Wexford County Landfill	990 Mackinaw Trail, Manton	Type II Landfill
Whitefeather Landfill	2401 E Whitefeather Rd, Pinconning	Type II Landfill

1.7.3 - Disposal Areas

Emmet County has no active landfills within county boundaries. The only facility that functions as a disposal area under Part 115's definition is the Emmet County Transfer Station. The Emmet County Transfer Station is a processing and transfer facility operated by ECDPW, which serves as the primary aggregation point for the county's waste stream.

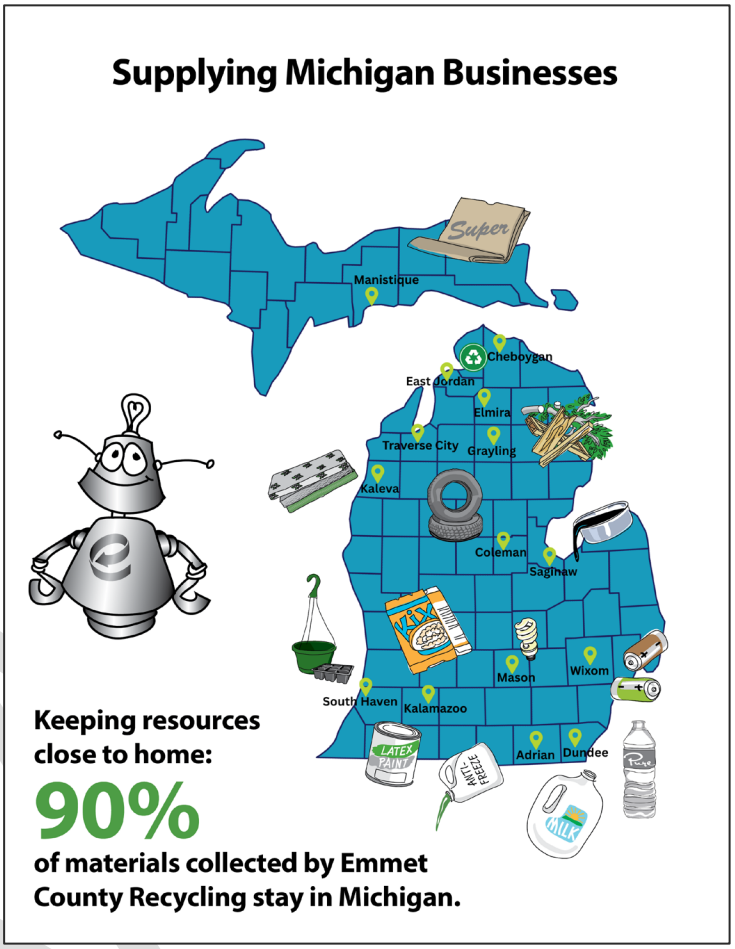
All landfill disposal of Emmet County's waste therefore occurs outside county boundaries. As described previously, waste aggregated at the Pleasantview Road facility is transported to out-of-county landfills, with GFL North Michigan Landfill in Presque Isle County receiving 97% of the county's

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three-year average total disposal tonnage (Table 1-3b). The landfills receiving material from Emmet County report [#] months of remaining capacity.[5]

1.7.4 - Materials Utilization Facility & End Markets

The Emmet County Recycling MRF processes material collected through the county's drop-off and curbside programs, including paper, cardboard, plastics, glass, and metals. ECDPW is committed to finding the highest and best use for all materials it accepts, meaning every item collected has a defined end market that will produce new products for purchase.



Materials leave the MRF for a network of regional and national end markets, including fiber mills, plastics manufacturers, metals processors, and glass recyclers. 95% of ECDPW's collected materials stay in Michigan, supporting local manufacturing and the regional economy. The remaining materials travel to processors in neighboring states where specialized end markets exist for certain commodity streams. A complete list of end markets is referenced in Appendix D: Supporting Data.

1.7.5 - Organics Facilities

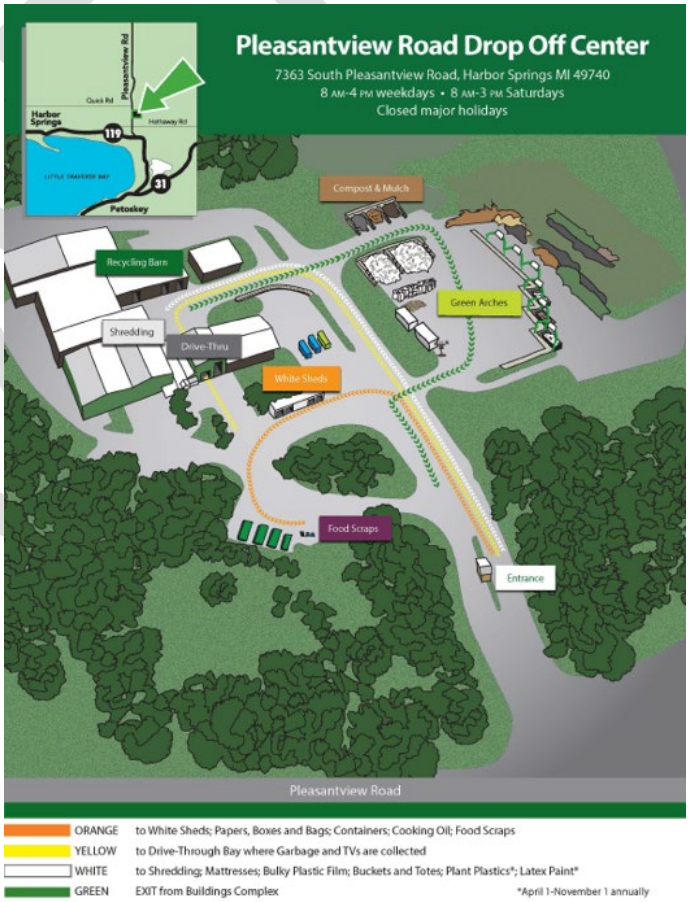
The Emmet County Compost Facility on Pleasantview Road is the county's primary organics facility, and it accepts yard debris and food scraps. There are no anaerobic digestion facilities in the county. Food scrap drop-off is available year-round at the Pleasantview Road Drop-off Center and at drop-off sites in downtown Petoskey and downtown Harbor Springs, with seasonal drop-off at the Petoskey and Harbor Springs Farmers Markets from May through October. The county also collects commercial food scraps from businesses in Petoskey and Harbor Springs. Fats, oil, and grease are accepted at the Pleasantview Road Drop-off Center.

[5] Remaining capacity is being confirmed through ongoing County outreach to the owners and operators of each receiving facility, as described in Appendix A. The final approved Plan will report remaining capacity as stated by the facilities.



Two smaller municipal programs supplement county composting. The City of Harbor Springs provides seasonal curbside leaf and brush collection and allows residents to deliver yard debris to the municipal compost pile at Kiwanis Park. The City of Petoskey offers seasonal curbside leaf and brush collection. Yard debris drop-off locations in Resort Township and Alanson, along with the Village Stump Dump owned and operated by Mackinaw City Village, provide additional yard debris and brush composting capacity in the county.

1.7.6 - Waste Diversion Centers & Drop-off Locations



The county's Pleasantview Road Drop-off Center accepts standard recyclables, along with electronics, batteries, mattresses, tires, paint, and more, and hosts periodic household hazardous waste collection events. The Super Drop-off Center is adjacent to the Emmet County Transfer Station and Emmet County Recycling MRF. The county confirmed with EGLE that separate Waste Diversion Center (WDC) registration was not required for the Super Drop-off Center, and this Plan reflects that determination by categorizing it as a drop-off.

Twelve recycling drop-off sites, including the Pleasantview Road Drop-off Center, are managed by ECDPW. The eleven standard sites are distributed across Petoskey, Harbor Springs, Pellston, Mackinaw City, Alanson, Cross Village, and Springvale Township and accept standard recyclables. Several local hardware retailers, including Meyer Hardware, Preston Feather, W.W. Fairbairn & Sons, and Cook's Hardware, host battery drop-off as a supplemental network.

1.7.7 - Collection Programs, Events, Haulers & Service Providers

ECDPW provides weekly dual-stream curbside recycling collection under municipal contract in six communities, including the Village of Alanson, Bear Creek Township, the City of Harbor Springs, Little

Traverse Township, the City of Petoskey, and Resort Township. This service reaches approximately 59% of county residents, and the remainder are served by twelve drop-off sites, including the Pleasantview Road Drop-off Center; the eleven standard sites are open 24 hours a day year-round. Additional programs extend collection service to schools and select multifamily communities.

ECDPW also directly provides commercial cardboard and recycling service to over 400 businesses, and all standard recycling drop-off sites, as well as the Pleasantview Road Drop-Off Center, are open to both commercial generators and residents. Businesses outside ECDPW's direct service area rely on private hauler pickup or self-haul to a drop-off site.



Collection of materials outside the standard recyclable streams is primarily funneled through the Pleasantview Road Drop-Off Center. This is the county's main collection point for construction and demolition debris, bulky goods, and special waste. Items such as large and small appliances, electronics, mattresses, tires, anti-freeze, and motor oil are all accepted here.

Food scraps are collected through the county's Give All Food A Future (GAFAF) program. Food scrap drop-off is available year-round at the Pleasantview Road Drop-off Center. There are also food scrap drop-off sites in downtown Petoskey and Harbor Springs, seasonal drop-off at both cities' farmers markets, and scheduled collection from participating restaurants and businesses in those two cities.

Plant plastics are collected seasonally from April 1 through November 1 and routed to East Jordan Plastics, which remanufactures the pots, packs, and flats into new containers. Partnerships with local businesses and public agencies extend collection for specific materials beyond county-operated sites. Household batteries are accepted during business hours at participating hardware retailers in Pellston, Alanson, Harbor Springs, and Petoskey, and the county partners with local law enforcement agencies to provide medication drop-off locations countywide.

Residential trash collection is not a county service; instead, residents contract individually with private haulers. All haulers operating in the county must be licensed under Solid Waste Ordinance 11-04, which requires delivery of solid waste to the county processing and transfer facility on Pleasantview Road and sets fees on a Pay-As-You-Throw basis.

1.7.8 - Transportation Infrastructure

Emmet County's public road network consists of state trunklines maintained by Michigan Department of Transportation (MDOT) and county primary and local roads maintained by the Emmet County Road Commission (Figure 8). This supports the collection, transfer, and processing that make up the county's materials management system.

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US-31 serves as the primary north-south highway, connecting Petoskey, Alanson, and Pellston to Mackinaw City at the northern end of the county and continuing south toward Charlevoix. US-131 ends in Petoskey and provides the main route south toward Grand Rapids and downstate processing and end markets. M-119 links Petoskey to Harbor Springs and the northwest coastal communities, while M-68 connects Alanson eastward to Indian River and Interstate 75, giving haulers efficient access to the interstate system for long-haul trips.

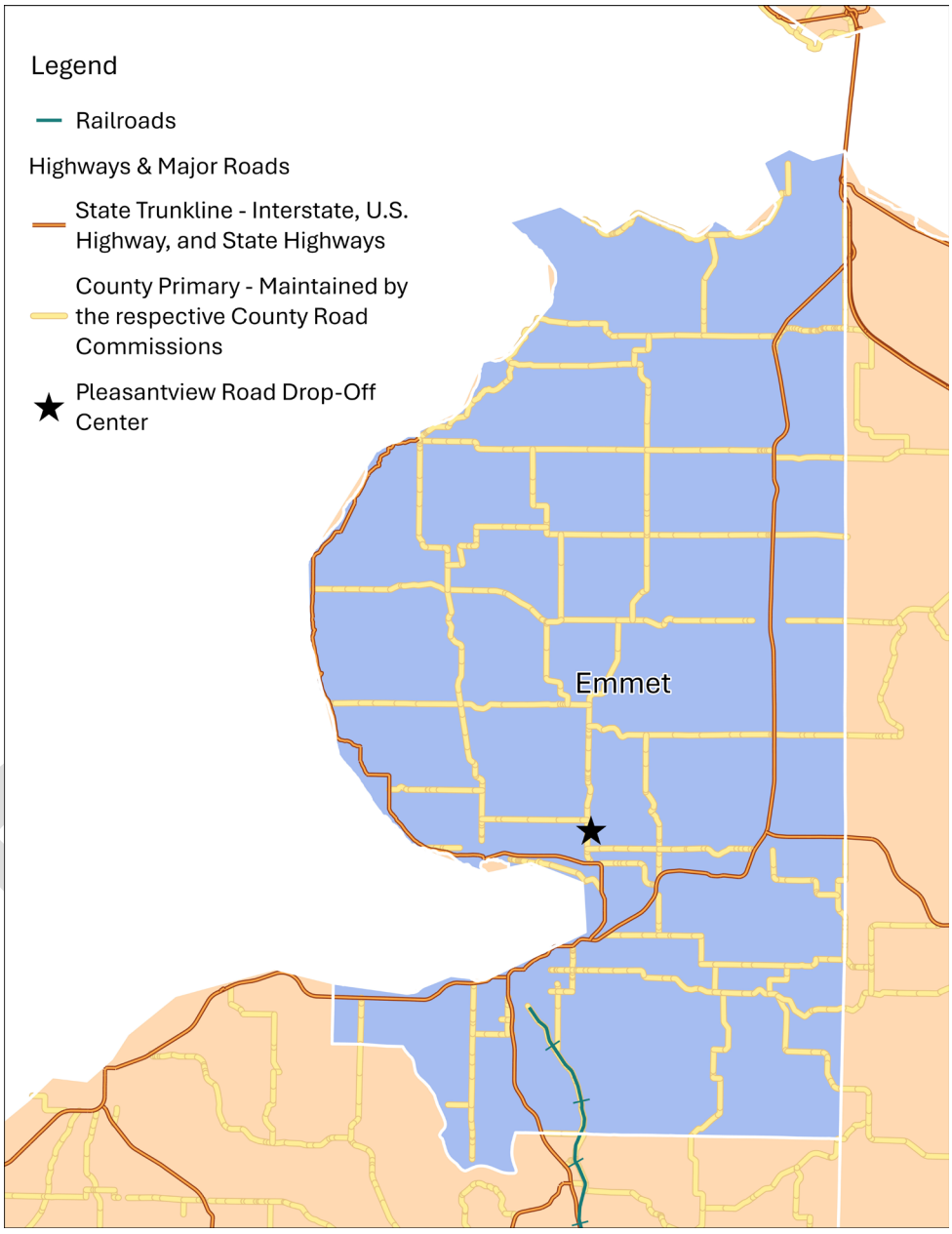


Figure 8: Emmet County Transportation Infrastructure Map

Curbside recycling is available in the county's more densely populated communities, including Petoskey, Harbor Springs, Bear Creek Township, Little Traverse Township, Resort Township, and the Village of Alanson, through county or private hauler service. A network of eleven unstaffed drop-off

sites is also distributed across the county. Material from both curbside collection and the drop-off network feed into the Pleasantview Road Drop-Off Center in Harbor Springs.

Recyclables are processed at the Emmet County MRF and organics are processed at the adjacent compost facility; both of these facilities are co-located with the Pleasantview Road Drop-off Center. Emmet County waste is transferred out of the county for disposal at one of five landfills, including GFL North Michigan Landfill, LLC, City Environmental Services Inc of Waters, Montmorency-Oscoda-Alpena Solid Waste Management Authority (SWMA), Wexford County Landfill, and Whitefeather Landfill (Table 1-3b).



Seasonal weight restrictions imposed during the spring frost period temporarily limit loads on county roads, which can impact transfer scheduling and can lengthen haul cycles. Summer conditions place a different kind of pressure on the same network. Emmet County's population rises by as much as 163% in July (see Section 1.4 - Population & Population Projections). This can concentrate traffic on the US-31 and M-119 corridors that serve Petoskey and Harbor Springs. Because peak population coincides with peak material volumes, collection and transfer routes take longer to complete in summer than the same routes require in non-summer months. The county responds to these shifts by increasing drop-off site service during high-demand months. Service limitations also apply on some private roads and areas that may restrict large collection vehicles.

1.8 - MUNICIPAL SOLID WASTE RECYCLING RATE

Michigan's MSW Recycling Rate is defined by statute as the amount of municipal solid waste recycled or composted, divided by the amount recycled, composted, landfilled, or incinerated. Based on this formula, Emmet County's estimated 2024 recycling rate is 37%.[6] This figure combines the recycling, composted food waste, and yard debris volumes discussed in earlier sections, measured against the county's landfilled MCW tonnage for the same year. It includes an estimated 1,300 tons per year of scrap metal recovered by private processors operating outside the county system and excludes approximately 1,071 tons processed at the county MRF under contract for Cheboygan and Presque Isle Counties.

Traditional recyclables, yard debris, and composted food scraps all count toward the numerator, consistent with the statutory definition. Materials tracked separately as diverted waste, including household hazardous waste, electronics, batteries, and tires, are included in the county's own reported totals even though Part 115 treats them as a distinct category from recyclable materials; this

[6] Based on Emmet County's own reported Calendar Year (CY) 2024 municipal solid waste tonnage of 34,946 tons as the disposal denominator.

is consistent with EGLE's guidance that such materials may optionally be included where good data exists, and Emmet's tracking is strong enough to support their inclusion.

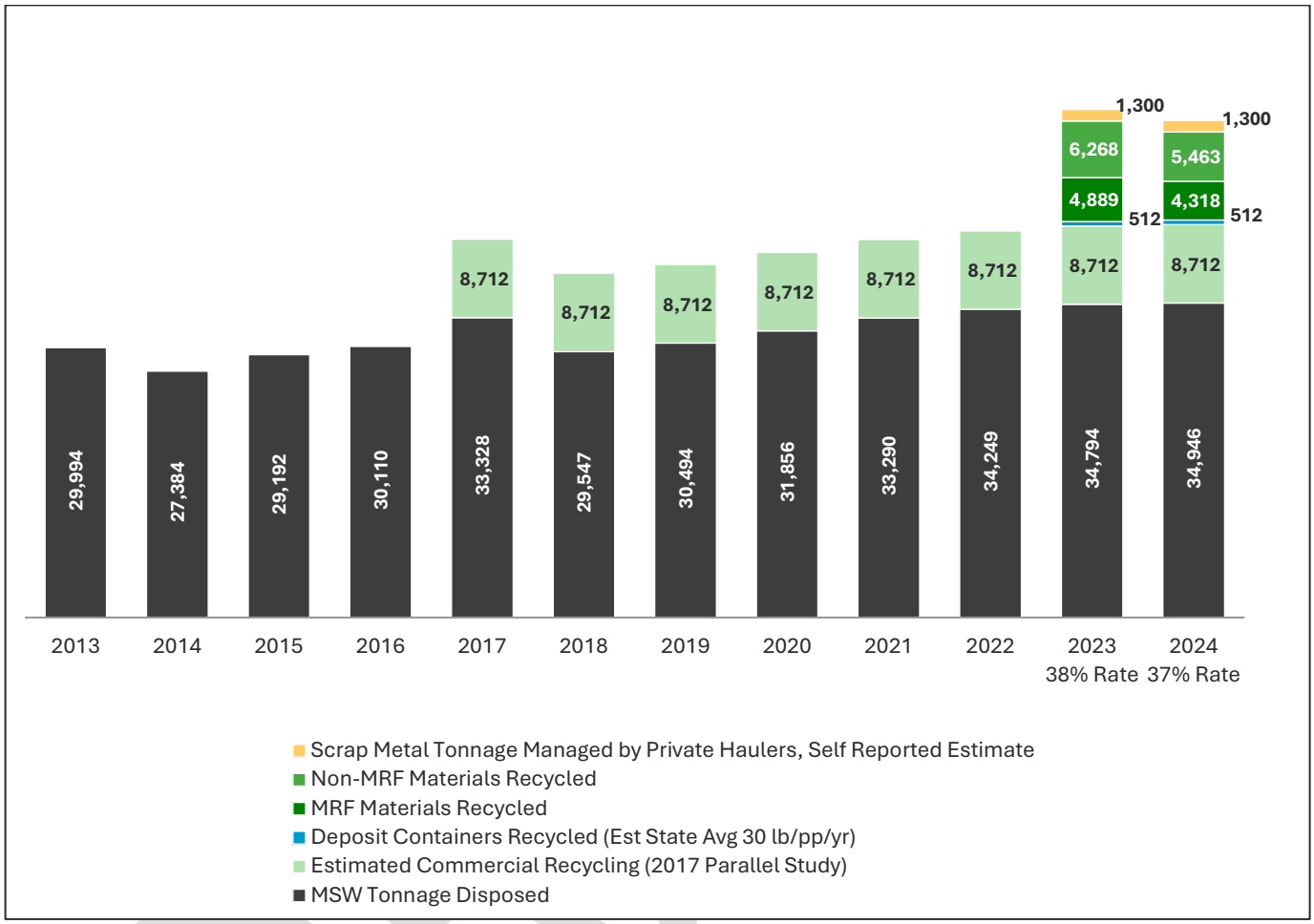


Figure 9: Emmet County Estimated Recycling Rate in Tons[7]

The recycling rate should be distinguished from a broader diversion rate. A diversion rate is a wider measure that also credits reuse, donation, and other diversion methods beyond recycling and composting; it is not calculated in this Plan as Emmet County does not currently maintain comprehensive tonnage data for these additional diversion pathways.

1.8.1 - Recovery by Material Stream

The county's recovered tonnage is made up of several distinct streams. Residential and drop-off recycling, which is processed through the county MRF, is the largest measured stream. Tracked MRF materials include paper and cardboard, plastics, cartons, plastic film, glass, and metals. MRF tonnage data are recorded and maintained to support program oversight, performance evaluation, and state reporting requirements.

[7] Based on Emmet County's own reported Calendar Year of 2024 municipal solid waste tonnage of 34,946 tons as the disposal denominator.

In addition to standard recyclables processed at the MRF, the county tracks non-MRF materials collected at the Pleasantview Road Drop-Off Center. These materials include HHW, appliances, pallets, furniture, lightbulbs, motor oil, rubble, shingles, tires, treated wood, carpet, batteries, scrap metal, mattresses, electronics, and paint. Yard debris and food scraps, which are both composted, are also included in the non-MRF materials totals.

Commercial recycling collected by private haulers outside the county system is not regularly reported to the county, and this is a known data gap. To better understand this portion of the waste stream, a 2017 county-led assessment known as the *Parallel Recycling Study (Commercial Recycling Generated in Emmet County Bypassing the County MRF)* was conducted. The study estimated approximately 8,712 tons of recyclable material were collected from commercial customers outside of the county-managed system. While dated, this analysis represents a deliberate effort to quantify recycling activity not otherwise captured in county records and to improve the accuracy of overall recycling rate calculations.

Scrap metal collected through the county drop-off program totaled 497 tons in 2024 and is captured in the non-MRF totals above. Private scrap metal processors serving Emmet County residents, businesses, and institutions report an additional estimated 1,300 tons per year.

To further address materials diverted outside the county system, a statewide estimate of approximately 30 pounds of deposit container recycling per person per year in Michigan was applied to Emmet County's population. Applying this factor to Emmet County's 2020 Census population results in an estimated 512 tons of beverage container material recycled annually through the state's deposit return system, independent of county collection programs. In addition, a separate program exists within the county to collect used fryer oil for biodiesel production, collecting an estimated 2.5 tons in 2024 through Evergreen Grease Service.

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Section 2 - Materials Management Goals



Emmet County's materials management goals build on the most comprehensive and well-established county recycling system in northern Michigan. ECDPW operates the county's collection, processing, and drop-off infrastructure. An overarching recycling rate goal and nine supporting goals below extend that system into commercial recovery, multifamily and curbside access, organics, disaster debris readiness, special materials, and performance data. Each goal states its intended outcome in a brief summary, followed by numbered objectives that carry the specific, measurable commitments. Every objective identifies its actions, responsible parties, potential partners, resources needed, measurement, policy or enforcement needs, and timeline, and education and outreach programs are described at the goal level.

A consistent theme across these goals is that county staff capacity is the limiting resource. This reflects broader labor market conditions in the county, where housing costs, limited transportation options, wages in the sector, and childcare access all constrain the county's ability to hire and retain staff for these roles. Several objectives call for studies, facility design, ordinance development or refinement, or program buildout that exceeds what existing staff can absorb alongside daily operations. Where that is the case, the resources described below include contracted technical, legal, or planning support, and the Plan language is intended to give the county a documented basis for securing that support.

OVERARCHING GOAL: INCREASE THE MSW RECYCLING RATE (MEASURABLE COUNTYWIDE TARGET)

Maintain a countywide MSW recycling rate above the statutory interim goal of 30% by 2029 and make measurable continued progress toward the State's ultimate 45% recycling rate goal established under Michigan Compiled Laws (MCL) 324.11507. Emmet County's 2024 recycling rate already exceeds the 2029 interim goal. The State's ultimate 45% goal is aspirational, with no fixed attainment year, and the county will adopt its own numeric target and attainment year through the process described in this goal’s objectives.

Emmet County is exploring opportunities to increase its recovery based on increased diversion in different material streams and program areas. The table shows four scenarios for how Emmet County's recycling rate could grow, from the current estimated 37% up to 55% under the most aggressive target. Each scenario adds diversion through some combination of expanded recycling, food scrap composting, and keeping food out of the waste stream altogether through source

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reduction. Beverage containers and yard waste hold steady across all four, as those streams are already well-captured. The bigger the push on organics and source reduction, the higher the rate. Emmet County will continue to explore and refine these opportunities while working to realize the goals listed below.

Table 2-1: Emmet County Recycling Rate Scenarios

	CURRENT ESTIMATE	20% SCENARIO[8]	40-10-40 SCENARIO[9]	AGGRESSIVE 50% SCENARIO[10]
MRF Materials Recycled (tons)	4,318	4,318	4,318	4,318
Non-MRF Materials Recycled (batteries, electronics, tires, HHW, etc., tons)	1,149	1,149	1,149	1,149
Food Scrap Composted (tons)	207	1,607	3,007	3,707
Yard Debris Composted (tons)	4,108	4,108	4,108	4,108
Beverage Deposit Containers (tons)	512	512	512	512
Estimated Commercial Recycling (tons)	8,712	8,712	8,712	8,712
Scrap Metal (tons)	1,300	1,300	1,300	1,300
Readily Recyclable Captured	0	1,800	3,600	4,500
Total Recycled (tons)	20,306	23,506	26,706	28,306
Food source reduction (tons)	0	1,400	700	3,500
MCW (tons)[11]	34,946	30,346	27,846	23,446
Recycling Rate (%)	37%	44%	49%	55%

[8] 20% of landfilled food composted, 20% of landfilled food reduced, 20% Readily Recyclable Captured. Creates ~44% Recycling Rate.
[9] 40% of landfilled food composted, 10% of landfilled food reduced, 40% of Readily Recyclable Captured. Creates ~49% Recycling Rate, ~50% Food Waste Reduction.
[10] 50% landfilled food composted, 50% landfilled food reduced, 50% Readily Recyclable captured. Eliminating food waste. Creates ~55% Recycling Rate.
[11] Emmet County reported CY 2024 municipal solid waste tonnage.

Objective 0.1: Adopt a County Recycling Target

Adopt a county recycling rate target and attainment year, which will be informed by the recycling rate scenarios in Table 2-1 with the Materials Management Planning Committee (MMPC) input.

Actions: Review the recycling rate scenarios with the MMPC then select and adopt a target. Document the 2024 rate of 37% as the baseline.[12]

Responsible Parties: ECDPW; MMPC

Potential Partners: Networks Northwest; LTBB; all potential partners identified in the goals of this section.

Resources Needed: Staff capacity; recycling rate scenario model outputs; Emmet County waste and recovery data.

Measurement: Numeric target and attainment year formally adopted; baseline documented.

Policy or Enforcement Needs: Adoption by the MMPC.

Timeline: Baseline established and target adopted within one year of Plan approval.

Objective 0.2: Increase Recovery Toward the State Goal

Maintain a county recycling rate above the statutory 30% interim goal and increase recovery over the planning period, making measurable progress towards the State's ultimate 45% goal and toward the county target once adopted under objective 0.1.

Actions: Implement the program updates identified under all other goals in this section, which include mechanisms by which recovery increases. Continue to explore and refine material recovery opportunities. Evaluate staffing and contracted support needs to implement the goals in this Plan.

Responsible Parties: ECDPW; all other responsible parties identified in the goals of this section.

Potential Partners: All potential partners identified in the goals of this section.

Resources Needed: The infrastructure investments described in all other goals in this section. Additional staff or contracted support.

Measurement: County recycling rate relative to EGLE's 30% interim goal, EGLE's 45% ultimate goal, and the county's adopted target.

Policy or Enforcement Needs: None beyond those identified in all other goals in this section.

[12] Based on Emmet County's own reported 2024 municipal solid waste tonnage of 34,946 tons as the disposal denominator.

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Timeline: Annual progress from Plan approval, which will be impacted by implementation timelines for all other goals in this section.

GOAL 1: ICI RECYCLING PARALLEL STUDY

Complete a Parallel Study on a recurring basis to capture recycling activity not measured through ECDPW, understand the flow of materials, and identify opportunities to improve recovery from the commercial, institutional, and industrial sector (ICI). The prior study dates to 2017, and a recurring cycle will allow the county to track ICI recovery over time and use the results to inform county priorities.



Education and Outreach

Direct outreach to businesses and institutions occurs during each survey cycle, with sustained engagement of big-box and corporate generators. The ambassador network to be established under Objective 1.2 will help support ongoing peer-to-peer education inside participating organizations.

Objective 1.1: Recurring Parallel Study

Complete a Parallel Study by December 2025 and repeat the study every two years to track ICI recovery over time.

Actions: The 2025 cycle is complete. The survey was deployed in October 2025, business outreach ran through November, and results were compiled in December. Findings were evaluated and shared in the first quarter of 2026, including at the February State of the Community event. Each future cycle will target major ICI generators such as Walmart, Meijer, Home Depot, Lowe's, the hospital, the college, and area schools, along with industrial parks (Moeller, Wallon Cast Products, Circuit Controls) and the lodging sector, including hotels, resorts, and short-term rentals.

Responsible Parties: ECDPW with contracted planning and data-analysis support for each study cycle.

Potential Partners: Chamber of Commerce (survey deployment and event calendars); LTBB, which is conducting waste assessments of its casino as of 2026, government, and other facilities; big-box and corporate generators; Char-Em Intermediate School District (ISD) and area schools.

Resources Needed: Staff capacity, contracted services, a survey instrument and outreach channels, and possibly business incentives.

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Measurement: Completion of each study cycle; ICI material volumes captured through the survey; recovery opportunities identified and prioritized.

Policy or Enforcement Needs: Use study results to inform policy priorities, including consideration of an ordinance covering hotels, resorts, and short-term rentals.

Timeline: Survey deployed October 2025; business outreach October to November 2025; results December 2025; findings evaluated and shared in the first quarter of 2026. The study repeats every two years thereafter.

Objective 1.2: Recycling Ambassador Network

Recruit recycling ambassadors within each target organization to drive program growth and improve business responsiveness to future study cycles.

Actions: Reach candidate organizations through multiple channels, including email, phone, and in-person contact. Deploy the survey at the Business Expo and promote participation through Chamber event calendars and LTBB Business After Hours. Ambassadors will then carry peer-to-peer education inside their organizations between study cycles.

Responsible Parties: ECDPW.

Potential Partners: Chambers of Commerce of Petoskey and Harbor Springs; LTBB; big-box and corporate generators, which take more time to reach and benefit from sustained engagement.

Resources Needed: Staff capacity for outreach and ongoing engagement.

Measurement: Number of ambassadors recruited and organizations represented; increased responsiveness of targeted businesses to each Parallel Study cycle.

Policy or Enforcement Needs: None anticipated at this time.

Timeline: Outreach materials developed in 2027, with engagement aligned to the 2027 survey cycle. The program deploys fully in 2028 and continues on an ongoing basis.

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GOAL 2: ICI RECYCLING - INCREASE CARDBOARD DIVERSION

Increase old corrugated cardboard (OCC) diversion from the commercial sector, where gaps in private hauler service and high seasonal volumes leave recoverable cardboard in the disposal stream.



Education and Outreach

Outreach to small businesses on compactor access and to commercial generators on cardboard separation, coordinated with the Goal 1 ambassador network.

Objective 2.1: Self-Serve Cardboard Compactor

By 2029, add one self-serve cardboard compactor in the county to give small businesses a convenient option and improve hauling efficiency.

Actions: Evaluate the recovery potential, costs, and revenues under this goal. Secure one or more compactor host sites; pursue EGLE grant funding for capital.

Responsible Parties: ECDPW.

Potential Partners: City of Petoskey; Mackinaw City; Big Stone Bay Fishery.

Resources Needed: Staff capacity; compactor host sites; capital of approximately $2,000 per 8-yard container; EGLE grant funding; and possible MRF improvements, such as an OCC screen, to handle added cardboard volume. The approach evaluation is a technical and financial analysis the county expects to complete with outside support.

Measurement: OCC tons diverted; cardboard recovery rate; number of compactors and sites in service.

Policy or Enforcement Needs: Strengthen the county ordinance to recover more material.

Timeline: Approach evaluation completed by 2028 and compactor in service by 2029.

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GOAL 3: MULTIFAMILY RECYCLING



Extend dual stream recycling service to multifamily housing in existing curbside communities and shift responsibility for service at private developments to landlords and property owners through ordinance and planning and zoning requirements.

Education and Outreach

Education and outreach to multifamily residents and property managers is already underway and will continue as service extends to new properties.

Objective 3.1: Extend Multifamily Service in Curbside Communities

Extend multifamily recycling service in existing curbside communities.

Actions: Assess the results of past efforts, including the Recycling Partnership grant that funded bags, education, and magnets but had no post-survey follow-up. Determine the best service approach for each property, whether an on-site cart depot, nearby drop-site bins, or dumpster service, and extend service accordingly. Align with zoning and master planning for county, communities, and native sovereign nations.

Responsible Parties: ECDPW; private multifamily property owners.

Potential Partners: Existing curbside communities.

Resources Needed: Staff capacity and education and outreach materials.

Measurement: Multifamily units with recycling access; number of communities or developments served; a map of multifamily buildings with access to recycling.

Policy or Enforcement Needs: None required for existing properties; new development requirements are addressed under Objective 3.2.

Timeline: Education and outreach are already underway. Additional multifamily communities that could receive curbside service identified in 2026.

Objective 3.2: Owner Responsibility Through Ordinance and Zoning

Place responsibility on private multifamily landlords and property owners to provide recycling service by developing ordinance and planning and zoning requirements for new site development to include space for recycling.

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Actions: Draft ordinance language and planning and zoning provisions in coordination with county Planning and Zoning. Determine the service approaches the requirements should accommodate, such as cart depots, nearby drop-site bins, or dumpster service.

Responsible Parties: ECDPW; private multifamily property owners; the County Planning and Zoning Department.

Potential Partners: County Planning and Zoning; city and township planning departments where applicable.

Resources Needed: Staff capacity, education and outreach materials, and ordinance and zoning support. Developing this language is legal and planning work the county expects to complete with contracted support.

Measurement: Ordinance and provisions proposed and enacted; multifamily units gaining recycling access under the new requirements.

Policy or Enforcement Needs: Ordinance and planning and zoning requirements obligating new developments to include recycling space.

Timeline: Proposed ordinance and planning and zoning provisions developed by 2028 and enacted by 2030.

GOAL 4: RESIDENTIAL CURBSIDE RECYCLING EXPANSION

Expand residential curbside recycling service into communities that do not currently receive it, adding both households served and recyclables recovered.

Education and Outreach

Resident-facing outreach making the case for curbside service, with attention to how best to reach residents and renters, for example through mailers, timed ahead of township budget decisions each August.

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Objective 4.1: Expand to New Townships

Expand residential curbside recycling service to new communities.

Actions: Identify target communities. Conduct an assessment survey in 2027 and make the case for curbside service to residents and elected officials. Apply for EGLE grant funding for a new collection truck in 2028. Procure new carts and bins with township contributions. Community budgets are developed in August, which shapes the outreach calendar.

Responsible Parties: ECDPW; participating townships, whose involvement will require budget commitments and political will.

Potential Partners: Identified target communities; EGLE (grant funding).

Resources Needed: Staff capacity; an estimated $360,000 to $380,000 for a new collection truck plus carts and bins; EGLE grant funding, with the application in 2028; and township contributions toward carts and bins. Survey design and grant preparation may draw on outside planning support so the case to townships lands before their August budget cycles.

Measurement: Number of new townships served, with a target of three; curbside households added; recyclables collected.

Policy or Enforcement Needs: Township budget support.

Timeline: Assessment survey and outreach in 2027; EGLE truck grant application in 2028; service expanded to three townships with the new truck in service by January 2032.



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GOAL 5: DROP-SITE RECYCLING ACCESS

Increase access to and recovery of recyclables by expanding the drop-off site network, both within the county and, where practical, in partnership with neighboring communities.



Education and Outreach

Site-level signage and host education to keep contamination down, plus public communication as each new site opens.

Objective 5.1: Expand Recycling Access with New Drop-Off Sites

Establish additional drop-off sites in underserved areas.

Actions: Develop an implementation plan to secure site hosts by 2030, leveraging existing relationships. Build drop-site bins into the capital budget at one site per year. Establish site host and management practices that reduce littering and contamination and share contamination best practices among hosts. Recruit and retain volunteers through a survey drawing on the ambassador pool, community service programs, honor societies, and paid drop-site support, while improving enforcement, surveillance, and follow-up.

Responsible Parties: ECDPW.

Potential Partners: Communities with underserved areas.

Resources Needed: Staff capacity; capital budget for drop-site bins at roughly $40,000 per site for three bins, plus fencing, pavement, and signage; EGLE infrastructure grant funding; and site hosts with volunteer or management support, including costs for monitoring, surveillance, and enforcement follow-up.

Measurement: Number of new drop-off sites in service, with a target of three by 2030; recyclables recovered; service-area coverage.

Policy or Enforcement Needs: Site host agreements with contamination and enforcement protocols.

Timeline: First new site in service in 2028, with each additional site in service one year following.

Objective 5.2: Out-of-County Service

Explore opportunities to provide collection services to communities outside the county.

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Actions: Identify neighboring counties facing benchmark recycling standard requirements where Emmet County capacity could serve regional needs. Initiate conversations with those counties, evaluate the truck and bin investment that out-of-county service would require, and negotiate intergovernmental agreements where a partnership makes sense.

Responsible Parties: ECDPW.

Potential Partners: Counties in the region with benchmark recycling standard requirements to meet.

Resources Needed: Staff capacity, plus truck and bin infrastructure investment if service extends beyond county lines.

Measurement: Recyclables recovered; service-area coverage; intergovernmental agreements executed.

Policy or Enforcement Needs: Intergovernmental agreements established.

Timeline: Exploration begins in 2027 and continues on an ongoing basis.

Objective 5.3: Cardboard Compactor at an Existing Drop Site

Explore and potentially establish one self-serve cardboard compactor at an existing drop-site host by 2029. This is the same compactor project identified under objective 2.1 (commercial/institutional recycling); it is referenced here because it also improves collection and hauling efficiency at the drop-site.

Actions: Evaluate current drop-site hosts for suitability, secure a host agreement, and pursue grant or capital funding for the unit.

Responsible Parties: ECDPW.

Potential Partners: Current drop-site hosts, such as Bear Creek Commons, the D&W site, the Harbor Springs site, and others as applicable.

Resources Needed: Staff capacity; grant or capital budget for one self-serve compactor by 2028; site hosts with volunteer or management support.

Measurement: Cardboard volume capacity added.

Policy or Enforcement Needs: Site host agreements with contamination and enforcement protocols.

Timeline: One self-serve cardboard compactor in service by 2029.

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GOAL 6: ORGANICS & FOOD WASTE

Reduce food waste, increase food rescue, expand recovery capacity and access options, and improve end markets for finished compost. The partner network for this goal is broad, and engaging that many partners requires significant capacity, which is reflected in the longer implementation timeframe.



Education and Outreach

The Reduce, Rescue, Compost campaign under Objective 6.1 captures the education and outreach intended to support goal 6. This will be supported by Give All Food A Future outreach and food waste prevention educational resources developed by the county.

Objective 6.1: Reduce, Rescue, Compost Education Campaign

Develop and launch a Reduce, Rescue, Compost education campaign as the centerpiece of the county's organics outreach.

Actions: Develop campaign materials in 2027, then launch the campaign countywide in 2028 with food-waste-prevention education delivered alongside food-rescue partners.

Responsible Parties: ECDPW.

Potential Partners: Food pantries including Manna, Goodwill of Northern Michigan, and other food banks; EGLE; the Michigan Organics Council; the 10-county Organics Consortium; SEEDS; Networks Northwest; local communities; LTBB; and Emmet County Michigan State University Extension.

Resources Needed: Staff capacity and education and outreach materials.

Measurement: Food waste reduced; food rescued in pounds or tons; campaign reach across residents and businesses.

Policy or Enforcement Needs: Possible ordinance and zoning support.

Timeline: Materials developed in 2027; campaign launched in 2028.

Objective 6.2: Expand the GAFAF Program

Expand the Give All Food A Future program to grow residential and commercial food-scrap recovery, adding two to three GAFAF drop-off sites by 2030.

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Actions: Grow residential and commercial participation, identify and secure new drop-off site hosts, and install cart, shed, and signage infrastructure at each new location.

Responsible Parties: ECDPW.

Potential Partners: New drop-off site hosts.

Resources Needed: Drop-off site infrastructure, including carts, sheds, and signage, along with host agreements.

Measurement: GAFAF participation; number of new sites added; food scraps recovered.

Policy or Enforcement Needs: Host agreements for each new site.

Timeline: Up to three GAFAF drop-off sites added by 2030.

Objective 6.3: Compost Facility Expansion

Expand and improve composting infrastructure at the county facility. This is the largest single undertaking in this Plan.

Actions: Develop and refine a conceptual plan. Model the system design, equipment, infrastructure, site work, and costs, then model operating costs and determine a funding mechanism. Secure capital funding, determine the operator approach, whether in-house or contracted, and bid out capital improvements or a public-private partnership.



Responsible Parties: ECDPW.

Potential Partners: Public or private sector capital improvement partners and operating partners.

Resources Needed: Capital for composting infrastructure improvements, with candidate funding sources including EGLE, the U.S. Department of Agriculture, or foundation grants, or a millage for capital and operations. Work of this scope requires contracted engineering, design, and financial modeling support alongside county staff.

Measurement: Organics recovery capacity added; compost produced and moved to end markets.

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Policy or Enforcement Needs: Possible ordinance or zoning support as applicable; a funding mechanism decision, potentially including a millage.

Timeline: Design, partnering, and bidding underway by 2028; funding and financing secured in 2029; construction begins by 2030.

Objective 6.4: Residential Collection Pilot

Explore a residential pilot program for food-scrap and yard-debris collection.

Actions: Design the pilot, recruit municipal and hauler partners, complete procurement, and update policies as needed. The effort requires close work with the Petoskey and Harbor Springs Parks and Recreation and Public Works departments, which currently manage yard debris seasonally.

Responsible Parties: ECDPW.

Potential Partners: Contracted haulers; affected municipalities, including Petoskey and Harbor Springs.

Resources Needed: Staff capacity, pilot-program funding, and trucks and carts for residential collection.

Measurement: Pilot designed and ready to launch; households enrolled and organics collected once underway.

Policy or Enforcement Needs: Municipal ordinance updates, where needed.

Timeline: Design, partnering, procurement, and policy updates starting in 2029 with the pilot ready to launch by 2030.

Objective 6.5: End-Market Improvements and Food Rescue

Explore and implement end-market improvements for finished compost in collaboration with food-rescue organizations.

Actions: Develop end-market improvements and collaborate with and support food-rescue organizations.

Responsible Parties: ECDPW.

Potential Partners: Manna; Feeding America; Goodwill of Traverse City; Greater Lansing Food Rescue.

Resources Needed: Staff capacity, with a possible app partnership to improve recovery.

Measurement: Compost end-market volume; food rescued through partner organizations.

Policy or Enforcement Needs: None anticipated at this time; policy tools are evaluated separately under Objective 6.6.

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Timeline: Ongoing throughout the planning period.

Objective 6.6: Organics Policy Tools

Evaluate organics policy tools from the US Composting Council (USCC), ReFED, and the Institute for Local Self-Reliance (ILSR) to identify the best-fit approach for Emmet County.

Actions: Explore the available tools, discuss them internally and with partner organizations, and develop a pro and con table comparing the benefits and costs of each policy approach.

Responsible Parties: ECDPW.

Potential Partners: USCC; ReFED; ILSR; the Michigan Organics Council.

Resources Needed: Staff capacity.

Measurement: Study of policy tools completed with recommended approaches delivered.

Policy or Enforcement Needs: Possible ordinance or zoning considerations arising from the best-fit approach.

Timeline: Study and recommended approaches complete by 2028.

GOAL 7: DISASTER DEBRIS MANAGEMENT

Develop a best-practice checklist and resources for disaster debris management, aligned with the county's Hazard Mitigation Plan, to better prepare the county for an emergency.

Education and Outreach

The checklist and other resources developed under the objectives of this goal will provide reuse and recycling guidance to residents and businesses.

Objective 7.1: Emergency Operations Center (EOC) Roles and Partner Coordination

Define who supports the Emergency Operations Center with materials decisions and regulatory coordination.

Actions: Engage partners by continuing bi-annual meetings that sustains relationships and keeps roles current between incidents.

Responsible Parties: The Emmet County Emergency Management Department, with support from ECDPW.

Potential Partners: County Emergency Management and the EOC; relevant agencies; contractors including haulers, grinders, and C&D, white goods, and HHW processors.

Resources Needed: Staff capacity in coordination with Emergency Management.

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Measurement: Roles defined and documented; bi-annual partner meetings held.

Policy or Enforcement Needs: Integration with the county Hazard Mitigation Plan.

Timeline: Roles defined in 2027, with bi-annual coordination meetings beginning that year and continuing on an ongoing basis.

Objective 7.2: Public Guidance and Messaging

Prepare reuse-and-recycling-first public messaging consistent with EGLE storm-debris guidance, including guidance on separating material.

Actions: Develop the guidance document, share it with partners for review and feedback, refine it, then finalize and distribute it. Supporting Emergency Management by creating a communications plan to carry the guidance to residents, businesses, and municipal leadership.

Responsible Parties: ECDPW; the Emmet County Emergency Management Department.

Potential Partners: County Emergency Management and the EOC; relevant agencies; contractors including haulers, grinders, and C&D, white goods, and HHW processors.

Resources Needed: Staff capacity and outside planning support for guidance development.

Measurement: Guidance document completed and distributed to partners and communities.

Policy or Enforcement Needs: Consistency with EGLE storm-debris guidance and the county Hazard Mitigation Plan.

Timeline: Working group formed in 2027; guidance completed and distributed in 2028.

GOAL 8: SPECIAL MATERIALS

Increase diversion of special and hard-to-recycle materials. The closure of the area's last Habitat for Humanity ReStore by summer 2026 removes the main local outlet for used building materials and household goods, which strengthens the case for several objectives below.



Education and Outreach

Partner and generator outreach on reuse and deconstruction options, HHW reuse program promotion if adopted, and battery-safety education for residents.

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Objective 8.1: End Markets for Hard-to-Recycle ICI Materials

Explore end-market opportunities for shingles, C&D materials, and other hard-to-recycle ICI materials, while advocating for end-market development at the state level.

Actions: Conduct ongoing outreach and attend regional, state, and national events to stay current with end-market trends and to network with potential end markets.

Responsible Parties: ECDPW.

Potential Partners: Building-material reuse and deconstruction organizations; regional organizations and state agencies; catalyst communities.

Resources Needed: Staff capacity, plus registration and travel costs for events.

Measurement: End markets identified and developed.

Policy or Enforcement Needs: State-level advocacy for end-market development.

Timeline: Ongoing throughout the planning period.

Objective 8.2: Construction-Material Redistribution and Deconstruction

Identify county and regional partners for construction-material redistribution, prioritizing building relocation and deconstruction for reuse over disposal.

Actions: Research potential partners and engage them directly.

Responsible Parties: ECDPW.

Potential Partners: Building-material reuse and deconstruction organizations; regional organizations and state agencies; local partners such as Preservation 49740.

Resources Needed: Staff capacity.

Measurement: Partners identified, meetings held, and material types included.

Policy or Enforcement Needs: Demolition-permit and planning-and-zoning collaboration, with potential ordinance changes.

Timeline: Partner engagement begins in 2028 and continues on an ongoing basis.

Objective 8.3: Household Hazardous Waste Services

Evaluate expansion of household hazardous waste (HHW) services, including reuse programs that safely redistribute household chemicals to reduce disposal costs.

Actions: Research HHW service models and reuse programs, then identify the approaches that fit Emmet County.

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Responsible Parties: ECDPW.

Potential Partners: HHW service providers and reclaimers; regional organizations and state agencies.

Resources Needed: Staff capacity; possible grant, extended producer responsibility (EPR), or community funding; and possible intergovernmental agreements.

Measurement: Program participants; pounds reused and safely disposed; number of new service providers engaged.

Policy or Enforcement Needs: A possible millage or other funding mechanism, and possible state policy or EPR support for capital and operating costs.

Timeline: Research begins in 2028 and continues on an ongoing basis.

Objective 8.4: Battery Collection and Recovery

Research opportunities to remove batteries from the waste and recycling streams and expand safe collection and recovery.

Actions: Promote and improve awareness of existing battery drop-off containers within the county, research battery removal and safe collection options, connecting with the NextCycle Michigan consumer battery accelerator and the Solid Waste Association of North America (SWANA) battery workgroup.

Responsible Parties: ECDPW.

Potential Partners: Local units of government; E-waste and battery service providers; the NextCycle Michigan consumer battery accelerator; regional organizations and state agencies; the SWANA battery workgroup.

Resources Needed: Staff capacity.

Measurement: Batteries recovered by unit, pound, and chemistry type to the extent possible; additional recovery opportunities, events, services, and host sites tracked.

Policy or Enforcement Needs: Engagement with potential state consumer battery EPR efforts.

Timeline: Research collection expansion and promotion begin in 2027 and continue on an ongoing basis.

Objective 8.5: Pleasantview Road Reuse Evaluation

Evaluate the economic, environmental, and social benefits of a reuse component at the Emmet County Pleasantview Road Drop-off Center, covering building materials, textiles, household goods, and more.

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Actions: Research comparable programs, connect with ECDPW-managed reuse centers in Minnesota and elsewhere, and complete an economic and environmental impact study that includes a conceptual plan, modeled recovery volumes, capital and operating costs, and a recommended cost model.

Responsible Parties: ECDPW.

Potential Partners: Building-material reuse and deconstruction organizations; thrift stores; the ReVamp Clothing Swap Festival; regional organizations and state agencies.

Resources Needed: An economic and environmental impact study, conceptual plan, and site design, contracted out where staff capacity or specialized expertise is the constraint.

Measurement: Feasibility of a reuse component established.

Policy or Enforcement Needs: ECDPW Board and Board of Commissioners approval, with capital secured for construction if the evaluation supports it.

Timeline: Evaluation in 2027.

Objective 8.6: Textile Recovery Partnerships

Identify novel technologies that use textiles as feedstock and explore reuse and recycling partnerships and end markets.

Actions: Research textile-recovery technologies, consider NextCycle Michigan textile team connections, and connect with ReVamp for event-style recovery and reuse.

Responsible Parties: ECDPW.

Potential Partners: The ReVamp Clothing Swap Festival for event-style reuse; NextCycle Michigan textile teams; local nonprofits with textile needs such as bedding and clothing.

Resources Needed: Staff capacity.

Measurement: Partner connections made; end markets explored; pounds recovered and reused.

Policy or Enforcement Needs: Unknown at this time; needs will be revisited as partnerships take shape.

Timeline: Partnerships explored beginning in 2027 and continuing on an ongoing basis.

Objective 8.7: Transfer-Station Upgrade Return on Investment (ROI)

Explore the ROI of transfer-station upgrades to extract high-value materials such as metals, including a grapple claw, metal detection, and an expanded tipping area for future consideration.

Actions: Model the return on investment for candidate upgrades.

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Responsible Parties: ECDPW.

Potential Partners: Scrap metal service providers; equipment manufacturers and installation services; grant funders.

Resources Needed: Staff capacity, or funds to contract out a study and conceptual plan covering capital costs, operating costs, and ROI.

Measurement: Expected ROI for upgrades determined; pounds of material recovered.

Policy or Enforcement Needs: Unknown at this time; needs will be revisited once the ROI modeling concludes.

Timeline: Modeling runs from 2027 through 2028.

GOAL 9: DATA AND PERFORMANCE TRACKING

Strengthen data gathering and enforcement mechanisms to track progress and evaluate whether the goals in this Plan are being met.

Education and Outreach

Reporting outputs, including the quarterly MMPC data report and annual review, will communicate progress to partners and the public.

Objective 9.1: Municipal Compost-Site Tracking

Develop better tracking systems for municipal compost-site volumes.

Actions: Develop and implement new or enhanced tracking procedures to capture the volume handled at municipal compost sites. This work should be coordinated with the county's parallel organics study to align reporting formats and avoid duplication.

Responsible Parties: ECDPW.

Potential Partners: Municipal compost sites.

Resources Needed: Staff capacity and data tracking systems.

Measurement: All applicable metrics, including people served and cubic yards or pounds recovered.

Policy or Enforcement Needs: No new policy required. Tracking would be established through coordination with municipal partners as part of the county's broader data collection effort.

Timeline: New or enhanced tracking procedures in place by 2028.

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Objective 9.2: Commercial Data Availability

Explore the availability of commercial recycling data.

Actions: Research data sources and conduct outreach to businesses, the Chamber of Commerce, and EGLE.

Responsible Parties: ECDPW.

Potential Partners: Businesses; the Chamber of Commerce; EGLE.

Resources Needed: Staff capacity and data tracking systems.

Measurement: All applicable metrics; commercial data sources identified and incorporated.

Policy or Enforcement Needs: Unknown at this time; needs will be revisited as the research concludes.

Timeline: Research begins in 2027 and continues on an ongoing basis.

Objective 9.3: Enforcement Mechanisms

Strengthen enforcement mechanisms to better track progress.

Actions: Explore examples and best practices with the ECDPW Board, Board of Commissioners, Sheriff's office, and civil counsel.

Responsible Parties: ECDPW.

Potential Partners: ECDPW Board; Board of Commissioners; Sheriff's office; civil counsel; contracted expertise.

Resources Needed: Staff capacity and data tracking systems. Legal expertise will be needed to draft and implement the resulting instruments.

Measurement: Enforcement mechanisms identified, adopted, and applied as appropriate.

Policy or Enforcement Needs: Likely an ordinance, hauler licensing, or site-host agreements, as appropriate.

Timeline: Best-practice review begins in 2027 and continues on an ongoing basis.

Objective 9.4: Evaluation Cadence

Evaluate whether the goals set in this Plan are being achieved.

Actions: Conduct an annual review of metrics and progress and provide a quarterly data report to the MMPC.

Responsible Parties: ECDPW.

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Potential Partners: ECDPW Board; Board of Commissioners; Sheriff's office; civil counsel; contracted expertise.

Resources Needed: Staff capacity and data tracking systems.

Measurement: Annual and/or quarterly progress reporting delivered on schedule, across all applicable metrics including people served and volumes recovered.

Policy or Enforcement Needs: An established cadence for evaluation and reporting.

Timeline: Annual review of metrics and a quarterly data report to the MMPC, ongoing.

MMP GOAL TIMELINE

Table 2-2 summarizes when each goal and objective in this Plan is expected to begin and, where applicable, be completed over the 2027–2032 planning period.[13] Some objectives are ongoing or longer-term and are not expected to be finished within this period. For these, success is measured by documented progress toward the objective. To make sure the Plan stays on track, ECDPW will review progress on every goal each year. The annual review will compare actual progress against the milestones in Table 2-2 and the measurements listed for each objective.

Table 2-2: Emmet County Goal Implementation Timeline

GOAL #	ACTIVITY / DESCRIPTION	2027	2028	2029	2030	2031	2032	NOTES
Overarching: Increase the MSW Recycling Rate								
0.1	Adopt a County Recycling Target	x						Complete within 1 year of Plan approval
0.2	Increase Recovery Toward the State Goal	x	x	x	x	x	x	Annual progress; interim goal 30% by 2029, ultimate goal 45%
Goal 1: ICI Recycling: Parallel Study								
1.1	Recurring Parallel Study	x		x		x		Survey repeats every two years; first cycle completed 2025-2026
1.2	Recycling Ambassador Network	x	x	x	x	x	x	Materials developed 2027; fully deployed 2028 and ongoing
Goal 2: ICI Recycling: Increase Cardboard (OCC) Diversion								
2.1	New Self-Serve Cardboard Compactor Site for Small Businesses		x	x				Compactor evaluation complete by 2028 and in service by 2029
Goal 3: Multifamily Recycling								
3.1	Extend Multifamily Service in Curbside Communities	x						Outreach underway; communities identified 2026-2027
3.2	Owner Responsibility Through Ordinance and Zoning		x	x	x			Provisions developed by 2028; enacted by 2030

[13] The planning period begins after EGLE's approval of this Plan, which is anticipated in 2027. The years shown in Table 2-2 assume that start. If approval occurs later, goal timelines will shift by the length of any delay.

GOAL #	ACTIVITY / DESCRIPTION	2027	2028	2029	2030	2031	2032	NOTES
Goal 4: Residential Curbside Recycling Expansion								
4.1	Expand to New Townships	x	x	x	x	x	x	Assessment 2027; grant application 2028; service expanded by 2032
Goal 5: Drop-Site Recycling Access								
5.1	Expand with New Drop-Off Sites		x	x	x			First site 2028; each additional site 1 yr following; 3 by 2030
5.2	Out-of-County Service	x	x	x	x	x	x	Exploration begins 2027; ongoing
5.3	Cardboard Compactor at Existing Drop Site		x	x				One self-serve compactor in service by 2029
Goal 6: Organics & Food Waste								
6.1	Reduce, Rescue, Compost Education Campaign	x	x					Materials developed 2027; campaign launched 2028
6.2	Expand GAFAF Program	x	x	x	x			Up to 3 GAFAF sites added by 2030
6.3	Compost Facility Expansion	x	x	x	x			Design/bidding by 2028; funding 2029; construction begins 2030
6.4	Residential Food-Scrap Collection Pilot			x	x			Pilot ready to launch by 2030
6.5	End-Market Improvements and Food Rescue	x	x	x	x	x	x	Ongoing throughout planning period
6.6	Organics Policy Tools	x	x					Study and recommendations complete by 2028
Goal 7: Disaster Debris Management								
7.1	EOC Roles and Partner Coordination	x	x	x	x	x	x	Roles defined 2027; bi-annual coordination meetings begin 2027 and ongoing
7.2	Public Guidance and Messaging	x	x					Working group formed 2027; guidance completed and distributed 2028
Goal 8: Special Materials								
8.1	End Markets for Hard-to-Recycle ICI Materials	x	x	x	x	x	x	Ongoing throughout planning period
8.2	Construction-Material Redistribution and Deconstruction		x	x	x	x	x	Partner engagement begins 2028; ongoing
8.3	HHW Services		x	x	x	x	x	Research begins 2028; ongoing
8.4	Battery Collection and Recovery	x	x	x	x	x	x	Research and expansion begin 2027; ongoing
8.5	Pleasantview Road Reuse Evaluation	x						Evaluation in 2027

GOAL #	ACTIVITY / DESCRIPTION	2027	2028	2029	2030	2031	2032	NOTES
8.6	Textile Recovery Partnerships	x	x	x	x	x	x	Exploration begins 2027; ongoing
8.7	Transfer-Station Upgrade ROI	x	x					Modeling runs 2027 through 2028
Goal 9: Data and Performance Tracking								
9.1	Municipal Compost-Site Tracking	x	x					New tracking procedures in place by 2028
9.2	Commercial Data Availability	x	x	x	x	x	x	Research begins 2027; ongoing
9.3	Enforcement Mechanisms	x	x	x	x	x	x	Review begins 2027; ongoing
9.4	Evaluation Cadence	x	x	x	x	x	x	Annual review and quarterly reporting, ongoing

STATE POLICY AND SUPPORT

State policy, funding, and regulation have a direct effect on Emmet County's ability to carry out its materials management programs. This component is optional under the Materials Management Plan, and the county has chosen to include it because decisions made at the state level can expand or limit what the county is able to accomplish locally.

GOAL: Emmet County supports state-level action for policy, funding, and regulatory changes that advance local materials management.

The MMPC will review proposed state legislation, rules, and funding programs as they arise and evaluate each one based on its potential impact and relevance to the goals of this Plan. When the MMPC finds that state-level action supports those goals, it may provide feedback or recommendations, submit comments on the proposed policy, or recommend that the county issue a resolution in support. This approach gives the county a consistent framework for engaging on state issues and preserves its judgment to decide which specific initiatives to support.

POTENTIAL OBJECTIVES: The policy objectives below are potential opportunities for the county to consider supporting during the planning period.

1. Extended Producer Responsibility as a more sustainable funding model for recycling statewide
2. State funding to expand local materials management infrastructure and access to collection
3. Legislation or funding mechanisms that bring Michigan's landfill disposal costs more in line with other states
4. Statewide hauler licensing and reporting requirements that improve the reliability of materials management data
5. Changes to state recycling policy that improve collection of managed materials

As stated, these are examples of issues that may come before the Emmet County MMPC and their inclusion reflects areas of interest rather than positions the county has adopted.

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Section 3 - Mechanisms

This section outlines the funding, enforcement, and siting mechanisms that support the ongoing operation of the materials management programs in Emmet County as well as implementation of the goals described in Section 2 - Materials Management Goals.

3.1 - FUNDING & ENFORCEMENT MECHANISMS

Michigan law allows counties and municipalities in a planning area to fund and enforce materials management programs through several mechanisms, including but not limited to franchise agreements, intergovernmental agreements, millages, service fees and assessments, ordinances, hauler licensing mechanisms, and supplemental fees.

The following subsections, "Funding Sources" and "Enforcement Mechanisms," establish the MMP framework for ongoing operation of the materials management programs in Emmet County as well as implementation of the goals described in Section 2 - Materials Management Goals.

3.1.1 - Funding Sources

Emmet County relies on a diversified set of funding mechanisms to provide materials management programs and services to residents, businesses, and visitors to the community. These sources of funding will continue to serve as the backbone supporting materials management programs in the county, operated by both public agencies as well as private sector service providers. Additional funding tools may be considered for new or expanded infrastructure and program offerings outlined in this MMP and Emmet County's consideration and potential utilization of those tools is consistent with this MMP.

For the entire county, ECDPW programs and services serve as the hub for many of the materials management programs that are key to the MMP goals. To make this possible, the ECDPW operates as an Enterprise Fund, under this integrated collaborative structure to support financial sustainability across program areas and stabilize operations when any single revenue source fluctuates. Its decades long track record demonstrates the success of this approach.

As described below, and further expanded in the following Enforcement Mechanisms section, this highly successful and award-winning approach is built around a governance model that allows all participants in the system to access the necessary funding mechanisms required to capitalize and operate the targeted materials management systems and to follow-through in advancing each of the MMP goals. That governance model is foundational to the past, current, and future funding system for the MMP. Following are details on the ECDPWs operations and the funding mechanisms as they are currently deployed.

As shown in Table 3-1, total ECDPW revenue has remained relatively stable between 2021 and 2025, though there have been shifts in different revenue streams. For example, revenue from the sale of recyclables dropped from $1.13 million to $630,000 as commodity markets softened, while processing for other counties grew from $373,000 to $683,000, and curbside recycling service fees

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increased from $436,000 to $566,000. This is an example of the resilience and sustainability provided by the funding system.

The county's approach to funding is built around several operating principles. ECDPW has been the primary materials management center for the county, its communities and businesses as well as some of the surrounding area for decades. Also, it has been used by private haulers for the waste and recyclables they collect in the county as well as surrounding region. The economies of scale achieved has enabled cost-effective operations for the materials management solutions that are central to the MMP goals, not only for the county but for the entire area.

Materials that can't be diverted are compacted and hauled long distances at affordable rates to the larger region's abundant disposal capacity – assuring a disposal solution for solid waste in the county. Materials that can be recycled are sorted and processed to maximize market value. In 2025, materials sales accounted for 25% of recycling revenue. In strong market years, that share can exceed 50%, and surplus revenue has historically been directed toward infrastructure improvements and program expansion.

The Solid Waste Ordinance's flow control and hauler licensing provisions direct solid waste generated in Emmet County to the Transfer Station, where a share of tip fee revenue is allocated to support programs that cannot sustain themselves through fees or sales alone, including Household Hazardous Waste collection events. Fees for service cover waste transfer, disposal costs, and certain hard-to-recycle materials.

Contracted services, including municipal curbside recycling, drop-site operations, and processing for out-of-county communities, provide a consistent revenue stream that extends the county's operational footprint and further increases economies of scale for the entire operation. Grant funding is pursued to support new or expanded programs and to reduce the county's share of capital investment when launching infrastructure projects.

As the Plan moves into implementation, projects outlined in the MMP goals that require significant capital or program investment will likely call for additional funding tools beyond the current tools already in place. Supplemental funding sources to evaluate include a capital or operating millage, bonding, private financing (e.g. commercial bank loan), expanded grant pursuit, and other mechanisms appropriate to the scope of specific projects.

Table 3-1: Fiscal Year Revenue Source Comparison of 2021 and 2025

REVENUE SOURCE	2021	2025
Sale of Recyclables	$1,127,596	$630,125
Processing for Other Counties	$373,179	$682,539
Curbside Recycling Services	$436,102	$565,984
Waste Transfer Revenues	$306,561	$299,881
Center Recycling Fees	$175,899	$263,553

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Compost-Related & Miscellaneous	$59,827	$59,336
Grant Income	$600	$10,965
Revenue	**$2,479,764**	**$2,510,601**
Expenses	**$2,213,586**	**$2,917,114**
Total	**$266,178**	**$(406,503)**

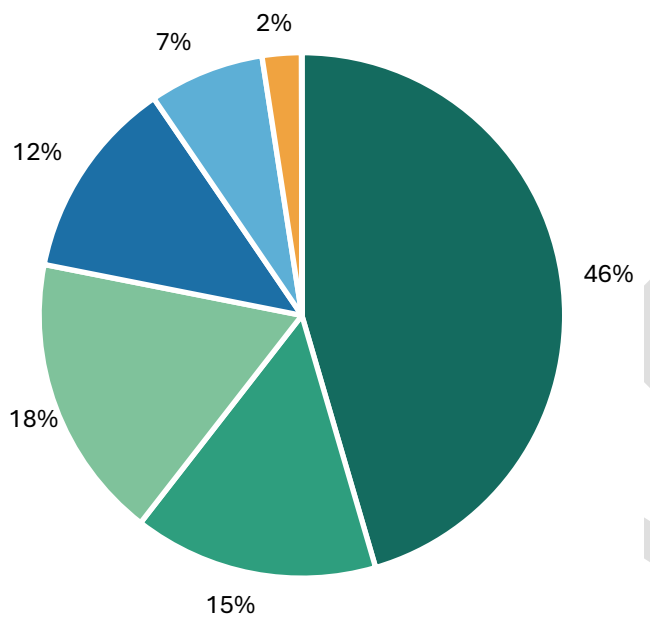


Figure 10: 2021 Recycling Revenue Sources

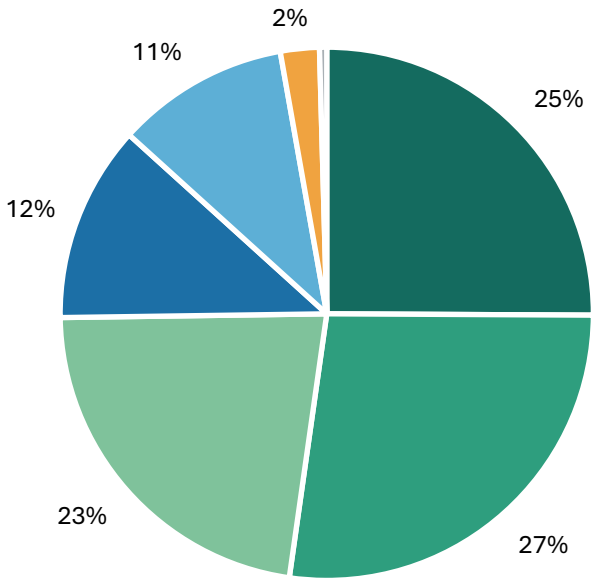


Figure 11: 2025 Recycling Revenue Sources

- Sale of Recyclables
- Processing for Other Counties
- Curbside Recycling Services
- From Waste Transfer Revenues
- Center Recycling Fees
- Compost-Related & Miscellaneous
- Grant Income

3.1.2 - Enforcement Mechanisms

Emmet County has developed a comprehensive, convenient and cost-effective approach to managing materials to prioritize access, highest and best use, and drive recovery through strong education and outreach programs. Emmet County's Solid Waste Ordinance provides for flow control of solid waste to Emmet County's Transfer Station. All solid waste haulers are required to be licensed, and the license provisions include Pay-As-You-Throw provisions, and the requirement to deliver all solid waste to the Emmet County Transfer Station.

Flow Control is critical to preserving the high level of recycling access, program offerings, and diversion from landfill that has proven so successful over the past 30+ years. It also creates a level

playing field by maintaining a solid waste disposal gate rate consistent for all, allowing independent haulers to compete effectively with large disposal companies. Tip fee revenue generated through flow control supports recovery programs and services, as described in Section 3.1.1 - Funding Sources.

While the loss of import/export authorizations that were a part of previous materials management planning threatens to weaken counties' abilities to enforce flow control provisions, the Emmet County enforcement mechanism for its flow control system has always established the county as the principal responsible party for implementation using a countywide ordinance authorized via intergovernmental authorization from local units in the county.

The county's Flow Control Approach has been built on the foundational authority of Michigan Law and the Michigan Constitution's deference to local government control – generally referenced as "home rule authority." All of the local units of government in the county (townships, charter townships, villages and cities) are empowered by Michigan Law to protect the public health, safety and welfare of their communities. Thus, the management of solid waste is the inherent responsibility of local government, whose authority in this area is derived from its police powers. Those local units are empowered to transfer that control via resolution, intergovernmental agreement or similar mechanisms to the county for specific areas of responsibility if it doesn't conflict with state law. Management of solid waste is one of these key areas of authorization and control that local units hold, except for specific elements retained by the state and identified in state statute, such as the siting of waste management facilities.

Emmet County has established this system of intergovernmental cooperation, enabling the county to adopt an ordinance, administrative rules, hauler licensing, and associated mechanisms. The system is built on clear authorization of those local unit powers and transfer of those powers to the county via intergovernmental agreements and resolutions. The assignment to the county includes "certain powers" that establish "a countywide system for regulating the collection, processing and disposal of solid waste and recyclable materials." Further language defines these powers to include licensing of waste haulers, regulating the collection and disposal of solid waste, establishing specifications for refuse collection containers, administering a tag and sticker program which places a surcharge on the cost of refuse collection, directing all solid waste to a county-designated facility or facilities and enforcement of the system.

The county has adopted an ordinance as so authorized to "protect the health, safety and general well-being of the citizens of Emmet County, enhance and maintain the quality of the environment, conserve natural resources and to prevent water and air pollution by providing for a comprehensive, rational and effective means of regulating the disposal of solid waste in the county" consistent with the provisions of the Michigan Law and the Michigan Constitution of 1963.

The county, through these powers of the Michigan Constitution of 1963 and Michigan Law, is further undertaking these delegated and shared measures on behalf of the Local Units. This authority is provided by Michigan's Intergovernmental Contracts Act 185, Public Acts of Michigan, 1957 (MCL 124.1–124.2), as amended. Under that authority, the county implements, administers, enforces, and develops a certain solid waste disposal system to service the residents of the county, in accordance

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with the provisions of the county's materials management plan as amended, as required by Michigan's Part 115, Materials Management, of NREPA (1994 PA 451), as amended by 2022 PA 69, codified at MCL 324.11501 et seq.

As part of its role as the principal responsible party for implementation of the MMP, the ordinance provides for definitions and Administrative Rules to support program development, operations and continuous improvement, consistent with long term programmatic goals of the county's system for materials management.

Finally, the ordinance provides for enforcement, identifies responsibilities for enforcement and specifies violations and remedies. As part of its implementation responsibilities as provided for in the MMP, the county intends to further develop its ordinance as well as its administrative rules and enforcement mechanisms provided for in the ordinance to advance all of the elements of the MMP and its goals, as appropriate.

This is expected to include establishment of an implementation roadmap for new program initiatives specified in the MMP and how they are operationalized (e.g. pilots, phasing, etc.) and how they are scaled for countywide deployment. This implementation roadmap will incorporate the necessary steps to update the ordinance, administrative rules, hauler licensing and other procedures and policies as required to ensure the effective implementation of the MMP and its goals.

3.2 - SITING PROCESS

3.2.1 - Purpose and Authority

This section establishes the procedure and criteria Emmet County will use to determine whether a proposed materials management facility, or an expansion of an existing materials management facility, is consistent with this MMP. It is included to satisfy Part 115's siting process requirement (MCL 324.11579). No materials management facility may be developed in Emmet County unless it is consistent with this Plan, and EGLE must deny an application for a facility that is not.

This section carries forward the siting process adopted in the *Emmet County Solid Waste Management Plan Update*, approved by the Board of Commissioners on January 14, 1999 and approved by the Michigan Department of Environmental Quality on March 15, 2000. That plan remains the county's operative solid waste management plan and its siting process is the most current version in force. Its substance is retained in this Plan, including the authorized facility types, the minimum siting criteria, the application requirements, the review timeline, and the 160-day backstop. The changes made are limited to the following:

- Agency names and statutory citations: the Michigan Department of Environmental Quality is now EGLE, and Part 115 was renumbered by the 2022 amendments.
- The facility type list expanded to the categories Part 115 now recognizes, and the consistency pathways stated EGLE's siting guidance describes.

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- Supplemental siting criteria added for an applicant without host approval, giving Pathway C a defined route to consistency.

The determination under this section establishes Plan consistency only. It is not a zoning approval, a building permit, or an EGLE authorization, and does not substitute for any of them.

3.2.2 - Administering Entity

The Materials Management Planning Committee determines whether a proposed facility is consistent with this Plan. ECDPW acts as the Agency; it receives applications and fees, performs completeness review, coordinates notice, prepares the written evaluation of the application against the applicable siting criteria, and transmits determinations. The Agency does not determine consistency.

Applications and fees are submitted to the Emmet County Department of Public Works, 200 Division Street, Petoskey, MI 49770. The 2000 plan directed the Board of Commissioners to appoint a Solid Waste Facility Siting Committee for each application, and provided that the Board would serve in its place if none was appointed. No standing Solid Waste Facility Siting Committee exists; the county's current boards and committees are the MMPC and the ECDPW Board. Rather than stand up a second review body for each application, this Plan assigns the determination to the MMPC and carries forward the Siting Committee's local representation as a required notice and participation list under the "Application and Review Procedure" subsection of this Plan.

Under MCL 324.11585(5), EGLE conducts an independent evaluation of consistency as part of its review of a registration, general permit, construction permit, or operating license application. An MMPC determination is the document the applicant submits to satisfy that requirement; it does not bind EGLE.

3.2.3 - Facility Types Authorized for Siting

Part 115 defines a materials management facility as a disposal area, a materials utilization facility, or a waste diversion center. This Plan authorizes the facility types identified in Table 3-2 to be sited in Emmet County. A facility type not listed may not be sited under this Plan; a Plan amendment is required first. The consistency pathways are discussed in the following subsection.

Table 3-2: Authorized Facility Types and Consistency Pathways

FACILITY TYPE	PART 115 CATEGORY	AUTHORIZED FOR SITING	PATHWAY
Type II landfill (municipal solid waste), county-sponsored	Disposal area	Yes; county-sponsored only	C
Solid waste processing and transfer facility (transfer station)	Disposal area	Yes	A for the existing county site; C otherwise
Small transfer facility (no EGLE construction permit and operating license required)	Disposal area	Yes	C
Materials recovery facility	Materials utilization facility	Yes	B

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Composting facility	Materials utilization facility	Yes	B
Anaerobic digester	Materials utilization facility	Yes	B
Waste diversion center	Waste diversion center	Yes	A
Type III landfill	Disposal area	No; Plan amendment required	Plan amendment required
Municipal solid waste incinerator	Disposal area	No; Plan amendment required	Plan amendment required
Innovative technology facility	Materials utilization facility	No; Plan amendment required	Plan amendment required

3.2.4 - Local Zoning and Applicable Ordinances

Emmet County regulates materials management primarily through its solid waste ordinance and its zoning ordinance. Solid Waste Ordinance No. 11-04 requires every waste hauler operating in the county to be licensed and to deliver solid waste to the Emmet County Transfer Station and sets disposal fees on a volume basis rather than a flat rate. The associated Solid Waste Administrative Rules designate the transfer station at 7363 South Pleasantview Road in Harbor Springs as the required delivery facility, allow an alternate licensed facility only during an emergency or mechanical failure, and require quarterly hauler reporting. Emmet County Zoning Ordinance No. 15-1 governs land use in the 12 townships for which the county administers zoning, with Section 26.20 regulating recycling facilities, resource recovery facilities, transfer stations, waste collection, and sanitary landfills as a single special use category, and Section 26.10 regulating junk, salvage, and scrap yards. Development of a facility also triggers the county Soil Erosion and Sedimentation Control Ordinance No. 14-1 where an earth change is involved.

Zoning authority within the planning area is divided, so the standards a proposed facility must satisfy depend on where it is located. Four townships administer their own zoning, namely Little Traverse, Pleasantview, Resort, and West Traverse, as do both cities and all three villages, and those ordinances differ in whether they name Part 115 facility types at all. Where county zoning applies, Section 26.20 sets only four standards, being a 300-foot setback from the road right of way, a 50-foot pile height limit, screening by ten feet of depth of mature vegetation, and a minimum of ten acres with 660 feet of lot width, which are less protective than the minimum siting criteria established later in this Plan. The ordinances the county relies on for siting review are listed in Appendix B.

3.2.5 - Consistency Pathways

Every application resolves through exactly one pathway. The Agency confirms the applicable pathway at completeness review.

Pathway A: Facilities and facility types identified in this Plan

Under MCL 324.11585(2), a disposal area or materials utilization facility is consistent with this Plan without further review if the specific facility or the facility type is identified in the Plan for that purpose. This Plan identifies:

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- Every disposal area, materials utilization facility, and waste diversion center lawfully operating in Emmet County on the effective date of this Plan and listed in the facility inventory prepared under MCL 324.11578(1)(f), for which the owner or operator has submitted the written acknowledgment required by MCL 324.11578(1)(g). The inventory is at Table 1-3a and Appendix A.
- Expansion of throughput or processing capability of the county's solid waste processing and transfer facility and materials recovery facility at 7363 South Pleasantview Road, Little Traverse Township, at or adjacent to the existing site. This carries forward the 2000 plan without change. Relocation of that facility to a new site is a new siting action under Pathway C.
- Waste diversion centers, of any size, anywhere in Emmet County. A waste diversion center remains subject to MCL 324.11521b and to applicable local zoning.

A facility lawfully operating on the effective date but not listed, including because the owner did not submit the acknowledgment, may be added to the inventory at any time by submitting that acknowledgment at no charge, and falls within Pathway A from the date of listing. Pathway A attaches to the facility as authorized: an expansion, an increase in authorized capacity, a change in facility type, or a relocation is a new siting action resolving under Pathway B or C, except as provided above for the county's Pleasantview Road facility and for waste diversion centers, while routine maintenance, equipment replacement, and operational change within the authorized footprint and capacity are not siting actions.

Pathway B: Local zoning compliance

Under MCL 324.11585(1), a materials utilization facility, or a disposal area that does not require an EGLE license or permit, is consistent with this Plan if it complies with a zoning ordinance included in this Plan and the owner or operator presents documentation of that compliance from the zoning authority to EGLE and to the county. Zoning compliance is the whole of the test; this Plan adds no further criteria under Pathway B.

Pathway B applies to materials recovery facilities, composting facilities, and anaerobic digesters. This carries forward the 2000 plan's treatment of source-separated recycling and compost processing facilities, which the 2000 plan left to the local unit of government with jurisdiction over the proposed site, and states it in the form Part 115 now requires.

The applicant submits a completed application identifying Pathway B, the applicable fee under the "Application Fee" subsection, and a zoning compliance letter from the zoning authority dated within 180 days, on letterhead and signed by the zoning administrator or other authorized official. The letter identifies the parcel and parcel identification number and the zoning district and provision under which the use is classified, states whether the use is permitted by right or requires discretionary approval, states that the facility complies with the ordinance and that all necessary approvals have been granted with any approval resolution and conditions attached, and confirms the authority's jurisdiction over the site.

Where the zoning authority confirms non-compliance, or declines to confirm compliance, the facility is not consistent with this Plan under Pathway B. The remedy lies with the zoning authority; the MMPC

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has no authority to review or substitute its judgment for a local zoning decision. The applicant may instead proceed under Pathway C.

Pathway C: Full Siting Process Review

Under MCL 324.11579(3)(b), a facility that is not within Pathway A and is not eligible for Pathway B is consistent with this Plan only through a Pathway C determination. The MMPC, and independently EGLE, must determine that this Plan authorizes the facility type. The facility must follow the application procedure and meet every minimum siting criterion. The facility must also have host community approval or meet the supplemental siting criteria. These are independent, alternative paths to that last element. An applicant without host community approval is not precluded on that basis. Meeting the supplemental siting criteria is sufficient on its own.

Pathway C applies to a county-sponsored Type II landfill, to relocation of the county's transfer station and materials recovery facility, to any other solid waste processing and transfer facility, and to a small transfer facility.

Burden of Demonstration

The burden of demonstrating consistency rests on the applicant as an affirmative duty. An application that does not affirmatively demonstrate each element of its pathway is not administratively complete. An application that cannot satisfy its pathway on its face is rejected without further substantive review, with the basis stated in writing.

3.2.6 - Capacity Exemptions

Under MCL 324.11579(2), a materials utilization facility need not be sited if the county demonstrates to EGLE that the planning area has available capacity sufficient to manage the materials identified in this Plan. Under MCL 324.11585(6), a landfill other than a captive Type III landfill need not be sited if there is at least 66 months of available solid waste disposal capacity. Emmet County relies on both.

- Disposal capacity. Section 1 - Planning Area Profile documents [#] months of solid waste disposal capacity available to the planning area.[14] If the documented capacity exceeds the required 66 months, no landfill is required to be sited during the planning period.
- Materials utilization capacity. Section 1 - Planning Area Profile documents that the county's materials recovery facility and compost facility have sufficient capacity to manage the recyclable material and organic material this Plan identifies as generated in the planning area. On that basis, no materials utilization facility is required to be sited during the planning period.

Relying on an exemption does not close a facility type to development. It means the county is not required to identify a site or to hold capacity for that type; a proposal for an authorized facility type is still reviewed under the applicable pathway. Part 115 provides no capacity-based exemption for a

[14] Remaining capacity is being confirmed through ongoing County outreach to the owners and operators of each receiving facility, as described in Appendix A. The final approved Plan will report remaining capacity as stated by the facilities.

solid waste processing and transfer facility, so every transfer facility proposal, including a small transfer facility, is reviewed under Pathway C.

3.2.7 - Minimum Siting Criteria

Every criterion in this Section must be answered in the affirmative for a facility reviewed under Pathway C to meet the minimum siting criteria. Each criterion is objective and measurable, and none is subject to variance, condition, or waiver by the MMPC or the Agency. Criteria A through U are carried forward from Attachment B to the 2000 plan siting mechanism. Table 3-3 states each criterion in summary; Appendix B reproduces the full text, which governs.

Table 3-3: Minimum Siting Criteria (Pathway C)

Criterion	Measured from / exceptions
A	The site is owned by the applicant or held under a long-term lease of 20 years or more from a state agency.
B	The site has frontage on, or direct access to, a paved county primary road or state trunk line designed to handle the type and volume of additional traffic associated with the facility.
C	No part of the site is within 100 feet of a regulated wetland under Part 303 of NREPA, measured from the parcel boundary.
D	No part of the site is within 100 feet of land enrolled under the Farmland and Open Space Preservation Act, Part 361, measured from the parcel boundary.
E	No part of the site is within 100 feet of a designated historic or archaeological area as defined by the State Historic Preservation Officer or a local historic district, measured from the parcel boundary.
F	No part of the site is within 100 feet of a 100-year flood plain, measured from the parcel boundary.
G	No part of the site is within 100 feet of a Wellhead Protection Zone around a municipal Type I public water supply, measured from the parcel boundary. Does not apply to a solid waste transfer station.
H	No part of the active work area is within 100 feet of any surface water, a beach contiguous to a lake or stream, an existing public utility easement, or an existing public right-of-way, per the Department's modification of 15 March 2000.
I	No part of the site is within 300 feet of a water well serving a dwelling, measured from the parcel boundary.
J	No part of the site is within 300 feet of a dwelling, duplex, apartment building, hospital, medical care facility, or foster care facility, measured from the parcel boundary.
K	No part of the site is within 300 feet of land held by, or subject to development restrictions held by, a land conservancy, measured from the parcel boundary.
L	No part of the site is within one-half mile of a school or educational establishment, measured from the parcel boundary. No enclosed-facility reduction applies.
M	No part of the site is within one-half mile of the specified recreation facilities listed in an appendix to this Plan, measured from the parcel boundary, reduced to 300 feet if an enclosed transfer or processing facility.
N	No part of the site is within one-half mile of Michigan Natural Features Inventory lands, measured from the parcel boundary, reduced to 300 feet if an enclosed transfer or processing facility.
O	No part of the site is within one-half mile of lands regulated under Parts 351 through 361 and Part 511 of NREPA, measured from the parcel boundary, reduced to 300 feet if an enclosed transfer or processing facility.
P	No part of the site is within one mile of the additional recreation lands listed in an appendix to this Plan, including state parks, licensed campgrounds, camps, wild and scenic river corridors,

Criterion	Measured from / exceptions
	and state designated natural rivers, measured from the parcel boundary, reduced to 300 feet if an enclosed transfer or processing facility.
Q	No part of the site is within 10,000 feet of a licensed public-use airport runway, measured from the parcel boundary. Waived if an enclosed transfer or processing facility.
R	The site provides setback, buffering, screening, and service access, with a signed statement of ongoing compliance. Landfills provide a 100-foot vegetation belt in mature forest cover, an interior earth berm at least 8 feet high sloped no steeper than 1:2 and vegetated, and a 10-foot service access area. All other facilities provide a 5-foot woody-plant vegetation belt plus a graduated buffer of 25 to 100 feet depending on adjacent zoning and whether a berm or wall is provided. Full dimensions appear in an appendix to this Plan.
S	The applicant submits a public services analysis identifying the services the facility requires, those available at the site boundaries, and documentation that the available services meet or exceed those required.
T	The applicant submits a signed statement of compliance with the Land Division Act, Part 91 soil erosion and sedimentation control, the Michigan Construction Code, state air and water pollution standards, and local wellhead protection, building, health, noise, and junk ordinances, as specified elsewhere in this Plan.
U	The applicant submits a signed statement, supported by a zoning compliance letter meeting the requirements described earlier in this section, that the facility is an authorized use under the zoning ordinance applicable to the site and has received, or is eligible to receive, all approvals required under it. The statement addresses compliance with the ordinance's non-locational provisions but not zoning regulation of the location of a materials management facility as a land use. Where no zoning ordinance applies to the site, the applicant states so, supported by written confirmation from the county and from the city, village, or township in which the parcel lies.

For criteria S, T, and U, submitting the required analysis or signed statement satisfies the criterion. The adequacy of the submittal is not used to determine whether the criterion has been met. This carries forward the 2000 plan. Each separation is measured as of the date the application was found administratively complete.

Terminology and reference updates within the criteria

The criteria from the 2000 siting process are unchanged in substance. The following references are updated to current agencies, statutes, and data sources, with no change to the standard applied:

- Michigan Department of Environmental Quality and DEQ become EGLE throughout. The Michigan Department of Natural Resources continues to exist and is not renamed.
- Criterion F: 100-year flood plains are identified from Federal Emergency Management Agency Flood Insurance Rate Maps and EGLE flood plain determinations rather than Michigan Department of Natural Resources (MDNR) flood plain maps, and as defined in the Part 115 administrative rules.
- Criterion I: well logs are filed with EGLE rather than the Geological Survey Division of the DEQ, which no longer exists.
- Criterion N: the MDNR Natural Features Inventory becomes the Michigan Natural Features Inventory, maintained by Michigan State University Extension. The Department of Natural Resources continues to conduct the environmental review for compliance with Part 365 of

NREPA, Endangered Species Protection. The 2000 plan's reference to "Act 365" is a reference to Part 365.

- Criterion O: the 2000 plan cites MCL 324.35101 twice. Parts 351 through 361 of NREPA run from MCL 324.35101 through MCL 324.36117; Part 511, Commercial Forests, is MCL 324.51101 et seq.
- Criterion Q: licensing of public-use airports is administered by the MDOT Office of Aeronautics rather than the Bureau of Aeronautics.
- Criterion T: the Michigan Subdivision Control Act is now the Land Division Act, 1967 PA 288, as amended.
- Criteria G, M through Q, and R distinguish between landfills and enclosed transfer or processing facilities. Read against Part 115 as amended, an enclosed materials recovery facility, composting facility, or anaerobic digester operating within a building is treated as an enclosed processing facility for purposes of those reductions.

Host Community Approval and Supplemental Siting Criteria

A Pathway C facility may satisfy this element of MCL 324.11579(3)(b) through host community approval. Host community approval is an agreement, resolution, letter, or other document showing that the governing body of the municipality where the facility is proposed has reviewed and approved development of that specific facility.

This Plan also allows a Pathway C facility to satisfy the requirement of MCL 324.11579(3)(b) by meeting the supplemental siting criteria below. MCL 324.11579(3)(b) permits this alternative. The supplemental siting criteria create a documented record of local engagement and specific impact mitigation. A Pathway C applicant that does not have host community approval must satisfy all of the following, along with the minimum siting criteria:

- Written notice of the proposed facility to the host municipality's governing body at least 90 days before submittal, an offer to meet, and a record of the notice, the offer, any meeting, and any response.
- At least one public informational meeting in the host municipality, noticed at least 15 days in advance by locally circulated newspaper publication and by mail to owners within 300 feet of the site boundary, with the notice, an attendance record, the materials presented, and a written summary of issues raised submitted to the Agency.
- A written response to each substantive issue raised by the host municipality or the public, identifying the change made in response or the reason none was made.
- An impact mitigation plan addressing traffic and road impacts, noise, odor, dust, litter, hours of operation, lighting, and screening, with each commitment stated as a condition the applicant accepts as a condition of the determination.
- Documentation of direct access from the proposed site to a designated all-weather truck route or state highway rather than a local residential street. For a county-sponsored Type II landfill or a solid waste processing and transfer facility, the documentation includes a traffic

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impact study by a licensed professional engineer addressing the haul route, peak and daily trip generation, intersection and pavement capacity, and proposed improvements, together with written comments from the road agency having jurisdiction.

- A buffer along each property line adjoining a residential use or district of not less than 150% of the setback the applicable zoning ordinance requires, or, where the ordinance is silent or no zoning ordinance applies, 150% of the buffer required by criterion R.
- Acceptance, as conditions of the determination, of semiannual reporting to the Agency for the first three years of operation and one third-party compliance audit, at the applicant's expense, within 24 months of commencing operation, reported to the MMPC and the host municipality.
- A written, enforceable community benefit commitment of demonstrable value to the host municipality, for example recycling drop-off access, household hazardous waste or bulky item collection, a road maintenance contribution, or a negotiated per-ton payment. The applicant proposes the measure. The MMPC evaluates only whether it bears a reasonable relationship to the facility's local impacts.

The MMPC will determine if these criteria are satisfied when the applicant demonstrates substantial compliance. Absence of municipal support or host community approval is not a basis for a determination of non-consistency where these criteria are met.

3.2.8 - Application and Review Procedure

Application contents

An applicant under Pathway C submits an administratively complete application and the application fee (below). An administratively complete application contains:

a) Type of facility (landfill, incinerator, processing facility, or transfer facility);
b) A legal description of all parcels included in the proposed disposal area;
c) Name, address, and telephone number for the applicant and parent company, the property owner (if different), the operator (if different), the designer or engineer, and the designated contact for the review;
d) Documentation of the applicant's ability to proceed with development and operation of all parcels involved;
e) General site location map(s), prepared by a registered professional architect, landscape architect, engineer, land surveyor, or community planner, showing parcel lines, scale, topography, natural features, access, and (within the distances the 2000 plan specifies) airport runways, water wells and wellhead protection areas, and residences, institutions, and historic or archaeological sites;
f) A detailed site plan showing the site as it exists and as proposed for use as a materials management facility, with conceptual engineering plans for construction;
g) A written narrative covering facility name and type, a general description of function and operations, and (where applicable) an EGLE pre-application meeting or advisory review summary and an environmental permits checklist.

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The environmental permits checklist at item 7(d) is carried forward, updated to the authorization types now issued under Part 115 and related parts. Where applicable, the checklist covers:

i. Well permit;
ii. Type II water supply permit;
iii. Type III water supply permit;
iv. On-site sewage disposal permit;
v. Soil erosion permit;
vi. Land division or subdivision approval;
vii. Waste disposal, storage, or monitoring wells permit(s);
viii. Sand dune mining permit;
ix. Permit to cut forest products;
x. Forestry use or special use permit;
xi. Easements for utilities and public agencies on state or federal lands;
xii. Dam construction permit;
xiii. Certificate of Public Convenience and Necessity for pipelines;
xiv. Air quality installation and operating permits;
xv. National Pollutant Discharge Elimination System permit;
xvi. Groundwater discharge permit;
xvii. Wastewater collection and treatment facilities construction permit;
xviii. Great Lakes Shorelands permit;
xix. Inland Lakes and Streams permit;
xx. Wetlands permit.

Review steps and timeline

The 2000 plan timeline is carried forward in full, with the MMPC in the role the Solid Waste Facility Siting Committee held. All deadlines run from the completeness determination except Steps 5, 6 and 7, which run from the first consideration.

Table 3-4: Siting Review Steps

Step	Deadline	Action
1. Completeness	60 days	The Agency reviews the application against a checklist and provides the checklist to the applicant if more information is required. If the Agency makes no finding within 60 days of submission, the application proceeds automatically to Step 2.
2. Referral	-	The Agency refers the application to the MMPC and makes provision for staff and technical resources through the application fee or another funding mechanism.
3. Notice	10 days	The Agency sets the date for the MMPC's first consideration and mails the agenda to the notice and participation list at least 10 days before the meeting.
4. First consideration	30 days	Initial MMPC discussion, the Agency's work plan for its evaluation, the date set for formal consideration, and public comment.
5. Agency evaluation	80 days from Step 4	The Agency issues a written evaluation with findings on whether each applicable minimum and supplemental siting criterion is met.

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6. Formal consideration	90 days from Step 4	The agenda and a meeting packet containing the Agency's evaluation are mailed at least 10 days beforehand, and notice is published in a newspaper circulating in the municipality in which the site is proposed, delivered to the newspaper at least 15 days before the meeting and stating where the packet may be viewed. The MMPC votes on whether each applicable criterion is met. An application that does not meet every applicable criterion is not consistent with this Plan and receives no further evaluation.
7. Determination	15 days	Written determination to the applicant, and to EGLE where the facility is found consistent. If written notice is not provided to the applicant within 160 days of the completeness determination, the application is considered by the county to be consistent with this Plan unless the applicant and the county agree in writing to extend that period.
8. Follow-up	-	The Agency notifies the MMPC in writing when the applicant receives or is denied its EGLE construction permit and when it receives its operating license.

Notice and participation list

Within 10 days of the completeness determination or the MMPC's engagement, whichever is later, the Agency sets a date for the first MMPC consideration and mails the agenda. The agenda is mailed to the routine list of recipients of county agendas, as well as to:

i. The applicant;
ii. The owner of the property for which approval is being considered;
iii. The owners of any property within 300 feet of the boundary of that property, as shown by the latest equalization roll;
iv. All occupants of structures within 300 feet of the property, on the terms the 2000 plan specifies for multi-unit structures (one occupant per unit, or one per distinct leased or owned space up to four per structure, with notice to the manager or owner above that);
v. The chief elected official of the municipality in which the site is proposed;
vi. Members of the MMPC;
vii. Any other notification required by the Open Meetings Act, 1976 PA 267, as amended, or by Part 115.

In addition, and carrying forward the local representation the 2000 plan built into the Solid Waste Facility Siting Committee, the Agency shall notify and provide an opportunity to comment to the municipality in which the site is proposed; every municipality located within three miles of the active work area of the proposed site; the County Planning Commission; the County Road Commission; the County Soil Conservation District; and Networks Northwest as the regional planning agency.

Notice to municipalities in adjacent counties

Under MCL 324.11578(3), where a landfill is proposed within two miles of a municipality located in a county adjacent to the planning area, or a solid waste processing and transfer facility or materials utilization facility is proposed within one mile of such a municipality, the county shall notify that municipality's legislative body in writing, shall include a copy of MCL 324.11578(3) with the notice, and shall provide an opportunity to comment. Comments received are included in the review record.

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Section **3.2.12 - Adjacent County MMP Considerations** addresses the county's consideration of the Plans of adjacent counties under MCL 324.11578(1)(s).

3.2.9 - Application Fee

An administratively complete application includes the application fee in the form of a certified check or money order. The fee is used, at the discretion of the county, in evaluating the application, including staff time spent on the siting review and related tasks, the cost of required public meetings and related services, the cost of publishing and mailing notices and printing documents, and consulting fees and other technical assistance related to the siting review. The fee schedule may be modified by the Board of Commissioners. It is the responsibility of the applicant to contact the county to determine the current fee before applying.

Table 3-5: Siting Application Fee Schedule

TYPE OF FACILITY	FEE UNDER THIS PLAN
Landfill	$30,000
Municipal Solid Waste Incinerator	$30,000
Processing and Transfer Facility	$30,000
Small Transfer Facility	$8,000
Materials Utilization Facility	$5,000

3.2.10 - Ongoing Obligations

The owner or operator of a materials management facility in Emmet County shall submit annually to the Agency, or more frequently on request: material types and tonnages received, processed, utilized, or disposed; the source of material by jurisdiction of origin, to the extent known; residual tonnage and its disposition; and remaining authorized and available capacity. The Agency uses this information to support the five-year Plan review, the capacity determination under MCL 324.11578(1)(c), the recycling rate calculation under MCL 324.11578(1)(k), and the annual evaluation under MCL 324.11578(1)(b).

These obligations should also be written into county contracts, hauler licenses, and site host agreements, which is the more effective point of enforcement. Section 3.1 - Funding & Enforcement Mechanisms and Goal 9: Data and Performance Tracking address those instruments.

3.2.11 - Reconsideration and Plan Amendment

An applicant that receives a determination of non-consistency may request reconsideration by the MMPC within 30 days after the date of the written determination. The request must be in writing, identify the specific basis, and include any additional or corrected information. The MMPC will decide at its next regular meeting occurring more than 14 days after receipt, and in no event later than 90 days after receipt. Where the determination rests on a zoning authority's finding of non-compliance, reconsideration is limited to whether the MMPC correctly applied that finding; the MMPC cannot review the merits of a local zoning decision. Reconsideration does not limit any other right of review under Part 115 or other law and does not affect EGLE's independent evaluation under MCL 324.11585(5).

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This Section takes effect when EGLE approves this Plan. An application that is complete and pending under the county's 2000 solid waste management plan siting process on the effective date is completed under that process unless the applicant elects in writing to proceed under this Section. If any provision of this Section is held invalid or conflicts with Part 115, the remainder continues in effect.

A facility type not authorized under Section 3.2.3 - Facility Types Authorized for Siting, or a facility that is not consistent with this Plan, may request that the county amend the Plan. The procedure to amend this Plan is the same as the procedure for adopting it, and a request to amend is made to the Agency. On receipt, the county prepares a budget showing the anticipated cost of the amendment, and on adoption of that budget by the Board of Commissioners the total becomes the fee charged to consider the proposed amendment. This carries forward the 2000 plan.

3.2.12 - Adjacent County MMP Considerations

Emmet County functions as a regional hub-and-spoke service provider, with its facilities supporting waste and recycling needs well beyond the county's own borders. Emmet County has three adjacent counties, two by land and one connected by the Mackinac Bridge. Charlevoix County borders Emmet County to the south and is preparing a single-county Materials Management Plan with Networks Northwest serving as its Designated Planning Agency. Cheboygan County borders Emmet County to the east and is preparing its own Materials Management Plan with the Northeast Michigan Council of Governments (NEMCOG) serving as its Designated Planning Agency. Mackinac County lies across the Straits of Mackinac and is participating in the multi-county Eastern Upper Peninsula Materials Management Plan administered by the Eastern Upper Peninsula Regional Planning and Development Commission.

Emmet County has served as a regional processing partner since the late 1990s and continues to work with two neighboring counties. Presque Isle County has contracted with Emmet County to process its recyclables since 1998, and Cheboygan County has been sending recyclables from its drop-off sites to the Emmet County MRF since 2007. Emmet County previously processed recyclables from Charlevoix County and Otsego County. Emmet County values its past and current partnerships and remains open to building or expanding regional collaboration with neighboring counties during the planning period.

Emmet County has no landfill within its boundaries. All municipal and commercial waste from Emmet County is transferred to landfills located in other planning areas, and about 97% goes to GFL North Michigan Landfill in Presque Isle County. Because Emmet County depends on landfills in other planning areas, the county will coordinate with those planning areas, so their plans continue to allow disposal of Emmet County waste.

There are cross-county considerations that apply to the siting process detailed in the earlier portion of this section. The Village of Mackinaw City lies in both Emmet and Cheboygan Counties, so only the Emmet County portion of the village, located in Wawatam Township, falls within this planning area. A facility proposed on the village's Cheboygan County side would be reviewed under that county's plan rather than this one. Emmet County already serves the village directly. The Village of Mackinaw City

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adopted the County Solid Waste Ordinance in 2007, and ECDPW operates a recycling drop site in the village. Because the village spans two planning areas, Emmet County will coordinate with Cheboygan County and NEMCOG on services and facilities that affect the village as a whole.

Part 115 also requires notice to an adjacent municipality's legislative body, and an opportunity for that municipality to comment, where a landfill is proposed within two miles of a municipality outside the planning area or a solid waste processing and transfer facility or materials utilization facility is proposed within one mile. Emmet County will provide that notice through the ECDPW, which administers the siting process, and will maintain ongoing contact with adjacent counties as their plans are adopted and amended over this planning period.

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Section 4 - Administration

Administration of this MMP is structured around three entities. The Emmet County Board of Commissioners holds ultimate statutory authority under Part 115. ECDPW carries out day-to-day implementation, and the MMPC guided development of this Plan and continues in an oversight role for its implementation. Because Emmet County plans on its own rather than as part of a multi-county region, the county holds its own planning and approval authority directly, with no interlocal agreement or separate regional planning agency involved.

When Emmet County closed its last active landfill and township dumps in response to new state requirements by 1979, the county established the Department (and Board) of Public Works. This designation under Act 185 provides broad authority to administer programs and services, and to set budgets and fees. The following year, the transfer station on Pleasantview Road was constructed, providing the only site to drop off garbage in the county. Since then, Emmet County has taken full responsibility for the administration and handling of solid waste, recyclables, and organics in the county, consistently striving to improve access and recovery across residential, commercial, and public space sectors.

Table 4-1 identifies the entities responsible for each administrative function Part 115 requires and their qualifications and authority to carry it out.

Table 4-1: Responsible Entities

RESPONSIBILITIES	NAME/TITLE/ORGANIZATION	QUALIFICATIONS/AUTHORITY
Ensuring Compliance with Part 115	Emmet County Board of Commissioners, through the ECDPW	The Board of Commissioners holds statutory authority under Part 115 for the county's materials management program and has delegated administration to the ECDPW under Act 185. The ECDPW Board is responsible for ensuring county operations, ordinances, and facility siting decisions remain consistent with Part 115 and this Plan.
Implementing the access requirements of the Benchmark Recycling Standards	Emmet County Department of Public Works, in coordination with the MMPC	ECDPW administers Solid Waste Ordinance No. 11-04 and its Administrative Rules, licenses haulers, and collects the reporting data. ECDPW is responsible for the annual reporting required under MCL 324.11578(1)(b) and for coordinating the five-year Plan review with EGLE. The MMPC reviews implementation progress and monitoring data.
Administering the funding mechanisms used to implement the MMP	Emmet County Department of Public Works, in coordination with the Board of Public Works	The ECDPW/Board of Public Works holds authority under Act 185 to set budgets, fees, and rates, and administers the enterprise fund, along

RESPONSIBILITIES	NAME/TITLE/ORGANIZATION	QUALIFICATIONS/AUTHORITY
		with applicable county ordinances, hauler licensing fees, and grant funding. The Board of Commissioners retains budgetary approval authority for the annual budget and capital investments.
Education & Outreach	Emmet County Department of Public Works	ECDPW maintains the county's existing education and outreach programming and is the primary point of contact for public-facing recycling, composting, and waste reduction communications.

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Definitions and Terminology

Anaerobic Digester: a facility that uses microorganisms to break down biodegradable material in the absence of oxygen, producing methane and an organic product.

Benchmark Recycling Standards (BRS): Minimum residential recycling access requirements established under Part 115 of the Natural Resources and Environmental Protection Act (MCL 324.11502(6)).

Composting Facility: a facility that accepts compostable material for the purpose of composting, and includes the equipment, structures, and land associated with the composting operation.

Curbside Recycling Access: The mechanism by which residents are able to access curbside recycling collection. Access may be provided through one of the following arrangements:

> **Municipal:** Recycling is collected by municipal employees using municipal vehicles, typically through a Department of Public Works.
>
> **Contracted/Franchised:** The municipality has negotiated a contract with a single hauler to provide service to all residents at an agreed rate. Residents may be required to use that hauler or may retain the option to choose their own. Billing may be handled by the municipality or directly by the hauler.
>
> **Subscription/Open Market:** At least one hauler is known to offer curbside recycling in the community, and residents independently subscribe to the service of their choice.
>
> **No Verified Curbside Access:** No haulers are known to offer curbside recycling collection in the municipality.

Disposal Area: a location that is either a solid waste processing and transfer facility, an MSW incinerator, a sanitary landfill, or any other waste handling or disposal facility utilized in the disposal of solid waste.

Diversion Rate: The percentage of all MCW that is recycled, composted, or otherwise diverted from disposal. Also note Recycling Rate below.

Household Hazardous Waste (HHW): Waste generated by households that contains toxic, corrosive, ignitable, or reactive chemicals and requires special handling to prevent harm to human health or the environment. Common examples include paints, solvents, pesticides, batteries, and cleaning products. HHW cannot be disposed of in curbside trash or recycling and must be managed through designated collection programs.

Innovative Technology Facility: a materials management facility that converts solid waste into energy or a usable product and that is not a materials recovery facility, a composting facility, or an anaerobic digester.

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Landfill, Type II: a landfill that receives household waste or municipal solid waste incinerator ash, or both, and that may also receive other types of solid waste, including construction and demolition waste, sewage sludge, commercial waste, nonhazardous sludge, hazardous waste from conditionally exempt small quantity generators, and industrial waste.

Landfill, Type III: a landfill that is not a Type II landfill or a hazardous waste landfill. Type III landfills include construction and demolition waste landfills, industrial waste landfills, low-hazard industrial waste landfills, surface impoundments authorized as industrial waste landfills, coal ash landfills, and coal ash impoundments.

Materials Management Facility (MMF): a location that is either a disposal area, a materials utilization facility, or a waste diversion center.

Materials Utilization Facility (MUF): a facility that does not primarily accept solid waste including a materials recovery facility, an anaerobic digester, a compost facility, or an innovative technology or practice facility

Materials Recovery Facility (MRF): a facility that receives primarily source-separated material and sorts, bales, or processes that material for reuse, recycling, or utilization as a raw material or new product, and that does not, on an annual basis, receive solid waste in an amount equal to or more than 15% of the total weight of material received.

Municipal and Commercial Waste (MCW): The combined stream of waste generated by residents, businesses, and institutions. Also commonly referred to as Municipal Solid Waste (MSW).

Organics: For the purposes of this Plan, organics refers to biodegradable materials that can be diverted from landfill disposal and managed through composting, anaerobic digestion, or food rescue. This includes yard debris, food scraps, and edible surplus food suitable for donation.

Readily Recyclable Materials: Materials accepted in nearly all curbside and drop-off recycling programs, such as cardboard, mixed paper, #1 and #2 plastic bottles and containers, and aluminum and steel cans. In Table 2-1, “Readily Recyclable Captured” is the estimated tons of these materials now landfilled that could be recovered under each scenario.

Recycling Rate: The percentage of all MCW that is recycled or composted.

Siting Process: The series of steps used to evaluate and determine whether a new materials management facility can be appropriately located and operated at a proposed site, consistent with Part 115 and local requirements.

Solid Waste Processing and Transfer Facility: a tract of land, a building or unit and any appurtenances of a building or unit, a container, or any combination of these that is used or intended for use in the handling, storage, transfer, or processing of solid waste, and is not located at the site of generation or the site of disposal of the solid waste.

Universal Waste: A category of hazardous waste subject to streamlined management requirements under state and federal regulations due to its widespread generation and relatively lower risk.

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Common universal wastes include batteries, fluorescent lamps, mercury-containing thermostats, and certain pesticides. Universal waste is managed separately from both general solid waste and other hazardous waste streams and must be directed to appropriate recycling or disposal facilities.

Waste Diversion Center: property or a building, or a portion of property or a building, designated for the purpose of receiving or collecting diverted wastes and not used for residential purposes.

White Goods: Large household appliances such as refrigerators, freezers, washers, dryers, stoves, dishwashers, water heaters, and air conditioners. Some contain refrigerants or other parts that must be removed before recycling.

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Acronyms

ACRONYM	DEFINITION
ADC	Alternative Daily Cover
BRS	Benchmark Recycling Standards
C&D	Construction and Demolition (debris)
CAA	County Approval Agency
CDP	Census Designated Place
CY	Cubic Yards (debris estimate tables); Calendar Year (e.g., "CY 2024")
DEQ	Michigan Department of Environmental Quality (now EGLE)
DPA	Designated Planning Agency
DTMB	Michigan Department of Technology, Management and Budget
ECDPW	Emmet County Department of Public Works
ECR	Emmet County Recycling
EGLE	Michigan Department of Environment, Great Lakes, and Energy
EOC	Emergency Operations Center
EPR	Extended Producer Responsibility
FEMA	Federal Emergency Management Agency
FOG	Fats, Oils, and Grease
FY	Fiscal Year
GAFAF	Give All Food A Future
HHW	Household Hazardous Waste
HMP	Hazard Mitigation Plan
ICI	Commercial, Institutional, and Industrial
ILSR	Institute for Local Self-Reliance
ISD	Intermediate School District
IW	Industrial Waste
LEPC	Local Emergency Planning Committee
LTBB	Little Traverse Bay Bands of Odawa Indians
MCL	Michigan Compiled Laws
MCW	Municipal and Commercial Waste

MDOT	Michigan Department of Transportation
MDNR	Michigan Department of Natural Resources
MMF	Materials Management Facility
MMP	Materials Management Plan
MMPC	Materials Management Planning Committee
MPH	Miles per Hour
MRF	Materials Recovery Facility
MSW	Municipal Solid Waste
MUF	Materials Utilization Facility
NEMCOG	Northeast Michigan Council of Governments
NREPA	Natural Resources and Environmental Protection Act
NRDC	Natural Resources Defense Council
OCC	Old Corrugated Cardboard
PA	Public Act
PAYT	Pay-As-You-Throw
QCEW	Quarterly Census of Employment and Wages
ROI	Return on Investment
SWANA	Solid Waste Association of North America
SWMA	Solid Waste Management Authority (Montmorency-Oscoda-Alpena SWMA)
USCC	US Composting Council
WDC	Waste Diversion Center
WDS	Waste Data System (EGLE)

Appendices

APPENDIX A: FACILITY DESCRIPTIONS

Table A-1: Facility Descriptions

FACILITIES LOCATED WITHIN EMMET COUNTY		
Village Stump Dump		
Operator Mackinaw City village	**Address** Trails End Rd, Mackinaw City	**Latitude / Longitude** 45.76589 -84.73821
Facility Type Compost Facility	**Estimated Facility Acreage** 2	**Available Capacity** N/A
Summary of Deficiencies	**Accepted Materials** Organic Materials	**Process for Handling Materials** Residential Drop-Off, Composting
Replied Confirming Inclusion in Plan Yes		
Springvale Township Recycling Drop Site		
Operator Emmet County Department of Public Works	**Address** 8198 East Mitchell Road, Petoskey	**Latitude / Longitude** 45.35871 -84.80313
Facility Type Other Source Separated Facility (Drop-off)	**Estimated Facility Acreage** N/A – drop-site only	**Available Capacity** N/A – drop-site only
Summary of Deficiencies N/A – drop-site only	**Accepted Materials** Recyclable Materials	**Process for Handling Materials** N/A – drop-site only
Replied Confirming Inclusion in Plan N/A – drop-site only		
Harbor Springs Area Recycling Drop Site		
Operator Emmet County Department of Public Works	**Address** 715 Traverse Street, Harbor Springs	**Latitude / Longitude** 45.43547 -84.99194
Facility Type Other Source Separated Facility (Drop-off)	**Estimated Facility Acreage** N/A – drop-site only	**Available Capacity** N/A – drop-site only
Summary of Deficiencies N/A – drop-site only	**Accepted Materials** Recyclable Materials	**Process for Handling Materials** N/A – drop-site only
Replied Confirming Inclusion in Plan N/A – drop-site only		
Cross Village Recycling Drop Site		
Operator Emmet County Department of Public Works	**Address** 6315 Oak Drive, Harbor Springs	**Latitude / Longitude** 45.64193 -85.02688
Facility Type Other Source Separated Facility (Drop-off)	**Estimated Facility Acreage** N/A – drop-site only	**Available Capacity** N/A – drop-site only

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Summary of Deficiencies N/A – drop-site only	**Accepted Materials** Recyclable Materials	**Process for Handling Materials** N/A – drop-site only
Replied Confirming Inclusion in Plan N/A – drop-site only		
Alanson Area Recycling Drop Site		
Operator Emmet County Department of Public Works	**Address** 6180 West Street, Alanson	**Latitude / Longitude** 45.44073 -84.79103
Facility Type Other Source Separated Facility (Drop-off)	**Estimated Facility Acreage** N/A – drop-site only	**Available Capacity** N/A – drop-site only
Summary of Deficiencies N/A – drop-site only	**Accepted Materials** Recyclable Materials	**Process for Handling Materials** N/A – drop-site only
Replied Confirming Inclusion in Plan N/A – drop-site only		
Mackinaw City Recycling Drop Site		
Operator Emmet County Department of Public Works	**Address** 605 Pond Street, Mackinaw City	**Latitude / Longitude** 45.77945 -84.74377
Facility Type Other Source Separated Facility (Drop-off)	**Estimated Facility Acreage** N/A – drop-site only	**Available Capacity** N/A – drop-site only
Summary of Deficiencies N/A – drop-site only	**Accepted Materials** Recyclable Materials	**Process for Handling Materials** N/A – drop-site only
Replied Confirming Inclusion in Plan N/A – drop-site only		
State Road Recycling Drop Site		
Operator Emmet County Department of Public Works	**Address** 6008 Wormwood Lane, Harbor Springs	**Latitude / Longitude** 45.58697 -85.03748
Facility Type Other Source Separated Facility (Drop-off)	**Estimated Facility Acreage** N/A – drop-site only	**Available Capacity** N/A – drop-site only
Summary of Deficiencies N/A – drop-site only	**Accepted Materials** Recyclable Materials	**Process for Handling Materials** N/A – drop-site only
Replied Confirming Inclusion in Plan N/A – drop-site only		
Toski-Sands Recycling Drop Site		
Operator Emmet County Department of Public Works	**Address** 3354 Lakeside Drive South, Petoskey	**Latitude / Longitude** 45.40397 -84.90023
Facility Type Other Source Separated Facility (Drop-off)	**Estimated Facility Acreage** N/A – drop-site only	**Available Capacity** N/A – drop-site only
Summary of Deficiencies N/A – drop-site only	**Accepted Materials** Recyclable Materials	**Process for Handling Materials** N/A – drop-site only

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Replied Confirming Inclusion in Plan N/A – drop-site only		
Pellston Area Recycling Drop Site		
Operator Emmet County Department of Public Works	**Address** 212 Zipf Street, Pellston	**Latitude / Longitude** 45.55348 -84.77884
Facility Type Other Source Separated Facility (Drop-off)	**Estimated Facility Acreage** N/A – drop-site only	**Available Capacity** N/A – drop-site only
Summary of Deficiencies N/A – drop-site only	**Accepted Materials** Recyclable Materials	**Process for Handling Materials** N/A – drop-site only
Replied Confirming Inclusion in Plan N/A – drop-site only		
Robinson Road Recycling Drop Site		
Operator Emmet County Department of Public Works	**Address** 1550 Robinson Road, Pellston	**Latitude / Longitude** 45.55070 -84.88206
Facility Type Other Source Separated Facility (Drop-off)	**Estimated Facility Acreage** N/A – drop-site only	**Available Capacity** N/A – drop-site only
Summary of Deficiencies N/A – drop-site only	**Accepted Materials** Recyclable Materials	**Process for Handling Materials** N/A – drop-site only
Replied Confirming Inclusion in Plan N/A – drop-site only		
D&W (formerly Glen's) Plaza Recycling Drop Site		
Operator Emmet County Department of Public Works	**Address** 1214 Rice Street, Petoskey	**Latitude / Longitude** 45.39014 -84.91976
Facility Type Other Source Separated Facility (Drop-off)	**Estimated Facility Acreage** N/A – drop-site only	**Available Capacity** N/A – drop-site only
Summary of Deficiencies N/A – drop-site only	**Accepted Materials** Recyclable Materials	**Process for Handling Materials** N/A – drop-site only
Replied Confirming Inclusion in Plan N/A – drop-site only		
Bear Creek Crossings Drop Site		
Operator Emmet County Department of Public Works	**Address** 2170 Anderson Rd, Petoskey	**Latitude / Longitude** 45.34595 -84.97100
Facility Type Other Source Separated Facility (Drop-off)	**Estimated Facility Acreage** N/A – drop-site only	**Available Capacity** N/A – drop-site only
Summary of Deficiencies N/A – drop-site only	**Accepted Materials** Recyclable Materials	**Process for Handling Materials** N/A – drop-site only
Replied Confirming Inclusion in Plan N/A – drop-site only		

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Emmet County Transfer Station		
Operator Emmet County Department of Public Works	**Address** 7363 S Pleasantview Rd, Harbor Springs	**Latitude / Longitude** 45.44299 -84.91263
Facility Type Processing & Transfer Facility	**Estimated Facility Acreage** 36.42 acres	**Available Capacity** 140,000 cubic yards annual throughput, capacity based on hours of operation and size of trucks
Summary of Deficiencies No open violations in WDS as of June 2026	**Accepted Materials** Recyclable Materials, Other Source Separated Materials, Organic Materials, Municipal Solid Waste, Construction & Demolition Waste	**Process for Handling Materials** MSW is unloaded in a drive-through bay and compacted into 120-yard transfer trailers, with 6 to 8 trailers shipped to the landfill daily. All county MSW passes through the facility under flow control.
Replied Confirming Inclusion in Plan Yes		
Emmet County Compost Facility		
Operator Emmet County Department of Public Works	**Address** 7363 S Pleasantview Rd, Harbor Springs	**Latitude / Longitude** 45.44299 -84.91263
Facility Type Compost Facility	**Estimated Facility Acreage** 6 acres	**Available Capacity** Up to 10,000 cubic yards
Summary of Deficiencies No open violations in WDS as of June 2026	**Accepted Materials** Recyclable Materials, Other Source Separated Materials, Organic Materials, Municipal Solid Waste, Construction & Demolition Waste	**Process for Handling Materials** Brush and wood are ground or chipped, composted in turned windrows monitored for temperature, moisture, and oxygen, and then screened. Finished compost and mulch are stored in bunkers and sold on site; runoff drains to a retention pond.
Replied Confirming Inclusion in Plan Yes		
Emmet County Pleasantview Road Drop-Off Center		
Operator Emmet County Department of Public Works	**Address** 7363 S Pleasantview Rd, Harbor Springs	**Latitude / Longitude** 45.44299 -84.91263
Facility Type Other Source Separated Facility (Drop-off)	**Estimated Facility Acreage** 36.42	**Available Capacity** N/A – drop-site only
Summary of Deficiencies N/A – drop-site only	**Accepted Materials** Recyclable Materials, Other Source Separated Materials,	**Process for Handling Materials** N/A – drop-site only

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	Organic Materials, Municipal Solid Waste, Construction & Demolition Waste	
Replied Confirming Inclusion in Plan N/A – drop-site only		
Emmet County Recycling MRF		
Operator Emmet County Department of Public Works	**Address** 7363 Pleasantview Road, Harbor Springs	**Latitude / Longitude** 45.44299 -84.91263
Facility Type MRF	**Estimated Facility Acreage** 36.42	**Available Capacity** 16,640 tons per month
Summary of Deficiencies No open violations in WDS as of June 2026	**Accepted Materials** Recyclable Materials, Other Source Separated Materials, Organic Materials, Municipal Solid Waste, Construction & Demolition Waste	**Process for Handling Materials** Material is inspected on the tip floor, then sorted on fiber and container lines using mechanical, manual, and robotic sorting; a glass breaker processes glass. Sorted material is baled, stored in the bale warehouse, and shipped from the loading dock.
Replied Confirming Inclusion in Plan Yes		
GFL North Michigan Landfill, LLC		
Operator GFL Environmental USA, Inc.	**Address** 20667 5 Mile Hwy, Onaway	**Latitude / Longitude** 45.28235 -84.21920
Facility Type Type II Landfill	**Estimated Facility Acreage** 34 permitted acres	**Available Capacity** 645,951 tons (2025)
Summary of Deficiencies No open violations in WDS as of June 2026	**Accepted Materials** Municipal Solid Waste, Construction & Demolition Waste, Industrial Waste	**Process for Handling Materials**
Replied Confirming Inclusion in Plan Yes		
City Environmental Services Inc of Waters		
Operator City Environmental Services, Inc. of Waters	**Address** 11375 Sherman Rd, Frederic	**Latitude / Longitude** 44.84963 -84.66703
Facility Type Type II Landfill	**Estimated Facility Acreage**	**Available Capacity** 14,158,068 tons (2025)
Summary of Deficiencies No open violations in WDS as of June 2026	**Accepted Materials** Municipal Solid Waste, Construction & Demolition Waste, Industrial Waste	**Process for Handling Materials**
Replied Confirming Inclusion in Plan Yes		

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Montmorency-Oscoda-Alpena SWMA		
Operator Montmorency-Oscoda-Alpena SWMA	**Address** 6751 Landfill Road, Atlanta	**Latitude / Longitude** 44.94243 -84.12951
Facility Type Type II Landfill	**Estimated Facility Acreage**	**Available Capacity** 1,430,315 tons (2025)
Summary of Deficiencies No open violations in WDS as of June 2026	**Accepted Materials** Municipal Solid Waste, Construction & Demolition Waste, Industrial Waste	**Process for Handling Materials**
Replied Confirming Inclusion in Plan		
Wexford County Landfill		
Operator Wexford County Landfill, LLC	**Address** 990 Mackinaw Trail, Manton	**Latitude / Longitude** 44.35378 -85.39763
Facility Type Type II Landfill	**Estimated Facility Acreage**	**Available Capacity** 15,524,692 tons (2025)
Summary of Deficiencies Open violation(s) in WDS as of June 2026: 423 - Leachate collection and removal systems	**Accepted Materials** Municipal Solid Waste, Construction & Demolition Waste, Industrial Waste	**Process for Handling Materials**
Replied Confirming Inclusion in Plan		
Whitefeather Landfill		
Operator Republic Services of Michigan IV, LLC	**Address** 2401 E Whitefeather Rd, Pinconning	**Latitude / Longitude** 43.89614 -83.94979
Facility Type Type II Landfill	**Estimated Facility Acreage** 111.04 acres	**Available Capacity** 568,815 tons (2025)
Summary of Deficiencies No open violations in WDS as of June 2026	**Accepted Materials** Municipal Solid Waste, Construction & Demolition Waste, Industrial Waste	**Process for Handling Materials**
Replied Confirming Inclusion in Plan Yes		

Statements of Capacity

[Placeholder - Remaining capacity is being confirmed through ongoing county outreach to the owners and operators of each receiving facility, as described in Appendix A. The final approved Plan will report remaining capacity as stated by the responding facilities.]

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APPENDIX B: APPLICABLE ORDINANCES (SITING)

This table lists the ordinances that apply to the siting process within the meaning of MCL 324.11578(1)(r), and that are included by reference in this Plan. It is limited to zoning ordinances, which are the instruments through which a materials utilization facility demonstrates automatic consistency, and to ordinances specific to the establishment or location of a materials management facility. Ordinances governing the operation of a facility, including nuisance, blight, noise, open burning and refuse collection ordinances, are not included.

Emmet County administers zoning for twelve of the county's sixteen townships, which includes Bear Creek, Bliss, Carp Lake, Center, Cross Village, Friendship, Littlefield, Maple River, McKinley, Readmond, Springvale and Wawatam. Little Traverse, Pleasantview, Resort and West Traverse Townships, the Cities of Harbor Springs and Petoskey, and the Villages of Alanson, Mackinaw City and Pellston administer their own zoning ordinances. Facility types shown for each entry use the Part 115 definitions carried in this Plan, which are disposal area, materials utilization facility and waste diversion center.

Ordinance	Scope and Notes
County-Level Ordinances	
Emmet County Zoning Ordinance No. 15-1	**Scope:** County zoning ordinance; governs siting in the twelve townships for which the county administers zoning. **Notes:** Recycling and resource recovery facilities, transfer stations, waste collection, and sanitary landfills are special uses in the B-1, B-2, I, FF-1, FF-2 and FR districts. None is permitted in a residential or scenic resource district. Composting is not an authorized use.
Emmet County Zoning Ordinance Section 26.20	**Scope:** Site development standards for recycling and resource recovery facilities, transfer stations, waste collection and sanitary landfills. **Notes:** Special use in the B-1, B-2, I, FF-1, FF-2 and FR districts. Requires only a road setback, a pile height limit, road-facing screening, and a minimum lot size and width. No separation is required from residences, schools, recreation land, water wells, surface water, wetlands, the flood plain, or airport runways. This Plan's minimum siting criteria are more protective.
Emmet County Solid Waste Ordinance No. 11-04	**Scope:** County solid waste ordinance; designates the receiving facility and licenses haulers. **Notes:** Amends Ordinance No. 99-40, which amended Ordinance No. 20. Not a locational control. Haulers must be licensed and must deliver all solid waste collected in the county, except construction and demolition debris, to the county-designated facility named in the hauler's license; the same requirement and exception apply to individuals hauling from their own premises. Authorizes Administrative Rules, including a Prohibited Materials List.

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Ordinance	Scope and Notes
Emmet County Solid Waste Administrative Rules (Ordinance No. 99-40)	**Scope:** Implementing rules; designate the required delivery facility. **Notes:** Revised 5/16/2002. Sec. 5.1 designates the Emmet County Transfer Station, 7363 Pleasantview Road, Harbor Springs, as the required delivery facility for all licensed haulers, with alternatives permitted only during emergency or mechanical failure.
Community-Level Ordinances	
City of Harbor Springs Zoning Ordinance	**Scope:** City zoning ordinance. **Notes:** Recycling facility, solid waste transfer facility, and recycling collection station are defined, but none is listed as a permitted or special use in any district. An unlisted use may be authorized only through a Zoning Administrator similar-use determination, appealable to the Zoning Board of Appeals. No landfill, composting facility, or junk yard is addressed. Compost and yard debris storage is prohibited in the Shoreline Protection Zone.
City of Petoskey Zoning Ordinance	**Scope:** City zoning ordinance. **Notes:** No landfill, transfer station, materials recovery facility, composting facility, or waste diversion center is a permitted or special use in any district. Junk yards and enclosed-plant refuse incineration are limited to I-2 General Industrial, subject to district separation and enclosure requirements. A similar use may be allowed on City Council approval following Planning Commission recommendation.
Village of Alanson Zoning Ordinance	**Scope:** Village zoning ordinance. **Notes:** No industrial district. Junk yard is defined but not a permitted or special use in any district. Landfills, transfer stations, recycling facilities, and composting are not addressed; any such facility would require a text amendment.
Village of Mackinaw City Zoning Ordinance	**Scope:** Village zoning ordinance; the village lies in both Emmet and Cheboygan Counties, and only its Emmet County portion is within the planning area. **Notes:** Recycling facilities, resource recovery facilities, transfer stations, and waste collection are permitted by right in the MR and MRS districts, with no supplemental development standards beyond the base dimensional requirements. Junk and salvage yards are a special land use in the same districts, subject to additional setback and enclosure requirements. Landfills and composting are not addressed.
Village of Pellston Zoning Ordinance	**Scope:** Village zoning ordinance. **Notes:** Recycling facilities, resource recovery facilities, and solid waste transfer facilities are a special land use in the I-1 Light Industrial district only, as are junk and salvage yards and incinerator plants. Sanitary landfills are not a listed use; a proposed landfill would be reviewed under

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Ordinance	Scope and Notes
	the ordinance's natural resource extraction standards. Composting is not addressed.
Bear Creek Township Garbage or Trash Disposal Facilities Ordinance No. 86	**Scope:** Township permit requirement and locational restriction for garbage and trash disposal facilities; applies independently of county zoning. **Notes:** The township is zoned by Emmet County and has no zoning ordinance of its own. A Township Board permit is required to establish or operate a public garbage dump, sanitary landfill, or other disposal facility, subject to locational setbacks. As locational controls, these provisions are enforceable only to the extent expressly included in this Plan.
Little Traverse Township Zoning Ordinance	**Scope:** Township zoning ordinance; the township hosts the county's materials management facilities. **Notes:** The Emmet County Transfer Station, MRF, Compost Facility and Pleasantview Road Drop-off Center are located in this township. Solid waste disposal systems require a special use permit and public hearing, with separation requirements that vary by facility type. Disposal facilities must also comply with the adopted County Solid Waste Plan and State statutes. Green box units and domestic composting serving single parcels are exempt.
Little Traverse Township Public Disposal Area Ordinance	**Scope:** Township license requirement for any public disposal area or public dump. **Notes:** A Township Board license is required to establish, use, or operate any public disposal area or dump, with no application requirements or standards specified. As a control on establishment and location, it is enforceable only to the extent expressly included in this Plan.
Pleasantview Township Zoning Ordinance	**Scope:** Township zoning ordinance. **Notes:** Sec. 7.07 provides in full that any sanitary landfill shall comply with all applicable regulations, including those of Emmet County and the State of Michigan. No district use schedule authorizes a landfill, transfer station, recycling facility, composting facility, drop-off center or junk yard, so any such facility requires a text amendment. Sec. 3.15 allows salvage, rubbish, waste and junk only within enclosed structures, townshipwide.
Resort Township Zoning Ordinance	**Scope:** Township zoning ordinance. **Notes:** Landfills and recycling operations are special condition uses in the I Light Industrial district only, and are prohibited in R-1, RR and HR. Sanitary landfills require Planning Commission approval and must comply with the applicable State and County Solid Waste Plans. Composting and transfer stations are not addressed as separate uses.
West Traverse Township Zoning Ordinance	**Scope:** Township zoning ordinance; contains no use category for any Part 115 facility type.

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Ordinance	Scope and Notes
	Notes: No landfill, transfer station, materials recovery facility, composting facility, waste diversion center, junk yard, or salvage yard is a permitted or special use in any district; any such facility would require an amendment.

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APPENDIX C: DISASTER DEBRIS MANAGEMENT

Storm debris places significant and often sudden strain on a county's materials management system. Depending on event severity, debris volumes can exceed normal operational capacity for landfills, composting facilities, and transfer stations. Emmet County's materials management program serves as a foundation for any debris response after any event, making it crucial that the county's emergency planning and materials management planning remain aligned.

Connection to County Emergency Planning

Emmet County's Hazard Mitigation Plan (HMP), finalized in May 2025, identifies severe winter weather, high winds and straight-line winds, and severe thunderstorms as the top debris-generating hazard types for the county. The HMP was developed in coordination with the Local Emergency Planning Committee (LEPC) and County Board of Commissioners and provides the foundational risk framework within which disaster debris planning should be situated.

The MMPC discussed disaster debris planning at its meetings and reached consensus that the MMP goal would align with the county's existing emergency planning, guided by the HMP, rather than establish a standalone debris management plan.

Recent Events & Emmet County's Response

Emmet County has faced three significant weather events in the past six years that tested its materials management system and produced transferable lessons for future planning. The July 2020 straight-line wind event, the March 2025 ice storm, and the April 2026 flooding each required a different operational response, and together they reflect the county's experience in managing disaster debris at scale and can serve as a model for other Northern Michigan counties.

> *July 2020 Wind Event:* A straight-line wind event moved through Petoskey and Harbor Springs in the summer of 2020, generating over 10,000 cubic yards of wood waste in a matter of hours, across both private and public lands. ECDPW managed the majority of the wood waste, including stockpiling the material on-site, then grinding and hauling it to a co-generation facility for a processing fee of approximately $6 per cubic yard. That response documented both the county's diversion capability and the cost structure of disaster relief operations. The Transfer Station's normal operating parameters do not accommodate large-scale debris events, which reinforces the county's track record to meet the disaster debris needs of a wind event.
>
> *March 2025 Ice Storm:* An ice storm in early 2025 resulted in approximately 3 million downed trees across northern Michigan. As a result, a state of emergency was declared for 10 counties in northern Michigan. Of these impacted counties, Emmet County stood out as the only county to proactively establish designated debris management pathways, clearly communicate disposal options to residents, and operationalize recovery systems at the local level. In fact, the county was able to swiftly set up 8 different locations for residents to drop off their wood waste. Overall, the county processed approximately 50,000 cubic yards, or approximately

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12,500 tons, of additional wood waste from the event. This provided a documented baseline for future planning and a concrete measure of the operational demand that a significant ice storm places on the county's infrastructure.

April 2026 Flooding and Voucher Program: Following flooding across the county in April 2026, the ECDPW activated a debris voucher program allowing affected households to drop off up to two cubic yards of flood debris at the Pleasantview Road Transfer Station at no charge. The program was partially funded through the Petoskey-Harbor Springs Area Community Foundation Emergency Response Fund. The approach (a rapid, funded, drop-off response) is replicable for future localized debris events and reflects the county's ability to design targeted public-facing programs quickly.

Debris Volume Estimates

To support emergency planning, preliminary storm debris estimates for Emmet were developed. These estimates are intended as planning-level benchmarks and carry inherent uncertainty given the variability of storm events. Actual debris volumes will depend on storm track, intensity, duration, and localized conditions.

For ice storms producing 0.25 to 1.00 inches of accumulation with winds between 10 and 30 mph, estimated debris ranges from approximately 24,000 to 385,000 cubic yards depending on conditions, based on Emmet County's 988 route-miles and published methodology from *Rapid Assessment of Tree Debris Following Urban Forest Ice Storms* (2011). Debris streams from ice events are dominated by vegetative material, consistent with the Federal Emergency Management Agency (FEMA) guidance and confirmed by the county's 2025 experience Notably, there is a negative correlation between wind speed and debris volume (as wind speed increases less debris is observed).

Table C-1: Estimated Ice Storm Debris Volumes

COUNTY NAME	SYSTEM MILES	WIND SPEED MPH	ICE THICKNESS (INCHES)	SCENARIO 1 DEBRIS ESTIMATE CUBIC YARDS
Emmet	988	10	0.25	96,280
		20	0.25	60,227
		30	0.25	24,175
		10	0.50	192,560
		20	0.50	120,455
		30	0.50	48,350
		10	0.75	288,840
		20	0.75	180,682
		30	0.75	72,525
		10	1.00	385,119
		20	1.00	240,910
		30	1.00	96,700

For severe weather events with wind speeds ranging from 74 to 157+ mph (including tornado scenarios), debris estimates range from approximately 45,000 cubic yards at the lower wind-speed

range to over 2 million cubic yards at the upper end, based on Emmet County's 14,862 households, heavy vegetation classification, and light commercial property designation. These estimates incorporate anticipated debris composition including vegetative debris, C&D material, household items, HHW, white goods, and vehicles, consistent with FEMA-325 guidance on tornado debris streams.

Table C-2: Estimated Severe Weather Debris Volumes

WIND SPEED	PRECIPITATION	SCENARIO 2 DEBRIS ESTIMATE (CY)
74–95 MPH	None to Light	44,586
74–95 MPH	Medium to Heavy	53,503
96–110 MPH	None to Light	178,344
96–110 MPH	Medium to Heavy	214,013
111–129 MPH	None to Light	579,618
111–129 MPH	Medium to Heavy	695,542
130–156 MPH	None to Light	1,114,650
130–156 MPH	Medium to Heavy	1,337,580
157+ MPH	None to Light	1,783,440
157+ MPH	Medium to Heavy	2,140,128

Operational Framework & Next Steps

The debris volume estimates above illustrate the range of conditions Emmet County may face, and the county's track record shows it is well positioned to respond. The 2020 wind event, the 2025 ice storm, and the 2026 flood event each demonstrated that Emmet County can mobilize quickly, manage material at scale, and find diversion pathways that keep debris out of the landfill. That operational experience is a real asset.

Emmet County will continue to document what the county already knows and does, so that the next response starts from a stronger position than the last. That includes recording which facilities can serve as temporary staging sites, defining capacity thresholds and overflow triggers before they are needed, and aligning with the Emergency Management Department to ensure clear EOC roles for materials management and regulatory coordination, along with having contractor relationships and public messaging ready to deploy.

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APPENDIX D: SUPPORTING DATA

Table D-1: Michigan Landfill Waste Attributed to Emmet County by Type in Tons

TONS BY TYPE	2022	2023	2024	AVERAGE 2022 - 2024	% OF TOTAL AVERAGE
ADC	-	560.87	9,036.07	3,198.98	7%
C&D	6,775.50	6,791.87	2,993.73	5,520.37	11%
IW	819.00	257.90	772.17	616.36	1%
MCW	45,646.67	35,277.40	35,414.28	38,779.45	81%
OTHER	51.00	11.17	45.00	35.72	<1%
Grand Total	**53,292.17**	**42,899.21**	**48,261.25**	**48,150.88**	

Table D-2: Recycling Access by Community for Benchmark Recycling Standards

COMMUNITY NAME	2020 CENSUS NAME	COMMUNITY POPULATION	# OF HOUSEHOLDS	POPULATION IN SINGLE FAMILY HOMES (1-4)	POPULATION IN MULTI-FAMILY HOMES (5+)	RECYCLING CURBSIDE ACCESS SECTOR[15]	RECYCLING DROP-OFF ACCESS
Alanson	Alanson Village	778	293	686	92	Residential	Emmet County Drop-Off Program
Bear Creek Township	Bear Creek Township Bay View CDP Conway CDP	6542	2840	4965	1577	Residential	Emmet County Drop-Off Program
Bliss Township	Bliss Township	568	247	568	0	No Curbside Program	Emmet County Drop-Off Program
Carp Lake Township	Carp Lake Township Carp Lake CDP Levering CDP	747	366	747	0	No Curbside Program	Emmet County Drop-Off Program
Center Township	Center Township	525	234	525	0	No Curbside Program	Emmet County Drop-Off Program

[15] Emmet County Recycling provides curbside for single family households in communities with municipally funded programs.

COMMUNITY NAME	2020 CENSUS NAME	COMMUNITY POPULATION	# OF HOUSEHOLDS	POPULATION IN SINGLE FAMILY HOMES (1-4)	POPULATION IN MULTI-FAMILY HOMES (5+)	RECYCLING CURBSIDE ACCESS SECTOR[15]	RECYCLING DROP-OFF ACCESS
Cross Village Township	Cross Village Township Crosse Village CDP	240	126	240	0	No Curbside Program	Emmet County Drop-Off Program
Friendship Township	Friendship Township	955	387	955	0	No Curbside Program	Emmet County Drop-Off Program
Harbor Springs	Harbor Springs city	1274	614	1157	117	Residential	Emmet County Drop-Off Program
Little Traverse Township	Little Traverse Township Conway CDP	2655	1144	2539	116	Residential	Emmet County Drop-Off Program
Littlefield Township	Littlefield Township Ponshewaing CDP Oden CDP	2421	986	2352	69	No Curbside Program	Emmet County Drop-Off Program
Mackinaw City Village	Mackinaw City Village	572	278	489	83	No Curbside Program	Emmet County Drop-Off Program
Maple River Township	Maple River Township Brutus CDP	1126	451	1126	0	No Curbside Program	Emmet County Drop-Off Program
McKinley Township	McKinley Township Levering CDP	688	275	675	13	No Curbside Program	Emmet County Drop-Off Program
Pellston Village	Pellston Village	775	331	742	33	No Curbside Program	Emmet County Drop-Off Program
Petoskey City	Petoskey City	5876	2774	4206	1670	Residential	Emmet County Drop-Off Program

COMMUNITY NAME	2020 CENSUS NAME	COMMUNITY POPULATION	# OF HOUSEHOLDS	POPULATION IN SINGLE FAMILY HOMES (1-4)	POPULATION IN MULTI-FAMILY HOMES (5+)	RECYCLING CURBSIDE ACCESS SECTOR[15]	RECYCLING DROP-OFF ACCESS
Pleasantview Township	Pleasantview Township	918	420	905	13	No Curbside Program	Emmet County Drop-Off Program
Readmond Township	Readmond Township	560	262	560	0	No Curbside Program	Emmet County Drop-Off Program
Resort Township	Resort Township Bay Shore CDP	2836	1122	2724	112	Residential + Commercial	Emmet County Drop-Off Program
Springvale Township	Springvale Township	2147	806	2147	0	No Curbside Program	Emmet County Drop-Off Program
Wawatam Township	Wawatam Township	141	86	123	18	No Curbside Program	Emmet County Drop-Off Program
West Traverse Township	West Traverse Township	1768	821	1728	40	No Curbside Program	Emmet County Drop-Off Program

Table D-3: Emmet County End Market List[16]

Where Your Recyclables Go

and the new products that are created

Emmet County Recycling

Cooking Oil
Evergreen Grease Service, Adrian MI
Products: Feedstock for Biodiesel

Food Scraps
Composted on-site by Emmet County Recycling
Products: Certified Compost



Antifreeze
Heritage-Crystal Clean, Saginaw MI
Product: new antifreeze

Batteries
The Battery Network/Cirba Solutions Wixom MI
Products: metals, acid, mercury to be sold as commodities

Cardboard and Boxboard
Mills in Michigan including:
- UP Paper, Manistique MI
- Graphic Packaging, to make cereal boxes
- Package Corporation of America, to make cardboard

Electronics
Dynamic Lifecycle Innovations, La Crosse WI
(e-Stewards and R2 certified)
Products: dismantled domestically yielding metals, plastic, and glass commodities

Fluorescent Light Bulbs
CLEANLITES, Mason MI
Products: metals, glass and mercury commodities

Glass
Recycling Services, Inc. Sylvania OH
Products: fiberglass insulation
Country Oaks Landscaping Supply, Burton MI
Bio Swale compost blends

Latex Paint
E-Paint Recyclers, Kalamazoo MI
Products: new, high quality, interior paints

Mattresses, Box Springs and Futons
Michigan Mattress Recyclers/BARC, Kaleva MI
Products: wood, textiles, foam padding, and metals to be sold as commodities

Motor Oil
Heritage-Crystal Clean, Saginaw MI
Product: re-refined motor oil

Newspaper, Magazines and Cardstock
Sold to 3 mills in Michigan
- Berry, to make newspaper
- Nu-wool, to make insulation
- US Gypsum, to make drywall board

Office Paper & Shredded Paper
Sustana Fiber, De Pere WI
Products: pulp for writing and copy paper

Paper Cartons and Cups
(i.e. juice boxes and milk cartons)
Sustana Fiber, De Pere WI
Products: writing paper, office paper, tissue

Phone Books & Hard Cover Books
Sold to mills in Michigan, Indiana, and Illinois
Products: newspaper, insulation, and mulch

Plastic Bags & Film PE/#4 LDPE
Trex, Winchester VA
Products: composite lumber for decks



[16] Emmet County's end market list is available at https://www.emmetrecycling.org/education/where-your-recyclables-go/Where%20Your%20Recyclables%20Go%20-%20Update%202024.pdf

Plastics, HDPE (#2) Jugs and Jars
Cleantech/Plasti-Pak, Dundee MI
Products: Bottle to bottle:
detergent bottles and jugs

Plastics, Mixed #1-7
EFS Plastics, Listowel, Ontario
Products: polymer pellets for resale, automotive

Plastics, PET (#1) Bottles and Jars
Clean Tech/Plasti-Pak, Dundee MI
Products: Absopure water bottles



Plastic Plant Pots & Trays, HDPE, PP (#5), PS (#6)
East Jordan Plastics
East Jordan and South Haven MI
Products: horticultural pots, cell packs and plant trays

Rubble (Concrete, brick, porcelain, ceramic)
Harbor Springs Excavating, Harbor Springs, MI
Products: aggregate, gravel for roads and driveways



Scrap Metal
A&L Iron & Metal in Gaylord MI
Products: car parts, aircraft components and cans
Kling's in Cheboygan MI
Products: new steel rolls
Padnos in Traverse City MI
Products: aluminum wheels, insulated wire, tin cans

Steel ("tin") Cans and Lids
A&L Iron & Metal in Gaylord MI
Products: Various metal products

Tires
Geocycle, Coleman MI
Products: tire derived fuel for cement companies

Wood & Brush
Ground for mulch and sold on-site
Emmet County Drop-off Center
Also sold to Grayling Generating Station, Grayling MI
Deering Tree Service, Maple City MI

Yard Trimmings
Composted on-site by Emmet County Recycling
Garden waste, leaves and grass clippings are composted along with food scraps and the resulting compost is sold on site at the Drop-Off Center



Emmet County Recycling

231.348.0640
recycle@emmetcounty.org
EmmetRecycling.org

Facility:
Pleasantview Road Drop-off Center
7363 Pleasantview Road
Harbor Springs, MI 49740

Office:
200 Division St. Ste G-76
Petoskey MI 49770

Updated 3/26/2026

References

City of Harbor Springs. (n.d.). Municipal services: Information and services. Retrieved from https://www.cityofharborsprings.com/municipal-services/information-and-services/

City of Petoskey. (n.d.). Public works: Local services. Retrieved from https://www.petoskey.us/services/public_works/local_services.php

Emmet County. (n.d.). History. Retrieved from https://www.emmetcounty.org/about/history.php

Emmet County. (n.d.). Townships & municipalities. Retrieved from https://www.emmetcounty.org/government/townships___municipalities/index.php

Emmet County. (2022). Emmet County parks and recreation plan 2023–2027. Retrieved from https://cms2.revize.com/revize/emmetcountynew/Documents/Departments/Parks%20&%20Recreation/2023-01-05_2023-2027_Parks_Rec_Plan.pdf

Emmet County Department of Public Works. (2017). Commercial Recycling Parallel Study.

Emmet County Department of Public Works. (n.d.). Emmet County Recycling. Retrieved from https://www.emmetrecycling.org/about-us/our-model

Emmet County Department of Public Works. (2026). Pleasantview Road Drop-Off Center facility inventory & functions.

Emmet County Department of Public Works. (n.d.). Zero-waste events. Retrieved from https://www.emmetrecycling.org/services-facilities/zero-waste-events

Inter-Tribal Council of Michigan. (n.d.). Little Traverse Bay Bands of Odawa Indians. Retrieved from https://www.itcmi.org/home/tribes/little-traverse-bay-bands-of-odawa-indians/

Little Traverse Bay Bands of Odawa Indians. (n.d.). Retrieved from https://ltbbodawa-nsn.gov

Michigan Department of Environment, Great Lakes and Energy. (2024). Report of Solid Waste Landfill in Michigan. Retrieved from https://www.michigan.gov/egle/-/media/Project/Websites/egle/Documents/Legislative/MMD/Part-115/Report-FY24-Landfilled-Solid-Waste.pdf?rev=b1a8a575d427406f8a4ad4fb4de0ff47&hash=430D8389FB9BEE4BA4AA6D076DCC50F7

National Association of Counties. (n.d.). County explorer: Emmet County, Michigan. Retrieved from https://explorer.naco.org/?county_info=26047

Networks Northwest. (2022). Seasonal Population Study for Northwest Lower Michigan. Retrieved from https://www.networksnorthwest.org

Networks Northwest. (2025). Benchmarks Northwest. Retrieved from https://www.networksnorthwest.org/userfiles/filemanager/ahaf6fmtj23r7lgkmws8/

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U.S. Bureau of Labor Statistics. (n.d.). CPI inflation calculator. Retrieved from https://www.bls.gov/data/inflation_calculator.htm

U.S. Bureau of Labor Statistics. (2024). Quarterly Census of Employment and Wages (QCEW): Emmet County, Michigan. Retrieved from https://www.bls.gov/cew/

U.S. Census Bureau. (2020). 2020 decennial census. U.S. Department of Commerce. Retrieved from https://www.census.gov

U.S. Census Bureau. (n.d.). County geography profile: Emmet County, Michigan. Retrieved from https://www.census.gov

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