

Southeast Michigan Council of Governments

The Southeast Michigan Council of Governments (SEMCOG), the metropolitan planning organization (MPO) for the Detroit metropolitan area, works with municipalities to advance asset management planning through funding and technical support, identifying regional asset management needs and supporting the project selection process.

Notable Practices

- **Technical assistance to support asset management data collection and analysis for local partner agencies.** SEMCOG provides technical support and funding for data collection efforts and educates municipalities on topics such as Federal Highway Administration (FHWA) and Federal Transit Administration performance reporting requirements. The MPO conducts webinars (SEMCOG Universities) and peer exchanges on asset management and improving capability.
- **Flood Risk tool developed to inform investment decisions.** The [Flood Risk Tool](#), created by the MPO's climate resiliency team, helps SEMCOG understand vulnerabilities in the transportation network using an interactive map. It can be used to guide planning and investment decisions in the region.
- **Capital Improvement Project (CIP) Coordination Tool.** The CIP is a planning tool that allows owners of water, transportation, broadband and private utility companies to coordinate capital improvement projects in the region through an interactive map. Benefits of the tool provide:
 - Utility owners are able to coordinate with their peers on budgeting, timing, project selection and funding opportunities.
 - Infrastructure investment gaps can be calculated to support regional strategies.

About the Southeast Michigan Council of Governments

SEMCOG serves as both the MPO and Council of Governments (COG) for the Detroit/Southeast area of Michigan. The MPO planning area has a population of around 4.8 million people and is comprised of seven counties: Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, and Wayne. SEMCOG is part of a regional and State governance structure that promotes coordination between State, regional, and local partners on asset management. SEMCOG's Transportation Coordination Council (TCC) is the MPO's coordination body which reviews project recommendations submitted through each of the counties' and the City of Detroit's Federal-Aid Committees (FAC) for inclusion in the long range transportation plan project list. The TCC submits a draft list to the SEMCOG Executive Committee for approval prior to their inclusion in the long range transportation plan (LRTP). The TCC also provides guidance on the LRTP and other regional transportation plans and issues. Each FAC



includes representatives from local units of government, transit agencies, and Michigan DOT who help evaluate data and approve local project recommendations.

In addition to pavement and bridge infrastructure, SEMCOG is also responsible for coordinating asset management across water, wastewater, stormwater, and transportation infrastructure in the region. This level of coordination responsibility helps SEMCOG promote coordinated and effective public services, following one of the guiding principles in the 2045 Regional Transportation Plan (the long range transportation plan for Southeast Michigan): “*Coordinate investments across road, water, electrical, communication, and sewer infrastructure.*”

Highway and Transit Assets and Partner Agencies

SEMCOG maintains publicly-available data on pavement conditions through an [interactive map](#). As required by federal performance measures, SEMCOG tracks the percentage of roads and bridges in good, fair, or poor condition. SEMCOG makes this information easily accessible through a [performance measures page](#) on its website. Road and bridge maintenance responsibility is attributed to jurisdiction – MDOT, county road commissions or cities. Transit maintenance responsibility is the transit provider.

Assets within SEMCOG’s planning area include:

- 25,000+ miles of roads¹
- 2900+ bridges
- 3000+ miles of bikeways/pathways/routes
- 8 international border crossings (along an 87-mile border that accounts for over 40% of U.S. trade with Canada)
- Transit assets managed by eight fixed-route transit providers

Each of the seven counties in the region, as well as the City of Detroit, works with a Federal-Aid Committee (FAC) to help with coordinating and prioritizing transportation investments in the regional planning process.² The FACs are made up of representatives from local units of government, transit agencies, and Michigan DOT who help evaluate data and approve project recommendations. SEMCOG is the coordinating body to ensure federal funds are allocated via federal rules through the long range transportation plan (LRTP) and Transportation Improvement Program (TIP), and for regional Federal-Aid system pavement condition collection.

¹ SEMCOG. March 2019. *2045 Regional Transportation Plan for Southeast Michigan*. <https://semcog.org/desktopmodules/SEMCOG.Publications/GetFile.ashx?filename=2045RegionalTransportationPlanForSoutheastMichiganMarch2019.pdf>

² SEMCOG. March 2019. *2045 Regional Transportation Plan for Southeast Michigan*. <https://semcog.org/desktopmodules/SEMCOG.Publications/GetFile.ashx?filename=2045RegionalTransportationPlanForSoutheastMichiganMarch2019.pdf>

Asset Management Relationship to Long Range Planning

Regional policy calls for “data-driven” asset management practices. SEMCOG’s most recent LRTP, adopted in 2019, includes ten overarching transportation policies that guide and support implementation activities in the region. The first policy focuses on preserving infrastructure “through fiscally-responsible, data-driven asset management practices.”³

Data collection, coordination, and funding assistance. The State of Michigan holds a strong focus on asset management practices and has established a State Transportation Asset Management Council (TAMC), which reports on asset performance to the Michigan Infrastructure Council and State Transportation Commission.⁴ The TAMC has adopted policies on transportation asset data collection, storage, and distribution, both for Federal-Aid eligible and non-Federal-Aid roads. Since 2003, the TAMC has required road agencies in Michigan to collect and submit roadway condition information based on the Pavement Surface Evaluation and Rating (PASER) method, which relies on a visual survey approach.⁵

To support these efforts, SEMCOG provides resources and technical support to communities in its region for developing asset management programs and plans. These resources and technical support include:

- Coordination and submittal of PASER data collection for Federal-Aid roads
- Annual local Road Data Collection grants for local road data collection
- Regional infrastructure coordination
- Additional web-based data tools

SEMCOG provides assistance to communities to help them implement the PASER data collection process, offers data collection equipment loans (e.g., laptop, GPS), and provides assistance for using Roadsoft, a roadway management system used for collecting, storing, and analyzing pavement data. SEMCOG also commits \$50,000 annually toward grants to help communities collect PASER road condition data on local roads.

Knowing that coordination with other infrastructure owners can help advance project selection and planning, SEMCOG created the Capital Improvement Project (CIP) coordination tool. This password-protected web portal allows public and private utilities, communities, broadband, transportation, and

³ SEMCOG. March 2019. *2045 Regional Transportation Plan for Southeast Michigan*.

<https://semcog.org/desktopmodules/SEMCOG.Publications/GetFile.ashx?filename=2045RegionalTransportationPlanForSoutheastMichiganMarch2019.pdf>

⁴ The Michigan Infrastructure Council develops a long-term strategic framework for the state’s infrastructure. The State Transportation Commission is the policy-making body for Michigan’s transportation system.

⁵ Michigan Infrastructure Council website. <https://www.michigan.gov/mic>

water and sewer providers to enter planned projects onto a map. This portal helps local partners coordinate projects in proximity to each other.

In 2023, SEMCOG partnered with the Michigan DOT, the American Council of Engineering Companies of Michigan, and the Michigan Infrastructure Council to hold an Infrastructure Coordination Workshop that included engineers from various backgrounds (e.g., water/sewer engineers) to outline a process for the region for sharing CIP data and improve coordination on timing, funding/grant/loan requests where possible.⁶ This effort was organized through SEMCOG's Water Infrastructure Task Force, which was convened to focus on the current condition and future resiliency of the system.⁷ The Infrastructure Coordination Workshop provided an opportunity to improve the coordination of infrastructure projects across public and private sectors to ensure efficient investment of resources.

SEMCOG University. SEMCOG holds free training on a variety of topics, called "SEMCOG University." In July of 2021, SEMCOG hosted a "SEMCOG University" session titled "[Practical Asset Management Planning](#)." This session included speakers from the City of Detroit, Macomb County Department of Roads, and Michigan DOT who discussed the development of transportation asset management plans.

Asset Management in the RTP. The 2045 LRTP notes that SEMCOG collected data and prioritized local utility and infrastructure assets through the Michigan Infrastructure Asset Management Pilot Report. In addition, SEMCOG's 2045 LRTP lists regional policies and actions related to assets. Some of these policies include:

- "Develop a regional asset management system that collaboratively directs infrastructure investments, reduces costs, and provides more efficient service."
- "Support local and regional opportunities to expand asset management programs, including collection of data and mapping in those areas lacking information."
- "Support development of local asset management plans that are regularly monitored and updated and coordinated with other infrastructure systems."
- "Inventory and conduct a condition and vulnerability assessment of culverts; categorize and prioritize for improvements."
- "Complete a climate resiliency analysis for regional transportation assets."
- "Support road agencies to use a data-driven approach to identify fixes for roadways and implement asset management plans."
- "Evaluate the condition of the regional network of Class A All-Season roadways to assess for deterioration of critical freight connections."
- "Coordinate with road agencies to set condition targets based on available resources and pavement management best practices."

⁶ SEMCOG interview. March 23, 2023.

⁷ SEMCOG. N.d. *Water Infrastructure*. <https://semcog.org/waterinfrastructure>

- “Conduct an annual analysis of pavement condition performance target setting and program adjustments.”
- “Establish region wide Transit Asset Management targets and incorporate components in the Transportation Improvement Program.”
- “Maintain a current public website with regional bridge condition data consistent with the Transportation Asset Management Council (TAMC).”

Performance Targets. In 2019, during the development of the LRTP, SEMCOG coordinated with Michigan DOT, Michigan MPOs, FHWA, and the Federal Transit Administration (FTA) to establish statewide pavement and bridge targets.

The targets were developed by Michigan DOT and adopted after review by the MPOs. SEMCOG works with other agency partners to plan for and implement projects that contribute to meeting those targets. In 2023, SEMCOG adopted regional safety targets which were more aggressive than the statewide safety targets and aligned with SEMCOG’s regional safety performance methodology and policies.

For the 2045 LRTP, SEMCOG coordinated with transit providers across Southeast Michigan to collect each agency’s transit asset performance targets and used them to set preliminary regional transit targets. These targets were considered preliminary by SEMCOG because they were developed before the completion of the transit agency TAM plans, under development at the time of the 2045 LRTP publication. Updated transit asset management plans are used by SEMCOG to refine its regional targets.^{8 9}

Asset Management Analysis and Resiliency Assessment Tools

SEMCOG created geographic information system (GIS) tools and has piloted new technology to help local agencies manage assets. The MPO coordinates with and gathers data from the Michigan DOT’s Michigan Structure Inventory and Appraisal database to inform these tools.

To support resiliency efforts, SEMCOG developed a Flood Risk tool that shows road risk ratings in the region through an interactive map. The tool includes road and bridge assets, as well as culverts and pump stations. The tool is meant to help SEMCOG with investment decisions to ensure the transportation network is safe, efficient, and resilient. See Figure 1.¹⁰

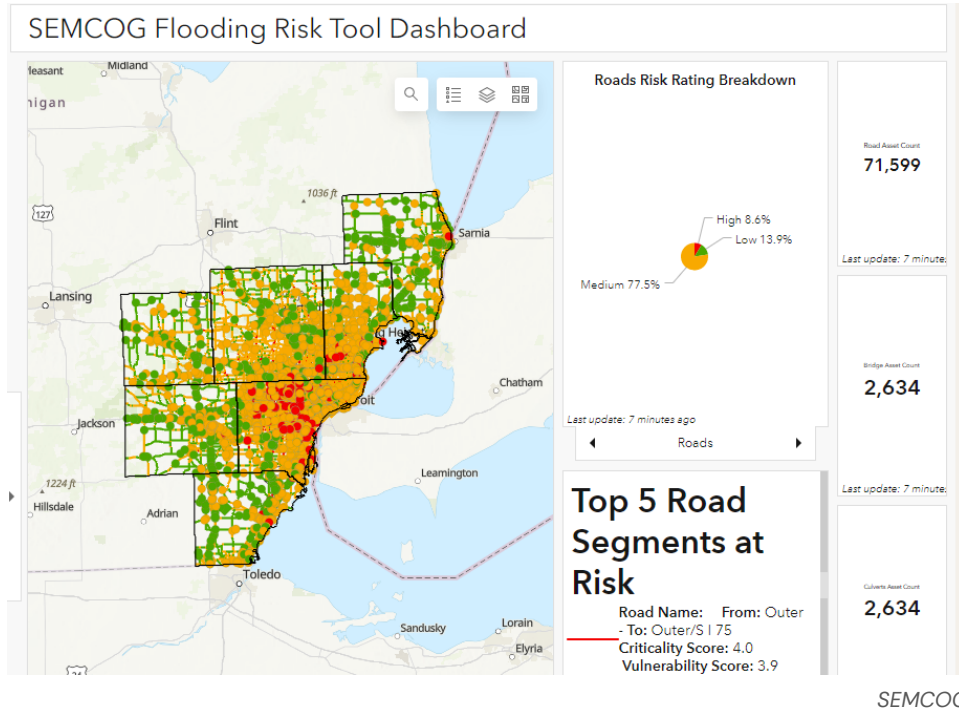
⁸ SEMCOG. March 2019. *2045 Regional Transportation Plan for Southeast Michigan*.

<https://semcog.org/desktopmodules/SEMCOG.Publications/GetFile.ashx?filename=2045RegionalTransportationPlanForSoutheastMichiganMarch2019.pdf>

⁹ SEMCOG System Performance Report. <https://semcog.org/federal-systems-performance-report/public-transportation>

¹⁰ This tool was featured in FHWA’s “Public Roads” magazine in their Spring 2022 edition, found at Partnering for Resilience: The Southeast Michigan Flooding Risk Tool | FHWA (dot.gov)

FIGURE 1. FLOOD RISK TOOL DASHBOARD



Decisionmaking for the Transportation Improvement Program (TIP)

Investment monitoring. In the 2045 LRTP, SEMCOG notes the organization will “Monitor the outcomes of investments made through the TIP and update asset management plan strategies.” The plan also notes that SEMCOG will “Publish an annual Transportation Improvement Program (TIP) Survey, which looks at projects that are implemented during each fiscal year to compare pavement investments across time.”¹¹ These activities are a work in progress as of 2023.

Challenges and Opportunities

Partner agency coordination. Michigan is a “home rule” state, where municipalities play a strong role in local government services, including managing and maintaining their local road systems and related assets. SEMCOG provides technical assistance and support to localities, however, coordination is often challenging as municipalities have different systems and priorities.¹²

Insufficient revenue to meet needs. Despite implementing asset management approaches to preserve pavement quality, Southeast Michigan also faces the challenge of worsening road

¹¹ SEMCOG. March 2019. *2045 Regional Transportation Plan for Southeast Michigan*. <https://www.semcog.org/desktopmodules/SEMCOG.Publications/GetFile.ashx?filename=2045RegionalTransportationPlanForSoutheastMichiganMarch2019.pdf>

¹² SEMCOG interview. March 23, 2023.

pavement conditions. This increases the overall costs of fixing roads in the region, due to the higher expenses of fixing pavement in poor condition. At current investment levels, SEMCOG forecasts continued deterioration of Michigan roads. This challenge emphasizes the importance of asset management and directing investments toward maintaining roads in good and fair conditions before road replacement costs become too high.¹³ The LRTP clearly outlines the gap between funding sources and preservation needs and notes a strategy to work with regional and State leaders to explore alternative funding options.

¹³ SEMCOG. March 2019. *2045 Regional Transportation Plan for Southeast Michigan*.
<https://www.semcog.org/desktopmodules/SEMCOG.Publications/GetFile.ashx?filename=2045RegionalTransportationPlanForSoutheastMichiganMarch2019.pdf>