



MRRPC REGIONAL    

**FREIGHT**  
**STRATEGY**

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# Chapter 1: Approach

## Introduction

The Mississippi River Regional Planning Commission (MRRPC) provides planning and economic development services to improve the environment, economy, and quality of life of the nine-county region in Southwest Wisconsin including Buffalo, Crawford, Jackson, La Crosse, Monroe, Pepin, Pierce, Trempealeau, and Vernon Counties. The RPC boundary covers more than 6,000 square miles and has a population of roughly 317,000. It also has a wide range of prominent job sectors, dominated by manufacturing, agriculture, health care and retail trade. There is an assortment of freight infrastructure to move the region's products including Interstates and highways, railroads, waterways, pipelines, and airports.

The multimodal network is essential to the efficient movement of goods and commodities of all modes within and through the region and serves a diverse range of needs by moving goods from interstates and highways and local roads, to intermodal and transload facilities, into rail cars, on to barges, and through pipelines. The freight system is critically important for the regional economy, supporting key industries of manufacturing, retail trade, agriculture, and construction, as well as consumers in the district and across Wisconsin. Major highways and railroad corridors carry the bulk of goods moving to, from, and through the region. This plan takes a comprehensive look at the multimodal freight system; identifies needs, opportunities, and potential projects; and sets the stage for both short- and long-term investment in this region.

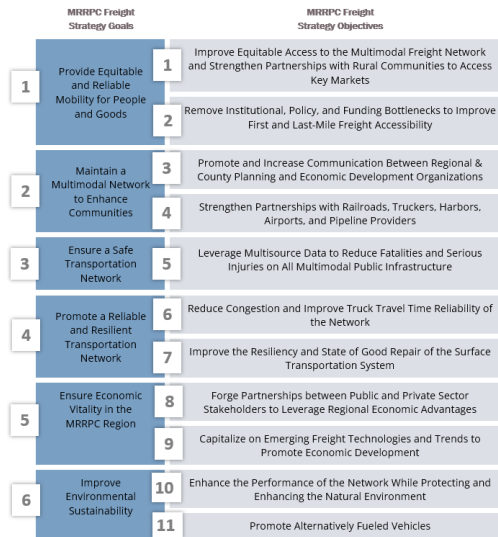
## Plan Objectives

This MRRPC Regional Freight Strategy integrates the WisDOT multimodal family of multimodal plans and studies into a cohesive and consistent approach. The project team and TAC employed a deliberate methodology to identify and evaluate the goals from past efforts and develop a unique freight-specific vision and goals for Western Wisconsin that is focused on supporting the Mississippi River RPC's Comprehensive Economic Development Strategy Goals, Regional Coordinated Transportation Planning goals, Connect 2050 WisDOT Vision, and reflect and incorporate the national multimodal freight policy goals and the national highway freight program goals established in the FAST Act.

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This document identifies policies, strategies, and projects to improve the region's economic productivity, competitiveness, and quality of life through the movement of goods safely, reliably, and efficiently. These policies, strategies, and projects are developed by evaluating the condition and performance, as well as the trends and issues facing western Wisconsin's multimodal freight transportation system through data and stakeholder outreach.

Through this approach, the MRRPC Regional Freight Strategy will advance the economic competitiveness of the region by addressing freight bottlenecks and improving safety, security, efficiency, and resiliency of the network, while minimizing impacts to the natural environment. Ultimately, the project team developed six goals and eleven objectives to guide the development of the Regional Freight Strategy illustrated in **Figure 1**. Performance measures, related to each goal area identified, are expanded upon in the freight conditions and performance section of this document.



**FIGURE 1. PERFORMANCE MEASURES**

### Related Plans

#### Wisconsin State Freight Plan (SRP)

The existing Wisconsin State Freight Plan (SFP), which was adopted in 2018, provides an in-depth look into the state's multimodal freight network and how it supports economic, recreational, and personal travel throughout the state. WisDOT is currently in the process of updating the State Freight Plan. The new WisDOT State Freight Plan, completed in 2022, will integrate freight improvements in future construction projects and prioritize future freight-related projects for funding. These future investments will position Wisconsin to remain competitive in the global marketplace.

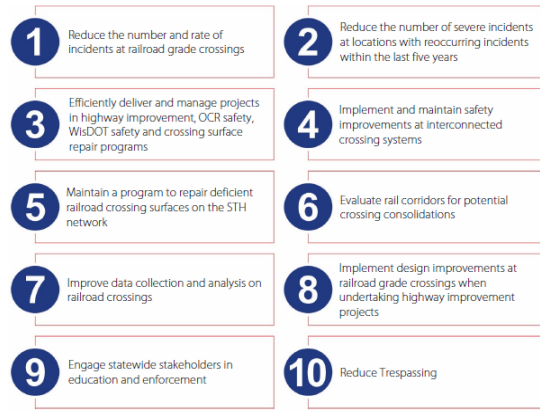
#### Wisconsin Highway-Railway Grade Crossing State Action Plan

The Wisconsin Highway-Railway Grade Crossing State Action Plan (SAP) was completed in 2022. The SAP is a federally required action plan that describes how the State strives to continuously improve the safety of railroad crossings which cross over public roadways and pathways.

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Transportation safety is a top priority of the Wisconsin Department of Transportation (WisDOT) and this SAP is consistent with Wisconsin's existing modal plans. The goals of the SAP are illustrated in **FIGURE 2**.

The plan analyzed existing highway-rail and pathway crossing safety incident data throughout the State and nation and closely collaborated with stakeholders to identify problem locations and used a data-driven process to determine the highest-priority highway-rail and pathway crossings and develop a toolbox of solutions for crossings where focused attention might reduce incidents. The SAP will inform policies and to guide improvement investments and enforcement activities that help ensure safe operations on the state transportation system



**FIGURE 2. WISCONSIN HIGHWAY-RAILWAY CROSSING SAP GOALS**

### Wisconsin Rail Plan 2030

In addition to the SFP, WisDOT is currently working to update the State Rail Plan. The new plan, expected to be completed in 2023, will build off of the previous *Wisconsin Rail Plan 2030*, which identifies rail issues that reflect the views of Wisconsin citizens, businesses, and government officials. There are several key parts including a statewide vision for rail movement, service, and facilities. It also serves as a guide for decision-makers through 2030. The purpose of the plan is to:

- Build upon Connections 2030, Wisconsin's adopted multi-modal long-range plan.
- Meet federal requirements and position Wisconsin to qualify for future federal rail funds
- Present a high-level review of recommendations relative to freight, passenger and commuter rail
- Reflect Wisconsin's future for passenger rail and more fully develop policies for freight and commuter rail
- Continue state emphasis on supporting economic growth, and improving the state's competitiveness regionally and globally
- Define a long-range investment program of projects

### WisDOT Connect 2050 State Long-Range Plan

The WisDOT Connect 2050 State Long-Range Plan (SLRP) is a statewide, long-term look into the future of Wisconsin's transportation network, which has goals and a clear path towards how they will be met. It covers all methods of transportation including cars, freight (semi-truck, rail, waterborne), bike/pedestrian, and aviation. It's visions, goals, and objectives are broad, and they will act as a guide for WisDOT decision-making, and it is meant for all citizens of the state of Wisconsin. To further supplement the attainment of the goals highlighted in the SLRP, a thorough description of technical reports, modal plans, operational plans, business plans, local plans, and

programs, will take place and will act as a guide to fulfill the state and federal requirements of the SLRP.

#### Wisconsin State Airport Plan 2030

The Wisconsin State Airport Plan 2030 completed in 2015 is a comprehensive inventory and overview of Wisconsin's 98 airports, as well as an implementation plan establishing a set of goals and objectives and how they will be achieved. It is also a component of the Wisconsin Department of Transportation (WisDOT) Bureau of Aeronautics (BOA) continuous aviation system planning process.

The main purpose of the Wisconsin State Airport Plan 2030 is to establish a vision, develop and follow through on goals for the Wisconsin Airport System, and provide a framework for future endeavors pertaining to preservation and enhancement of the airport system.



# Chapter 2: Existing Freight Network

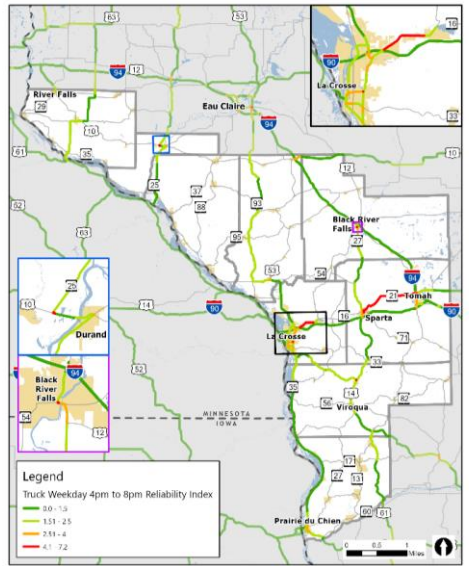
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TTTR was provided by WisDOT and covers the NHS and other major roadways in the state. Overall, most roadway segments operate acceptably (less than an index of 1.5) or with limited reliability issues. MRRPC roadway segments with high TTTR indices are mostly focused in urban areas, at signalized intersections and major junctions, and along the following high-volume corridors:

- I-90 from La Crosse to Tomah**
  - I-94 from Tomah to Eau Claire**
  - WIS 21 from Tomah to Sparta**
- Other areas with minor reliability issues include connectors to I-90 and I-94 in La

Crosse, Sparta and Tomah and segments of that carry higher volumes and/or travel through more urban areas like Black River Falls and Durand. The TTTR data shows that during the weekday evening peak hours truck trips towards key regional destinations like Chicago or Eau Claire can become unreliable on key freight segments such as WIS 16 northeast of La Crosse and WIS 21 near Fort McCoy. This unreliable freight connector is also identified as a heavy freight corridor according to the FAF data.



**FIGURE 4. TRUCK TRAVEL TIME RELIABILITY (TTTR)**

## Freight Facilities

Consistent with the Wisconsin Statewide Transportation Plan, the Wisconsin Department of Transportation (WisDOT) explored ways to identify major regional freight facilities in the nine county MRRPC region. A freight intensive area is a cluster or group of freight facilities that generates, distributes, or attracts large amounts of freight activities and has a significant impact on the MRRPC region and Wisconsin's transportation system and economy. Major freight and freight related industries have been analyzed in this section by looking at their contribution to the state's Gross Domestic Product (GDP), the number of freight related establishments, and number of employees. Top employers include Gundersen Lutheran Administrative Services Inc., Ashley Furniture Industries, LLC, and Mayo Clinic Health system-Franciscan Medical Center, Inc.

## Railroad Network

Wisconsin has more than 3,300 miles of railroad system that make up about two percent of the nation's rail network. Approximately 403 railroad miles are found within the 9-county MRRPC region, connecting the region to the Minneapolis/St. Paul area to the northwest, ports of Duluth and Superior to the north, and other upper Midwest destinations such as Chicago to the east. The state's rail system is owned and operated by ten privately-owned freight railroads and the State of Wisconsin.

## Waterway Network

The MRRPC Region is strongly connected to the Mississippi River. The M-35 Marine Highway Route runs from Lock/Mile 1 on the Mississippi River in Minneapolis, MN to the confluence of the Mississippi and Illinois Rivers in Grafton, Illinois, where the M-55 Route begins. Together, the M-35 and M-55 provide an all-water route from the beginning of the Mississippi River to the Gulf of Mexico. The M-35 is a major hub for freight tonnage transported by truck to some of the region's major metropolitan areas such as Minneapolis-St. Paul, MN, Chicago, IL, and St. Louis, MO. By 2040, the US DOT predicts that several major highway segments (e.g., I-70 in Missouri, I-80 in Iowa, and I-90 and I-94 from Chicago to Minneapolis) will experience more recurring peak-period congestion and high-volume truck segments on the National Highway System that carry more than 8,500 trucks per day. Water transportation is an important part of the Upper Mississippi River region's freight network. The M-35 promotes domestic and international trade by establishing a strong link and other connections to the Gulf of Mexico. For example, in 2011, approximately 61.2 million short tons of cargo were transported on the M-35, compared to 60.7 million tons in 2010 (domestic and foreign). The states along the M-35 use the Upper Mississippi River to ship commodities to as many as 15 adjacent or nearby states. According to the State Freight Plan, there are 29 commercial ports in Wisconsin. Two of them are in the MRRPC Region.

## Aviation Network

Wisconsin's aviation network plays an important role in the state's economy from an employment, recreational, and transportation perspective. However, the aviation network and air cargo shipments make up a very small percent of the freight mode share in Wisconsin as well as the MRRPC. There are 97 airports in the State Airport System, of those, seven are found in the MRRPC region.

Wisconsin has a total of eight commercial service airports. La Crosse Regional Airport is the only commercial service airport found in the MRRPC region. It is served by Delta and American Airlines and flies non-stop to Minneapolis and Chicago three times daily.

## Pipeline Network

Pipeline transportation allows for low-cost movement of liquids and gases to designated areas for consumption. The MRRPC region does not have any active gas pipelines, but it does host the Flint Hills Resources oil pipelines, which transports crude oil, refined petroleum products, chemicals, and natural gas liquids. The pipeline is located in the northern parts of Pierce and Pepin County's. Flint Hills Resources is the sole owner of the pipeline. The National Pipeline Mapping System (NPMS) contains hazardous liquid and gas transmission pipelines. In the MRRPC region, active gas transmission pipelines are found in all nine counties, however, hazardous liquid pipelines are only found in Pierce and Pepin counties. Overall, Pierce County has the highest concentration of pipeline miles with nearly 145 total miles. Wisconsin has no crude oil production or reserves, however, the southwestern part of the state along the Mississippi River contains high quality sand used in other states to enhance crude oil and natural gas recovery by hydraulic fracking. The state's only oil refinery is located in Superior, Wisconsin, but that closed in April 2018 after an explosion. It is due to reopen in 2023 and will deliver crude oil via pipeline from Canada and North Dakota and the Chicago region.

# Chapter 3: Issues and Challenges

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The MRRPC regional freight network consists primarily of waterways, highways, and railroads, and each of these modal networks has individual issues and challenges. However, the MRRPC and WisDOT can primarily influence the investment and operation of the highway network, so most of the analysis conducted for this project focused on highway-centric needs. Each issue and challenge were identified through a review of past studies, current conditions and industry trends, and stakeholder input. Data-driven needs reflect the 2022 Wisconsin State Freight Plan.

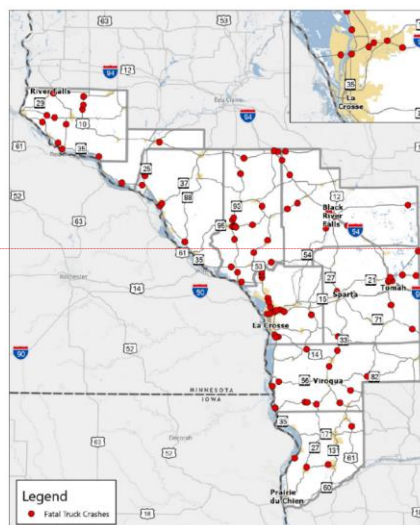
Safety and mobility were key topics for the waterway, railway, and highway networks: intersection safety concerns focused on the intersection of trunk highways and smaller roads, while stakeholders also noted that highways needed improvements to continue to operate safely. In regard to highway operations, many stakeholders identified traffic congestion as an issue for freight shippers in the region's more urban areas like LaCrosse, Tomah, and Black River Falls. Another important consideration mentioned by stakeholders as well as WisDOT staff is the fact that many regional businesses ship goods through the Twin Cities or Chicago, and congestion in these areas can have major implications for the overall efficiency of freight movements in western Wisconsin.

## Roadway Safety

Roadway safety is a national challenge, which includes crashes involving large trucks. As shown in **FIGURE 5**, the region has several areas of concentrated fatal truck crashes. It should be noted that most of the fatal truck crashes are vehicular crashes involving trucks where the non-truck driver is killed.

From 2011 to 2020, approximately 12,650 truck crashes occurred on roadways in the RPC, with 98 of the crashes resulting in fatalities. Since 2011, there has been a variable fluctuation in the amount of traffic crashes involving a truck on regional roadways. In 2020, the number of truck crashes decreased by 26 percent, or 363 accidents, from 2019.

La Crosse County had the most truck crashes (330) but saw a 33 percent decrease in total truck crashes from 2019 to 2020. Pepin County had the fewest total truck crashes (15) in 2020. The La Crosse metropolitan area has a higher occurrence of truck crashes. Urban areas along major Interstates like Black River Falls, Sparta, and Tomah have more occurrences of truck crashes than rural areas. According to statewide data, every County in the



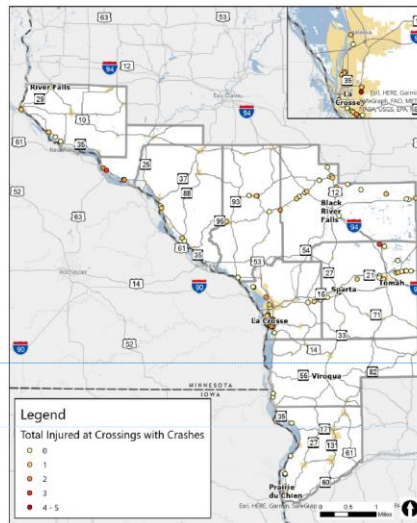
**FIGURE 5. CRASHES INVOLVING LARGE TRUCKS**

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MRRPC has experienced a decrease of their overall truck crashes from 2019 to 2020. However, the total number of truck crash fatalities increased from seven to eleven crashes from 2019 to 2020.

## Rail Safety

Rail grade crossing safety a concern due to the high-volume and highspeed railroads in the region. Several highway corridors are hot spots for rail crossing incidents due to each accommodating high volumes of traffic and daily trains. Although vehicle-train collisions are relatively rare, grade crossing incidents have a greater probability of resulting in severe injury or death over other types of traffic crashes. In total, there have been twelve crashes that meet FRA criteria for being included in the Wisconsin Highway-Rail Grade Crossing SAP. **FIGURE 6** displays rail road crossing injuries in the region.



**FIGURE 6. RAILROAD CROSSING INJURIES**

**TABLE 1. RAIL CROSSING CRASHES**



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## Poor Pavement Conditions

The FHWA has defined a range of inspection values to determine performance of an individual pavement is rated “good”, “fair” or “poor”. If all three conditions factors for a given pavement are “good”, based on the latest inspection, FHWA rates the pavement as “good”. If two or more of the condition factors are “poor”, the pavement is rated as “poor”. Pavements not falling into either of these categories are rated “fair”. WisDOT rates pavement condition based on the Pavement Condition Index (PCI) method, which utilizes a numerical rating (0 to 100, 100 representing excellent pavement conditions and 55 representing the minimum rating for fair condition, and any rating below 55 representing poor conditions) to determine pavement quality. Pavements in the

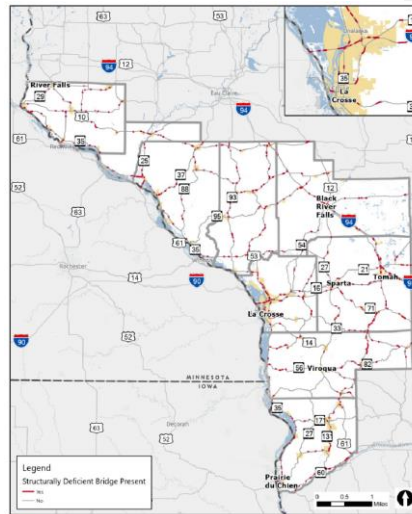


southern half of the MRRPC region along WIS 60, WIS 82, and WIS 131 rated poorly. There is a long stretch of WIS 95 from Fountain City to Hixton with poor pavement condition and current freight flow data shows heavy truck flows on WIS 95 from Blair to Hixton, which is an important east-west regional freight connector.

## Bridge Conditions

Bridge performance (not including culverts counted as bridges) is classified as “good”, “fair” or “poor” based on the lowest NBI (National Bridge Inventory) rating for FHWA’s three bridge condition factors. If the lowest rating among the three factors is a 7, 8 or 9, the bridge is rated as “good”. If the lowest rating is a 5 or 6, the bridge is rated as “fair”. If the lowest rating among the three condition factors is less than 5, the bridge is rated as “poor”. Culverts counted as bridges are classified as “good”, “fair” or “poor” based on the NBI rating factor for culvert condition using the same logic. A rating of 7, 8 or 9 means the culvert is classified as “good”, and a rating less than 5 means the culvert is classified as “poor”, with “fair” falling between these two extremes.

Functionally obsolete means that the bridge design is outdated. For example, narrow shoulders, narrow lanes, or older traffic barriers can induce functionally obsolete classification. Functionally obsolete bridges are scheduled for replacement or rehabilitation as budgets permit. Structurally deficient means that a National Bridge Inspection (NBI) structural condition state is poor, or worse. Structurally deficient bridges are recommended for repair, or scheduled for replacement; meanwhile, they are posted as necessary for load, or closed. **FIGURE 7** depicts all structurally deficient and functionally obsolete bridges in Wisconsin. According to the American Road and Transportation Builders Association (ARTBA) in the 2020 Bridge Inventory annual report, there are 987 structurally deficient bridges in Wisconsin and 278 of them are located in Congressional District 3, which has a similar footprint to the MRRPC region. There is one bridge on WIS 162 that is currently rated in serious condition just north of Coon Valley, Wisconsin.



**FIGURE 7. STRUCTURALLY DEFICIENT BRIDGES**

# Chapter 4: Outreach

## Engagement

The Mississippi River Regional Planning Commission (MRRPC), WisDOT, and the technical advisory committee (TAC) conducted outreach to a variety of public and private sector stakeholders to supplement the extensive outreach efforts concurrently underway for the development of the Wisconsin Statewide Freight Plan.

Agencies, associations, and businesses participating in the MRRPC Regional Freight Strategy or public participants of the SurveyMonkey survey have discussed a range of transportation concerns and as a result, the RPC has and will continue to identify opportunities to address these concerns and pair qualitative feedback with the data-driven and quantitative approach to project identification designated above.

Additionally, some of the identified concerns will be addressed through maintenance, operational traffic changes (signals, etc.) and previously scheduled improvements included in WisDOT's six-year construction program. Where stakeholders indicated a desire for more costly large-scale infrastructure projects to address business needs, staff will consider this feedback in future long-range plans, analyzing it against project criteria developed for this plan, such as pavement condition metrics, traffic volumes, safety, and highway context (i.e., urban, or rural environment), as well as against state and federal funding constraints.

### WikiMap Survey

WikiMap is an online tool utilized for identifying key locations and focus areas for our project. The WikiMap was available online from August 2022 through January 2023 and received six total responses, identifying five improvement opportunity locations, and one issue location. The map below identifies the priority locations for either issues or improvements, including the response comment. Overall, feedback typically consisted of safety and often included suggested improvement opportunities.

### SurveyMonkey

The online SurveyMonkey was open between August 2022 through January 2023 and sent out to a range of freight stakeholders that utilize the regional transportation infrastructure in the MRRPC. The Survey closed with a total of 14 responses received. Questions and topics that were asked included the following:

- Agency/ business of work
- Freight transportation topics that impact you the most
- Which of the following freight planning outcomes is of most importance to you?
- What are the most critical freight challenges/issues/deficiencies you encounter?
- What technologies should the RPC and WisDOT support to enhance freight mobility?

Results of the survey indicated specific areas and topics of concern.

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## Workshop

In October 2022 the project team conducted a virtual workshop with various members of the project staff and stakeholders. The workshop consisted of a presentation and two rounds of breakout session discussions. Topics discussed during the workshop included the following: key determining factors for driving industrial site location, demand for intermodal or transload facilities in western Wisconsin, long-term waterway transportation needs/enhancements, and policy-driven access to market for shippers seeking access to international gateways. This workshop was integral in identifying and discussing some needs and issues throughout the project area.

# **Chapter 5: Recommendations**

The primary objective of the MRRPC Regional Freight Strategy is to ensure that the identified freight needs and gaps that have been identified in the region are addressed by future rounds of funding via local, state, or another annual federal grant program. One way to accomplish this is preparing pre-feasibility and conceptual analysis of key projects to organize locations for implementation when grant funding becomes available.

## Identifying and Prioritizing Projects

The freight project identification and prioritization process are the foundation for identifying, prioritizing, and programming freight projects for available funding in the RPC. The project team developed a data-driven and transparent methodology with guidance from the TAC that aligns with the overall goals and objectives of the study. Similarly, freight performance measures and evaluation criteria were developed to help characterize freight mobility and freight system user needs in the nine-county region. The methodology is defined in several steps as described in **TABLE 2**. This methodology allows the MRRPC and WisDOT to retain control in determining how and when to program and implement specific freight projects pursuant to federal, state, and local funding programs.

### Scoring

To identify potential projects, we identified and analyzed key roadways throughout the 9-county region and applied the evaluation criteria scoring developed with the TAC. Each of the key roadways were divided into quarter mile segments and each were scored based on the information known about the road at that location. A maximum score of 700 was possible after applying the performance measures scoring. Scores for each of the 5,923 quarter mile segments varied widely from one quarter mile to another. For example, one segment on Highway 131 in Crawford County scored 20 points while a segment of Highway 14 in La Cross County scored 590 points.

The next step was to develop projects. For this step, we combined quarter mile segments into longer project corridors determined by intersections of key roadways. This process identified 183 project corridors. The corridors are grouped into four quartiles based on average score using the evaluation criteria. The lowest  $\frac{1}{4}$  of projects are Low Priority Projects with scores between 79 and 172, second  $\frac{1}{4}$  of corridors have Medium Low Priority, with scores between 175 and 249 has the second quartile of scores. The condition of these projects ranked better than average.

The third quartile, Medium High, are projects with higher-than-average scores meaning these segments have worse conditions than the Low and Medium Low quartiles. These projects have scores between 249 and 308. The fourth quartile are the highest need projects based on the evaluation criteria with the highest ranked project has a score of 445.

Many of the corridors in the region have projects planned to take place between 2023 and 2028. There are 364 projects planned between 2023 and 2028 in the region with 183 of the projects planned on the key roadways that were evaluated.

A similar analysis was done with project corridor intersections. Intersections were scored using roadway segments within 1/4th mile of an intersection. Intersections were scored and ranked using the same criteria as project corridors. Any planned projects that are completely within or go through the intersections are included in the project tables.

**TABLE 2. EVALUATION SCORING**

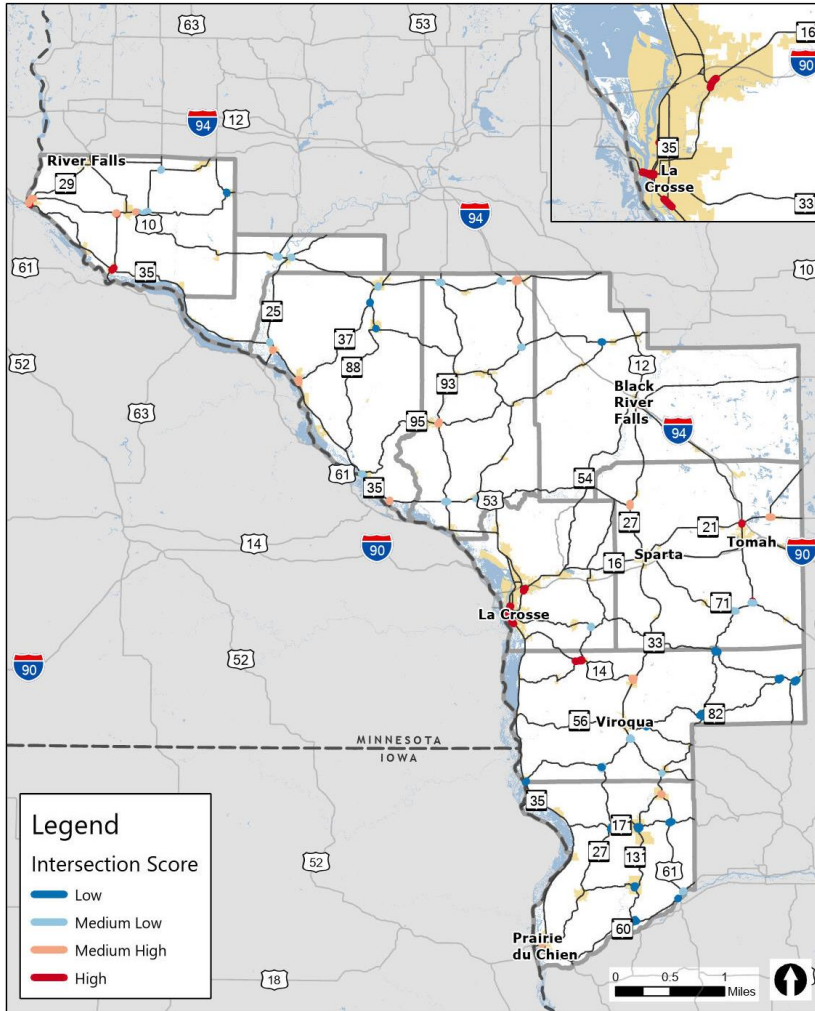
| Freight Goals  | Freight Strategy Objectives   | Quantitative Evaluation  |       | Measure  | Evaluation Criteria  |
|--|---|--|-------|--|--|
|  |   | Criteria   | Score |  |  |
| Provide Equitable and Reliable Mobility for People and Goods | Improve Equitable Access to the Multimodal Freight Network and Strengthen Partnerships with Rural Communities to Access Key Markets | Truck AADT   | 0-100 | Truck AADT   | < 1000 = 0<br>1,001 - 2,500 = 20<br>2,501 - 5,000 = 40<br>5,001 - 7,500 = 60<br>7,500 - 10,000 = 80<br>> 10,001 = 100  |
|  | Remove Institutional, Policy, and Funding Bottlenecks to Improve Multimodal First and Last-Mile Freight Accessibility Outcomes      | Demonstrated Ability to Use Primary Transportation Corridors                 | 0-100 | Proximity to Primary Transportation corridors                                | No Primary Corridors within 1/4 Mile = 0<br>Primary Corridors within 1/4 Mile = 50<br>Multiple Primary Corridors within 1/4 Mile = 100                         |
| Maintain a Multimodal Network to Enhance Communities         | Promote and Increase Communication Between Inter-Regional & County Planning and Economic Development Organizations                  | Presence of Project on Local, Regional, or Statewide Programmed Project List | 0-100 | Presence of Project on Local, Regional, or Statewide Programmed Project List | Is Not a Programmed Project = 0<br>Is a Programmed Project = 50<br>Is a Programmed Project for CST in 2025, 2026, or 2027 = 100                                |
| Ensure a Safe Transportation Network                         | Reduce Fatalities and Serious Injuries on All Multimodal Public Infrastructure  | Fatal and Injury Crashes   | 0-100 | Truck Crash Injury/ AADT   | Below One Standard Deviation = 0<br>Crash Rate Above One Standard Deviation = 50   |
|  |   |  |       | Rail Crossing Injury   | Rail Crossing Injury = 25<br>No Rail Crossing Injury = 0   |
|  |   |  |       | Truck Fatal Crash  | No Fatal Truck Crash = 0<br>Fatal Truck Crash = 25   |
| Promote a Reliable and Resilient Transportation Network      | Reduce Congestion and Improve Truck Travel Time Reliability of the Network  | Roadways with Least Reliable Truck Travel Time                               | 0-100 | Roadways with Least Reliable Truck Travel Time                               | Acceptable TTTR = 0<br>Poor TTTR = 50  |
|  | Improve the Resiliency and State of Good Repair of the Public Transportation Network  | Presence of Structurally Deficient Bridges                                   |       | Presence of Structurally Deficient Bridges                                   | No Structurally Deficient Bridges Present = 0<br>Structurally Deficient Bridges Present = 25   |
|  | Improve the Resiliency and State of Good Repair of the Public Transportation Network  | Presence of Poor Pavement Conditions   |       | Presence of Poor Pavement Conditions   | No Poor Pavement Conditions Present = 0<br>Poor Pavement Conditions Present = 25   |
| Ensure Economic Vitality in the MRRPC Region                 | Forge Partnerships between Public and Private Sector Stakeholders to Leverage Regional Economic Advantages                          | County Population Density  | 0-100 | County Population Density  | < 50 = 0<br>51 - 100 = 20<br>101 - 150 = 30<br>151 - 200 = 40<br>> 200 = 50  |
|  | Capitalize on Emerging Freight Technologies and Trends to Promote Economic Development  | Transportation and Warehousing Share of Total Employment                     |       | Transportation and Warehousing Share of Total Employment                     | < 2% = 0<br>2 - 4% = 20<br>4 - 6% = 30<br>6 - 8% = 40<br>> 8% = 50   |
| Improve Environmental Sustainability                         | Enhance the Performance of the Network While Protecting and Enhancing the Natural Environment                                       | Roadways within 100 year Flood Zones   | 0-100 | Roadways within 100 Year Flood Zone  | Not within a Floodplain = 0<br>Within a Floodplain = 50  |
|  | Promote Alternatively Fueled Vehicles   | On designated Alternative Fuel Corridors                                     |       | On Designated Alternative Fuel Corridors                                     | Not on a Designated Alternative Fuels Corridor = 0<br>Within 1/4 Mile of an Alternative Fuels Corridor = 15<br>On a Designated Alternative Fuels Corridor = 50 |



**TABLE 3. HIGH PRIORITY INTERSECTIONS**

| <i>High Priority Intersection Projects</i> |                |  |
|--|----------------|--|
| Project Year                               | Project Number | Project Type                                       |
| 2023                                       | 16410270       | RECONSTRUCTION, PRESERVATION                       |
|  | 16410272       | RECONSTRUCTION, PRESERVATION                       |
|  | 16410280       | RECONSTRUCTION, PRESERVATION                       |
|  | 16410282       | RECONSTRUCTION, PRESERVATION                       |
|  | 51300563       | RESURFACING (OVERLAY < 2.5 INCHES)                 |
| 2024                                       | 52000363       | BRIDGE REHABILITATION                              |
|  | 71890372       | MISCELLANEOUS                                      |
| 2025                                       | 75750176       | RESURF (OVERLAY < 2.5 IN W/SOME FULL DEPTH PATCHG) |
| 2026                                       | 16400374       | PAVEMENT REPLACEMENT                               |
|  | 16400384       | PAVEMENT REPLACEMENT                               |
|  | 59910768       | RECONSTRUCTION, PRESERVATION                       |
|  | 59910769       | RECONSTRUCTION, PRESERVATION                       |
|  | 59910773       | MISCELLANEOUS                                      |
|  | 72100080       | RESURFACING (OVERLAY >= 2.5 INCHES AND < 4 INCHES) |
| 2027 - 2028                                | 15300080       | To Be Determined                                   |
|  | 55100070       | RESURFACING (OVERLAY >= 4 INCHES)                  |
|  | 58200168       | RESURFACING (OVERLAY >= 2.5 INCHES AND < 4 INCHES) |
|  | 71800080       | To Be Determined                                   |
|  | 75750166       | RESURF (OVERLAY < 2.5 IN W/SOME FULL DEPTH PATCHG) |

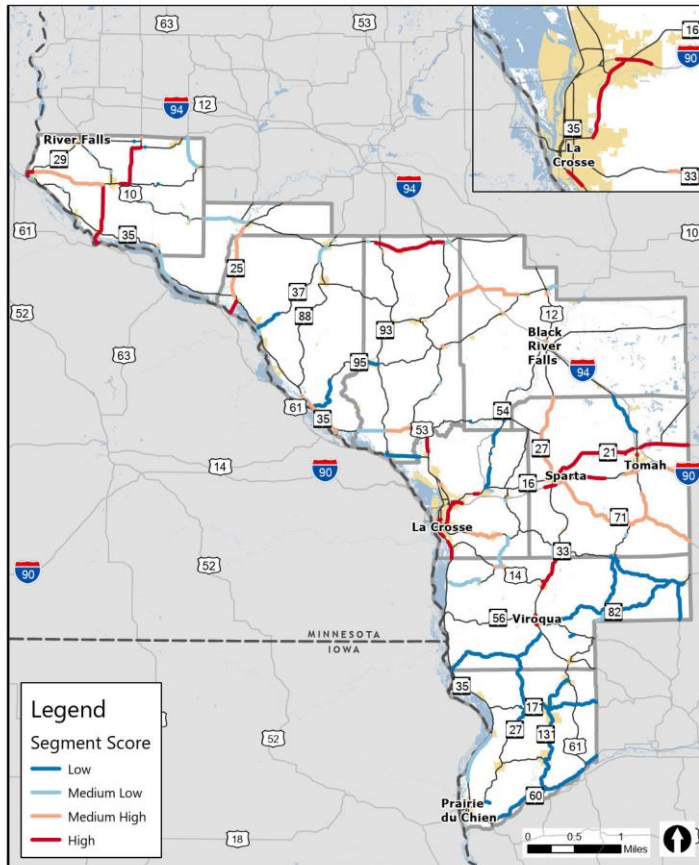
FIGURE 8. PROGRAMMED PROJECT SCORING



**TABLE 4. HIGH PRIORITY CORRIDOR PROJECTS**

| <i>High Priority Corridor Projects</i> |                      |  |
|--|----------------------|--|
| Project Year                           | Project Number       | Project Type                                       |
| 2023                                   | 16320370             | RESURFACING (OVERLAY >= 2.5 INCHES AND < 4 INCHES) |
|  | 16400174             | SEAL COAT/CRACK FILL/JOINT, CRACK OR SPOT REPAIR   |
|  | 16410272             | RECONSTRUCTION, PRESERVATION                       |
|  | 16410282             | RECONSTRUCTION, PRESERVATION                       |
|  | 16410375             | MISCELLANEOUS                                      |
|  | 70100163             | RESURFACING (OVERLAY < 2.5 INCHES)                 |
|  | 70620273             | MISCELLANEOUS                                      |
|  | 71700075             | RESURFACING (OVERLAY >= 2.5 INCHES AND < 4 INCHES) |
|  | 73730071             | RECONSTRUCTION, PRESERVATION                       |
|  | 79980077             | PAVEMENT REPLACEMENT                               |
| 79980078                               | PAVEMENT REPLACEMENT |  |
| 2024                                   | 15300573             | RESURFACING (OVERLAY >= 2.5 INCHES AND < 4 INCHES) |
|  | 16460872             | RECONSTRUCTION, PRESERVATION                       |
|  | 16460882             | RECONSTRUCTION, PRESERVATION                       |
|  | 75700570             | MISCELLANEOUS                                      |
| 2025                                   | 15300680             | RESURFACING (OVERLAY >= 2.5 INCHES AND < 4 INCHES) |
|  | 16400175             | PATCH/RUT FILL/REPAIR AND GRIND/SLAB REPLACE       |
|  | 56340061             | SEAL COAT/CRACK FILL/JOINT, CRACK OR SPOT REPAIR   |
|  | 75750165             | BRIDGE PREVENTIVE                                  |
|  | 75750176             | RESURF (OVERLAY < 2.5 IN W/SOME FULL DEPTH PATCHG) |
| 2026                                   | 51630772             | RECONSTRUCTION, PRESERVATION                       |
|  | 59910768             | RECONSTRUCTION, PRESERVATION                       |
|  | 59910769             | RECONSTRUCTION, PRESERVATION                       |
|  | 59910811             | PAVEMENT REPLACEMENT                               |
|  | 72100080             | RESURFACING (OVERLAY >= 2.5 INCHES AND < 4 INCHES) |
|  | 76050662             | SHORT TERM OVERLAY (MILL AND OVERLAY)              |
| 2027 - 2028                            | 10710182             | RESURFACING (OVERLAY >= 2.5 INCHES AND < 4 INCHES) |
|  | 10740062             | SOME COMBO OF PATCH/RUT/REPAIR/SEAL/CRACK/GRIND    |
|  | 15300080             | To Be Determined                                   |
|  | 15300670             | To Be Determined                                   |
|  | 16300373             | To Be Determined                                   |

|          |  |
|----------|--|
| 51400374 | To Be Determined                                   |
| 57350473 | PAVEMENT REPLACEMENT                               |
| 75700576 | To Be Determined                                   |
| 75750166 | RESURF (OVERLAY < 2.5 IN W/SOME FULL DEPTH PATCHG) |
| 80700370 | RESURFACING (OVERLAY >= 2.5 INCHES AND < 4 INCHES) |
| 80700371 | BRIDGE REHABILITATION                              |



**SRF** Programmed Projects Segment Scores  
Mississippi River Regional Planning Commission

**Commented [JS12]:** Will has another version of these intersection and segment scoring maps that I think we need to weave in here somewhere. They would show an interim analysis showing not only the needs that have a programmed project, but all needs regardless of a programmed project. I can help to work through this particular item once you dive into these comments.