



Michigan Infrastructure Council

March 5
2019



180-Day Report

Developing a 30-Year
Infrastructure Strategy for Michigan

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Acknowledgments

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Kathleen Lomako, Vice-Chairperson

Jessica Moy, Executive Director, MIC, Department of Treasury

Michigan Infrastructure Council – Voting, Appointed Members: Marco Bruzzano, John Daly III, Daniel Fredendall, Jon Kangas, Erin Kuhn, Kathleen Lomako, Palencia Mobley, John Weiss, David Wresinski

Michigan Infrastructure Council – Nonvoting, Ex Officio Members: Sharon Schafer, Eric Swanson, Joanna Johnson, Aaron Keatley, Sue McCormick, Ken McFarlane, Laura Mester, Larry Steckelberg, Sally Talberg



Executive Summary

The defining purpose of the Michigan Infrastructure Council (MIC) is to map out a strategic framework to address the critical need for infrastructure improvements. This framework will encourage community discussion, guide prioritization, promote sound investments, review best practices and systems, and minimize citizen inconvenience through less digging, more coordination, and collaboration that can enhance planning and save costs.

MIC is not seeking to make the case for the importance of infrastructure investment. The needs in this area are well-documented and were highlighted most recently by the work of the 21st Century Infrastructure Commission and the Michigan Infrastructure Asset Management Pilot. In fact, it would be difficult to make the argument against investing in the infrastructure that serves Michiganders and their communities and builds the foundation for Michigan's economic future.

It has become a ubiquitous idea that the pace of change has quickened. All around, the developments in technology and shifts in society make planning for future investment difficult. The "disruptions" caused by these and other factors have radically changed business models, dramatically affected the future of work and community, and challenged anyone planning long-term investment. In response to this changing environment, one thing is certain, Michigan needs high quality and dependable infrastructure that maximizes quality of life, protects communities and the environment, and is affordable.

The outcome of this effort is intended to be a 30-year, statewide infrastructure framework that will adapt to the needs of a changing world while maximizing the investment and minimizing the disruption that comes from installing and maintaining the critical infrastructure that communities need.

Rapid change and the need for long-term investment define the challenging environment into which the MIC has ventured. MIC is committed to widespread collaboration, reaching out across stakeholders to broadly engage key organizations, leaders, experts, and citizens. MIC is exploring techniques and technology that result in digging less and achieving more. MIC is asking the difficult questions on how infrastructure can adapt and respond to changes throughout society. All input is welcome as MIC navigates the best there is to offer in lifecycle, infrastructure management.

This interim report is not a draft of that long-term plan but merely a signpost on the path to this comprehensive framework. The timeline is aggressive, and the work is daunting, but the team is moving forward at a fast pace to meet the 3-year deadline for a 30-year framework that the people of Michigan need and deserve from their investment.



Mission

Define a vision for Michigan's infrastructure that provides the foundation for public and environmental health, economic prosperity, and quality of life.

Introduction

From the first wooden plank road to broadband's last mile, new infrastructure quickly transforms from an installation project to asset management – a persistent responsibility that is increasingly complex and expensive. As Michigan faces an expansive and progressively aging network of infrastructure, a strategic, statewide framework for long term, integrated asset management is imperative. Leveraging extensive research, subject matter expertise, and legislative processes, the Michigan Infrastructure Council (MIC) was founded to address this important endeavor, crosscutting infrastructure asset types, recognizing Michigan's diverse geography, and understanding resource constraints.

21st Century Infrastructure Commission

The 21st Century Infrastructure Commission, an advisory body comprised of 27 members, was created by Governor Rick Snyder through Executive Order 2016-5 to initiate the planning, development, and management of Michigan's complex infrastructure systems over the next 30 to 50 years. The Commission was guided by four key principles as it established a common vision for Michigan's long-term infrastructure:

- Economic prosperity
- A healthy environment
- Reliable, high-quality service
- Value for investment

Through the publication of the 21st Century Infrastructure Commission Report (2016) the Commission acknowledged the many challenges to Michigan's aging, underfunded, and siloed infrastructure environment and issued a comprehensive set of recommendations across water, transportation, energy, and communications. The Commission also issued two overarching recommendations: 1) conduct a Regional Infrastructure Asset Management Pilot and 2) create the Michigan Infrastructure Council, ensuring a baseline for standardized data and collection methodology, as well as an administrative body to coordinate and implement the asset management strategies.



Infrastructure Asset Management Pilot

The Regional Infrastructure Asset Management Pilot commenced in April 2017 through Executive Directive 2017-1 and was tasked with developing an integrated asset management process that could be leveraged across state, regional, and local government and both public and private utilities. Confined to a one-year timeframe, the Pilot focused on three significant aspects of integrated asset management:

- Identification of existing infrastructure data and gaps
- Consideration of database systems, collection methods, and storage
- Better coordination across infrastructure sectors

The Pilot Advisory Board recognized Michigan's expansive infrastructure network, servicing nearly 10 million citizens through more than 3,350 asset owners. Therefore, the pilot was limited in geographic scope to West Michigan, supervised by the Grand Valley Metropolitan Council (GVMC) and the West Michigan Shoreline Development Commission (WMSRDC), and Southeast Michigan, administered by the Southeast Michigan Council of Governments (SEMCOG). Selection of these regions represented over 50% of Michigan's population and brought together stakeholders across sixteen counties, 201 communities, urban and rural landscapes, and public and private utility owners.

The resulting Michigan Infrastructure Asset Management Pilot identified five key opportunities for advancing the Pilot into a comprehensive, statewide, strategic framework for integrated asset management:

- The Value Proposition – ensuring that all stakeholders benefit from investment in integrated asset management
- Building a Statewide Culture of Asset Management – providing tools and access to information to make strategic, financial, and tactical decisions
- Facilitating the Data Collection Process – standardizing and streamlining data collection, storage, and analysis
- Creating a Statewide Integrated System – developing a strategic framework for integrated asset management, accessible to all stakeholders
- Enabling Coordination within the Public Right of Way – removing barriers to promote alignment between funding mechanisms and leveraging shared timelines

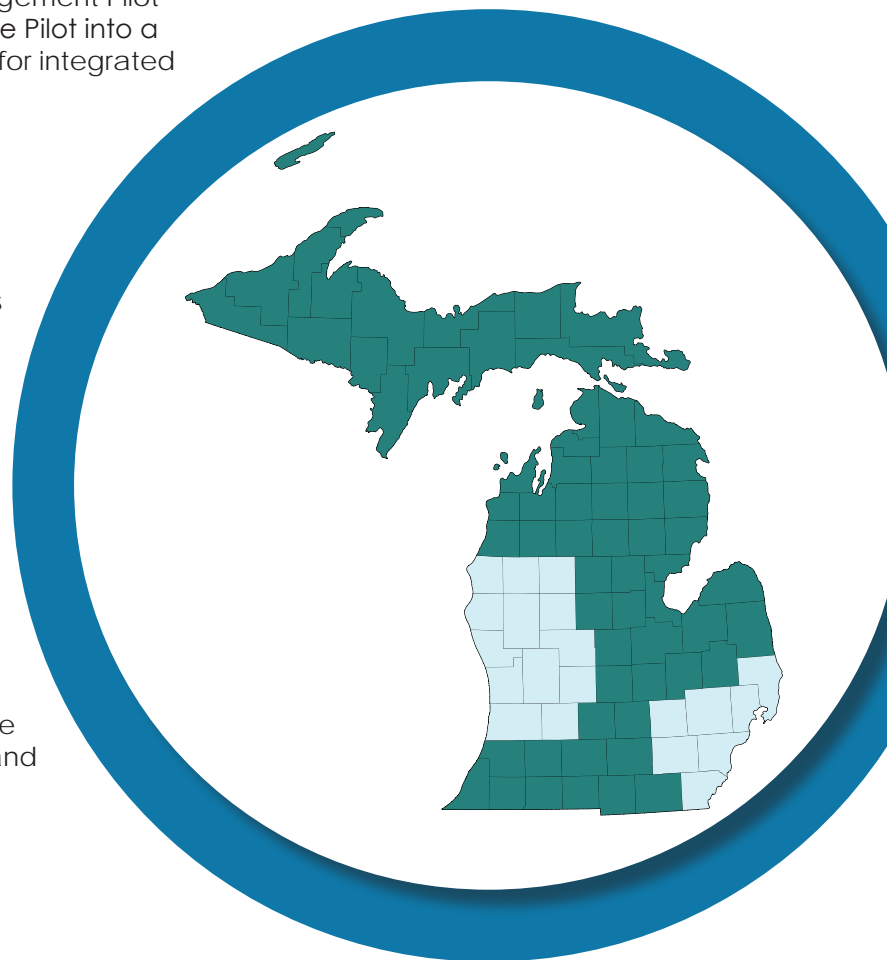


Figure 1. Infrastructure Asset Management Pilot Participating Communities

Michigan Infrastructure Council Legislation

Stemming from the significant efforts and key recommendations of the 21st Century Infrastructure Commission and the Infrastructure Asset Management Pilot, three pieces of legislation were passed on July 2, 2018:

- Public Act 323 of 2018 – Established the Michigan Infrastructure Council (MIC) within the Michigan Department of Treasury
- Public Act 324 of 2018 – Established the Water Asset Management Council (WAMC) within the Michigan Department of Environmental Quality and reporting through MIC
- Public Act 325 of 2018 – Broadened the scope and realigned the Transportation Asset Management Council (TAMC) within the Michigan Department of Transportation and reporting through MIC

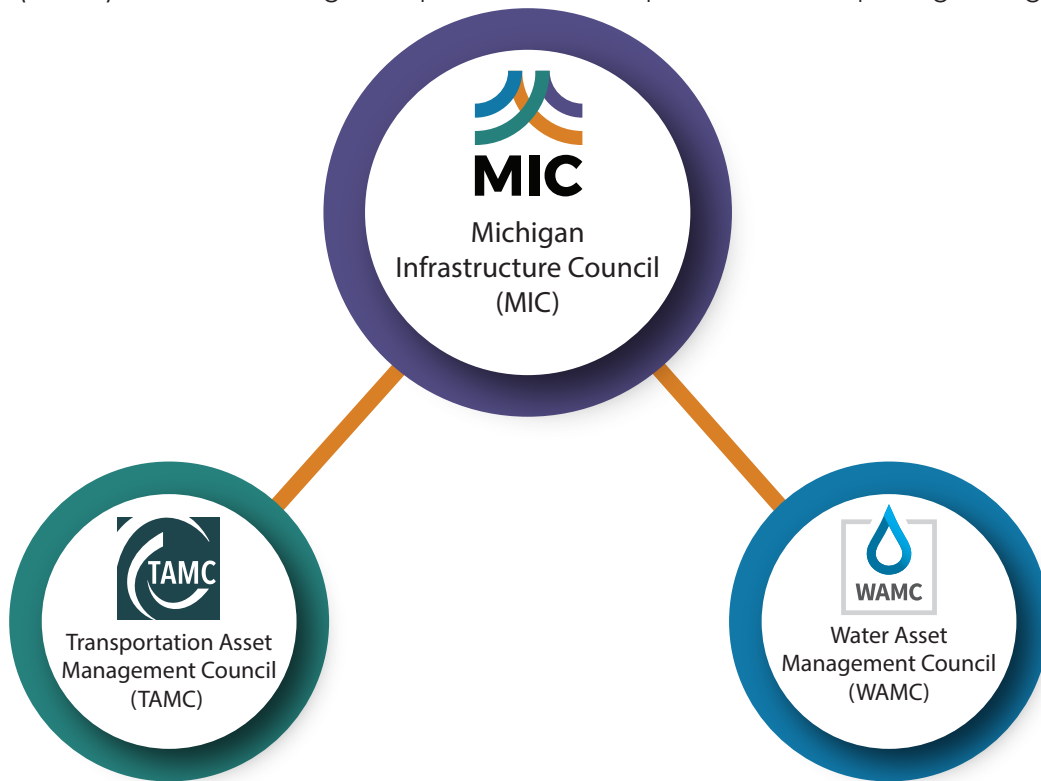


Figure 2. Council Reporting Structure

As defined through P.A. 323 of 2018, the Michigan Infrastructure Council is charged with bringing together public and private infrastructure owners, regional representatives, finance and policy experts, and state departments to coordinate and measure infrastructure goals, safeguard investments, and develop an efficient, strategic, and statewide framework for integrated asset management.

The MIC is comprised of nine voting members, appointed by the Governor and the state legislature to represent varied areas of expertise, Michigan's diverse geography, differing scales of infrastructure systems, public and private sectors, and local, regional, and state governments.

Table 1: Voting Members

Name	Affiliation	Appointed by	Term
Mr. John Weiss, Chairperson	Grand Valley Metropolitan Council	Senate Majority Leader	12/31/2020
Ms. Kathleen Lomako, Vice-Chairperson	Southeast Michigan Council of Governments	House Minority Leader	12/31/2019
Mr. Marco Bruzzano	DTE Energy	Governor	12/31/2020
Mr. John H. Daly III	Alpha Infrastructure Management (AIM) Group	Senate Minority Leader	12/31/2019
Mr. Dan Fredendall	Orchard, Hiltz & McCliment, Inc. (OHM)	Speaker of the House	12/31/2020
Mr. Jon Kangas	Charter Township of Chocelay	Governor	12/31/2019
Ms. Erin Kuhn	West Michigan Shoreline Regional Development Commission	Governor	12/31/2021
Ms. Palencia Mobley	Detroit Water and Sewerage Department	Governor	12/31/2020
Mr. David Wresinski	Michigan Department of Transportation (Retired)	Governor	12/31/2021

The MIC is also comprised of nine non-voting members representing six state agencies and leadership from TAMC, WAMC, and the Michigan Public Service Commission (MPSC). The six state agencies include:

- Michigan Department of Agriculture and Rural Development (MDARD)
- Michigan Department of Environmental Quality (MDEQ)
- Michigan Department of Natural Resources (MDNR)
- Michigan Department of Technology Management and Budget (DTMB)
- Michigan Department of Transportation (MDOT)
- Michigan Department of Treasury

The MIC held its first meeting on September 6, 2018 and has met monthly, thereafter, to initiate the comprehensive work tasks set forth in the Public Act 323 of 2018 legislation. A full listing of recent activities and a high-level, 3-year work plan is outlined later in this document.



Michigan Infrastructure Council Goals and Legislative Mandates

The launch of Michigan Infrastructure Council (MIC) and its sub-councils, the Water Asset Management Council (WAMC) and the Transportation Asset Management Council (TAMC), established Michigan as a national leader in integrated infrastructure asset management. Its foundational legislation set forth ambitious milestones in its 3-year workplan as well as long-term, aspirational objectives through the requisite 30-year strategic plan. In response, the Council's mission and five goals echo the need for both immediacy of action and a commitment to comprehensive asset management and ongoing innovation.



Section 4 of P.A. 323 of 2018 outlined numerous milestones and workplan requirements, each of which were considered in the development of the MIC goals.

Table 2: Alignment of Goals with Legislation

Legislation P.A. 323 of 2018	Goal Alignment
Determine appropriate assets within the asset classes	Prioritize
Establish consistent data standards and definitions for each asset class	Prioritize
Identify and designate a process to plan, analyze, and coordinate asset management across assets and asset owners at the regional level	Collaborate, Coordinate
Establish procedures for data storage, collecting, updating, and reporting	Prioritize
Provide recommendations related to the appropriate level of financial support	Invest
Develop a process to coordinate planning efforts with TAMC/WAMC/MPSC/MEDC*	Collaborate, Coordinate
Develop a process to coordinate with TAMC and WAMC with regard to training and education	Collaborate, Educate
Develop statewide performance goals	Collaborate, Prioritize, Coordinate, Invest, Educate
Establish protocols to ensure data security and accuracy at the local, regional, and state levels	Prioritize
Develop a consistent and coordinated asset management plan among state departments, WAMC, and TAMC	Collaborate, Coordinate, Educate
Research and advise on matters relating to asset management	Collaborate, Prioritize, Coordinate, Invest, Educate
3 Year Requirement – Predictive analytics to forecast asset condition	Prioritize
3 Year Requirement – Public dashboard	Collaborate, Educate
3 Year Requirement – 30-year integrated infrastructure strategy	Collaborate, Prioritize, Coordinate, Invest, Educate

* WAMC: Water Asset Management Council; TAMC: Transportation Asset Management Council; MPSC: Michigan Public Service Commission; MEDC: Michigan Economic Development Corporation

3-Year Workplan

Satisfying the requirements of the legislation while addressing the quickening pace of change and the need for long-term investment has prompted an aggressive timeline and workplan for the Michigan Infrastructure Council (MIC). Key milestones are identified in Figure 4, while high-level workplans for the ensuing years are listed in subsequent pages. These workplans will continue to be refined in the annual reports as additional information is accrued and preliminary efforts of MIC, the Water Asset Management Council (WAMC) and the Transportation Asset Management Council (TAMC) come to fruition.

Timeline and Milestones: July 2, 2018 - July 1, 2021



Figure 4. Michigan Infrastructure Council Timeline and Milestones

Year 1 Workplan

First 180 Days (September 6, 2018 – March 5, 2019)

- Conduct First Meeting of the Michigan Infrastructure Council – September 6, 2018
- Elect Chairperson and Other Officers (Vice-Chairperson)
- Develop and Adopt Michigan Infrastructure Council Bylaws
- Appoint Water Asset Management Council members
- Launch Michigan Infrastructure Council Website - <https://www.michigan.gov/mic>
- Develop and Adopt Michigan Infrastructure Council Mission and Goals
- Develop Communications Plan and Materials
- Conduct Initial Meetings with Key Stakeholder Groups (See Appendix B for Details)
- Initiate Cross-Council Collaboration Efforts
- Initiate Development of Cross-Asset Portal
- Develop Michigan Infrastructure Council Budget – FY2019/FY2020
- Author and Publish 180-Day Report: Developing a 30-Year Infrastructure Strategy for Michigan



Remainder of Year 1 (March 6, 2019 – September 30, 2019)

- Evaluate and Implement Recommendations from the 21st Century Infrastructure Commission Report
- Evaluate and Implement Recommendations from the Infrastructure Asset Management Pilot
- Research, Evaluate, and Initiate Adoption of Definitions and Standards for Assets
- Establish Baseline Performance Metrics
- Conduct Regional Communication and Coordination Summits
- Research and Gather “External Input” from Subject Matter Experts including International Community/Peer States, Private Sector, Not-for-Profit Industry Organizations, etc.
- Author and Publish Year 1 Report: Developing a 30-Year Infrastructure Strategy for Michigan

Year 2 Workplan

- Finalize Water Asset Management Council (WAMC) and Transportation Asset Management Council (TAMC) Asset Management Plan Templates and Implement 3-year Collection Cycle
- Launch Cross-Asset Project Portal
- Research and Identify Data Inventory Needs
- Establish and Implement Strategic Data Collection Process
- Establish and Implement Protocols for Data Security, Accuracy, Updates, etc.
- Research and Identify Barriers to Integrated Asset Management
- Establish Action Plans to Address Integrated Asset Management Barriers
- Implement Cross-Council Efforts
- Initiate Collection and Tracking of Performance Metrics
- Author Draft 30-Year Integrated Infrastructure Strategy for Michigan
- Initiate 1-Year Public Evaluation and Incorporate Feedback on Draft 30-Year Integrated Infrastructure Strategy for Michigan
- Author and Publish Year 2 Report: Developing a 30-Year Infrastructure Strategy for Michigan



Year 3 Workplan

- Conclude Public Evaluation and Incorporate Feedback on Draft 30-Year Integrated Infrastructure Strategy
- Refine Data Inputs, Establish Long-term Target Metrics, and Strategies
- Author and Publish 30-Year Integrated Infrastructure Strategy
- Author and Publish Year 3 Report: Operationalizing a 30-Year Infrastructure Strategy for Michigan

Budget

The Department of Treasury received one-time funding for Fiscal Year 2019 through P.A. 201 of 2017 to fund the activities, costs, and expenses of the Michigan Infrastructure Council (MIC).

Budget: \$1,500,000.

Ongoing funding, to sustain the activities of MIC, has yet to be identified.

Budgeting and Funding recommendations for upcoming year(s) and Council expenditures from the previous year will be included in the annual, fiscal year report.

Budgeting will be coordinated with the Water Asset Management Council (WAMC) and the Transportation Asset Management Council (TAMC) where applicable to provide cost efficiencies and shared-service communications and activities of the respective councils.



Moving Forward

The Michigan Infrastructure Council (MIC) is on track to meet its 3-year deadline for the 30-year plan. MIC is acutely aware of the rapidly changing environment and the need for long-term investment in comprehensive infrastructure management. By completing the aggressive work plan and milestones outlined in this report, the resulting plan should enable a statewide framework that is worthy of this challenge and exceeds the charge set forth in the legislation.

Broad participation will be key. Stakeholders are being engaged in initial discussions and will be invaluable throughout the effort. MIC will be providing regular updates via annual year-end reports, conference presentations, website posts, and ad hoc communications. Any inquiries or input to help provide the best possible product, moving forward, are welcomed.

Appendices

Appendix A: References

The Michigan Infrastructure Council (MIC) has garnered local, state, and national attention for its progressive mission and long-term goal of statewide, integrated infrastructure asset management. A listing of key reports, news releases, and other publications is provided.

Legislation

PA 323. (2018). *Michigan Infrastructure Council Act, Section 21.601-21.606.*

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21st Century Infrastructure Commission. (2016). *21st Century Infrastructure Commission Report.* Lansing.

21st Century Michigan Infrastructure Commission. (2018). *Michigan Infrastructure Asset Management Pilot Final Report.* Lansing.

Michigan Consortium of Advanced Networks. (2018). *Michigan Broadband Roadmap.* Lansing.

Michigan Transportation Asset Management Council. (2018). *Michigan Local Agency Culvert Inventory Pilot Evaluation Report.*

Articles and Other Publications

Cherian, G. (2018, October 24). *Why Michigan's Infrastructure Plan May be The Pace Car For The Country.* Retrieved from Forbes:
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Landers, J. (2018, September). *Michigan RAMPs up asset management.* Retrieved from www.wef.org:
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Michigan Department of Treasury. (2018, October 26). Michigan Department of Treasury. *Moy Named Executive Director of Michigan Infrastructure Council*. Lansing, MI.

State of Michigan. (2018, July 19). *Gov. Rick Snyder makes initial appointments to Michigan Infrastructure Council*. Retrieved from www.michigan.gov/snyder: <https://www.michigan.gov/snyder/0,4668,7-277-57577-473313--,00.html>

State of Michigan. (2018, July 2). *Gov. Rick Snyder signs legislation creating two councils to improve state's infrastructure*. Retrieved from www.michigan.gov/snyder: https://www.michigan.gov/snyder/0,4668,7-277-57577_57657-472096--,00.html

State of Michigan Department of Treasury. (2018, September 28). *Michigan Infrastructure Council Announces Appointment of Water Asset Management Council Members*. Lansing, MI.



Appendix B: Outreach and Engagement Activities

The Michigan Infrastructure Council (MIC) is committed to outreach and engagement across all infrastructure stakeholder groups, including but not limited to public and private utility owners, local, regional, and state representatives, finance and policy experts, not-for-profit and non-governmental organizations, and Michigan citizens. To ensure open lines of communication, alignment of resources, and coordinated work efforts, stakeholder meetings are in-progress throughout the state. A comprehensive listing of all outreach activities will be provided in the annual reports.

State of Michigan Bureaus, Programs, and Initiatives

Six state agencies and the Michigan Public Service Commission have standing representation on MIC. In addition to these formal interactions, MIC has engaged with several state agency bureaus, programs, and initiatives to ensure program and message alignment.

State of Michigan Bureaus, Programs, and Initiatives
Department of Technology, Management, and Budget – Center for Shared Solutions
Department of Technology, Management, and Budget – Enterprise Information Management (EIM)
Department of Technology, Management, and Budget – Michigan Consortium of Advanced Networks (MCAN), Michigan Partnership for Broadband Advancement (MiPBA), Connecting Michigan Communities (CMIC)
Department of Treasury – Bureau of Local Government
Michigan Office of the Great Lakes
Michigan State Police – Critical Infrastructure Protection (CIP) Unit
Regional Prosperity Initiative (RPI)
Talent and Economic Development - Michigan Land Bank

Not-For-Profit/Non-Governmental Organizations

Organization
American Council of Engineering Companies / American Society of Civil Engineers (ACEC/ASCE) - Michigan
American Society of Civil Engineers (ASCE) - National
American Water Works Association (AWWA) – Michigan
Great Lakes Commission
Michigan Association of Counties (MAC)
Michigan Association of County Drain Commissioners (MACDC)
Michigan Association of Regions (MAR)
Michigan Chamber of Commerce
Michigan County Roads Association (MCRA)
Michigan Infrastructure and Transportation Association (MITA)
Michigan Municipal League (MML)
Michigan Rural Water Association (MRWA)
Michigan Society of Professional Engineers (MSPE)
Michigan Townships Association (MTA)
Michigan Water Environment Association (MWEA)
National Governor's Association



Other Outreach and Engagement

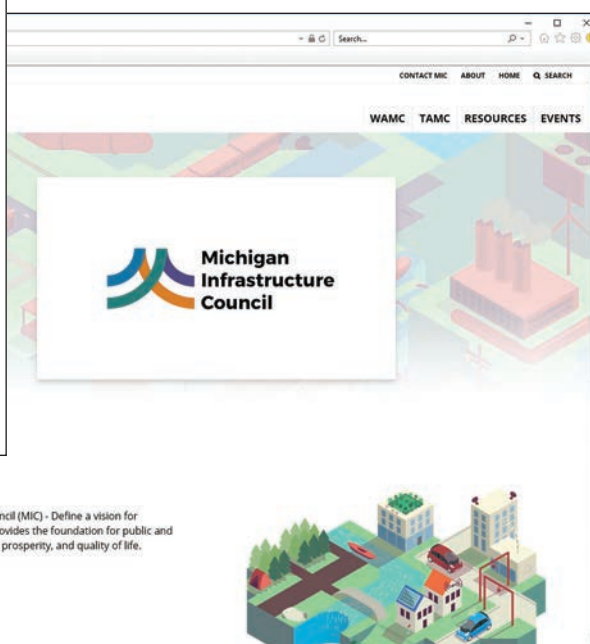
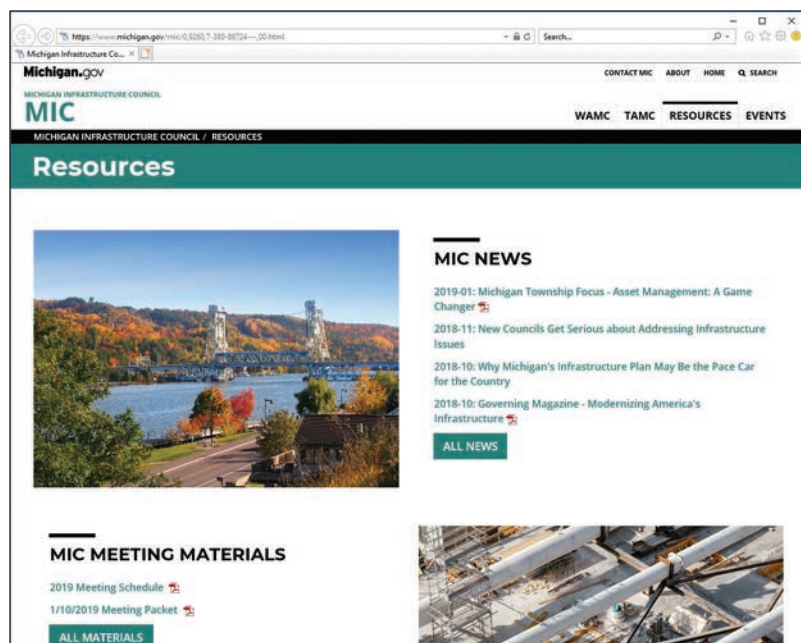
Organization
Canadian Network of Asset Managers (CNAM)
Consumers Energy
MISS DIG 811
National Council for Public-Private Partnerships (NCPFP)
Public Sector Digest

Local, Regional, and State Government Outreach and Engagement

To-date, MIC has presented to over 500 local, regional, and state officials, asset owners, and asset managers. Additional “Communication and Collaboration Summits” are being scheduled regionally throughout the state.

Website - <https://www.michigan.gov/mic>

In addition to traditional engagement opportunities, MIC leverages its comprehensive website to track, manage, and distribute information to its stakeholders. Since launch in November 2018, the MIC website has totaled over 1,800 site visits. As MIC matures, this site will serve as an access point to dashboards and analytics, asset management tools and templates, and other key resources.



Appendix C: Council Members

Voting Members

Name	Affiliation	Appointed by	Term
Mr. John Weiss, Chairperson	Grand Valley Metropolitan Council	Senate Majority Leader	12/31/2020
Ms. Kathleen Lomako, Vice-Chairperson	Southeast Michigan Council of Governments	House Minority Leader	12/31/2019
Mr. Marco Bruzzano	DTE Energy	Governor	12/31/2020
Mr. John H. Daly III	Alpha Infrastructure Management (AIM) Group	Senate Minority Leader	12/31/2019
Mr. Dan Fredendall	Orchard, Hiltz & McCliment, Inc. (OHM)	Speaker of the House	12/31/2020
Mr. Jon Kangas	Charter Township of Chocoday	Governor	12/31/2019
Ms. Erin Kuhn	West Michigan Shoreline Regional Development Commission	Governor	12/31/2021
Ms. Palencia Mobley	Detroit Water and Sewerage Department	Governor	12/31/2020
Mr. David Wresinski	Michigan Department of Transportation (Retired)	Governor	12/31/2021

Non-Voting Members

Name	Agency Representation	Term
Mr. Ken McFarlane	MDARD - Agriculture and Rural Development	2018 - Present
Mr. Aaron Keatley	MDEQ - Environmental Quality	2018 - Present
Ms. Amy Epkey	MDEQ - Environmental Quality (Surrogate)	2018 - Present
Ms. Sharon Shafer	MDNR - Natural Resources	2018 - Present
Ms. Laura Mester	MDOT - Transportation	2018 - Present
Mr. Dave DeVries	DTMB - Technology, Management and Budget	2018
Mr. Eric Swanson	DTMB - Technology, Management and Budget (Surrogate)	2018 - Present
Mr. Larry Steckelberg	Department of Treasury	2018 - Present
Ms. Sally Talberg	MPSC - Public Service Commission	2018 - Present
Mr. Ryan Laruwe	MPSC - Public Service Commission (Surrogate)	2018 - Present
Ms. Joanna Johnson	TAMC - Transportation Asset Management Council	2018 - Present
Mr. Bill McEntee	TAMC - Transportation Asset Management Council (Surrogate)	2018 - Present
Mr. Roger Belknap	TAMC - Transportation Asset Management Council (Surrogate)	2018 - Present
Ms. Sue McCormick	WAMC - Water Asset Management Council	2018 - Present
Mr. Scott House	WAMC - Water Asset Management Council (Surrogate)	2018 - Present





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