U.S. Department of Transportation

Transportation Management Area Federal Certification Review

Federal Highway Administration
Tennessee Division

Federal Transit Administration
Region IV

Memphis, TN-MS Transportation Management Area Federal Certification Review

Final Report

September 2023

U.S. Department of Transportation
Federal Highway Administration

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U.S. Department of Transportation
Federal Highway Administration

Executive Summary

On September 6, 2023, the Federal Highway Administration (FHWA) Tennessee Division and the Federal Transit Administration (FTA) Region 4 jointly issued this certification review report of the transportation planning process for the Tennessee and Mississippi portions of the Memphis, TN-MS-AR urbanized area. The Arkansas portion of the Memphis, TN-MS-AR urbanized area is reviewed separately through a process led by the FHWA Arkansas Division and FTA Region 6.

This review was performed in accordance with Title 23 Code of Federal Regulations (CFR) 450.336, which requires the FHWA and FTA to jointly review and evaluate the transportation planning process for each Transportation Management Area (TMA) at least every four years to determine if the process meets the Federal planning requirements. A TMA is an urbanized area with a population over 200,000.

Based on this review and evaluation, FHWA and FTA find that the metropolitan transportation planning process being carried out for the Tennessee and Mississippi portions of the Memphis, TN-MS-AR TMA meets the requirements of applicable Federal law and 23 CFR 450. Accordingly, FHWA and FTA jointly certify the transportation planning process. This certification will remain in effect until September 6, 2027.

This report provides a series of observations on the planning process and findings identified by the FHWA and FTA through this review.

Summary of Findings

In conducting the Federal Certification Review, the FHWA and FTA identified a series of observations and findings related to the metropolitan transportation planning and programming processes carried out by the Memphis Metropolitan Planning Organization (MPO) and its planning partners. These findings are summarized below. Observations and additional details of these findings are provided in this report.

Commendations

- The Memphis MPO is commended for integration of a performance-based approach to its planning and programming processes, particularly efforts to clearly establish links between transportation investments and adopted performance targets.

- The Memphis MPO is commended for its comprehensive approach to safety planning across the tri-state area, providing planning partners with the needed tools to unlock new funding opportunities and achieve the safety goals of the region.

Recommendations

- The Memphis MPO, TDOT, MDOT, and MATA are recommended to implement a formal, periodic joint review of planning agreements to ensure consistency with the planning and programming process and promote a joint understanding of roles and responsibilities of each agency.

- The Memphis MPO's current Public Participation Plan (PPP) does not wholly reflect the shift to increased usage of virtual public involvement approaches. The MPO is recommended to update the PPP to establish, document, and institutionalize standards for virtual public involvement.

- The Memphis MPO is recommended to continue exploring opportunities to consider equity in the planning process, including quantifying the benefits of transportation investments and their impact on disadvantaged communities.

- The Memphis MPO and relevant stakeholders (e.g., the IAC, air quality agencies, etc.) are recommended to stay aware of air quality issues in the area and review the region's transportation conformity process to identify any necessary revisions to meet any additional conformity requirements associated with a possible non-attainment designation.

Background

Pursuant to 23 United States Code (U.S.C.) 134(k) and 49 U.S.C. 5303(k), the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) must jointly certify the metropolitan transportation planning process in Transportation Management Areas (TMAs) at least every four years. TMAs are urbanized areas, defined by the U.S. Census Bureau, with a population of over 200,000.

The Federal Certification Review focuses on compliance with Federal law and regulation as well as challenges, successes, and experiences of the cooperative relationship between the MPO(s), the State DOT(s), and public transportation operator(s) in the conduct of the metropolitan transportation planning process. In addition to assessing compliance, the review process is also individually tailored to focus on topics of significance in each metropolitan planning area.

The Federal Certification Review is one of several methods used by the FHWA and FTA to assess the compliance and effectiveness of the metropolitan transportation planning and programming process. Other stewardship and oversight activities provide FHWA and FTA similar opportunities to review the planning and programming process, including:

- The Federal Planning Finding, a similar Federal review of the statewide transportation planning and programming process;
- Statewide Transportation Improvement Program (STIP) review and approval;
- Unified Planning Work Program (UPWP) review and approval;
- Metropolitan Transportation Plan (MTP) review;
- Transportation Improvement Program (TIP) review;
- Air quality conformity determinations (in nonattainment and maintenance areas);
- Reviews of other products of the metropolitan planning and programming process;
- Participation in MPO Executive Board, Committee, and staff meetings;
- Routine engagement with State and MPO planning staff; and
- Other formal and informal interactions.

The results of these other activities are considered in the Federal Certification Review process and determination. While this report itself may not fully document these many intermediate and ongoing checkpoints, the findings of the Federal Certification Review are based upon the cumulative observations and findings of the entire Federal stewardship and oversight effort. In part, this is demonstrated through the risk-based methodology of the review.

Certification of the metropolitan planning process is a prerequisite to the Federal approval of the applicable metropolitan portion of the STIP and the provision of Federal funding for transportation projects in metropolitan planning areas.

Review Purpose, Scope, and Methodology

Review Purpose

As described, the TMA Federal Certification Review is a required process review, defined in Federal law and regulation, to support the Federal Certification decision required in 23 CFR 450.336(b)(1). The purpose of this regulatorily required review is to assess the compliance of the metropolitan planning and programming process with all applicable Federal law and regulation.

In addition to assessing compliance, however, the Federal Certification Review also provides the Federal, State, and regional planning and programming agencies the opportunity to jointly identify best practices and areas for improvement of the planning process.

Federal Review Team

The TMA Federal Certification Review was carried out by a Federal Review Team made up of members from the FHWA Office of Planning, FHWA Tennessee Division, FHWA Mississippi Division, FHWA Arkansas Division, FTA Region IV, and the Environmental Protection Agency (EPA) Region IV. The team included the following members:

- FHWA Office of Planning
    - Michael Barry, Transportation Specialist, Planning Capacity Building Team

- FHWA Tennessee Division
    - Zachary Coleman, Transportation Planning Specialist
    - Joi Hamilton Jones, Civil Rights Program Specialist
    - Melanie Murphy, Transportation Planning Specialist
    - Sean Santalla, Program Development Team Leader

- FHWA Mississippi Division
    - Necole Baker, Community Planner
    - Kim Thurman, Project Development Team Leader

- FHWA Arkansas Division
    - Amy Heflin, Program Delivery Team Leader
    - Valera McDaniel, Transportation Program Coordinator/Planner

- FTA Region IV
    - Andres Ramirez, Community Planner

- EPA Region IV
    - Dianna Myers, Environmental Scientist

Review Methodology

The formal Federal Certification Review is performed over several months as a several-step process, containing both sequential and overlapping review activities. These activities are reflected in Figure 1 below and are generally defined and discussed below:

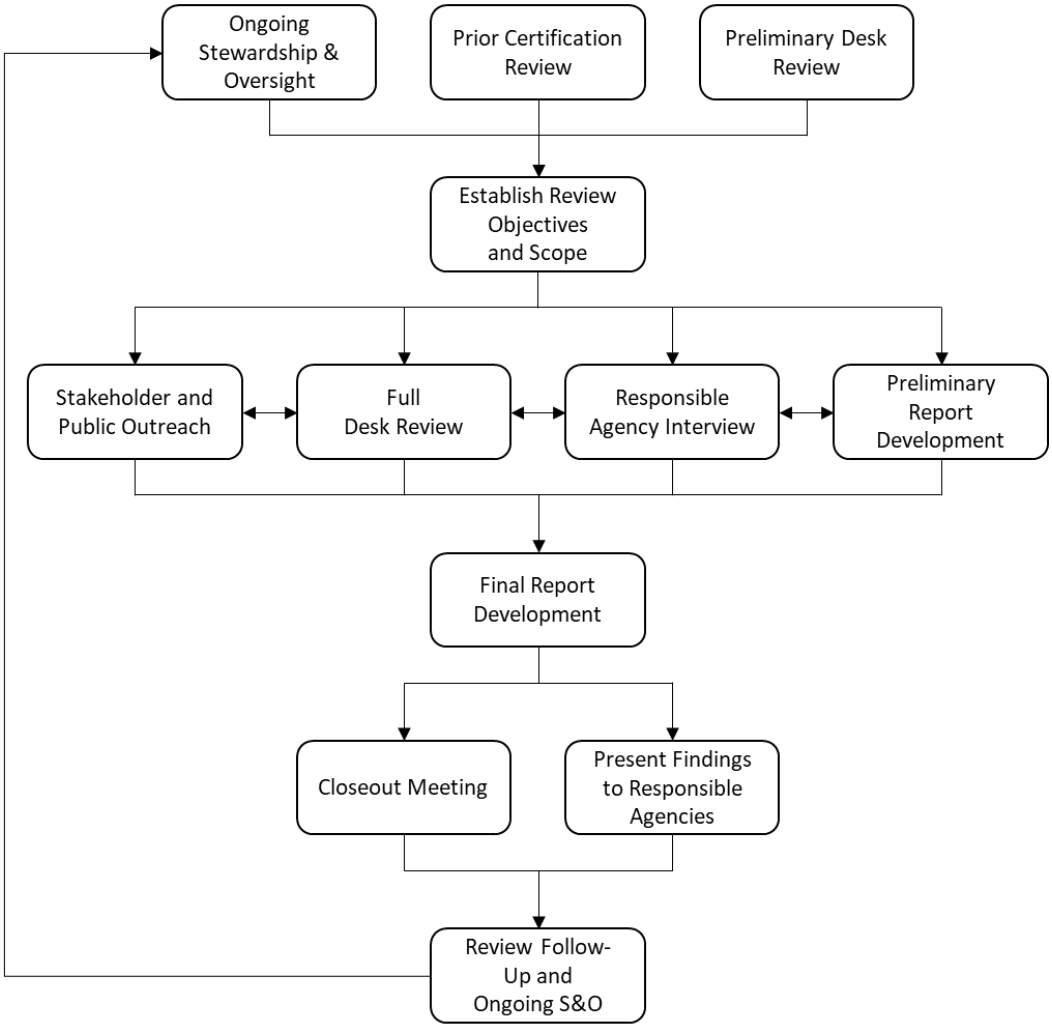


Figure 1. Federal Certification Review Process

1. The first steps to initiate a Federal Certification Review include:

    - a **Preliminary Desk Review** of relevant planning documents, including resolved and unresolved Federal comments;
    - an assessment of the findings of the **Prior Federal Certification Review**, including any response, follow-up, and if/how these findings informed the planning process; and

- a consideration of observations from **Ongoing Stewardship and Oversight**, including any new initiatives, issues, concerns, and needs that have arisen since the prior Federal Certification Review.

2. These early review activities inform the **Establishment of the Review Objectives and Scope**. Using the results of the early review activities and outreach to the agencies responsible for carrying out the planning process, the Federal Review Team defines the objectives and the scope of the Federal Certification Review.

3. With the scope of the review established, the Federal Review Team carries out the bulk of the review process, including:

   - **Stakeholder and Public Outreach**, as required in 23 CFR 450.336(b)(4). The purpose of this outreach is to provide opportunities for the public and stakeholders to provide feedback on the process and the eventual Federal certification decision;
   - a **Full Desk Review**, in which the Federal Review Team conducts a more-intensive review of planning process documents and products for compliance and effectiveness;
   - **Responsible Agency Interview(s)**, also referred to as the "Site Visit," in which the Federal Review Team meets with the agencies responsible for carrying out the planning process to discuss the planning process and fully understand how it is being carried out; and
   - **Preliminary Report Development**. The Federal Certification Review and determination is ultimately captured and demonstrated through a final report which reflects review observations and findings. Development of this report begins concurrently with the other activities described above.

4. Following the Stakeholder and Public Outreach, Full Desk Review, and Responsible Agency Interview(s), the observations and findings of the Federal Certification Review are captured in the **Certification Review Final Report.** The Final Report is issued at the same time as the **Federal Certification Decision.**

5. With a Certification Decision made by the FHWA and FTA, the Federal Review Team then holds a **Closeout Meeting** and **Presentation of Findings** to the planning partners. These meetings allow an opportunity for the Federal agencies to confer with agencies responsible for the implementation of the planning process regarding the observations and findings of the Review and discuss any follow-up actions.

6. Finally, the observations and findings are used by the FHWA and FTA to inform **Ongoing Stewardship & Oversight** of the metropolitan transportation planning and programming processes.

Review Finding Categories

Review findings are categorized as corrective actions, recommendations, and commendations:

- **Commendations** highlight noteworthy practices that demonstrate innovative, highly effective, or well-thought-out procedures for implementing the planning requirements.

- **Recommendations** concern the state of practice or technical improvements that would enhance existing processes and procedures. FHWA and FTA expect planning agencies to give due consideration to the implementation of recommended actions.

- **Corrective Actions** denote items that do not meet the requirements of the applicable Federal rules and regulations. FHWA and FTA expect planning agencies to address corrective actions in accordance with prescribed timelines to achieve specific outcomes.

The Federal Review Team identified 2 commendations and 4 recommendations related to the metropolitan planning process carried out by the Memphis MPO. There were no corrective actions identified. These findings are detailed in the Summary of Findings section of this report.

Review Scope

The scope of this Federal Certification Review encompasses the metropolitan transportation planning and programming process(es) for the Tennessee and Mississippi portions of the Memphis, TN-MS-AR urbanized area, carried out by several cooperating agencies. These agencies include:

- the Memphis Urban Area Metropolitan Planning Organization (MPO);
- the Tennessee Department of Transportation (TDOT);
- the Mississippi Department of Transportation (MDOT); and
- the Memphis Area Transit Authority (MATA), the public transportation operator in the region.

Current membership of the Memphis Urban Area MPO consists of elected officials, officials of public agencies, public transportation representation, and state officials from the political jurisdictions in the Tennessee and Mississippi portions of the Memphis urbanized area.

The planning process being carried out covers all of Shelby County, Tennessee and DeSoto County, Mississippi and portions of Fayette County, Tennessee and Marshall County, Mississippi, demonstrated in Figure 2 below.

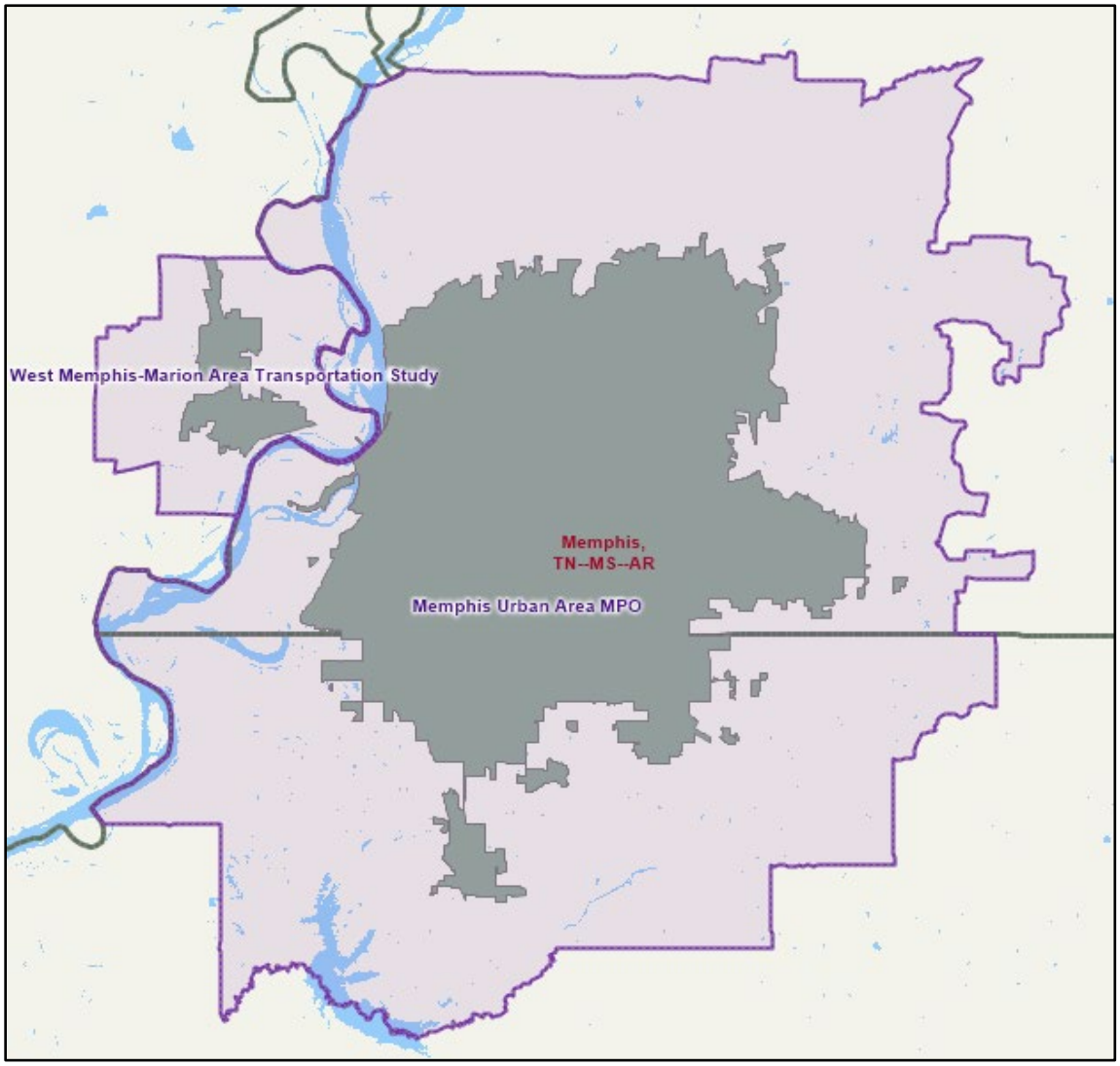


Figure 2. Memphis Urban Area MPO Metropolitan Planning Area (purple) and the Memphis TN-MS-AR urbanized area boundaries (gray). (Note: The West Memphis-Marion Area Transportation Study serves the Arkansas portion of the urbanized area.)

The West Memphis-Marion Area Transportation Study serves as the MPO for the Arkansas portion of the urbanized area. The planning process for this portion of the TMA is certified through a separate review process led by the FHWA Arkansas Division.

Risk-Based Review Scope

The scope of the Federal Certification Review encompasses the compliance and effectiveness of the entirety of the metropolitan transportation planning and programming processes being carried out within an MPO's metropolitan planning area. However, within that scope, FHWA and FTA tailor the focus of the review using a "risk-based" methodology.

Applying a risk-based framework to the Federal Certification Review provides a variety of benefits, including:

- Enabling a streamlined review process and report;
- Providing for a more efficient use of FHWA/FTA staff resources;
- Limiting the burden of the review on the MPO, State DOT(s), transit operator(s), and other planning partners;
- Ensuring that the review provides adequate focus to subject areas of highest threat or opportunity; and
- Strengthening partnership between the FHWA/FTA and planning partners through a cooperative identification of program risks.

The process for defining the scope of the Federal Certification Review starts with an identification of the subject areas encompassing the full scope of the planning process, referred to as "Federal Review Area(s)." Once identified, each Federal Review Area is assessed for level of risk, to inform the appropriate consideration as part of the Review. This assessment is informed by considerations such as recent Federal reviews, the presence and applicability of documentation to existing practices, technical expertise of staff responsible for carrying out the planning process, and areas of significant opportunity or risk identified through ongoing stewardship and oversight activities. Additionally, each of the planning partners are provided an opportunity for input into this assessment and to share their recommendations.

Based on this assessment, each Federal Review Area is assigned an appropriate approach for incorporation in the review:

- **Full Review:** This approach is for areas of highest risk or opportunity. For these items, the Federal Review Team reviews relevant materials through the Desk Review, dedicates time to discussion of the item at the Site Visit and reports observations and findings in the Review report.

- **Limited Review:** This approach is for areas of lesser risk or opportunity, but still warrant a level of review. For these items, the Federal Review Team may only review a specific component of the subject area or may only conduct a Desk Review for compliance. Observations and findings are reported in the Review report.

- **Include in Future Review:** This approach is for areas of the least risk or opportunity. These items are not studied specifically as part of this review but are monitored through routine stewardship and oversight activities and are considered for review in future Federal Certification Reviews.

The table below details the Federal Review Areas considered for this review, their appropriate action, and example considerations in determining the appropriate action.

Federal Review Area	Appropriate Review Action	Review Action Decision Considerations
Overview of Recent Activities	FULL	Core review area.
Federal Planning Factors	FULL	Core review area.
3-C Planning Process	FULL	Core program area.
Performance-Based Planning & Programming	FULL	Core program area.
Public Outreach & Civil Rights	FULL	Core program function.
Air Quality Conformity	FULL	Core program area.
Complete Streets Planning	FULL	Significant focus area of stakeholders.
Safety Planning	FULL	Focus area of stakeholders; significant level of activity since 2019 review.
TMA/MPA Boundaries	LIMITED	UZA and MPA boundary adjustments to be completed in late 2023 and 2024, respectively.
Congestion Management Process	LIMITED	MPO updating CMP in 2024.
Freight Planning	LIMITED	Focus area of stakeholders.
Organizational Structure	FUTURE	No changes to organizational structure from 2019 review.
Agreements & Contracts	FUTURE	No agreements or contracts of risk identified.
UPWP Development and Management	FUTURE	TMA Review concurrent with federal review of FY 2024 & 2025 UPWP. Any compliance issues will be addressed prior to Federal approval.
MTP Development and Management	FUTURE	TMA Review concurrent with federal review of 2050 MTP. Any compliance issues will be addressed through concurrent review.
TIP Development and Management	FUTURE	TMA Review concurrent with federal review and approval of FY23-26 TIP. Any compliance issues were addressed prior to Federal approval.
State/MPO Self-Certifications	FUTURE	No change to process.
List of Obligated Projects	FUTURE	No change to process.
Coordinated Public Transit-Human Services Transportation Plan	FUTURE	Updated in 2021, no compliance concerns.
Transit Planning	FUTURE	Review of the 3-C Planning Process will examine the cooperative planning process, including transit planning.
Project Delivery	FUTURE	No change to process.
Additional Federal, State, and Regional Planning Priorities	FUTURE	No additional planning priorities identified by Federal Review Team.

Observations & Findings

Status of 2019 Review Findings

Regulatory Basis

N/A

Compliance Status

N/A

Observations

The previous TMA Federal Certification Review for the Memphis MPO was completed on September 6th, 2019. This review identified 5 commendations and 4 recommendations.

The 5 commendations are provided below:

- **Agreements, Consultation, and Coordination**: The MPO consistently executes a high level of coordination in carrying out the metropolitan transportation planning process. As a bi-state MPO serving a tri-state TMA, the Memphis MPO proactively coordinates with multiple State Departments of Transportation (DOTs), additional State agencies, the West Memphis MPO, the Memphis Area Transit Authority, regional and local agencies, and the public. Through this coordination, the MPO has led regional tri-state planning efforts that exceed the minimum requirement of planning for the bi-state metropolitan planning area.

- **Transportation Improvement Program:** The MPO actively supports project delivery and timely obligation of sub-allocated STBG funds by maintaining and sharing project status information handouts, strategically programming funds based on project status/obligations data, and participating in Tennessee and Mississippi project tracking meetings. The Memphis MPO area has seen a reduction in the amount of unobligated sub-allocated STBG funds from the use of these monitoring and reprogramming tools and open communication with members about project status.

- **Public Participation:** The MPO utilizes a data-driven approach to public engagement by documenting engagement metrics (i.e., web analytics, social media presence, and media appearances) in the annual State of the MPO Report which informs future public involvement strategies. The MPO is commended for leveraging in-house expertise to translate Plan summaries into Spanish and utilizing innovative outreach methods such as bus advertisements, visualization-focused fact sheets, and videos.

- **Safety:** In 2015, FHWA identified Memphis as a Pedestrian-Bicycle Focus City due to high nonmotorized fatalities. The MPO is commended for developing a Regional Bicycle and Pedestrian Plan and subsequent Bicycle and Pedestrian Reports which informed their prioritization of bike and pedestrian investments in the TIP and RTP. This report documents and supports an increase the number of bicycle and pedestrian projects funded in their area.

- **Performance Based Planning and Programming:** The MPO is commended for their technology-driven approach and coordination strategy in establishing tri-State CMAQ performance measures and development of the CMAQ Performance Plan.

The 4 recommendations, including actions taken to address them, are detailed below:

- **Metropolitan Transportation Plan:** The MPO should consider advancing and integrating PEL linkages principles in future RTP updates and corridor/feasibility studies. Specifically, study documenting and analyzing the proposed project's purpose and need, range of reasonable alternatives, effects analysis, and applicable mitigation strategies.

    - ***Status:*** *The MPO has integrated PEL into the FY 2023-2026 TIP, conducting preliminary environmental reviews for all new Capital, Resurfacing, Bridge, and Pedestrian and Bicycle projects in the early stages of project development.*

- **Metropolitan Transportation Plan**: The MPO should consider participating in the micro-simulation transportation demand model pilot to allow for the regional model to be used at the corridor scale. This approach would maximize utility of the regional model for project analyses and reduce the risk for inconsistencies in model projections at the project level. This effort also would support PEL initiatives.

    - ***Status:*** *While the MPO explored a microsimulation model, the MPO did not identify any benefits to the metropolitan planning process.*

- **Congestion Management Process**: In the next CMP update, the MPO should closely follow FHWA's Congestion Management Process Guidebook and engage FHWA, TDOT and MDOT staff to identify opportunity areas which support enhanced application of the CMP.

    - ***Status:*** *For the 2020 CMP update, the MPO followed the FHWA's Congestion Management Process Guidebook and now publishes an annual CMP report.*

- **Performance Based Planning and Programming:** The MPO should continue coordinating with MATA, TDOT, and MDOT to verify that the TIP and MTP includes the anticipated effects towards achieving the PM1, PM2, PM3, and Transit Asset Management targets set

by the MPO. Additionally, the MTP must continue to include the system performance report which evaluates the performance and condition of the transportation system with respect to the performance measures and targets.

- ***Status:*** *The MPO continues to publish Performance Measure Annual Reports and leading coordination for regional PM3 targets.*

Findings

None.

Overview of Recent Activities

Regulatory Basis

N/A

Compliance Status

N/A

Observations

Recent Activities

The planning partners in the Memphis MPO region have carried out many significant activities since the last Federal Certification Review in 2019. Examples of these activities, many of which are further described later in this report, include:

- Development and adoption of the following plans:
  - Livability 2050: Regional Transportation Plan (2019)
  - Public Participation Plan (2020)
  - Congestion Management Process Plan (2020)
  - Walk & Roll: Memphis Region Pedestrian and Bicycle Master Plan (2020)
  - FY 2020-2023 Transportation Improvement Program (2020)
  - FY 2022-2023 Unified Planning Work Program (2021)
  - Coordinated Public Transit-Human Services Transportation Plan (2021)
  - FY 2023-2026 Transportation Improvement Program (2022)
  - Mid-South Freight Flows & Industry Analysis (2023)
  - Mid-South Safety Action Plan (2023)
- Continued publication of the annual State of the MPO Report, documenting public outreach activities, significant accomplishments, and upcoming plans and projects.

- Effectively shifted public outreach efforts to virtual platforms in response to the COVID-19 pandemic.

Regional Initiatives

The MPO has also established or continued to pursue numerous regional initiatives, including:

- Safety tracking, spurred by completion of the Mid-South Safety Action Plan to track regional progress towards the established goals of the plan;
- Establishment and implementation of a regional alternative fuel corridor network, mirroring national and state priorities;
- Development of local transportation plans, providing assistance to planning partners when needed;
- Delivery and management of federal grant programs, many newly established by the Infrastructure Investment and Jobs Act (IIJA); and
- TIP project tracking, which aims to keep projects moving forward and assists with the management and maintenance of the TIP.

Awards & Recognition

The planning partners in the Memphis MPO region have been recognized in several fashions since the 2019 Federal Certification Review. Examples of such recognition include:

- The Memphis MPO's integration of performance-based planning into its metropolitan planning and programming process was recognized by FHWA as a model practice in several publications, including the 2023 Model Long-Range Transportation Plans: A Guide for Performance-Based Planning, 2022 Example Practices for Performance-Driven Programming, and 2021 Assessment on the Effectiveness of Performance-Based Planning and Programming.
- The MPO was selected to present at the 2021 Association of Metropolitan Planning Organizations Annual Conference on the 2020 Walk & Roll Plan, the evolution of the MPO's public participation process, and improving project delivery in the TIP.
- Memphis' Office of Comprehensive Planning received the American Planning Association's Daniel Burnham Award in 2020 for the Memphis 3.0 Comprehensive Plan.
- In 2022, Gary Rosenfeld, MATA's Chief Executive Officer, was named the Urban Executive of the Year Award by the Tennessee Public Transportation Association.
- MATA received the Inaugural Innovation Award from the Conference of Minority Transportation Officials in 2022.

<u>Findings</u>

None.

Addressing the Federal Planning Factors

Regulatory Basis

23 CFR 450.306(b)

Compliance Status

Compliant.

Observations

Per 23 CFR 450.306(b), the metropolitan planning process shall consider and implement projects, strategies, and services that will address the following Federal Planning Factors:

1) Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
2) Increase the safety of the transportation system for motorized and non-motorized users;
3) Increase the security of the transportation system for motorized and non-motorized users;
4) Increase accessibility and mobility of people and freight;
5) Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
6) Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
7) Promote efficient system management and operation;
8) Emphasize the preservation of the existing transportation system;
9) Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and
10) Enhance travel and tourism.

The factors establish the core set of guiding principles for consideration by MPOs and planning partners carrying out the metropolitan transportation planning and programming process.

Through review of the UPWP, MTP, and TIP, the Federal Review Team found consideration of the Federal Planning Factors is an institutionalized practice for the MPO. Through the carrying out of the planning process, all factors are used to inform the planning priorities for the region, development of regional goals, and weaved into the project prioritization process (see Figure 3).

Figure 3. MTP Strategic Framework
(Source: Memphis MPO)

In the observation of the Federal Review Team, the metropolitan transportation planning and programming process being carried out for the Tennessee and Mississippi portions of the Memphis urbanized area satisfactorily considers each of the ten planning factors listed above.

Findings

None.

Continuous, Cooperative, Comprehensive Planning Process

Regulatory Basis

23 CFR 450.300(a)
23 CFR 450.306(b)

Compliance Status

Compliant.

Observations

Per Federal law, the metropolitan planning process must be conducted in a manner that is "continuous, cooperative, and comprehensive" – known as the "3C" planning process. The 3C process is fundamental to how the MPO approaches planning for the region, ensuring current and future transportation needs are considered accordingly.

Continuous Planning Process

The MPO and its partner agencies must ensure a continuing planning process that is informed by the best information available. To achieve this, MPO staff consider the cyclical cycle of the planning process, best presented via the 5-year calendar of activities captured in Figure 4; the MPO consistently works to progress core products and activities.

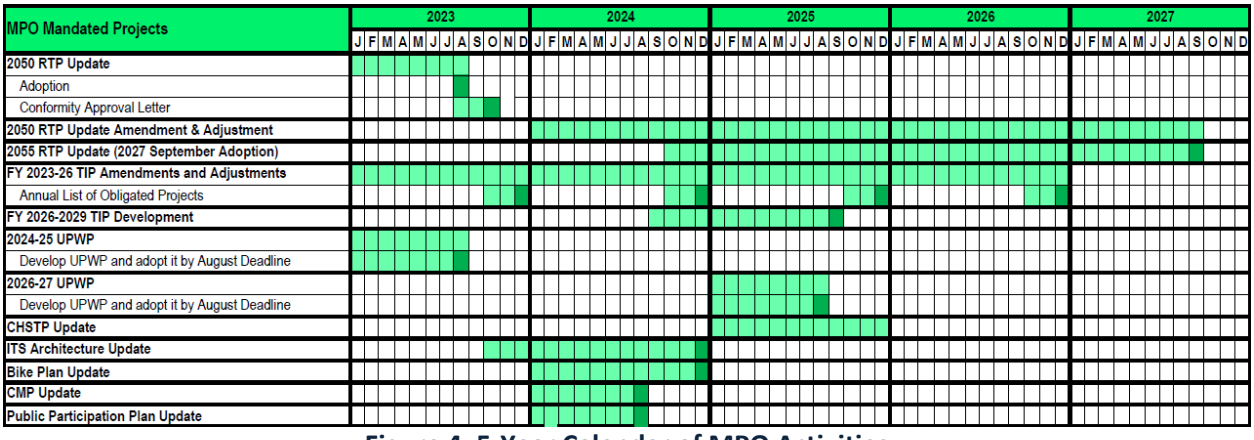


Figure 4. 5-Year Calendar of MPO Activities
(Source: Memphis MPO)

The MPO regularly evaluates the planning process through numerous mechanisms. Most notably, the agency's public outreach efforts and Congestion Management Process (CMP) are assessed annually through the State of the MPO Report. This recurring evaluation provides the MPO

opportunities to improve the engagement process and update the CMP frequently. See further discussion of the analysis in the Public Outreach & Civil Rights and Congestion Management Process sections of this report, respectively. In addition, the MPO and its partner agencies regularly assess and update the various data sources used to inform the planning process, including safety data, traffic data, air quality, and more.

Through the site visit, MPO staff expressed that one of the major challenges to a continuing process is the impact of project delivery issues. Project sponsors within the MPO area, both local jurisdictions and State DOTs, are increasingly seeing delayed project schedules which impacts the MPO's programming process. Consequently, the MPO has numerous initiatives underway to improve project delivery in the TIP.

- The MPO deploys a rigorous approach to project tracking. The agency requests monthly updates from TDOT and MDOT regarding MPO managed funds; the MPO determines an overall "project health," including gathering information on the state of the current project phase; and regular project correspondence is required from project sponsors.
- The MPO has established a construction set-aside funding pot from its local Surface Transportation Block Grant (STBG) allocation, intended to assist project sponsors ready for construction but facing fiscal constraints, such as cost overruns.
- As discussed previously, the MPO is utilizing planning and environmental linkages when programming new projects in the TIP. This allows the project sponsor to be aware of any environmental concerns that could impact project delivery early in the process.
- The MPO is leveraging access to the FHWA's Fiscal Management Information System (FMIS) to stay up to date on the status of authorizations of federal-aid projects.

Even with the project delivery challenges, the Federal Review Team has observed the MPO taking active steps to ensure the transportation planning process for the region is occurring on a continuous basis. Particularly, the MPO is recognized for the evaluation and assessment efforts it deploys to consistently improve the process.

Cooperative Planning Process

Per 23 CFR 450.104, a cooperative planning process requires "that the parties involved in carrying out the transportation planning and programming processes work together to achieve a common goal or objective." For the Tennessee and Mississippi portions of the Memphis urbanized area, this requires the Memphis Urban Area MPO, TDOT, MDOT, and MATA to work together to achieve a common goal or objective.

A cooperative planning process is demonstrated by these entities through formal and informal approaches, such as executed planning agreements among these agencies and participation on the MPO Transportation Policy Board and committees. Agencies coordinate ongoing planning efforts to maintain consistency and a collective vision for the region. Beyond the entities noted above, the MPO engages in multiple tri-state planning efforts. The Coordinated Public Transit-

Human Services Transportation Plan developed in 2021 covered a 20-county region, including five counties in Arkansas, five counties in Mississippi, and ten counties in Tennessee. The MPO also leads the coordination efforts to set unified traffic congestion reduction targets for the tri-state Memphis urbanized area.

Turnover at partner agencies, including State DOTs and MATA, has been an ongoing challenge for the MPO, particularly when agency representatives are unfamiliar with the metropolitan planning process, let alone their role in the process. While this may continue to be a challenge for the region, particularly due to loss of institutional knowledge, the MPO is encouraged to revisit formal agreements and ensure partnerships are effectively leveraged to positively impact the planning and programming processes. As of this review, the MPO does not engage in a formal, periodic review process of planning agreements with its partner agencies.

Comprehensive Planning Process

All modes are considered in the MPO's planning and programming processes. In both the MTP and TIP, a concerted effort is made to ensure the planning process evaluates all modes and strategies to address the needs of all stakeholders. Figure 5 is an excerpt from the FY 2023-2026 TIP, showcasing the different types of investments programmed in the MPO area.

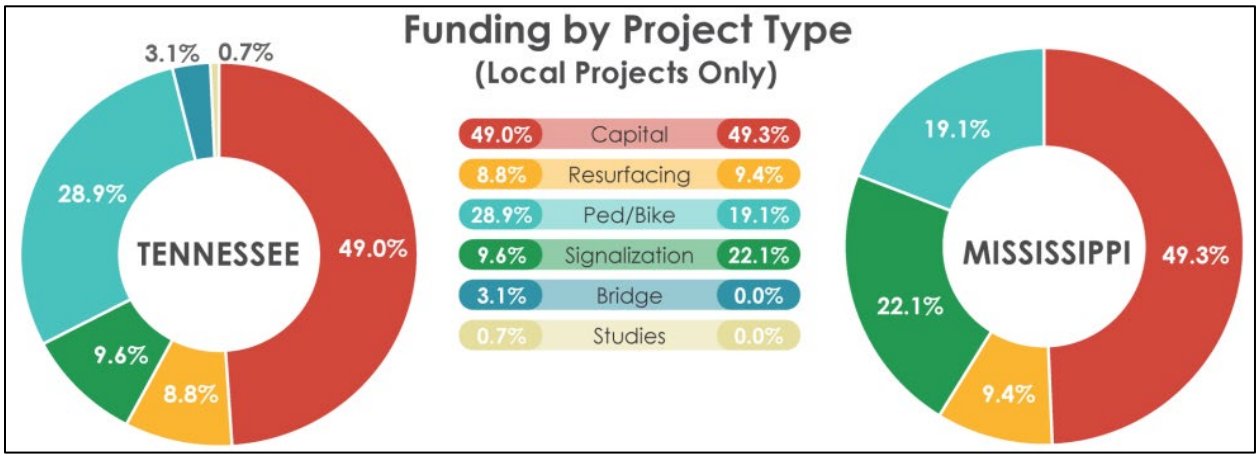


Figure 5. Local Projects by Funding Type Programmed in the FY 2023-2026 TIP (Source: Memphis MPO)

In addition to the MTP and TIP, the MPO has produced numerous modal specific plans since the last Federal Certification Review, including the Walk & Roll: Memphis Region Pedestrian and Bicycle Master Plan, the Coordinated Public Transit-Human Services Transportation Plan, and the Mid-South Freight Flows & Industry Analysis.

Based on the observations of the Federal Review Team, the Memphis MPO engages in an effective 3-C planning process, anchored by a positive framework that have led to strong partnerships with member agencies.

Findings

Recommendation: The Memphis MPO, TDOT, MDOT, and MATA are recommended to implement a formal, periodic joint review of planning agreements to ensure consistency with the planning and programming process and promote a joint understanding of roles and responsibilities of each agency.

Performance-Based Planning & Programming

Regulatory Basis

23 CFR 450.306(a)
23 CFR 450.306(d)
23 CFR 490

Compliance Status

Compliant.

Observations

With the passage of IIJA in 2021, a performance-based approach to planning and programming continues to be the mandate for metropolitan transportation planning. Since the 2019 Federal Certification Review, the MPO has worked to institutionalize the approach in its process, even being recognized by FHWA as a model practice in numerous publications from 2021 through 2023.

Status of Performance Targets

The MPO is responsible for adopting targets to measure performance of the transportation system within its boundaries. Performance measures are established for the following categories:

- Highway Safety (PM1),
- Infrastructure Condition Performance Measures (PM2),
- System Performance (PM3),
- Transit Asset Management (TAM), and
- Public Transportation Agency Safety Plan (PTASP).

Currently, the MPO Policy Board elects to support statewide Tennessee and Mississippi targets for PMs 1, 2, and 3 (travel time reliability and freight reliability) and support MATA's TAM and PTASP targets. As the urbanized area includes an air quality maintenance area for ozone and has

an urbanized population over 1 million, the MPO is required to adopt regional traffic congestion and on-road mobile source emissions performance measures. The Memphis MPO continues to coordinate and lead the process of setting unified traffic congestion reduction targets for the tri-state Memphis urbanized area.

Integration of Targets into Planning Documents

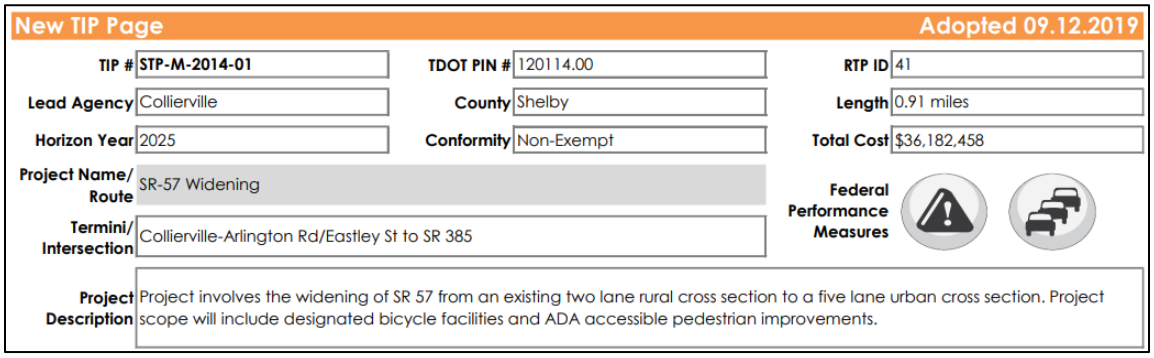
In development of the most recent TIP and MTP, the MPO clearly links the region's investment priorities to the Federal Planning Factors, federally required performance measures, and the regional goals and objectives. This approach acts as the framework for the project prioritization process for the region, ensuring projects selected for funding help achieve the MPO's adopted performance targets; more points are assigned to projects that prioritize safety and security, system preservation, and improving multimodal access. Figure 6 is an excerpt of the TIP Project Prioritization Criteria, linking infrastructure condition performance measures with the system preservation criterion.

Federal Performance Measures	Criteria	Points
NHS Travel Time Reliability • Percent of the Person-Miles Traveled on the Interstate that are reliable • Percent of the Person Miles Traveled on the Non-Interstate National Highway System that are reliable Traffic Congestion • Annual hours of peak hour excessive delay per capita • % of Non-Single Occupancy Vehicle Travel **Pavement Conditions** • % of pavements on the Interstate System in Good condition • % of pavements on the Interstate System in Poor condition • % of the non-interstate National Highway System in Good condition • % of the non-interstate National Highway System in Poor condition **Bridge Condition** • % of National Highway System bridges classified as in Good condition • % of National Highway System bridges classified as in Poor condition	**System Preservation**	**25**
	Project Improves an Existing Roadway or Transit Services	**3**
	Project scope includes bridge condition improvements	1
	Project scope includes pavement condition improvements	1
	Project scope includes transit asset improvements	1
	Project Integrates Service Packages identified in the MPO's Regional ITS Architecture and Deployment Plan	**3**
	Located on Congested Corridor, as defined by MPO's Congestion Management Process	**3**
	Existing Average Daily Traffic (ADT):	**4**
	25,000 or more	4
	10,000 to 24,999	3
	5,000 to 9,999	2
	4,999 or less	1
	Existing Volume to Capacity Ratio (V/C):	**3**
	More than 0.80	3
	0.60 to 0.79	2
	0.59 or less	1
	Travel Time Delay Reduction:	**4**
	Delay reduction more than 2.0 min	4
	Delay reduction 1.51 to 2.0 min	3
	Delay reduction 1.01 to 1.50 min	2
	Delay reduction 0.20 to 1.0 min	1
	Delay reduction less than 0.20 min or new roadway project	0
	Project Maintains or Integrates a New, Context Appropriate, Strategy Identified in the MPO's Congestion Management Process (1 point for each strategy utilized, 5 points maximum)	**5**

Figure 6. TIP Project Prioritization Criteria
(Source: Memphis MPO)

To further show the link of transportation investments and the MPO's performance targets, the FY 2020-2023 TIP project pages clearly identified which project contributed to the achievement of which performance target (see Figure 7). With implementation of Tennessee's eSTIP, project pages for the FY 2023-2026 TIP are standardized for MPOs across the state, and no longer include the direct link of projects and performance measures. The Federal Review Team recognizes this

as an opportunity for the MPO to work with TDOT to improve the eSTIP platform and strengthen the performance-based programming process.



New TIP Page					Adopted 09.12.2019
TIP #	STP-M-2014-01	TDOT PIN #	120114.00	RTP ID	41
Lead Agency	Collierville	County	Shelby	Length	0.91 miles
Horizon Year	2025	Conformity	Non-Exempt	Total Cost	$36,182,458
Project Name/ Route	SR-57 Widening			Federal Performance Measures	
Termini/ Intersection	Collierville-Arlington Rd/Eastley St to SR 385				
Project Description	Project involves the widening of SR 57 from an existing two lane rural cross section to a five lane urban cross section. Project scope will include designated bicycle facilities and ADA accessible pedestrian improvements.				

Figure 7. FY 2020-2023 TIP Project Page Excerpt
(Source: Memphis MPO)

Since 2018, the Memphis MPO publishes an annual performance measures report; the most recent report made available is for 2021. Through the annual report, the MPO presents the baselines and adopted target for each performance measure, and reports on the observed annual figures of the MPO study area. In the report, the MPO notes that each target is assigned one of three grades: (1) target met, (2) making progress, or (3) not met and not making progress. In review of the annual reports, the Federal Review Team did not observe these grades being assigned for each performance measure or captured anywhere in the report. As this is a document made available to the public each year, the MPO is encouraged to ensure the information is communicated in a format that is simple and easy to understand by any interested stakeholders.

Findings

Commendation: The Memphis MPO is commended for integration of a performance-based approach to its planning and programming processes, particularly efforts to clearly establish links between transportation investments and adopted performance targets.

Public Outreach & Civil Rights

Regulatory Basis

23 CFR 450.316

Compliance Status

Compliant.

Observations

Virtual Public Involvement

While the Memphis MPO had made progress to establish an online presence prior to the COVID-19 pandemic through "biteable" YouTube videos, active social media accounts, and online surveys, virtual public involvement became cornerstone to the MPO's public outreach process throughout and subsequently after the pandemic.

Prior to the COVID-19 pandemic, the MPO's public outreach heavily relied on in-person events; in March 2020, staff had to quickly make the transition to virtual engagement efforts while ensuring not to compromise the feedback received from the public. This shift included utilizing:

- Virtual open houses, workshops, and community and committee meetings;
- Online surveys via SurveyMonkey and MetroQuest;
- Interactive mapping activities; and
- Enhanced digital campaigns, including establishing project specific websites to drive engagement and targeted social media efforts.

As in-person events have returned with the pandemic easing, the MPO has continued to rely on virtual public involvement strategies to bolster its engagement efforts. A hybrid approach, providing both online and in-person participation opportunities, has been successful for the MPO as it allows for greater flexibility for interested parties.

Public Participation Plan

The MPO's current Public Participation Plan (PPP) was adopted by the Policy Board in August 2020. As most of the work on the plan occurred prior to the realized impacts of the COVID-19 pandemic, the update did not address the shift to virtual public involvement deployed by the MPO. While the PPP does include some web-based engagement strategies, such as utilizing the MPO website, social media, and videos to communicate with the public and engaging stakeholders via online surveys and interactive mapping, more enhanced virtual public involvement techniques are not explored in the plan.

Since the adoption of the PPP in 2014, the MPO has been tracking annual engagement efforts and indicators, currently presented in the State of the MPO Report. The report documents the number of meetings held by the MPO, event attendance, email open rates, and number of survey responses (see Figure 8). From 2019 to 2022, the MPO has been effectively growing its reach; the MPO has been steadily hosting more engagement events, the number of event attendees has doubled, and visitors to the MPO website has increased by more than 40%. While this growing reach cannot completely be attributed to the MPO's virtual public involvement efforts, it can be assumed that by providing non-traditional engagement opportunities, the MPO has been able to reach stakeholders previously not engaged in the process.

Figure 8. Outreach highlights presented in the 2022 State of the MPO Report (Source: Memphis MPO)

As the MPO undergoes efforts to update the PPP, the effectiveness of virtual engagement strategies should be properly assessed to ensure the most effective strategies are utilized by the MPO to engage the public in the planning process.

Equity Considerations

As discussed, the MPO's shift to virtual public involvement has expanded the reach of its engagement, particularly creating opportunities to engage interested parties who had previously not been participating in the planning process. Beyond providing virtual engagement opportunities, the MPO has also shifted to hosting pop-up meetings at events across the region, such as farmer's markets and food truck festivals. The MPO has found these pop-up meetings a particularly successful engagement strategy as it makes participating in the process convenient. As these pop-up meetings are planned, along with more traditional public meetings, equity is a key consideration to determine events and locations to ensure disadvantaged communities are being engaged. The location of a meeting also impacts how the MPO staff prepares; for example, if a meeting is held in a majority Spanish speaking area of the region, materials will be made available in Spanish and an interpreter may be present.

With development of the Mid-South Safety Action Plan (SAP), the Memphis MPO deployed the Climate and Economic Justice Screening Tool (CEJST) launched by the Council on Environmental Quality to implement the Justice40 Initiative. The Justice40 Initiative aims to ensure at least 40% of the benefits from many federal grants, programs, and initiatives flow to disadvantaged communities. The MPO used the CEJST to identify 144 census tracts across the area as "Equity Areas," denoting tracts as "overburdened" and/or "disadvantaged." These Equity Areas were then used to examine safety disparities by overlaying high-risk road features with the locations of the region's most underserved communities (see Figure 9).

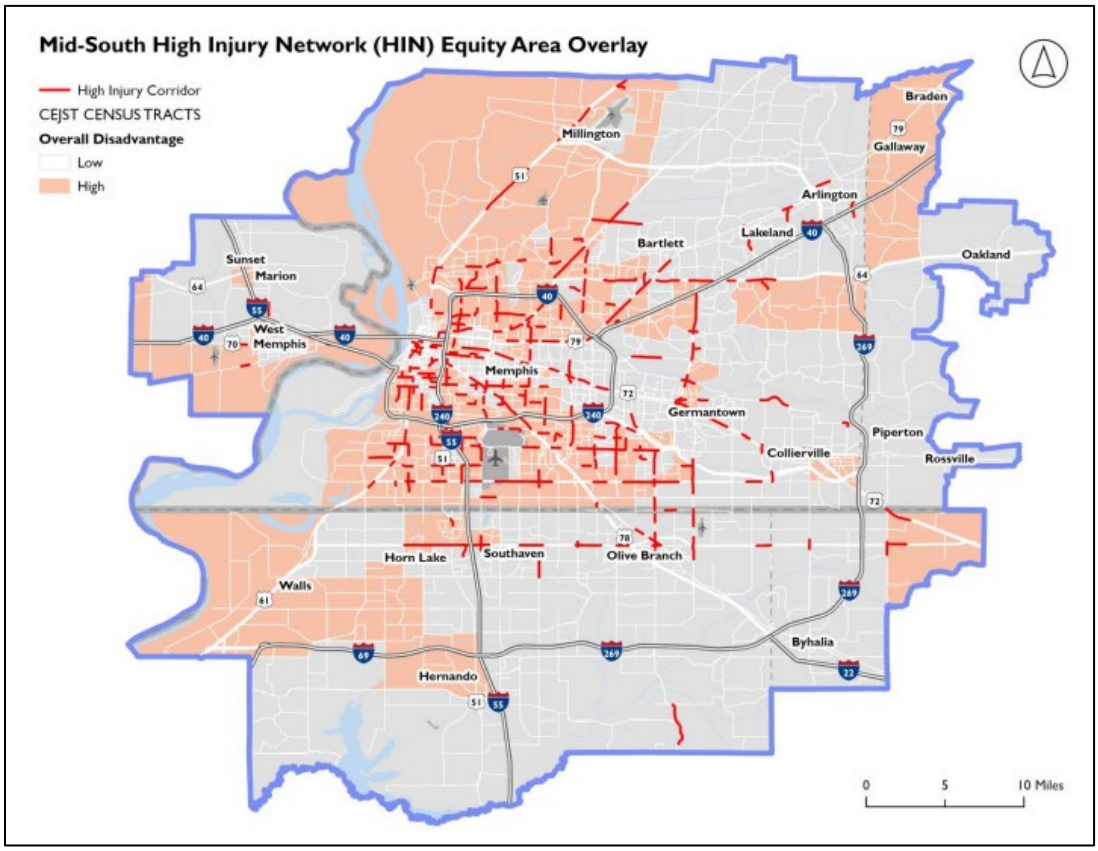


Figure 9. High Injury Network Equity Area Overlay (Source: Memphis MPO)

Past replicating such efforts with other plans and programs spearheaded by the MPO and utilizing additional tools developed by USDOT (such as the Equitable Transportation Community Explorer), the MPO should consider exploring opportunities to further fulfill the tenets of the Justice40 Initiative. This includes tracking the level of investment to disadvantaged communities via the MTP or TIP, and furthermore, measuring the benefit or quality of the transportation investments in these equity areas.

Findings

Recommendation: The Memphis MPO's current Public Participation Plan (PPP) does not wholly reflect the shift to increased usage of virtual public involvement approaches. The MPO is recommended to update the PPP to establish, document, and institutionalize standards for virtual public involvement.

Recommendation: The Memphis MPO is recommended to continue exploring opportunities to consider equity in the planning process, including quantifying the benefits of transportation investments and their impact on disadvantaged communities.

Air Quality & Transportation Conformity

Regulatory Basis

23 CFR 450.324
23 CFR 450.326

Compliance Status

Compliant.

Observations

Memphis is a tri-state maintenance area for the 2008 8-hour ozone National Ambient Air Quality Standards (NAAQS) that includes Shelby County, Tennessee; DeSoto County, Mississippi; and Crittenden County, Arkansas. The Memphis MPO is required to demonstrate conformity for the Tennessee and Mississippi portions of the maintenance area while the West Memphis MPO demonstrates conformity for the Arkansas portion.

As required by 40 CFR 93.105 and Chapter 1200-03-34 of the Tennessee Administrative Code, the Memphis MPO is responsible for carrying out an interagency consultation (IAC) process before making conformity determinations. This IAC process is intended to bring together all the air quality partners and stakeholders across the region in a cooperative fashion during development of plans, programs, and conformity determinations. IAC participants include:

- Memphis Urban Area MPO (lead agency)
- West Memphis MPO
- TDOT
- MDOT
- Tennessee Department of Environment and Conservation
- Mississippi Department of Environmental Quality
- EPA Region IV
- FTA Region IV
- FHWA – TN Division
- FHWA – MS Division
- Shelby County Health Department
- Memphis MPO Local Member Agencies

The IAC is convened on an as-needed basis, generally to support a specific function such as the development of or amendment to the MTP and/or TIP. The MPO has a consistent, and as observed by the Federal Review Team, successful process in place to engage the IAC. The MPO displays multiple best practices, including providing a pre-consensus memorandum to the IAC to

capture assumptions and parameters for conformity determinations, clearly communicating what is needed from the IAC, and continuously providing comprehensive responses to questions and feedback from IAC members. Consequently, there have been no instances since the 2019 Federal Certification Review where the FHWA and/or FTA have been unable to determine conformity of a new/amended MTP or TIP.

To make the transportation conformity process more accessible, the MPO plans to develop a conformity determination users guide and a screening tool for regionally significant projects. Both efforts would greatly bolster the conformity process, providing an opportunity for the IAC and other interested parties to offer more informed and, in turn, more valuable feedback. Additionally, these efforts would ensure continuity of the process, which is of particular importance as agencies across all industries are experiencing significant staffing changes.

As of this review, preliminary data indicates the 2015 8-hour ozone NAAQS has been violated in the Memphis urbanized area, putting the area at risk of falling into air quality non-attainment, as designated by the EPA. While a formal designation is not guaranteed or expected immediately, the MPO and its planning and air quality partners should begin preparing for the possibility, becoming aware of air quality issues in the area and evaluating planning and programming processes for any necessary process revisions associated with a non-attainment designation.

Findings

Recommendation: The Memphis MPO and relevant stakeholders (e.g., the IAC, air quality agencies, etc.) are recommended to stay aware of air quality issues in the area and review the region's transportation conformity process and identify any necessary revisions to meet any additional conformity requirements associated with a possible non-attainment designation.

Complete Streets Planning

Regulatory Basis

23 CFR 450.306

Compliance Status

Compliant.

Observations

Complete Streets planning is a high priority area for FHWA and FTA, urging MPOs to plan, implement, and evaluate equitable streets and networks that prioritize safety, comfort, and

connectivity for all users. Since the last Federal Certification Review, the Memphis MPO has continued to make progress on integrating Complete Streets into the transportation planning and programming processes.

Improving connectivity and safety for all users is integral to the MPO's planning process. To select candidate projects for inclusion in the MTP and TIP, the Memphis MPO uses a prioritization process which evaluates candidate projects for their potential contributions to the short- and long-term needs and goals of the region. The MPO's "connections and choices" criterion gets to the crux of Complete Streets planning, developing a more robust transportation network for all users. Projects are assigned points based on consideration of pedestrian and bicycle improvements, transit improvements, and impact on regional connectivity, including last-mile connections to public transportation.

The MPO is finalizing the MOVING TOGETHER 2050 MTP Update, which has a particular focus on Complete Streets planning. The plan identifies ten concept roadway corridors for proposed multimodal improvements, aiming to increase safety and provide better access to bicycle and pedestrian facilities (see Figure 10). While proposed improvements vary by corridor, in addition to dedicated bicycle lanes and sidewalks, general recommendations include pedestrian refuge island in medians, landscape buffers and trees, and high emphasis and raised crosswalks.

Thomas Street US-51 – Between Frayser Blvd. & N. Watkins Street

Poplar Ave. – Between Tillman & Highland Street

Jackson Ave. – Between Thomas Street & Watkins Street

Figure 10. Complete Streets Corridor Concept Visualizations (Source: Memphis MPO)

In 2020, the MPO published Walk & Roll: Memphis Region Pedestrian and Bicycle Master Plan, an update to the region's 2014 Regional Bicycle and Pedestrian Master Plan. While the plan is primarily focused on bicycle and pedestrian improvements, the plan aims to improve safety and connectivity for all users across the region.

Walk & Roll provides numerous policy and program recommendations for the Memphis MPO and local jurisdictions, some of which are specifically aimed to promote Complete Streets outcomes. These recommendations include:

- The MPO should coordinate with TDOT, MDOT, and MATA to deliver Complete Streets and seamless connections to transit.
- Local jurisdictions should develop and adopt a Complete Street ordinance and design guidance that supports the safe accommodation of all users, whether traveling on foot, by bike, transit, or car.

Additionally, the plan includes initial scoping for "catalyst projects" which demonstrate solutions to common challenges facing the region, setting precedent for future improvements and development along a corridor. One of the catalyst projects presented in Walk & Roll is a model block vision for Poplar Avenue in East Memphis, TN (see Figure 11).

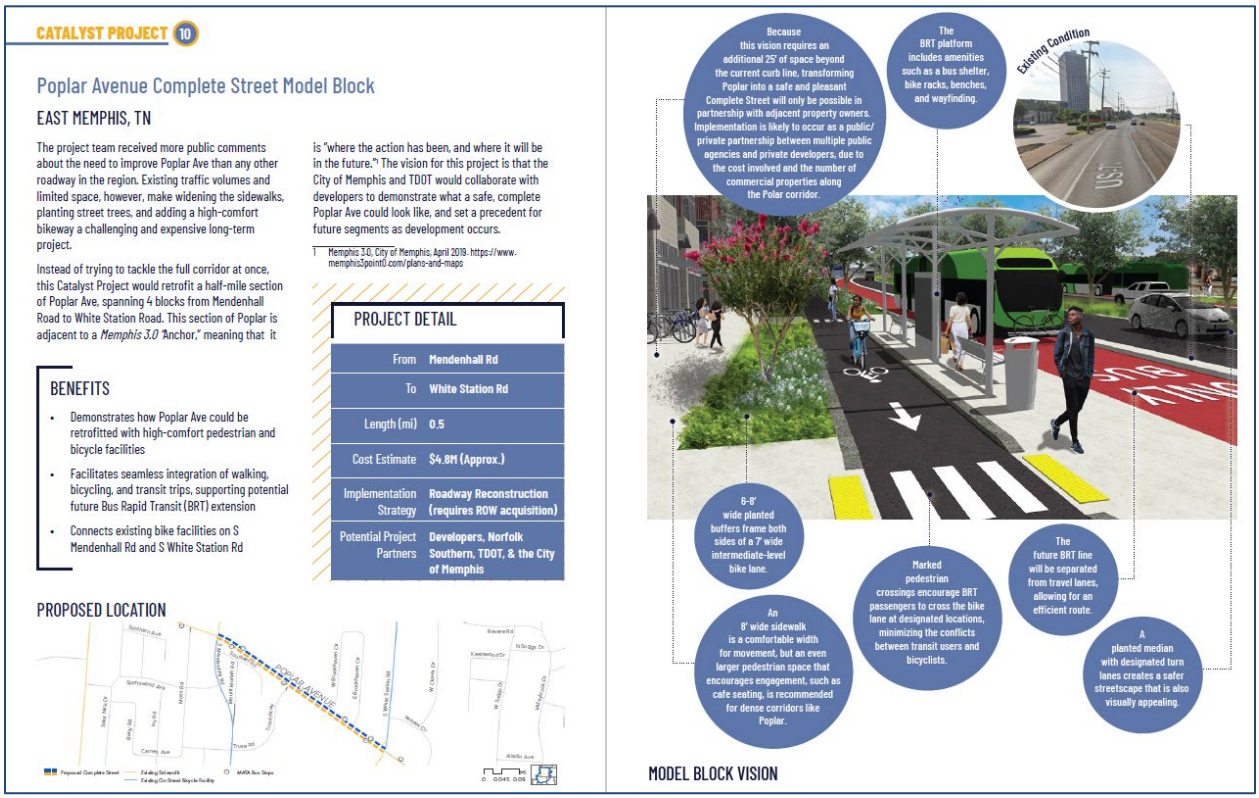


Figure 11. Complete Street Catalyst Project (Source: Memphis MPO)

The Memphis MPO also evaluates progress on integration of bicycle and pedestrian improvements within the metropolitan planning area, most notably through publication of a Bicycle & Pedestrian Report in 2017. The report captures significant updates for each partner agency and jurisdiction, highlighting recently constructed bicycle and pedestrian projects; an overview of bicycle and pedestrian safety data in the region; and bicycle and pedestrian projects include the TIP. While no such report has been published since then, the MPO is currently collecting information from local jurisdictions via a survey on bicycle and pedestrian improvements over the past three years.

As made evident, the Federal Review Team observed the MPO and its planning partners effectively working towards institutionalizing Complete Streets into the planning process. The MPO is encouraged to keep building upon current efforts, prioritizing safety of all users and fully transitioning to Complete Streets as the default approach.

Findings

None.

Safety Planning

Regulatory Basis

23 CFR 450.306
23 U.S.C. 148

Compliance Status

Compliant.

Observations

Transportation safety is a high priority area for the Memphis MPO and its planning partners; the MPO has integrated safety into a variety of the organization's plans and programs and adopted a standalone safety action plan for the region.

Integration into Project Identification & Prioritization

Safety is a fundamental criterion considered in the MPO's identification, selection, and prioritization process for the MTP and TIP; the Congestion Management Process and Regional Intelligent Transportation Systems Architecture also include safety goals and promote safety outcomes.

As discussed previously, the Memphis MPO uses a prioritization process to select candidate projects for inclusion in the MTP and TIP, evaluating projects based on the needs and goals of the region. Candidate projects are assigned points based on crash rate, location/corridor, and if the project incorporates countermeasures from the respective State DOT's Highway Safety Plan. The prioritization criteria shown in Figure 12 was updated for the development of the FY 2023-2026 TIP based on the outcomes of the Mid-South Safety Action Plan, discussed below. Most notably, the criteria now considers the high-injury network established by the plan.

Safety and Security	20
Crash Rate from 2018-2020	**6**
Crash Rate 15.01 or more	6
Crash Rate 10.01 to 15.00	4
Crash Rate 5.01 to 10.00	2
Crash Rate less than 5.00	0
Project Located on Corridor or Near Intersection with High Number of Fatalities from 2018-2020	**2**
2 or more crashes resulting in 1 or more fatalities	2
1 crash resulting in 1 or more fatalities	1
Project Located on Corridor or Near Intersection with High Number of Serious Injuries from 2018-2020	**2**
4 or more crashes resulting in 1 or more serious injuries	2
2-3 crashes resulting in 1 or more serious injuries	1
Systemic Safety Risk	**2**
Project is located on high risk corridor	2
Project is located on medium risk corridor	1
Project Incorporates one or more Safety Countermeasures and/or Strategies identified in the respective State DOTs Highway Safety Plan: (1 point each, 4 points maximum)	**4**

Figure 12. Safety and Security TIP Project Prioritization Criteria (Source: Memphis MPO)

Mid-South Safety Action Plan

For the development of the MPO's MOVING TOGETHER 2050 MTP Update, the MPO completed a crash analysis for the region, the results of which prompted the initiation of the Mid-South Safety Action Plan (SAP) which was adopted in May 2023.

The SAP covers the Mid-South region, which includes both the Memphis MPO and West Memphis MPO metropolitan planning areas, making it a tri-state effort. The Mid-South SAP establishes a vision for transportation safety improvements for the region, informed by national safety initiatives, including the Safe System Approach and the Toward Zero Deaths initiative. The SAP builds upon the crash analysis of the 2050 RTP, establishes a high-injury network for the region and provides recommended strategies, countermeasures, and actions to address safety within the region.

To aid in the implementation of the SAP, local safety profiles for each jurisdiction within the Mid-South region were completed. These safety profiles summarize the results of the crash analysis

for each jurisdiction, including the total number of crashes between 2016-2020, crashes by collision type, crashes by severity, high crash intersections, and high crash roadway segments (see Figure 13).

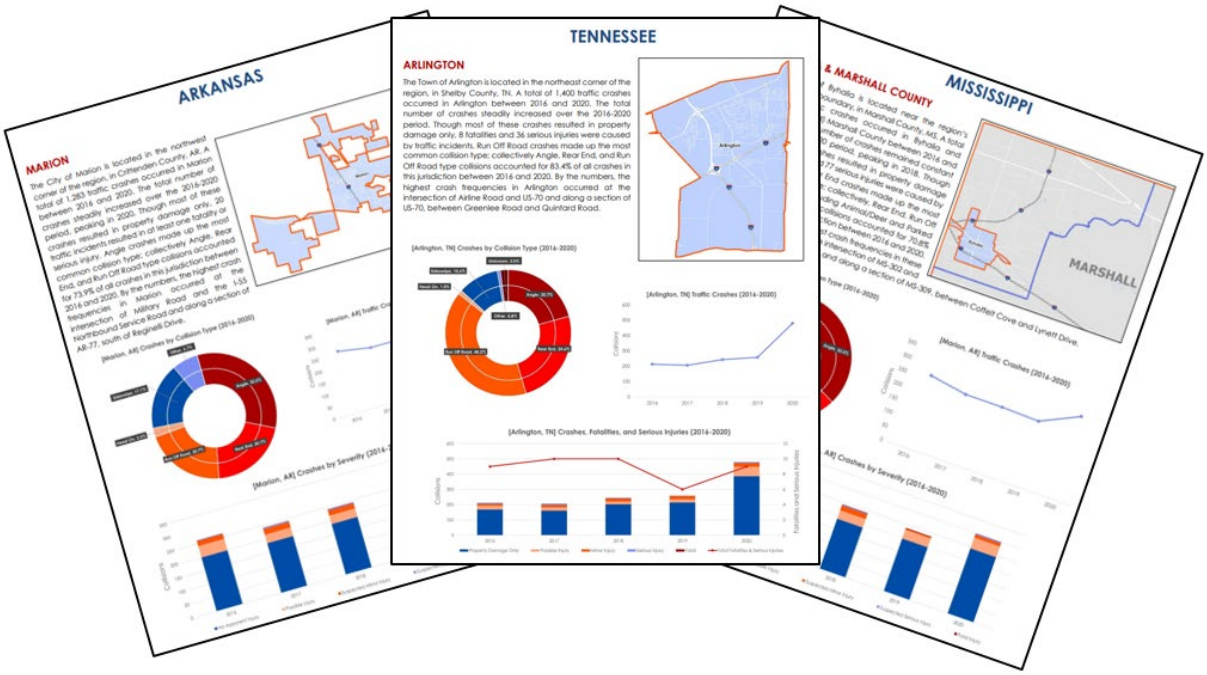


Figure 13. Local Safety Profiles
(Source: Memphis MPO)

The Safe Streets and Roads for All (SS4A) discretionary grant program newly established by the IIJA also helped spur the development of the SAP. The SS4A provides funding for both planning and implementation grants; implementation grants require an applicant to have an eligible action plan. Throughout the development of the SAP, the MPO considered the required action plan components as outlined by the U.S. Department of Transportation, ensuring jurisdictions within the region are eligible to apply for implementation grants for the FY 2023 SS4A funding opportunity and subsequent rounds.

Findings

Commendation: The Memphis MPO is commended for its comprehensive approach to safety planning across the tri-state area, providing planning partners with the needed tools to unlock new funding opportunities and achieve the safety goals of the region.

Metropolitan Planning Area Boundaries

Regulatory Basis

23 CFR 450.312

Compliance Status

Compliant.

Observations

The Memphis MPO's current metropolitan planning area covers Shelby County, TN, Desoto County, MS, the western portion of Fayette County, TN, and the northwest corner of Marshall County, MS. The boundary was approved by the Governors of Tennessee and Mississippi in January 2014.

In December 2022, the U.S. Census Bureau published the 2020 Census Qualifying Urban Areas and Final Criteria Clarification. The urban area criteria applied in the 2020 Census differed significantly from the criteria used in 2010 in several ways, including:

- The minimum population threshold to qualify as urban was increased from 2,500 to 5,000, updating a threshold that has been in place since 1910.
- The use of housing unit density (2,000 units) was added as an alternative criterion instead of population density.
- The revocation of different types of urban areas.

The above-mentioned criteria changes have resulted in many areas losing their "urban" status and has also caused urban area boundaries across the county to shrink, including the Memphis, TN-MS-AR urbanized area (see Figure 14).

Following the Census' publication of the qualifying urban areas, the Memphis MPO and its planning partners have proceeded with work on the process of "adjusting" the Census-designated urban area boundaries for purposes of application of FHWA's programs.

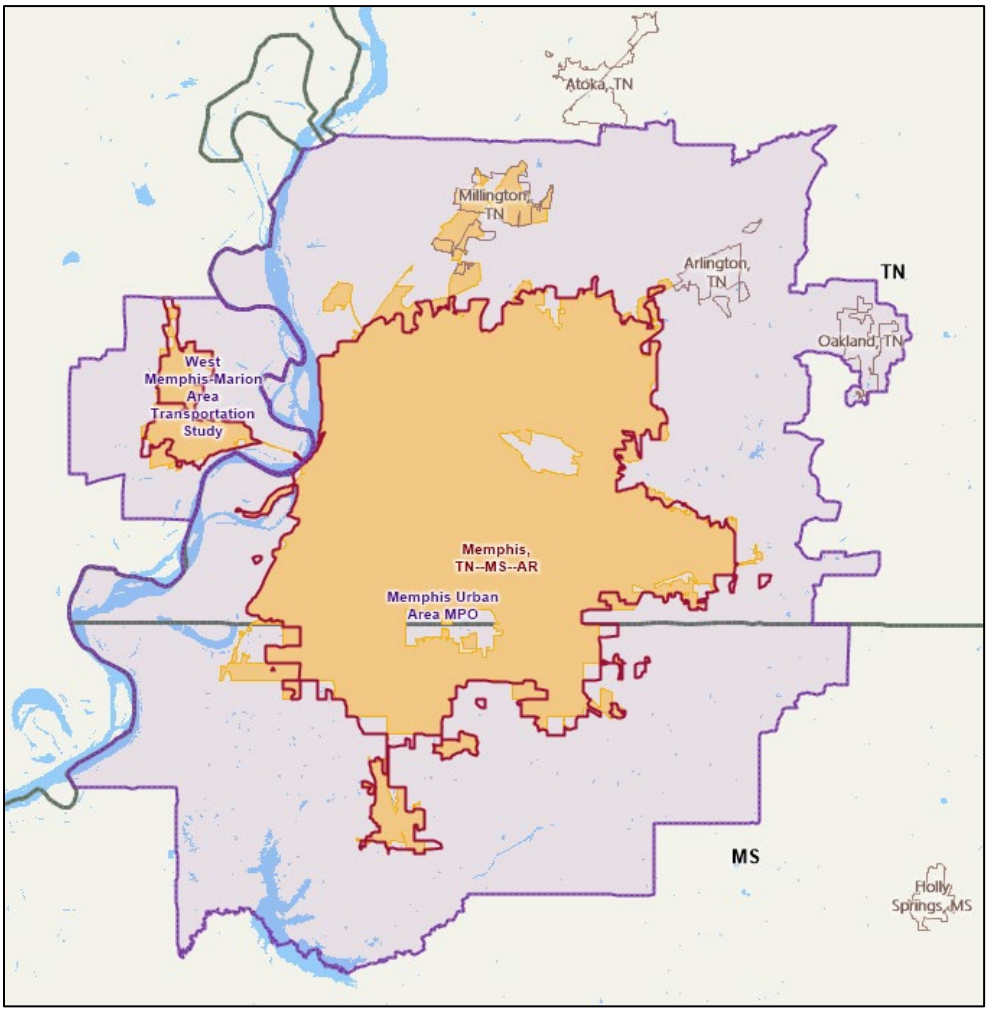


Figure 14. Memphis, TN-MS-AR 2020 Census Urban Area (red outline) superimposed on the 2010 Census Urban Area (orange).

Guidance for this adjustment process can be found in FHWA's Highway Functional Classification Concepts, Criteria, and Procedures guidance document. In addition, in July 2023, the FHWA Tennessee Division and TDOT jointly issued a memo to the MPOs detailing Federal and State expectations on the process and timing for adjustments to urban area boundaries.

As of this review, the Federal Review Team has not observed any cause for concern with the Memphis MPO's approach to urbanized area boundary adjustments.

Findings

None.

Congestion Management Process

Regulatory Basis

23 CFR 450.322

Compliance Status

Compliant.

Observations

The Memphis MPO adopted its current Congestion Management Process (CMP) in August 2020. The CMP was developed in accordance with FHWA's Congestion Management Process Guidebook and meets the minimum regulatory requirements in 23 CFR 450.322.

In review of the CMP, the Federal Review Team observed the following noteworthy practices and opportunities:

- The MPO focused on establishing goals and objectives that are specific, measurable, realistic, and reflective of regional priorities, following the "SMART" (Specific, Measurable, Agreed, Realistic, and Time-Bound) framework established by FHWA's Congestion Management Process Guidebook.
- To establish the CMP network, the MPO deployed a corridor-based approach, a shift from the 2015 CMP. A tiered CMP network was established, made up the following: interstate priority corridors, non-interstate NHS priority corridors, supplementary analysis corridors, and regional analysis corridors.
- The current CMP includes robust performance measures, greatly expanded from the six performance measures established for the 2015 CMP. The CMP performance measures are clearly aligned with Federal performance measures related to congestion. The framework established could be enhanced by linking the measures with the region's goals and objectives, ensuring progress towards each objective can be measured.
- While previously publishing a report to evaluate system performance on a biennial basis, since 2020, the MPO now publishes an annual CMP report that is incorporated into the State of the MPO Report. This has led to the MPO revisiting the CMP on a consistent basis, leading to regular updates to the network and performance measures.
- The CMP continues to include a "toolbox" of strategies to address congestion, noting the anticipated congestion impacts and the general cost of implementation. The potential effectiveness of each strategy to address congestion in the region is not included. This continues to be an opportunity for the CMP, particularly providing context of the potential effectiveness in relation to the cost of implementation.

- The MPO should continue to leverage visualizations as a tool to present and analyze congestion problems in the region, particularly to convey information to decision-makers and the general public.

As of this review, the MPO plans to update the CMP in 2024. The MPO should continue to closely follow the Congestion Management Process Guidebook, identifying opportunity areas for enhanced application of the CMP.

Findings

None.

Freight Planning

Regulatory Basis

23 CFR 450.306

Compliance Status

Compliant.

Observations

As the Memphis region is one of the most important freight hubs in the country, cooperative freight planning is integral to the MPO's process.

The MPO adopted the Mid-South Freight Flows and Industry Analysis in February 2023, a study conducted in cooperation with TDOT to develop recommendations to support the growth of freight and logistics industries in the region. The primary components of the study are an analysis of the issues and trends of the freight industry, freight flows and forecasts through 2050, and an economic cluster analysis of freight moving industries.

The recommendations provided by the study include specific investments and strategies to address deficiencies and spur expansion of logistics businesses, as well as general recommendations for improving freight planning and policy, such as suggested performance measures and strategic partnerships. Furthermore, recommended investments and strategies are categorized as foundational, catalytic, or innovative and described as either "high-priority" or "medium-priority." The detailed recommendations are a particular strength of the study, establishing a clear roadmap for the MPO and cooperative partners for implementation.

Generally, input from stakeholders was considered through the Freight Stakeholder Survey completed in November 2020. The survey aimed to capture the concerns, future trends, and outlooks as recognized by local freight partners. Beyond the stakeholder survey, the Federal Review Team noted limited additional stakeholder involvement; the MPO's Freight Advisory Committee was only convened once throughout the development of the study to review and provide feedback on the preliminary recommendations. The MPO is encouraged to leverage the Freight Advisory Committee to work towards implementation of the recommendations of the Mid-South Freight Flows and Industry Analysis, particularly as many of the recommended investments and strategies are beyond the scope of the MPO process.

Findings

None.

Summary of Findings

The FHWA and FTA identified several findings through the certification review of the metropolitan transportation planning process for the Tennessee and Mississippi portions of the Memphis, TN-MS-AR urbanized area. These findings are intended to not only ensure continuing regulatory compliance of the planning process, but also to foster high-quality planning practices and improve the transportation planning in the region.

Review findings are categorized as commendations, recommendations, and corrective actions. Through its review, the Federal Review Team identified 2 commendations and 4 recommendations related to the planning process. No corrective actions were identified. These findings are detailed below.

Commendations

- The Memphis MPO is commended for integration of a performance-based approach to its planning and programming processes, particularly efforts to clearly establish links between transportation investments and adopted performance targets.

- The Memphis MPO is commended for its comprehensive approach to safety planning across the tri-state area, providing planning partners with the needed tools to unlock new funding opportunities and achieve the safety goals of the region.

Recommendations

- The Memphis MPO, TDOT, MDOT, and MATA are recommended to implement a formal, periodic joint review of planning agreements to ensure consistency with the planning and programming process and promote a joint understanding of roles and responsibilities of each agency.

- The Memphis MPO's current Public Participation Plan (PPP) does not wholly reflect the shift to increased usage of virtual public involvement approaches. The MPO is recommended to update the PPP to establish, document, and institutionalize standards for virtual public involvement.

- The Memphis MPO is recommended to continue exploring opportunities to consider equity in the planning process, including quantifying the benefits of transportation investments and their impact on disadvantaged communities.

- The Memphis MPO and relevant stakeholders (e.g., the IAC, air quality agencies, etc.) are recommended to stay aware of air quality issues in the area and review the region's transportation conformity process to identify any necessary revisions to meet any

additional conformity requirements associated with a possible non-attainment designation.

Conclusion

In accordance with 23 CFR 450.336(b) and based on this review and evaluation of the metropolitan transportation planning process being carried out in the Tennessee and Mississippi portions of the Memphis, TN-MS-AR urbanized area, the FHWA and FTA find that the process meets the requirements of applicable Federal law and regulation and jointly certify the planning process. This certification will remain in effect until September 6, 2027.

Appendix A – Certification Review Participants

The following individuals participated in the Memphis TMA Certification Review site visit held on June 13th and 15th, 2023:

Federal Highway Administration (FHWA) and Federal Transit Administration (FTA)

- Sean Santalla, FHWA Tennessee Division, Project Development Team Leader
- Melanie Murphy, FHWA Tennessee Division, Transportation Planning Specialist
- Zachary Coleman, FHWA Tennessee Division, Transportation Planning Specialist
- Joi Hamilton-Jones, FHWA Tennessee Division, Civil Rights Program Specialist
- Kim Thurman, FHWA Mississippi Division, Project Development Team Leader
- Necole Brown, FHWA Mississippi Division, Community Planner
- Amy Heflin, FHWA Arkansas Division, Program Delivery Team Leader
- Valera McDaniel, FHWA Arkansas Division, Transportation Program Coordinator/Planner
- Michael Barry, FHWA Office of Planning, Transportation Specialist
- Andres Ramirez, FTA Region IV, Community Planner

Environmental Protection Agency (EPA)

- Dianna Myers, EPA Region IV, Environmental Scientist
- Weston Freund, EPA Region IV, Life Scientist
- Simone Jarvis, EPA Region IV, Life Scientist

Memphis Urban Area Metropolitan Planning Organization (MPO)

- Pragati Srivastava, MPO Staff, Administrator
- Sajid Hossain, MPO Staff, Transportation Planner
- Kate Horton, MPO Staff, Transportation Planner
- Nick Warren, MPO Staff, Transportation Planner
- Ethan Green, MPO Staff, Transportation Planner
- Mavrick Fitzgerald, MPO Staff, Transportation Planner

Tennessee Department of Transportation (TDOT)

- Stacy Morrison, Long Range Planning Division, Planning Manager
- Antoine Hawkins, Long Range Planning Division, Community Transportation Planning Supervisor
- Ashley Owens, Long Range Planning Division, Senior Community Transportation Planner
- Thiera Taylor, Long Range Planning Division, Community Transportation Planner
- Jennifer Marshall, Long Range Planning Division, MPO Program Senior Planner

Mississippi Department of Transportation (MDOT)

- Evan Wright, Planning Division, State Planning Engineer

Memphis Area Transit Authority (MATA)

- Jordan Smith, Transit Planner

West Memphis-Marion Area Transportation Study (West Memphis MPO) – *observing*

- Rhonda Standridge, MPO Staff, Administrator
- Guy Sawyer, MPO Staff, Engineer

U.S. Department of Transportation
Federal Highway Administration

Appendix B – Certification Review Site Visit Agenda

AGENDA

Tuesday, June 13th		
8:30am – 12:00pm	**Hybrid Review Session - Shelby County Roads and Bridges** 6449 Haley Rd, Memphis TN 38134 Join via Microsoft Teams	
Time	*Item*	*Lead*
8:30 – 8:45am	Welcome & Introductions – Purpose of the Certification Review – Agenda Overview	Federal Team Lead: Melanie Murphy
8:45 – 9:15am	Overview of Recent Activities	Federal Team & MPO Staff Lead: Melanie Murphy; Kim Thurman
9:15 – 10:00am	3-C Planning Process (Continuing, Cooperative & Comprehensive)	Federal Team, MPO Staff, TDOT, MATA Lead: Melanie Murphy, Sean Santalla, Andres Ramirez
10:00 – 10:30am	Addressing the Federal Planning Factors	Federal Team & MPO Staff Lead: Melanie Murphy, Sean Santalla
10:30 – 11:00am	Performance-Based Planning & Programming	Federal Team & MPO Staff Lead: Melanie Murphy; Sean Santalla
11:00 – 11:45am	Air Quality & Transportation Conformity	Federal Team & MPO Staff Lead: Dianna Myers, Melanie Murphy, Sean Santalla
11:45am – 12:00pm	Questions, Comments, Next Steps	All
12:00pm	**Adjourn**	

Thursday, June 15th		
AM Session	**Virtual Review Session – Microsoft Teams** Join via Microsoft Teams	
Time	*Item*	*Lead*
10:00 – 11:30am	Public Outreach & Civil Rights – Public Participation Plan	Federal Team & MPO Staff Lead: Joi Hamilton-Jones,

	– Adapting to the COVID-19 Pandemic/ Virtual Public Involvement – Equity	Melanie Murphy, Sean Santalla
PM Session	**Virtual Review Session – Microsoft Teams** Join via Microsoft Teams	
1:00 – 1:40pm	Complete Streets Planning	Federal Team & MPO Staff Lead: Necole Baker, Melanie Murphy
1:40 – 2:20pm	Safety Planning	Federal Team & MPO Staff Lead: Kim Thurman, Melanie Murphy
2:20 – 2:30pm	Questions, Comments, Next Steps	All
2:30pm	**Adjourn**	

Appendix C – Outreach Approach & Feedback

Outreach Approach

Public and stakeholder outreach for the 2023 Memphis TMA Federal Certification Review largely focused on efforts to obtain meaningful input from stakeholders with familiarity with the metropolitan planning process and members of the public who have participated in the process who are therefore in the best position to provide feedback. The Federal Review Team conducted outreach through the following:

- Presentation at the **May 25th, 2023, Engineering and Technical Committee Meeting**. This publicly noticed meeting informed MPO members and the public of the Federal Certification Review process and solicited feedback.
- Presentation at the **May 25th, 2023, Transportation Policy Board Meeting**. This publicly noticed meeting informed MPO members and the public of the Federal Certification Review process and solicited feedback.
- One **MPO Member Listening Session held on June 1st, 2023**. This virtual meeting provided an opportunity for members of the Engineering and Technical Committee and Transportation Policy Board to provide direct feedback to the Federal Review Team.
- Public outreach at the **July 15th, 2023, Memphis Farmers Market**. The Federal Review Team sought feedback from members of the public on the metropolitan planning process and opportunities for engagement.

Additionally, emailed feedback was welcomed.

Summary of Feedback

- Several MPO members expressed appreciation for how well the planning process is communicated by MPO staff; members are aware of the "what," "why," and "when." Information is given to members early, with ample time to ask questions and submit requests when needed.
- Numerous members expressed praise for MPO staff for going above and beyond what is required, specifically noting the development of the Mid-South Safety Action Plan and the Mid-South Freight Flows and Industry Analysis.
- Project delivery continues to be a challenge for the MPO area, with members specifically noting excessive review times in the environmental and design phases and escalating constructions costs in recent years. Members noted MPO staff have helped navigate these challenges, particularly coordinating with TDOT and MDOT.
- Members of the public stated that MPO staff relayed information about the metropolitan planning process effectively, making the process easy to understand and being clear about the type of input is being sought from the public.

- Participants in the MPO's pop-up meeting provided positive feedback about the MPO's engagement process, praising the convenience of the meeting and the interactive approach.
- Feedback was received that the input being sought from the public was too general and the MPO should be providing information on specific transportation projects and needs.

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