



MICHIGAN

Leading by Example in State Recycling

ED 2019-16 Annual Report
March 1, 2024

Table of Contents

Overview of Executive Directive 2019-16.....	3
Implementation Measures.....	4-5
Waste Measurement Pilot Program.....	6-7
Pilot Program Improvement Measures.....	8
Statistical Summary.....	9
Agency Recycling Liaisons.....	10
Recycling Facility Inventory.....	11
Improvements and Expansion.....	12
Reporting Timeline.....	13

Overview of Executive Directive 2019-16

On September 17, 2019, Governor Whitmer issued Executive Directive (ED) 2019-16, charging the State of Michigan to improve recycling rates and reduce waste levels.

The governor challenged state government to lead by example and redouble its efforts to develop and implement effective recycling and waste management practices in state facilities.

The Department of Technology, Management & Budget (DTMB) is responsible for coordinating agency participation and reporting progress on the state's recycling efforts. DTMB ensures each agency has all information necessary to comply with ED 2019-16 and participate in the state's recycling initiatives.

Each state agency provides DTMB with the following information annually:

- Number of non-exempt facilities offering recycling services.
- Number of non-exempt facilities.
- Percentage of its facilities offering recycling services.
- Pounds of materials disposed.
- Pounds of materials recycled at each facility.
- Requests for exemptions of buildings unable to provide recycling services.
- Recycling credits received from vendors.
- Recommendations for improving or expanding recycling in facilities.

DTMB, in conjunction with the Department of Environment, Great Lakes, and Energy (EGLE), monitors the state's recycling measures and creates strategies and procedures to improve the program. This includes developing educational resources to engage state employees on recycling services and best practices.

Implementation Measures

Liaisons

In November 2019, each state agency designated a liaison to ensure compliance with ED 2019-16. Since then, agencies either confirm or update their liaison annually. Agency liaisons are responsible for managing recycling inventory and metrics for facilities in their portfolio and reporting recycling progress and results for their agency. Agency liaisons work with their leadership to increase recycling services and recommend program improvements.

Resources for Tracking and Reporting

DTMB created the following resources for tracking and reporting recycling initiatives.

Recycling inventory sheets are specific to each agency and list all facilities in their portfolio. This sheet identifies which facilities have recycling services, which facilities do not have recycling services, and which facilities are exempt from establishing recycling services. The Recycling Inventory Sheet may be revised on an ongoing basis.

The **recycling toolkit** provides agencies with an overview of expectations and serves as an instructional tool for recycling liaisons. The toolkit provides:

- Step-by-step instructions on how to populate forms and templates.
- Details on how to procure recycling services.
- A timeline with due dates for each part of the reporting process.
- Contact information for recycling contract inquiries regarding leased facility concerns and general support.

A **recycling reporting template** to track metrics on waste and recycling and to make recommendations on how to improve recycling practices.

The **exemption form** contains the criteria used to request an exemption from establishing recycling services.

DTMB shared all resources with state agency leadership via email in November 2019 and again with each recycling liaison upon notification of their appointment.

State Agency Recycling SharePoint Site

DTMB created a state agency recycling SharePoint site that houses agency reporting documents and templates, a copy of ED 2019-16, and a contact list of agency liaisons. State agency liaisons use the site to share information applicable to the directive. DTMB also posts all final report drafts on this site.

Recycling SharePoint site: [State Agency Recycling - Home \(sharepoint.com\)](#)

ED 2019-16 Compliance Training

In early January 2020, DTMB invited each state agency recycling liaison to attend an ED 2019-16 training session. DTMB demonstrated how agencies can navigate through the state agency recycling SharePoint site. An overview was provided on the toolkit, reporting templates, and exemption form, followed by an open discussion to answer questions.

Recycling and Rubbish Removal Services

Recycling programs are structured at the discretion of each agency. The following variables influence recycling programs.

- Building type
- Function
- Size
- Location
- Tenants
- Budget
- Security concerns
- Hybrid scheduling

Recycling services are available through the statewide recycling contract with Republic Services, Rapid Shred, Waste Management, or alternative service options provided by local providers. Although these options cover many areas in the state, recycling services are unavailable in some locations.

Recycling in leased spaces is not available through all lessors; however, the DTMB Real Estate Division has implemented a process for requesting recycling services in leased space during the request for proposals (RFP) process and when negotiating lease renewals. Recycling language has been added to the RFP template and the space available proposal template.

Rubbish removal services are contracted in many state facilities by Harland's Sanitary, Republic Services, or Waste Management. Locations not covered by these contracts are using local rubbish removal services, where available.

Waste Measurement Pilot Program

ED 2019-16 charges DTMB with collecting and reporting total pounds of trash and recycling. DTMB worked with rubbish removal vendors to identify methods to quantify the volume of trash produced in state facilities. Unfortunately, all vendors lacked the tools and technology to measure and report trash volumes.

To comply with ED 2019-16, DTMB initiated a pilot program to measure trash on-site to compare with reported recycling volumes and determine a trash-to-recycling ratio. The 22 participating facilities were chosen based on producing measurable volume and with enough available dock space to allocate to a trash measurement area.

In 2020, scales were purchased for weighing trash at pilot locations. Facilities management partnered with janitorial staff to develop a process to weigh trash as part of the onsite collection process. Trash weights are reported monthly and compared with corresponding recycling totals provided by the vendor to determine the recycling ratio.

With many state employees working remotely in 2020-21 due to the COVID-19 pandemic, the program delayed implementation until the workforce returned to the office in June 2022.

The first six months of the pilot in 2022 revealed a recycling ratio of 137% in comparison to non-recyclable trash as indicated in the chart that follows. Although this data provides a snapshot of information, the short timeline does not support an accurate benchmark. Numerous factors affected data collection:

- Relying on janitorial staff to weigh trash. Anytime trash is disposed of without being weighed, it inflates the recycling ratio. It is obvious by looking at some of the individual buildings results that trash is not weighed consistently.
- Upon returning to the office, employees across the state were purging files and materials, increasing recycling volume.
- Some scales were not working properly at the beginning of the pilot, resulting in reduced trash weights at those locations.

		CY22					
Number	Building Name	Trash	Recycling	Ratio	Trash	Recycling	Ratio
1	Cadillac Place						
2	Constitution Hall	42,659	38,747	91%	41,415	82,642	200%
3	Elliott-Larsen Bldg (Cass)	10,093	11,280	112%	15,928	28,511	179%
4	Flint State Office Bldg	14,561	5,047	35%	29,423	7,665	26%
5	General Services Bldg	15,886	178,835	1,126%	21,389	323,047	1,510%
6	Grand Tower	5,926	16,015	270%	9,093	42,006	462%
7	Hall of Justice	8,089	13,045	161%	12,472	17,987	144%
8	Jackson State Office Bldg	5,906	3,163	54%	9,443	8,556	91%
9	Lottery	2,680	9,370	350%	4,443	14,606	329%
10	Mason/Austin Bldg	18,754	16,175	86%	42,546	24,746	58%
11	MI Library & Historical Center	7,910	84,304	1,066%	17,787	43,640	245%
19	MSP Forensic Lab	18,507	5,276	29%	24,614	13,275	54%
12	MSP HQ	36,930	24,990	68%	15,220	37,908	249%
20	MSP - Training	39,232	10,741	27%	40,387	19,076	47%
13	Operations Center	15,714	13,991	89%	30,211	22,560	75%
14	Ottawa/Hannah Bldg	27,824	17,520	63%	40,612	46,644	115%
15	Romney Bldg	4,479	14,123	315%	15,161	11,447	76%
16	Saginaw Jerome T Hart Bldg	14,211	5,057	36%	26,205	10,706	41%
17	Secretary of State Bldg	39,067	25,358	65%	42,862	40,311	94%
18	South Grand Bldg	329	7,232	2,198%	2,420	15,514	641%
21	Van Wagoner/Williams Bldg	21,613	33,064	153%	17,970	41,400	230%
22	Vehicle & Travel Services	2,393	6,126	256%	4,392	11,395	259%
	Total:	424,123	584,148	138%	586,560	958,754	163%

The 2023 results indicate a recycling ratio of 163% in comparison to non-recyclable trash. 2023 is the first full 12 months of recorded data and will serve as the benchmark for this pilot. After reviewing the data, the following observations can be made:

- Since the start of this pilot, DTMB buildings are consistently accumulating more recycling material than waste.
- Compared to 2022 data, trash waste increased by 28%. However, recycling increased by 40%.
- Also comparing 2022 with 2023 data, some building's recycling ratios were similar. However, in other buildings, such as the South Grand building and the Michigan Library and Historical Center, recycling ratios greatly vary.

Pilot Program Improvement Measures

Due to inconsistencies in results when comparing 2022 and 2023 data, it's recommended that DTMB continue weighing trash for another year. During the 2024 calendar year, DTMB will work on the following improvement measures:

- Share program results with DTMB facilities staff.
- Follow up with janitorial and facility staff to address any concerns with the current trash weighing and data collection processes.
- Continue to encourage participation.
- Provide training opportunities as needed.

The success of the DTMB trash weighing pilot will be reevaluated after the 2024 calendar year.

Statistical Summary

The following statistical data has been collected.

- Recycling liaisons
 - Agency name
 - Liaison name
 - Liaison email address
 - Liaison phone number

- Facility inventory
 - Agency name
 - Total non-exempt facilities
 - Total facilities with recycling
 - Percentage of non-exempt facilities participating in the recycling program
 - Percent change of facilities participating in the recycling program from January 2020 to December 2020

- DTMB recycling and waste measurement pilot program results
 - Total weights recycled by month
 - Total weights of waste by month
 - Recycling vs. waste percentage by month

Agency Recycling Liaisons

Agency Recycling Liaisons			
Agency			
DIFS	Ricky Withers	WithersR@michigan.gov	517-284-8681
DMVA	Greg Pawlak	PawlakG@michigan.gov	517-487-4655
DNR	Jeff Sears	SearsJ@michigan.gov	517-388-0502
DTMB	Sarah Goodrich	GoodrichS@michigan.gov	517-284-7954
DTMB-OCA	Rebecca (Becky) Taylor	TaylorR25@michigan.gov	517-373-7739
DTMB-SBO	Sarah Elsea	ElseaS@michigan.gov	517-335-3420
EGLE	Mary Kay Hawes	HawesM@michigan.gov	517-881-0768
LARA	Jamie Cutler	CutlerJ1@michigan.gov	517-243-0145
LEO	Teri Martin (primary)	MartinT21@michigan.gov	517-241-2190
LEO	Tommy Allen (backup)	AllenT5@michigan.gov	517-282-4615
MCSC	Kim Davis	DavisK5@michigan.gov	517-241-8115
MDARD	Torri Mills	MillsT3@michigan.gov	517-342-4848
MDCR	Abdel Aly (primary)	AlyA2@michigan.gov	517-249-3121
MDCR	Mahad Adawe (backup)	AdaweM2@michigan.gov	517-241-2649
MDE	James Shilling	ShillingJ@michigan.gov	517-241-2172
MDHHS	Gabrielle Rendon	Rendong@michigan.gov	517-242-8414
MDOC	Gene Wood	WoodG4@michigan.gov	517-335-2069
MDOS	Sandy Maleitzke (primary)	MaleitzkeS@michigan.gov	517-371-5284
MDOS	Rodrick (Jeremy) Hall (backup)	HallR6@michigan.gov	517-334-7244
MDOT	Keith Belonga	BelongaK@michigan.gov	517-243-3908
MEDC	David Wilcox	WilcoxD7@michigan.org	517-242-3739
MGCB	Karen Finch	FinchK@michigan.gov	313-456-4205
MSHDA	Chris Hudson	HudsonC5@michigan.gov	517-335-9904
MSL	Julie Proux	ProuxJ@michigan.gov	517-335-5683
MSP	Dawn Davis	DavisD35@michigan.gov	517-242-0621
Treasury	Jeff Connell	ConnellJ1@michigan.gov	517-636-5335

Recycling Facility Inventory

Recycling Inventory			
Agency	Total #		
DMVA	207	192	93%
DNR	186	160	86%
DTMB	49	49	100%
EGLE	10	10	100%
LARA	3	3	100%
LEO	32	32	100%
MCSC	1	1	100%
MDARD	2	2	100%
MDCR	1	1	100%
MDE	2	2	100%
MDHHS	94	61	65%
MDOC	98	98	100%
MDOS	131	131	100%
MDOT	155	87	56%
MEDC	3	3	100%
MSHDA	1	1	100%
MSL	3	2	67%
MSP	41	41	100%
Treasury	2	1	50%
TOTAL	1021	877	86%

The 2023 results show 86% of facilities offer recycling accessibility. This is a 4% increase from the 82% reported in 2022. The following factors may have attributed to an increase.

- Changes to state agencies' office locations have provided new opportunities for recycling accessibility.
- New recycling services being offered in remote areas.
- Agency program expansion.

Improvements and Expansion

DTMB and EGLE continue to discuss recycling progress and share ideas for advancement. DTMB consults with state agency recycling liaisons on an as-needed basis to evaluate efforts and discuss expansion opportunities.

The following initial expansion opportunities identified by these partnerships included the following steps taken at the kickoff of the program.

- Provided more education to state employees regarding proper recycling.
- Created recycling labels that are more easily identifiable and educational.
- Highlighted the inclusion of batteries in the recycling program.

Reporting Timeline

Date	Action
September 17, 2019	Executive Directive 2019-16 released.
November 15, 2019	ED 2019-16 State Agency Recycling Toolkit provided by DTMB.
December 9, 2019 (on or before)	Agency to designate and provide agency liaison to coordinate the recycling initiative.
December 31, 2019 (on or before)	Agency liaison to review inventory and send exemption request(s) via State Agency Recycling exemption form to DTMB.
February 1, 2020	Agency liaison to review and submit State Agency Recycling Inventory to DTMB.
February 1, 2020	Agency liaison to populate and submit State Agency Recycling Reporting Template to DTMB.
Agency Reporting Updates → February 1, 2020 → August 1, 2020 → February 1, 2021 → February 1, 2022 → February 1, 2023 → February 1, 2023 → February 1, 2024 → February 1, 2025 → February 1, 2026	Agency liaison to provide agency reporting updates using the provided State Agency Recycling Inventory spreadsheet and State Agency Recycling Reporting Template to DTMB.
ED Progress Reporting → March 1, 2020 → September 1, 2020	DTMB, in conjunction with EGLE, will provide a onetime recycling progress report after six months of project implementation.
ED Annual Reporting → March 1, 2021 → March 1, 2022 → March 1, 2023 → March 1, 2024 → March 1, 2025 → March 1, 2026	DTMB, in conjunction with EGLE, will provide recycling annual reports.