

Introduction

The Long-Range Transportation Plan (LRTP) is a statement of how the Dubuque Metropolitan Area Transportation Study (DMATS) intends to manage its transportation system over the next 30 years. Federal law requires that Metropolitan Planning Organizations (MPOs), like DMATS, create a plan that assesses of current transportation trends and forecasts future needs.

The DMATS 2055 LRTP updates the 2050 plan that was adopted in 2021. Guided by and updated vision, goals, and objectives, this plan is designed to meet current federal requirements while addressing evolving transportation issues in the DMATS area.

The Dubuque Metropolitan Area

The Dubuque Metropolitan Area is located on the Mississippi River at the convergence of the state boundaries of Iowa, Illinois, and Wisconsin. The DMATS MPO planning area covers 202 square miles and has a 2020 Census population of 85,623.

The City of Dubuque, Iowa, the largest city in DMATS, had a 2020 Census population of 59,667. Just over 93% of the DMATS population lives in the Iowa portion of the area with around 4% percent of the area's residents living in Illinois and 3 percent residing in Wisconsin.

Dubuque was the first area in what eventually became the State of Iowa to be settled by Europeans. Early settlers were drawn to the area by lead mining, trading, and river transportation. Today's economy is driven by a diverse collection of industries including manufacturing and tourism. Figure 1.1 shows Dubuque's location in relation to surrounding metropolitan areas in the Midwest region.



Figure 1.1 Dubuque Midwest Region Map

Dubuque Metropolitan Area Transportation Study

As the designated Metropolitan Planning Organization (MPO) for the Dubuque Metropolitan Area, DMATS is responsible for performing the metropolitan planning requirements outlined by Title 23 of the United States Code. Key among these requirements is maintaining a continuous, comprehensive, and coordinated (3-C) transportation planning process.

DMATS is governed by a Policy Board that is comprised of representatives from a mixture of local, regional, and state organizations. The local governments represented on the DMATS Policy Board include: the cities of Dubuque and Asbury in Iowa; the City of East Dubuque, Illinois; Dubuque County, Iowa; Jo Daviess County, Illinois; and Grant County, Wisconsin. The board also includes one small city representative for the cities of Centralia, Durango, Peosta, and Sageville.

Additionally, DMATS has representation from the Iowa, Illinois, and Wisconsin Departments of Transportation; the East Central Intergovernmental Association (ECIA); Southwest Wisconsin Regional Planning Commission (SWWRPC); Jule Transit; and Regional Transit Authority 8.

The DMATS Policy Board is advised by a Technical Advisory Committee that includes professional staff from DMATS member organizations. Figure 1.2 maps the DMATS planning area.

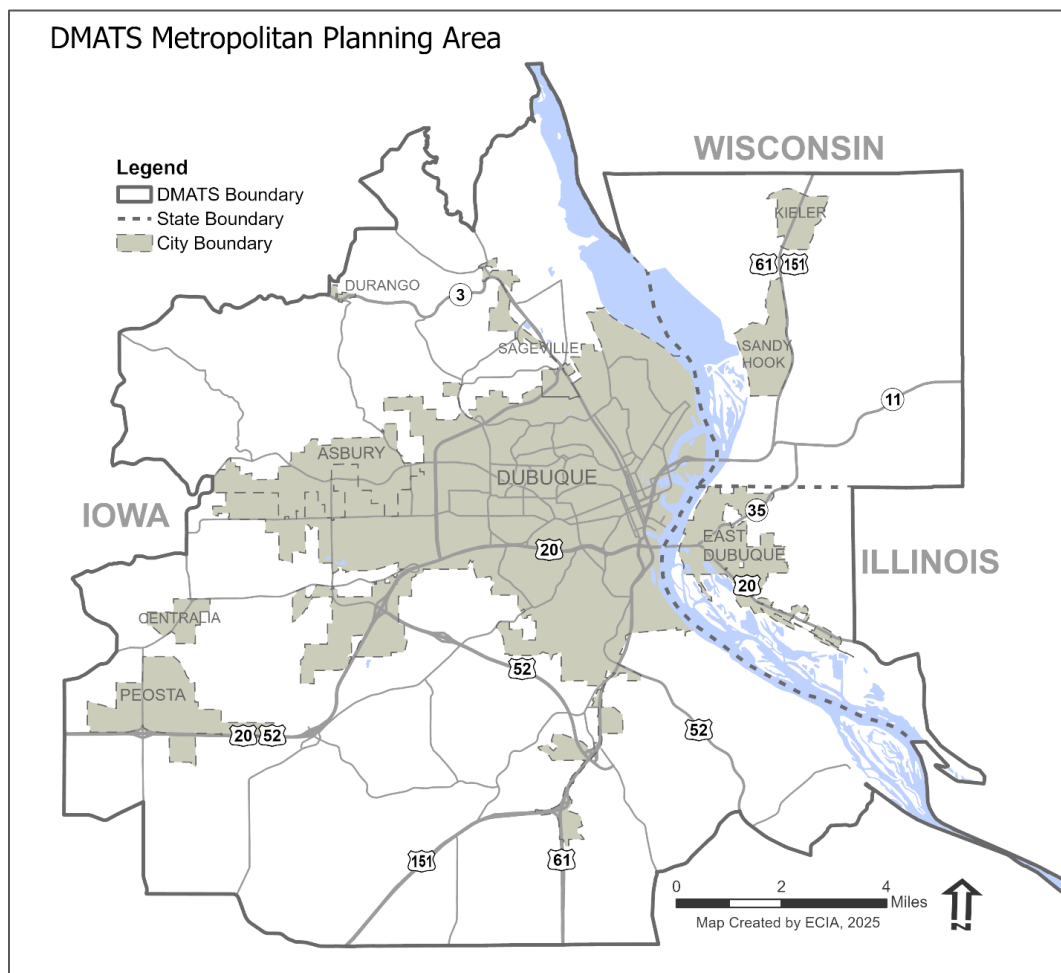


Figure 1.2 DMATS Metropolitan Planning Area Map

Long Range Planning Process

To complete the long range transportation plan, DMATS follows a planning process that is guided by federal regulations. The following section describes the process used by DMATS to complete the 2055 LRTP.

Federal Planning Factors

Federal planning requirements for Metropolitan Transportation Planning are established in the *Code of Federal Regulations (23 CFR § 450.306)*. This section identifies ten planning factors that MPOs like DMATS must consider in their policies and programs.

According to the regulation, the metropolitan transportation planning process must be continuous, cooperative, and comprehensive, and must address the following 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 quality of life, and promote consistency between transportation improvements and planned growth and economic development patterns;
- (6) Enhance 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 resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and
- (10) Enhance travel and tourism.

Source: 23 CFR § 450.306, <https://www.ecfr.gov/current/title-23/section-450.306>

Performance Based Planning and Programing

Federal regulations also require a performance- based approach to transportation decision making. Performance-Based Planning and Programming (PBPP) applies performance management principles to transportation policy and investment decisions. It creates a link between day-to-day system management and the long-range choices an agency makes about policies and investments.

PBPP is a system-level, data-driven process used to identify strategies and investments that best support established goals. Long-range planning defines those goals and objectives, while performance measures and target-setting connect them to outcomes, providing a clear basis for evaluating progress and sharing information with stakeholders and the public. Figure 1.3 shows how PBPP stages fit within a traditional planning and programming process.



Figure 1.3 Performance Based Planning and Programming Framework

Source: *Performance-Based Planning and Programming Guidebook*, FHWA, September 2013.

The PBPP approach includes four key elements: Strategic Direction, Planning Analysis, Programming, and Implementation and Evaluation. The following section details each of the elements.

Strategic Direction

Where do we want to go? – In the transportation planning process, strategic direction is based upon a vision for the future, as articulated by the public and stakeholders. PBPP includes:

- **Goals and Objectives** – Stemming from a state or region’s vision, goals address key desired outcomes, and supporting objectives (specific, measurable statements that support achievement of goals) play a key role in shaping planning priorities.
- **Performance Measures** – Performance measures support objectives and serve as a basis for comparing alternative improvement strategies (investment and policy approaches) and for tracking results over time.

Planning Analysis

- **Identify Trends and Targets** – Preferred trends (direction of results) or targets (specific levels of performance desired to be achieved within a certain timeframe) are established for each measure to provide a basis for comparing alternative packages of strategies. This step relies upon baseline data on past trends, tools to forecast future performance, and information on possible strategies, available funding, and other constraints.

- Identify Strategies and Analyze Alternatives – Performance measures are used to assess strategies and to prioritize options. Scenario analysis may be used to compare alternative packages of strategies, to consider alternative funding levels, or to explore what level of funding would be required to achieve a certain level of performance.
- Develop Investment Priorities – Packages of strategies for the LRTP are selected that support attainment of targets, considering tradeoffs between different goal areas, as well as policy priorities.

Programming

What will it take? Programming involves selecting specific investments to include in an agency capital plan and/or in a Transportation Improvement Program (TIP) or State Transportation Improvement Program (STIP). In a PBPP approach, programming decisions are made based on their ability to support attainment of performance targets or contribute to desired trends, and account for a range of factors.

- Investment Plan – In order to connect the LRTP, which has an outlook of at least 20 years, to selection of projects in a TIP/STIP, some areas develop a mid-range (e.g., 10 year) investment plan or investment program.
- Resource Allocation / Program of Projects – Project prioritization or selection criteria are used to identify specific investments or strategies for a capital plan or TIP/STIP. Projects included in the TIP/STIP are selected on the basis of performance and show a clear link to meeting performance objectives.

Implementation and Evaluation

How did we do? – These activities occur throughout implementation on an on-going basis, and include:

- Monitoring – Gathering information on actual conditions.
- Evaluation – Conducting analysis to understand to what extent implemented strategies have been effective.
- Reporting – Communicating information about system performance and the effectiveness of plans and programs to policymakers, stakeholders, and the public.

In a PBPP approach, each step in the process is clearly connected to the next in order to ensure that goals translate into specific measures, which then form the basis for selecting and analyzing strategies for the long range plan. Ultimately, project selection decisions are influenced by expected performance returns. Keeping the next step in the process in mind is critical to each step along the way.

Public involvement and data are critical throughout the process. The public's vision for the transportation system and their community plays a key role in determining goals, performance measures, and investment priorities.

Data on past, existing, and expected future performance, and information on the effectiveness of possible strategies, helps to inform selection of priorities. Like all planning, the process is cyclical. Over time, and as planning cycles advance, the goals and objectives may be adjusted, and performance measures and targets may be refined to ensure they focus on the most important priorities and are achievable.

DMATS 2055 Vision Statement

To help guide the development of the LRTP, DMATS created the following vision statement using information and public input collected through the planning process. The vision statement outlines the region's transportation future, affirming where community members hope to be in 2055. It sets the overall direction for the LRTP, helping to align goals, guide decision-making, and ensure that all strategies support a shared long-term outcome.

The Dubuque Metropolitan Area remains a vibrant Upper Midwest Mississippi River region, with a transportation system that provides efficient movement of people and goods. This system promotes the area's economy and environmental quality and operates in an attractive and safe setting that serves everyone.

The system is fiscally sustainable, driven by a collaboration of involvement by residents and key stakeholders, promotes areas of concentrated growth, manages both demand and capacity, employs technology, and unites air, bicycle, pedestrian, rail, roadway, public transportation, and waterway facilities into one fully interconnected network.

Goals

To advance its 2055 vision statement, DMATS has identified nine goals that define the outcomes most important to the region. DMATS will use its goals as guiding principles to shape a plan that will serve as a road map for future policy decisions.

Access to Opportunity

Ensure that all members of the community have access to reliable and affordable transportation and use transportation investments to create opportunities in all communities.

Economic Development

Leverage transportation investments to create opportunities for economic growth and support local industries.

Public Health

Improve public health by providing more active transportation opportunities like walking and biking.

Mode Choice

Build a multi-modal system that is affordable and accessible and allows people to choose the mode that best fits their transportation needs.

System Maintenance

Maintain and improve existing transportation infrastructure to ensure system reliability for years to come.

Environment

Improve the performance of the transportation system while protecting and enhancing the natural environment.

Safety

Reduce the number of transportation related injuries and deaths.

Efficiency

Make strategic investments in transportation system performance.

Technology

Monitor and evaluate advancements in transportation technology and deploy these innovative solutions to improve the system.

Objectives and Performance Measures

The first steps in achieving the LRTP goals are to develop a plan of action and a system for measuring progress. Goals represent broad ideas that define where we want to go, but they do not provide specific directions for how to get there. Objectives bridge the gap between visioning and taking action, providing specific, measurable steps that DMATS can take to advance each goal.

Performance measures are the specific data points that DMATS will use to track progress. They support objectives and ensure that transportation investment decisions are made based on their ability to meet established goals for improving the overall transportation system. Following the adoption of the LRTP, DMATS will produce an updated performance measures report to track progress toward achieving the plan's objectives.

Federal Performance Measures

Title 23, United States Code establishes national transportation planning goals and requires that states and MPOs demonstrate progress toward achieving these goals using performance measures. Through transportation legislation, including MAP-21 (2012), the FAST Act (2015), and the Infrastructure Investment and Jobs Act (IIJA, 2021), Congress has directed the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) to implement the concept of performance-based planning and establish national performance measures. Table 1.1 lists the federally required performance measures that must be a part of the LRTP. Note that federal performance measures regarding the Interstate Highway System do not apply to DMATS because DMATS does not have any Interstate Highways in its planning area.

Table 1.1 Federal Transportation Planning Performance Measures

Topic	Performance measure(s)
Safety 23 § 490.207	<ul style="list-style-type: none">• 5-year rolling average of the number of fatalities on all public roads• 5-year rolling average of the rate (per 100 million VMT) of fatalities on all public roads• 5-year rolling average of the number of serious injuries on all public roads• 5-year rolling average of the rate (per 100 mil VMT) of serious injuries on all public roads• 5-year rolling average of the number of non-motorized fatalities and serious injuries on all pub. roads

Transit Asset Management 49 § 625.43	<ul style="list-style-type: none"> • Percent (%) of service vehicles that have either met or exceeded their useful life benchmark • % of revenue vehicles that have either met or exceeded their useful life benchmark (by asset class) • % of track segments with performance restrictions • % of facilities rated below condition 3 on the Transit Economic Requirements Model (TERM) scale (by asset class)
Pavement 23 § 490.307	<ul style="list-style-type: none"> • % of pavement lane miles on the Interstate System in good condition • % of pavement lane miles on the Interstate System in poor condition • % of pavement lane miles on the non-Interstate National Highway System in good condition • % of pavement lane miles on the non-Interstate National Highway System in poor condition
Bridge 23 § 490.407	<ul style="list-style-type: none"> • % of bridge deck area on the NHS in good condition • % of bridge deck area on the NHS in poor condition
System Performance 23 § 490.507	<ul style="list-style-type: none"> • % of person-miles traveled with reliable travel times on the Interstate • % of person-miles traveled with reliable travel times on the non-Interstate National Highway System
Freight 23 § 490.607	<ul style="list-style-type: none"> • Truck Travel Time Reliability Index
Transit safety Safety rulemaking	<ul style="list-style-type: none"> • Total number of reportable fatalities and rate (per total vehicle review miles) by mode • Total number of reportable injuries and rate (per total vehicle review miles) by mode • Total number of reportable events and rate (per total vehicle review miles) by mode • Mean distance between major mechanical failures by mode

To satisfy the required FTA and FHWA performance measures, MPOs can choose to support state DOT performance targets, or they can set their own unique targets. DMATS has elected to support measures established by Iowa DOT, Illinois DOT, and Wisconsin DOT. The state DOTs provide DMATS with updated performance targets annually, and DMATS adopts these targets through the Transportation Improvement Program (TIP) process.

For DMATS, the required federal performance measures represent a starting point for the LRTP. The DMATS LRTP expands on the idea of performance-based planning by creating additional goals and objectives that support its vision and goals.

2055 Objectives and Performance Measures

The DMATS 2055 Long Range Transportation Plan Objectives and Performance Measures are listed in Table 1.2.

Objectives are grouped by the LRTP chapter to which they most closely relate, while those with broad, cross-chapter impacts are classified in the System-Wide Objectives category.

The table's middle column lists the performance measures associated with each goal, and the right-hand column lists the goals supported by each objective. Required federal performance measures are noted in the table with a superscript 1.

Table 1.2 DMATS Objectives and Performance Measures

Objective	Performance Measures	Goals Supported
Bicycle and Pedestrian		
Improve access to trails	Percentage of area population that lives within ¼ mile of a trail	Mode Choice Public Health Safety
Provide more on-road bicycle facilities	Centerline miles of roads with on-road bicycle facilities in the area	Mode Choice Public Health Safety
Provide more multi-use trails in the area	Miles of multi-use trails in the area	Mode Choice Public Health Safety
Passenger Transportation		
Connect people to jobs with transit	Percentage of area jobs within ¼ mile of a transit stop Percentage of population within ¼ mile of a transit stop	Access to Opportunity Mode Choice Economic Development
Expand commercial air service	Number of passenger enplanements at the Dubuque Regional Airport	Access to Opportunity Mode Choice Economic Development
Maintain transit assets	Percentage of non-revenue vehicles met or exceeded Useful Life ¹ Percentage of revenue vehicles met or exceeded Useful Life ¹ Percentage of assets with condition rating below 3.0 on FTA TERM Scale ¹	System Maintenance
Freight		
Improve Freight Reliability	Truck Travel Time Reliability Index ¹	Economic Development Efficiency
Roads and Bridges		

Objective	Performance Measures	Goals Supported
Maintain non-interstate pavement	Percentage of pavements of the non-Interstate NHS in Good condition ¹ Percentage of pavements of the non-Interstate NHS in Poor condition ¹	System Maintenance
Maintain bridges	Percentage of NHS bridges classified as in Good condition ¹ Percentage of NHS bridges classified as in Poor condition ¹	System Maintenance
Improve system reliability	Percent of person-miles traveled on the non-Interstate NHS that are reliable ¹	Economic Development Efficiency System Maintenance
Use intelligent transportation Systems (ITS) to maximize efficiency	Percent of signalized intersections connected to adaptive control systems	Efficiency Technology Safety
Safety		
Reduce the number of transportation-related injuries and deaths	Number of fatalities ¹ Rate of fatalities ¹ Number of serious injuries ¹ Rate of serious injuries ¹ Number of non-motorized fatalities and non-motorized serious injuries ¹	Public Health Safety Technology
System-Wide Objectives		
Improve transportation affordability	Reduce the transportation and housing cost burden on area low and moderate income households as measured by H+T Affordability Index	Access to Opportunity Efficiency
Decrease travel delay throughout the transportation network	Total delay throughout the system	Efficiency Technology
Reduce the number of vehicle hours traveled	Total vehicle hours traveled	Environment Efficiency
Increase usage of alternative fuels	Number of alternative fuel and electric charging stations in the area.	Environment Efficiency

¹Federal Performance Measure

Plan Content

The 2055 DMATS Long Range Transportation Plan provides data analysis and recommendations that will guide the future transportation decisions made by the DMATS Policy Board. The following is a brief overview of the LRTP chapters and their contents.

Chapter 2 – Community Profile

Chapter 2 provides a broad overview of the people and communities in the DMATS area. The chapter presents current demographic and socioeconomic data including total population, age, race, and income. The chapter will also include forecasts of future population and employment for the next 30 years.

Chapter 3 – Community and Stakeholder Engagement

Chapter 3 outlines the methods used to engage the community in the transportation planning process. Collecting input from the public is a crucial step in the long-range planning process, as well as all other planning activities conducted by DMATS.

Chapter 4 – Bicycle and Pedestrian

The DMATS region is home to a growing network of trails, on-road bike routes, sidewalks, and pedestrian walkways. The chapter summarizes the region's existing bicycle and pedestrian network and maps out a general strategy for its future development, identifying projects that can be constructed to expand and enhance the network.

Chapter 5 – Passenger Transportation

The passenger transportation network in the DMATS area is vital for connecting residents to work, school, and other important activities. Chapter 5 looks at the existing conditions and planned future projects related to the area's passenger transportation system including its public transit agencies, regional airport, and proposed passenger rail service.

Chapter 6 - Freight

The efficient movement of goods is one of the keys to effective competition in the global economy. Chapter 6 describes the DMATS region's freight systems and summarizes the regional freight goals and objectives that the region has developed through freight plans and studies.

Chapter 7 – Roads and Bridges

Roads and bridges form the backbone of the region's transportation network. This chapter examines their current condition and usage, highlights key traffic patterns and maintenance needs, and identifies future project priorities.

Chapter 8 - Model Results

Chapter 8 provides a forecast of the transportation network to help evaluate future infrastructure investments. The chapter includes an overview of the data and methods used to develop the DMATS Travel Demand Forecast Model and a summary of the model results.

Chapter 9 - Safety

Chapter 9 assess safety at a regional level. The chapter includes a region-wide crash analysis that compares the DMATS area to state and national averages and studies the underlying causes of crashes. The chapter concludes with a collection of regional strategies that can be implemented to address the safety issues identified by the analysis.

Chapter 10 - Finance

Federal law requires that all plans prepared by metropolitan areas be fiscally constrained. The Finance chapter contains a 30-year budget for the projects presented in the 2055 LRTP. The budget includes two parts. The first section is a forecast of the federal and local funds that will be available to DMATS and its members over the next 30 years. Part two includes the priorities for expenditure of federal funds as determined by the DMATS policy board.

Chapter 11 - Projects and Project Prioritization

Through the LRTP planning process, DMATS and its members have developed a list of projects designed to help the region achieve its 2055 vision, goals, and objectives. The chapter first presents the full list of LRTP projects. Second, it describes the process used to prioritize the projects and allocate limited funding to the highest priority projects. Finally, the chapter concludes with the final LRTP project funding schedule that will guide the MPO's future transportation investments.

Chapter 12 - Environmental

Chapter 12 includes a preliminary environmental screening of all projects listed in the LRTP. The screening can identify potentially serious impacts that could delay or completely shut down a project. Identifying such issues in the early planning stages gives project sponsors the opportunity to avoid or mitigate undesirable environmental impacts.