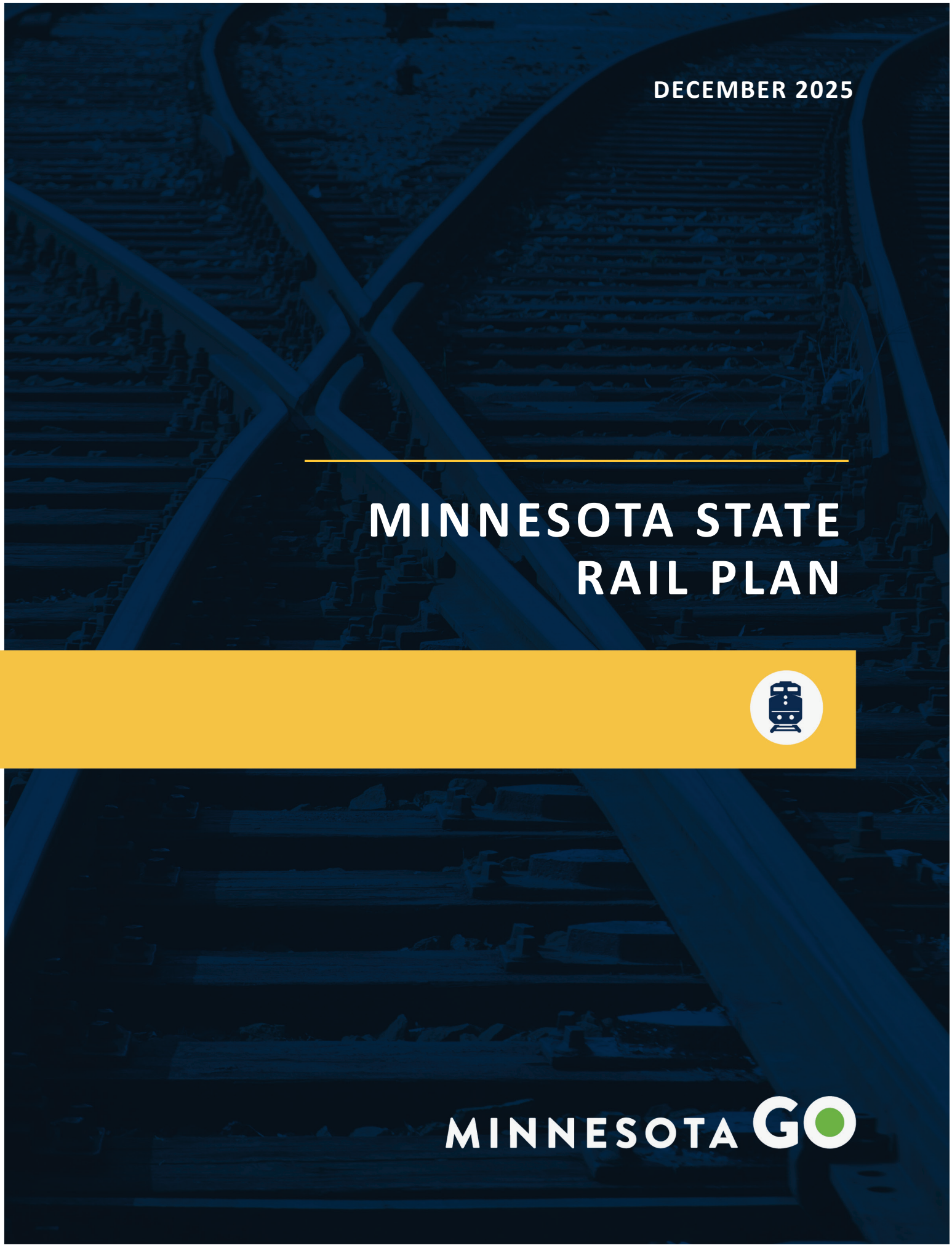

DECEMBER 2025

# MINNESOTA STATE RAIL PLAN

MINNESOTA GO

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## Acronyms and Abbreviations

| | |
|---|---|
| ABS | Automatic block signaling |
| BIPOC | Black, indigenous, people of color |
| BNSF | BNSF Railway |
| CN | Canadian National Railway |
| CO2 | Carbon dioxide |
| COPT | Customer on-time performance |
| CPKC | Canadian Pacific Kansas City |
| CRISI | Consolidated Rail Infrastructure and Safety Improvements Program |
| CTC | Centralized traffic control systems |
| EPA | U.S. Environmental Protection Agency |
| FFGA | Full Funding Grant Agreement |
| FHWA | Federal Highway Administration |
| FRA | Federal Railroad Administration |
| FSP | Federal State Partnership for Intercity Rail |
| FTA | Federal Transit Administration |
| GCSA | Grade Crossing Safety Account |
| GHG | Greenhouse gas |
| MnDOT | Minnesota Department of Transportation |
| MN DEED | Minnesota Department of Employment and Economic Development |
| Mph | Miles per hour |
| MPO | Metropolitan Planning Organization |
| MRSI | Minnesota Rail Service Improvement |
| MSA | Metropolitan Statistical Area |
| PM | Particulate matter |
| SDP | Service Development Plan |
| Section 130 | Railway-Highway Crossing |
| Rail Plan | Minnesota State Rail Plan |
| RRA | Regional Rail Authority |
| RRIF | Railroad Rehabilitation and Improvement Financing |
| SMTP | Statewide Multimodal Transportation Plan |
| STB | U.S. Surface Transportation Board |
| SWOT | Strengths weaknesses opportunities and threats |
| TCMC | Twin Cities-Milwaukee-Chicago |
| TIFIA | Transportation Infrastructure Finance and Innovation Act |
| UP | Union Pacific Railroad |
| USDOT | U.S. Department of Transportation |
| VMT | Vehicle miles traveled |

This document was prepared for the Minnesota Department of Transportation
in accordance with 49 U.S. Code Chapter 227 as well as Minnesota Statute 174.03, Subd. 1b

# EXECUTIVE SUMMARY

## WHAT IS THE MINNESOTA STATE RAIL PLAN, AND WHY IS THE MINNESOTA DEPARTMENT OF TRANSPORTATION PREPARING IT?

The Minnesota State Rail Plan (Rail Plan) is a mode-specific plan that supports the Minnesota GO Vision through implementation on the railroad system. It is coordinated with other modal plans under the Minnesota GO and represents one of a family of modal plans. The Minnesota Department of Transportation (MnDOT) has updated the Rail Plan to guide the development of Minnesota's rail system for the next 20 years. The Rail Plan is an update to the March 2015 Minnesota State Rail Plan. The Rail Plan conforms to Minnesota Statutes 174.03, subd. 1b, as well as to requirements of the federal Passenger Rail Investment and Improvement Act and Federal Railroad Administration (FRA) State Rail Plan Guidance of 2013. Although the Rail Plan and support documents provide the content required by FRA State Rail Plan Guidance, the organization is different. Appendix H provides a crosswalk between FRA State Rail Plan Guidance recommended organization and the Minnesota State Rail Plan and associated Technical Memoranda.

Per federal requirements the Rail Plan covers each mode that uses the general railroad system of transportation, which includes passenger and freight rail services across the state. The Rail Plan does not cover fixed guideway transit modes that operate on their own right-of-way, such as light rail transit.

MnDOT has conducted extensive outreach with railroads, government officials, shippers, tribes, other key stakeholders and the general public to identify rail needs and opportunities across Minnesota. This update to Minnesota's State Rail Plan is vital to identifying key investments in the statewide freight and passenger rail networks.

### FAMILY OF PLANS

# WHAT ARE THE VISION AND GOALS OF THE MINNESOTA STATE RAIL PLAN?

The Minnesota State Rail Plan's vision and goals are aligned with those of Minnesota's Statewide Multimodal Transportation Plan (SMTP).

## MINNESOTA GO OBJECTIVES ADOPTED BY THE RAIL PLAN

### Transportation Safety

**Transportation safety** is a priority for MnDOT, focusing on the safety of users, workers, and communities along the transportation system. The Rail Plan emphasizes safe movement of goods and people by fostering collaboration among system users, affected communities, and the rail industry.

### System Stewardship

**Rail system stewardship** entails managing the rail network responsibly to ensure its long-term sustainability, efficiency, and safety. The Rail Plan outlines actions to meet infrastructure and workforce needs, while considering the context of surrounding communities.

### Climate Action

The Rail Plan emphasizes **climate action** as a key element of MnDOT's commitment to sustainability and environmental resilience. By focusing on reducing greenhouse gas emissions and enhancing energy efficiency, MnDOT aims to establish a sustainable rail system while also recommending strategies to strengthen rail infrastructure against climate change impacts.

### Critical Connections

**Critical rail connections** are vital for efficient transportation, integrating various lines and hubs to support passenger travel and freight movement. The Rail Plan provides a framework to maximize these connections to enhance accessibility, reduce travel times, and promote economic growth while improving safety, reliability, and sustainability for residents and businesses.

### Healthy Equitable Communities

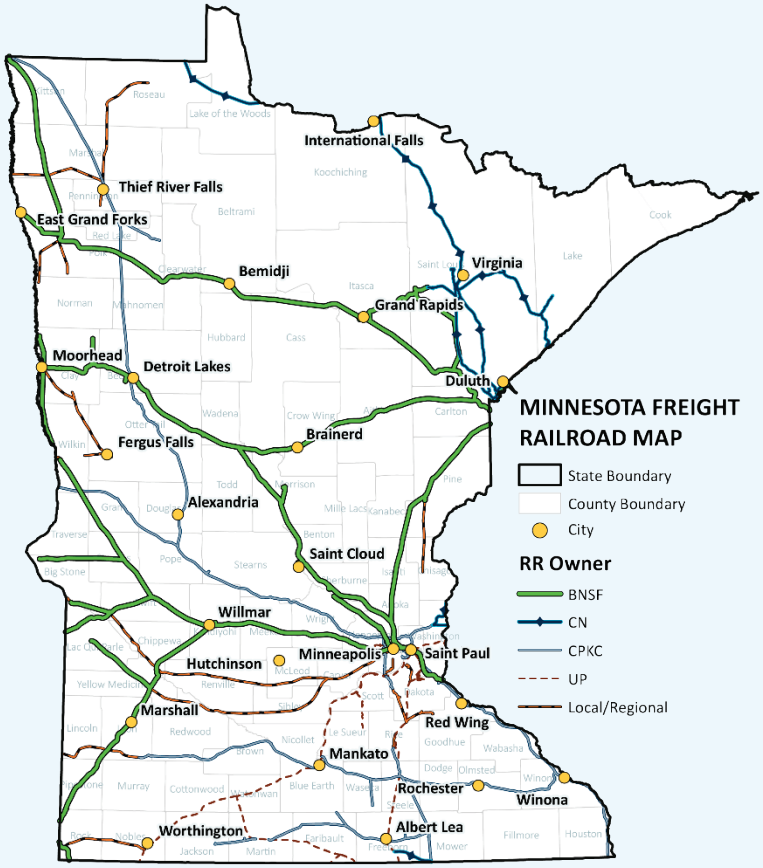
**Creating healthy, equitable communities** is essential for any state rail plan. Integrating rail infrastructure with community development ensures all residents can access safe, reliable, and affordable transportation. A well-planned rail system promotes inclusive growth, enhances quality of life, and supports sustainable development, making it vital for a thriving, equitable society.

### Open Decision Making

Transportation planning and **open decision-making** prioritize transparency, equity, and comprehensive stakeholder engagement. The state rail planning process relies on robust outreach activities, technical analysis, and diverse input to ensure informed and balanced decisions that consider multiple perspectives and demands

## Minnesota State Rail Plan Vision

*Minnesota Rail System will provide efficient, cost-effective and environmentally responsible transportation for the movement of goods and people accessible to all Minnesotans while maintaining the quality of life in the communities through which it travels.*




Four large railroads (Class I), BNSF Railway, Canadian National Railway, Canadian Pacific Kansas City, Union Pacific Railroad, connect Minnesota to freight markets across the nation and international port terminals. These railroads operate 3,281 miles or 80 percent of Minnesota's rail network.

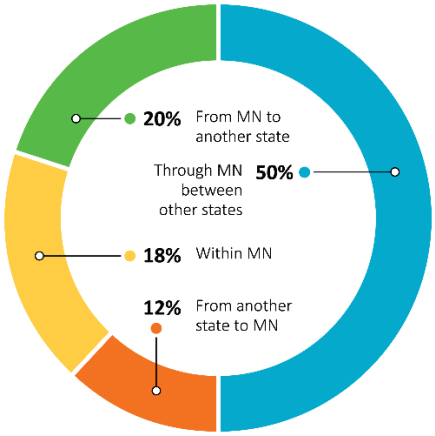
Within Minnesota, are two Regional (Class II) railroads that connect the state with other midwestern rail markets. Also within Minnesota are 12 smaller Short Line (Class III) railroads that provide last-mile connections to shippers. Collectively, Regional and Short Line operate 823 miles or 20 percent of Minnesota's rail network.

Multimodal facilities in Minnesota allow shippers to benefit from the economics of railroad transportation with flexibility of trucking or the capabilities of marine transportation.

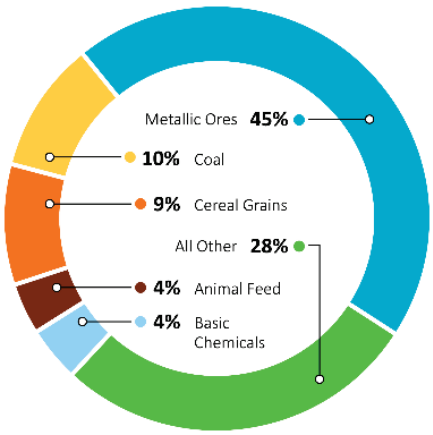
## WHAT DOES MINNESOTA'S FREIGHT RAIL NETWORK LOOK LIKE TODAY?

| Commodity Group | Expected Change |
|---|---|
| Metallic Ore, remains largest | ↓ |
| Coal | ↓ |
| Animal Feed | ↑ |
| Chemicals | ↑ |
| All Other | ↑ |

### DIRECTIONAL FLOWS 2019 (TONS)




### 2019 COMMODITY SHARE OF TOTAL RAIL TONNAGE TO, FROM, AND WITH MINNESOTA




**The Minnesota Rail Service Improvement Program (MRSI) helps to support freight rail in Minnesota, while Minnesota's rail safety programs support safety at highway/rail grade crossings, and of the rail system in general.**

# WHAT DOES MINNESOTA'S PASSENGER RAIL NETWORK LOOK LIKE TODAY?

## EMPIRE BUILDER

**CHICAGO AND PORTLAND/SEATTLE**

Amtrak long-distance service – the route is over 750 miles and the federal government pays operating and capital subsidies.

- 1 train daily in each direction
- 9 Stations serving Minnesota

## BOREALIS

State-supported route – less than 750 miles. Wisconsin and Minnesota pay operating, capital subsidies.

- End points in Chicago and Twin Cities
- 1 train daily in each direction
- Ridership is exceeding expectations

## MNDOT SUPPORT FOR PASSENGER RAIL

- Borealis operating and capital expenditures are funded through partnership between Minnesota, Wisconsin, and the FRA.
- In 2023 the Minnesota legislature voted to direct 50% of the state property taxes levied on railroad property to fund maintenance and operating costs of intercity passenger rail beginning July 1, 2029.

# WHAT IS MINNESOTA'S RAIL ACTION AGENDA?

## POTENTIAL ACTIONS SUGGESTED BY STAKEHOLDER FEEDBACK, SWOT, AND MINNESOTA GO PROPOSED ACTIONS

### SAFETY

- Address rail/bicycle/pedestrian safety
- Develop trespasser prevention program
- Continue current safety programs, including grade crossing safety
- Support technology improvements for safety
- Support Operation Lifesaver
- Support rail solutions that improve safety

### CLIMATE ACTION

- Encourage use of, invest in alternative fuel technology for locomotive, and yard equipment
- Promote expanded use of rail to reduce greenhouse gases compared to less efficient modes
- Integrate transportation and land use decisions to reduce highway vehicle miles traveled

### SYSTEM STEWARDSHIP

- Support maintenance of key assets on multi-use corridors in a state of good repair
- Support efforts to maintain low density rail lines to ensure corridor preservation
- Work with railroads to upgrade to 286,000-pound gross rail car weight standard
- Eliminate bottlenecks due to geometric constraints

### CRITICAL CONNECTIONS

- Invest in passenger rail where demand for expanded service appears to exist
- Facilitate/incentivize shift to intermodal rail
- Promote/fund transload facilities; promote/fund new, improved industrial rail access
- Provide guidance on rail and land use decisions
- Expand/improve passenger rail connections
- Support opportunities for shippers to access multiple Class I railroads

### PASSENGER RAIL ACTIONS

- Evaluate equipment needs and acquisition options
- Support Incentives for passenger rail-oriented development

### HEALTHY EQUITABLE COMMUNITIES

- Support economic development opportunities involving rail
- Help mitigate rail infrastructure barriers dividing communities
- Provide guidance to municipalities on mitigation strategies for rail noise and light pollution
- Promote measures to reduce emissions at rail yards that impact surrounding communities
- Provide guidance for "win-win" solutions for railroads and active transportation communities

### OTHER FREIGHT ACTIONS

- Consider changes to the MRSI program
- Explore dedicated funding source for MRSI
- Consider tax implications of grant funded improvements

## THE STATE RAIL PLAN UPDATE ADVANCES SEVERAL PASSENGER RAIL PRIORITY AREAS:

- **New passenger rail corridors** to create future passenger rail access between origins and destinations where none exists today.
- **Expanded passenger rail frequencies or extensions** to add additional service or frequencies along existing corridors.
- **Capital improvement projects** within existing passenger rail corridors to enhance reliability, speed, or capacity.

# 1. INTRODUCTION

The Minnesota State Rail Plan (Rail Plan) is a mode-specific plan that supports the Minnesota GO vision through implementation on the railroad system. The Minnesota Department of Transportation (MnDOT) is updating the Rail Plan to guide the development of Minnesota's rail system for the next 20 years. This Rail Plan is an update to the March 2015 Minnesota State Rail Plan.

The Rail Plan conforms to Minnesota Statutes 174.03 subd. 1b, and requirements of the federal Passenger Rail Investment and Improvement Act, which specifies that each state may prepare and maintain a state rail plan for:

- Setting forth state policy involving freight and passenger rail transportation within the state
- Establishing the period covered by the state rail plan (20 years per federal guidance)
- Presenting priorities and strategies to enhance rail service in the state which benefits the public
- Serving as the basis for Federal and State rail investments within the state

Per federal requirements the Rail Plan covers each mode that uses the general railroad system of transportation, which includes passenger and freight rail services across the state. The Rail Plan does not cover fixed guideway transit modes that operate on their own right-of-way, such as light rail transit.

The Rail Plan also conforms to the content requirements of the Federal Railroad Administration (FRA) Final State Rail Plan Guidance (FRA Guidance) published in 2013. However, it does not follow the FRA Guidance structure, which provides a specific format, consisting of six chapters. Rather, the Rail Plan presents content in a series of technical memoranda developed during the planning process which are consolidated into a condensed final report. The memos include the following:

- Background research and synthesis, which includes an analysis of existing conditions of rail infrastructure and services; an analysis of rail's role in people and goods movement in Minnesota; organization, policy and funding to support rail; rail's impact on Minnesota's economy and environment. Also included is an analysis of trends that will impact rail in the future, accounting for economic and demographic trends; freight and passenger trends; and land use trends.
- An analysis of strengths, weaknesses, opportunities, and threats facing the Minnesota rail network.
- A Vision and Action Plan, which includes vision, goals, objectives, strategies, plus specific actions to accomplish vision, goals, and objectives, priorities for implementation, and performance measures for monitoring the results.
- A summary of engagement, including how stakeholders and the general public were engaged, comments received, and how they were addressed in this Rail Plan.

A crosswalk between the FRA State Rail Plan Guidance structure and the Minnesota State Rail Plan and associated technical memoranda is provided in Appendix H.

This plan summarizes content from these earlier documents. and is organized to answer several questions:

- What are the characteristics, condition, and performance impacts of Minnesota's rail system?
- What state, local, multistate, and national programs are in place to support rail?
- What trends could impact rail in Minnesota?
- Whom did we talk to in preparing this Rail Plan?
- How was the Rail Plan coordinated with Minnesota's overall transportation vision and objectives?
- In preparing this Rail Plan, what did we learn, and what actions were suggested?
- What infrastructure investments were recommended?
- Putting it all together, what does this Rail Plan recommend, and what are the benefits to Minnesota?

This update of the Rail Plan aligns closely with the six objectives of the Statewide Multimodal Transportation Plan (SMTP) - Transportation Safety, System Stewardship, Climate Action, Critical Connections, Healthy Equitable Communities and Open Decision Making. These objectives guide priorities for the rail system.

## MINNESOTA GO OBJECTIVES ADOPTED BY THE RAIL PLAN

### Transportation Safety

**Transportation safety** is a priority for Minnesota DOT, focusing on the safety of users, workers, and communities along the transportation system. The Rail Plan emphasizes safe movement of goods and people by fostering collaboration among system users, affected communities, and the rail industry.

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**Rail system stewardship** entails managing the rail network responsibly to ensure its long-term sustainability, efficiency, and safety. The Rail Plan outlines actions to meet infrastructure and workforce needs, while considering the context of surrounding communities.

### Climate Action

The Rail Plan emphasizes **climate action** as a key element of MnDOT's commitment to sustainability and environmental resilience. By focusing on reducing greenhouse gas emissions and enhancing energy efficiency, MnDOT aims to establish a sustainable rail system while also recommending strategies to strengthen rail infrastructure against climate change impacts.

## Critical Connections

**Critical rail connections** are vital for efficient transportation, integrating various lines and hubs to support passenger travel and freight movement. This Rail Plan provides a framework to maximize these connections to enhance accessibility, reduce travel times, and promote economic growth while improving safety, reliability, and sustainability for residents and businesses.

## Healthy Equitable Communities

**Creating healthy, equitable communities** is essential for any state rail plan. Integrating rail infrastructure with community development ensures all residents can access safe, reliable, and affordable transportation. A well-planned rail system promotes inclusive growth, enhances quality of life, and supports sustainable development, making it vital for a thriving, equitable society.

## Open Decision Making

Transportation planning and **open decision-making** prioritize transparency, equity, and comprehensive stakeholder engagement. The state rail planning process relies on robust outreach activities, technical analysis, and diverse input to ensure informed and balanced decisions that consider multiple perspectives and demands.

# 2. WHAT ARE THE CHARACTERISTICS, CONDITION, USAGE AND PERFORMANCE OF MINNESOTA'S RAIL SYSTEM?

Minnesota boasts the eighth-largest rail network in the United States, consisting of Class I, Regional, and Short Line railroads. This extensive network includes 55 multimodal connectors, numerous direct-serve industries, and 4,104 miles of track. The state's rail system plays a crucial role in Minnesota's economy, particularly in the mining and agriculture sectors, and is increasingly important for consumer goods transportation via rail intermodal.

In terms of freight tonnage originating or terminating within the state, Minnesota ranks among the top in the nation. The rail network includes 4,138 public at-grade crossings, highlighting its extensive reach across the state.

While passenger rail service in Minnesota is currently limited, growth is promising. Minnesota is served by two services, the recently added state-supported Borealis and long-distance Empire Builder. Ridership on Empire Builder has rapidly recovered to 90% of pre-pandemic levels in just three years, and the recently added Borealis service has exceeded ridership expectations within six months of its launch.

Per findings of an analysis for this Rail Plan, both freight and passenger rail provide significant economic and environmental benefits to Minnesotans:

- Freight rail offers over $301 in benefits for every avoided truck trip between the Twin Cities and Chicago.
- Passenger rail provides over $296 in benefits for each one-way trip from St. Paul to Chicago.

These benefits extend beyond supporting the economy and facilitating the movement of people and goods, contributing to reduced road congestion and lower emissions.

**Chapter Contents**


- ↗ Characteristics and condition of Minnesota's rail network
- ↗ Usage of Minnesota's rail network
- ↗ Passenger rail services and performance
- ↗ Highway / railroad grade crossings

## 2.1 CHARACTERISTICS AND CONDITION OF MINNESOTA'S RAIL NETWORK

Minnesota's rail network as shown in Figure 2-1 is one of the most extensive in the nation, ranking eighth among all U.S. states by the Association of American Railroads by rail miles.[1] Most of the rail mileage in Minnesota is owned by private freight railroad companies. Mileages are shown in Table 2-1. Most (80 percent) is operated by Class I railroads.[2] These are railroads with over $1 billion in annual revenue. They connect Minnesota to other areas of North America. Four of six Class I railroads that operate in the United States operate in Minnesota: BNSF Railway (BNSF), Canadian National Railway (CN), Canadian Pacific Kansas City (CPKC), and Union Pacific (UP). Detailed profiles of these railroads are provided in Class I .

**Minnesota's four large Class I railroads operate 80 percent of rail miles in the state.**

Forty-four miles within Minnesota are operated by two Class II or "Regional" railroads, the Rapid City, Pierre, & Eastern Railroad (RCPE) and the Red River Valley & Western Railroad Company (RRVW). These railroads have smaller networks and operate within more limited areas when compared to Class I railroads. They have annual operating revenues of less than $1 billion, but more than $47 million, the threshold for a Class III or short line carrier.[3] The two regional railroads that serve Minnesota connect Minnesota with markets in adjoining or nearby Midwestern states.[4]

Within Minnesota are 15 Class III or "short line" railroads (19% of the Minnesota rail network mileage). These are railroads with below $47 million in annual operating revenues. Short lines provide "last mile" rail service, connecting customers to the Class I rail network. Class I and Class II railroads can directly serve customers, but short line railroads usually specialize in "local" rail service, moving railcars to, from, and within customer locations. The Class II and Class III rail network is summarized in Table 2-1. Short line (Class III) railroads are further subdivided into local and switching/terminal railroads. Switching or terminal railroads specialize in making up and breaking down trains, storing and classifying cars, serving industries within yard limits, and other related purposes. These movements are made at slow speed under special yard rules. Local short line railroads perform these functions too, but they also operate trains outside of yard limits. Switching and terminal railroads are considered Class III regardless of their annual revenue.

**Short line railroads provide "last mile" connections to railroad customers.**

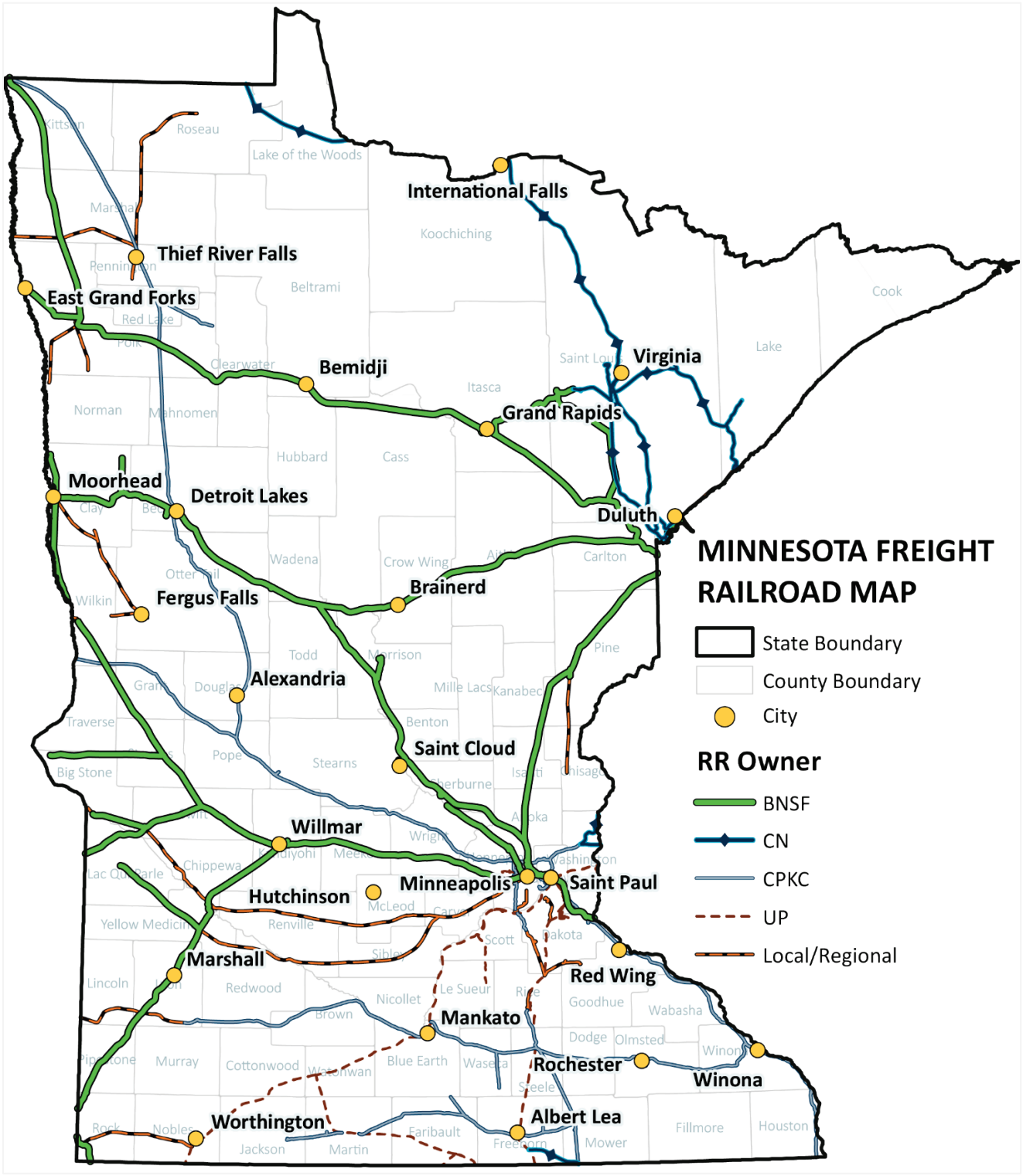
[1] Association of American Railroads, State Rankings, https://www.aar.org/wp-content/uploads/2021/02/AAR-State-Rankings-2019.pdf.

[2] For the purposes of this Rail Plan, rail miles are associated with the railroad that operates that line. A railroad "operates" a rail line if it controls train movements or "dispatches" that rail line. For example, if one railroad owns a rail line but then leases it to another railroad, the lessee operates the mileage, and the miles are associated with that railroad. Railroads also operate over each other's lines through trackage rights agreements. Because the railroad that grants the trackage rights controls train movements, it is considered to operate the line. The railroad that receives the trackage rights does not operate the rail line.

[3] These thresholds are based on 2019 dollars and are inflated annually. In 2024 the most recent available inflation factors are for 2022. Short line (Class III) railroads are further subdivided into local and switching/terminal railroads. Switching or terminal railroads specialize in making up and breaking down trains, storing and classifying cars, serving industries within yard limits, and other related purposes. These movements are made at slow speed under special yard rules. Local short line railroads perform these functions too, but they also operate trains outside of yard limits. Switching and terminal railroads are considered Class III regardless of their annual revenue.

[4] RCPE connects with markets in South Dakota, Nebraska and Wyoming while the RRVW connects with markets in North Dakota.

## FIGURE 2-1: MINNESOTA RAIL NETWORK



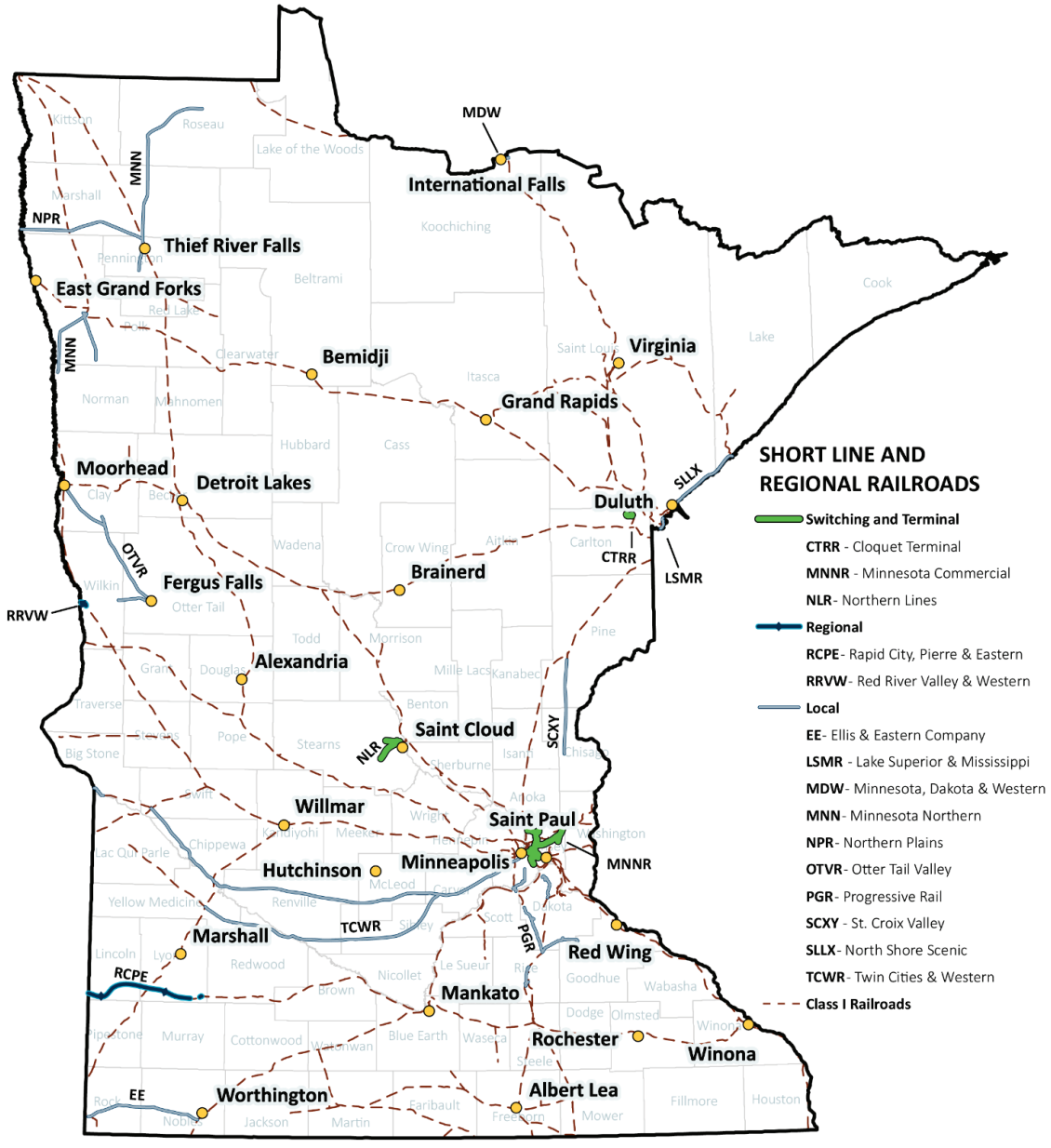

Source: MnDOT, FRA

### TABLE 2-1: FREIGHT RAIL ROUTE MILES IN MINNESOTA

| Railroad | Owned and Operated | Operated under Lease | Total Operated | Leased to Others | Trackage Rights |
|---|---|---|---|---|---|
| **Class I Railroads** | | | | | |
| BNSF Railway | 1,480 | | 1,480 | 9 | 222 |
| Canadian National Railway | 378 | | 378 | 0 | 0 |
| CPKC | 1,021 | | 1,021 | 111 | 570 |
| Union Pacific Railroad | 402 | | 402 | 16 | 226 |
| **Class I Total** | 3,281 | | 3,281 | 136 | 1018 |
| **Regional Railroads (Class II)** | | | | | |
| Rapid City, Pierre, & Eastern Railroad | 41 | | 41 | | 131 |
| Red River Valley & Western Railroad Company | 3 | | 3 | | 29 |
| **Regional Railroad Total** | 44 | | 44 | | 160 |
| **Short Line Railroads (Class III)** | | | | | |
| Cloquet Terminal Railroad | 2 | 1 | 3 | | |
| Ellis & Eastern Company | | 42 | 42 | | |
| Lake Superior & Mississippi | 5 | | 5 | | |
| Minnesota Commercial Railway | | 86 | 86 | | 42 |
| Minnesota Northern & St. Croix Valley Railroads | 165 | | 165 | | |
| Minnesota, Dakota & Western Railway | 2 | | 2 | | |
| North Shore Scenic Railroad | 28 | | 28 | | |
| Northern Lines Railway | | 19 | 19 | | |
| Northern Plains Railroad, Inc. | | 46 | 46 | | |
| Otter Tail Valley Railroad | 81 | | 81 | | |
| Progressive Rail Inc., Cannon Valley Railroad | 9 | 68 | 77 | | |
| Twin Cities & Western Railroad & Minnesota Prairie Line | 144 | 81 | 225 | | 11 |
| **Short Line Total** | 436 | 343 | 779 | | 53 |
| **TOTAL - ALL RAILROADS** | **3,761** | **343** | **4,104** | **136** | **1,231** |

Source: Survey of short line, regional railroads, comparison to AAR Minnesota profile, carrier websites, other sources.

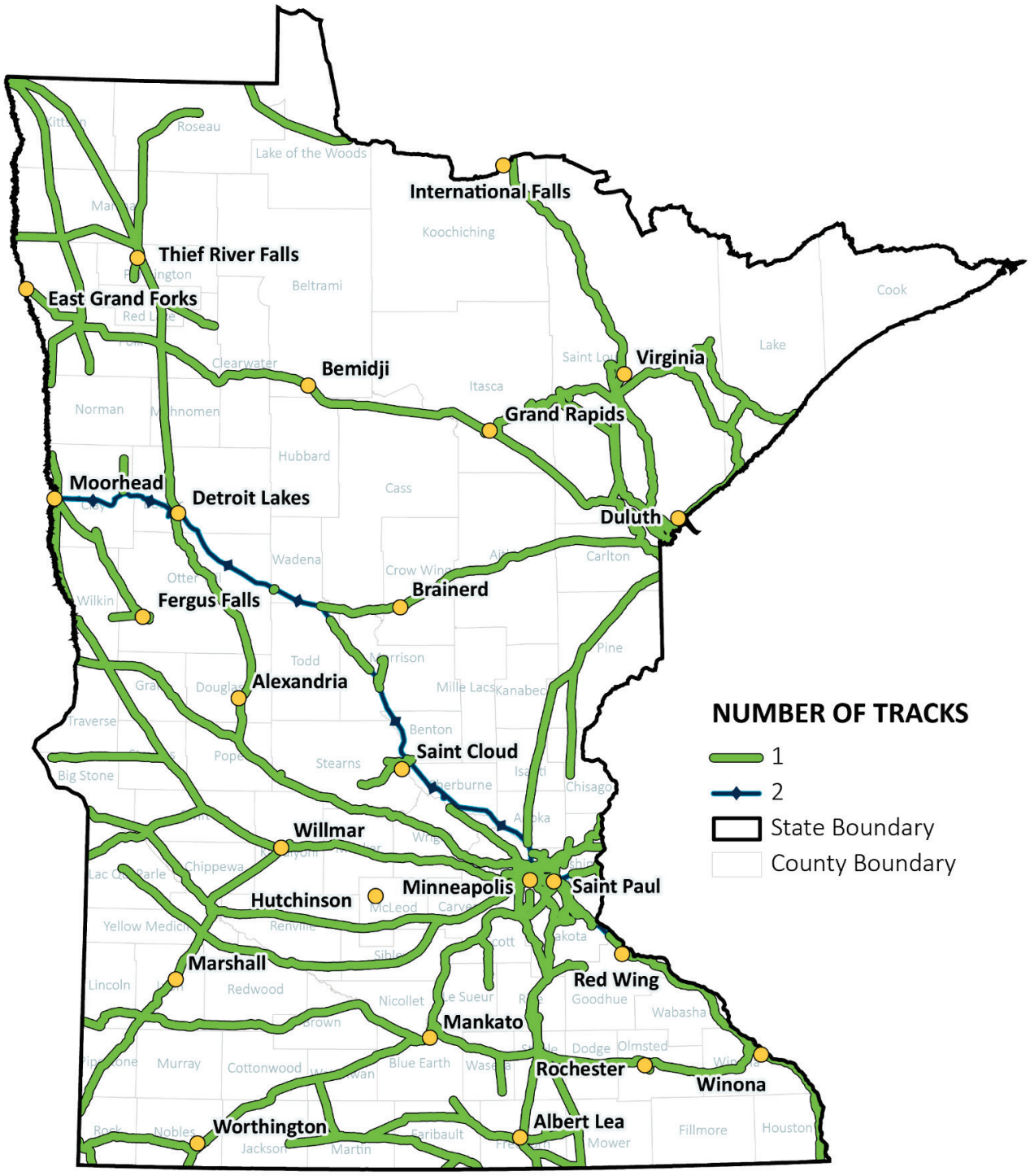
## FIGURE 2-2: SHORT LINE/REGIONAL RAILROAD NETWORK




Source: MnDOT, FRA

Most rail lines in Minnesota consist of a single railroad track. When trains pass each other, they use passing sidings. One train uses a siding or a rail yard to wait for the other train to pass. If the capacity is needed and rail volumes justify the investment, railroads add a second track so that trains traveling in each direction can pass one another without using a passing siding. Within Minnesota, most of the double track segments are in the BNSF Great Northern corridor, which connects Chicago to the West Coast. This is shown in Figure 2-3.

**FIGURE 2-3: NUMBER OF TRACKS**



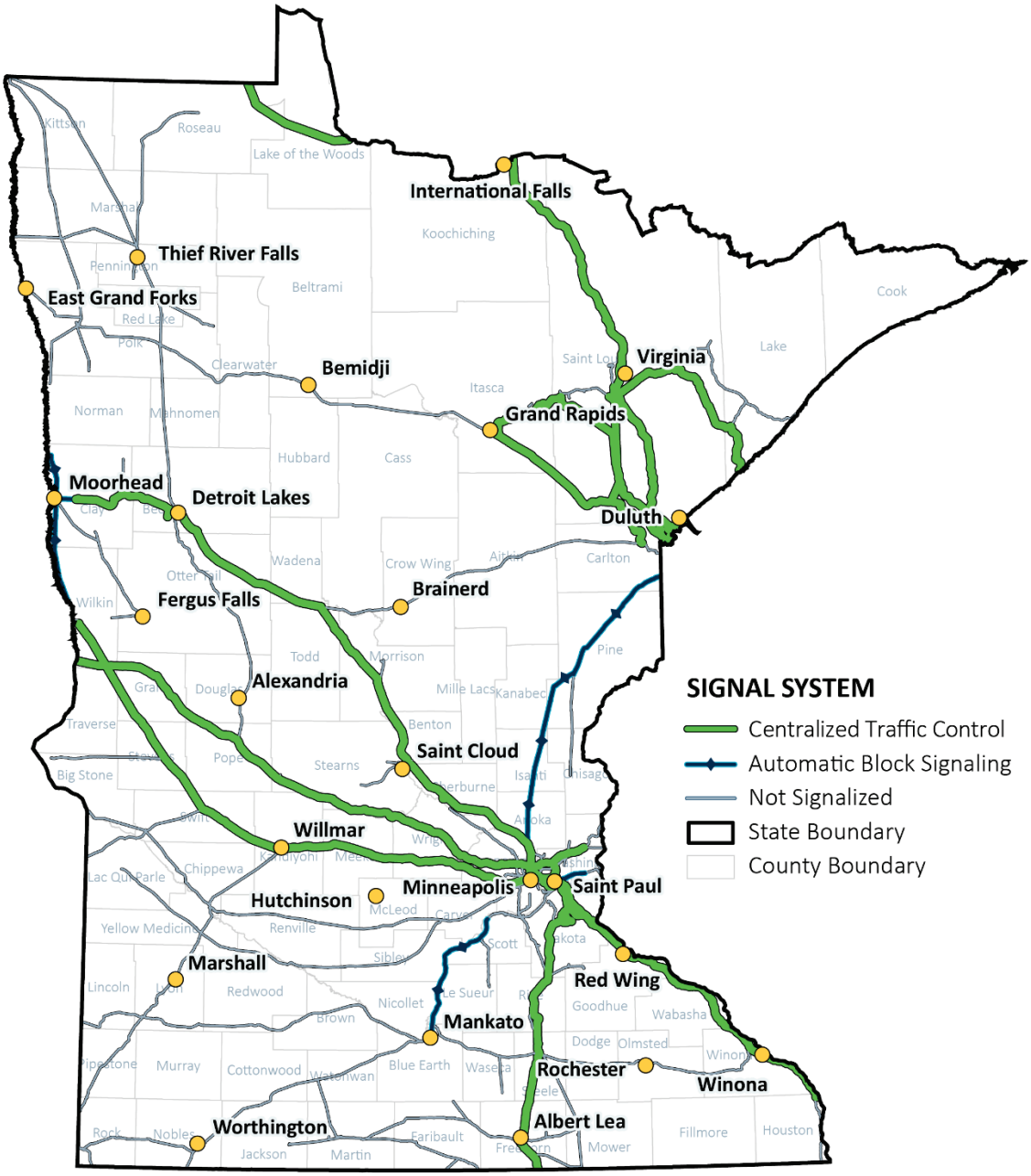

Source: MnDOT, FRA, WSP analysis

Another important factor for rail line capacity is the train control system, the system by which trains safely gain authority to access segments of track. Rail lines with the highest volume and the most need for capacity are dispatched using centralized traffic control systems (CTC). Under these systems, train movements are monitored electronically by a central dispatch office. Dispatchers can remotely control railroad switches and traffic signals to ensure safe, efficient train movements.

For rail lines with moderate traffic density, railroads often rely on automatic block signaling (ABS), using electronic circuits to control train movements. Trains receive automatic signals that indicate whether it is safe to enter or occupy segments or "blocks" of track. For rail lines of lower density, a range of dispatch systems are used, but these may not involve electronic signals as is the case for CTC and ABS. These may be dispatched by timetables, verbal authority provided by dispatchers, or other methods. Unsignalized territory is sometimes referred to as "dark territory." As shown in Figure 2-4, a range of dispatch systems are used in Minnesota, but the dispatch systems tend to relate to rail line density per Figure 2-16.

**Rail lines in "dark territory" are not controlled by electronic signals.**

**FIGURE 2-4: TRAIN CONTROL SYSTEM**




Source: MnDOT, FRA, WSP analysis

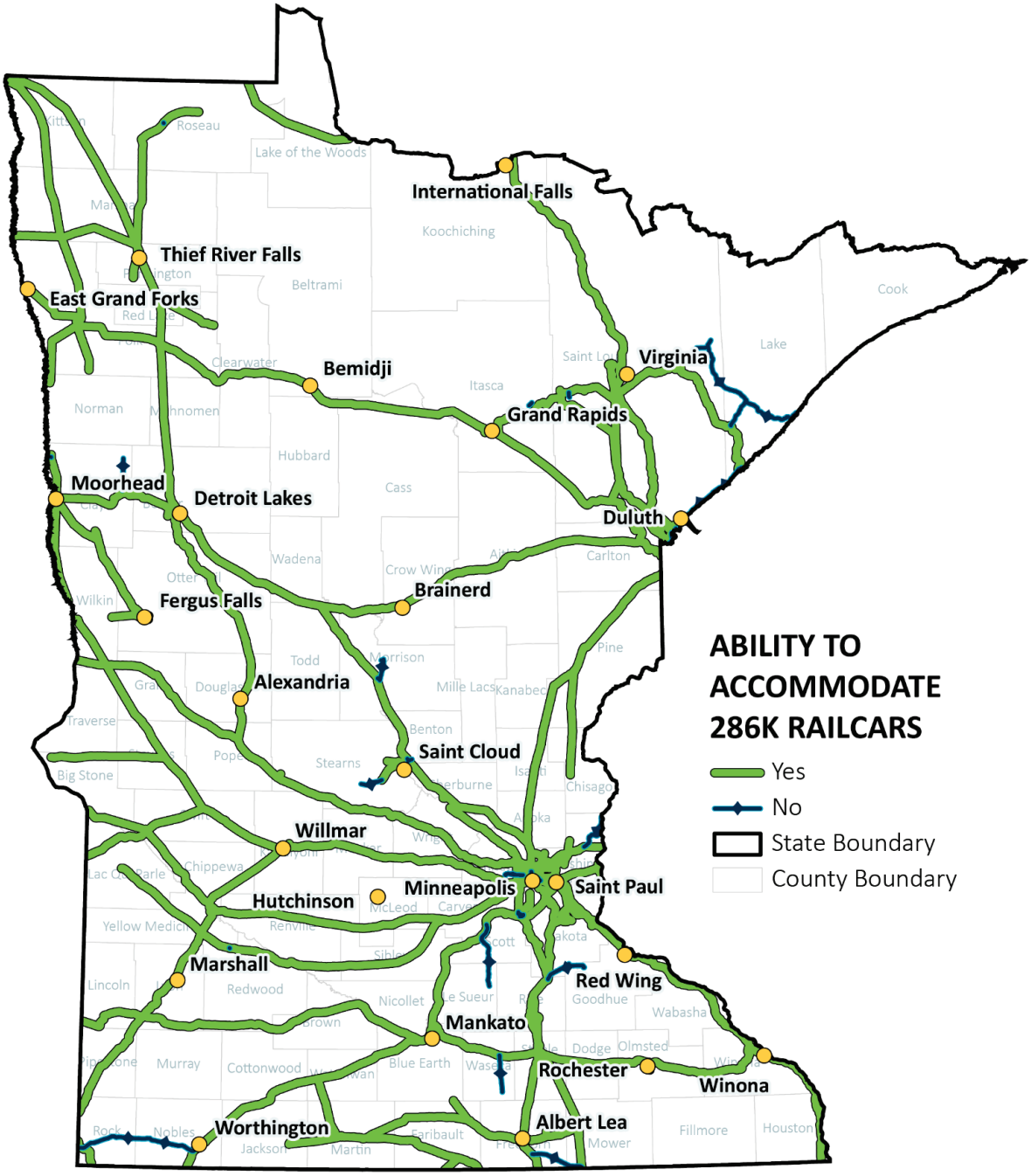
In the 1990s the Class I railroad industry increased the standard maximum railcar weight used on U.S. rail lines from a previous standard of 263,000 pounds to 286,000-pounds gross weight on rail (including both the weight of the railcar and its payload). The new standard increased the required maintenance for rail lines because heavier railcars can cause more damage to roadbed and bridges. However, the intent was for additional maintenance cost to be balanced by improvements in railcar handling efficiency. Because the relationship between railcar weight and payload (cargo) weight was more favorable for the new, larger

railcars, each railcar could handle 10 to 12% more cargo, an improvement higher than the ratio of 286,000 to 263,000 (8.7%). More cargo could be carried with the same number of railcars, reducing the handling expenditure and resources needed for each railcar.

Unfortunately, a significant portion of the railroad infrastructure operated by short line railroads was not built to a standard that allows passage of 286,000-pound railcars. As the cost of upgrading the infrastructure, including bridges, to this standard is high, limitations persist. Within Minnesota there remain 254 miles of track that cannot accommodate 286,000-pound railcars, which puts the railroads and shippers on these lines at a competitive disadvantage. Figure 2-5 identifies which rail lines cannot accommodate 286,000-pound railcars. Previously, shippers and railroads could use older, smaller railcars which are less expensive to own or lease, but increasingly these older railcars are becoming unavailable, and shippers/railroads must use larger, more expensive railcars and partially load them. Although segments that cannot accommodate 286,000-pound railcars in Minnesota are of relatively short mileage, they typically impact rail moves that are hundreds of miles long because it is prohibitively expensive to transfer cargo from one railcar to another. A limitation on one piece of the rail move impacts the entire rail move.

**When rail lines are not able to accommodate 286,000-pound railcars, it places railroads and shippers on those rail lines at a disadvantage because typically, the shipper pays the same rate to ship less freight.**

**FIGURE 2-5: WEIGHT RESTRICTIONS**




Source: MnDOT, FRA, WSP analysis, short line survey

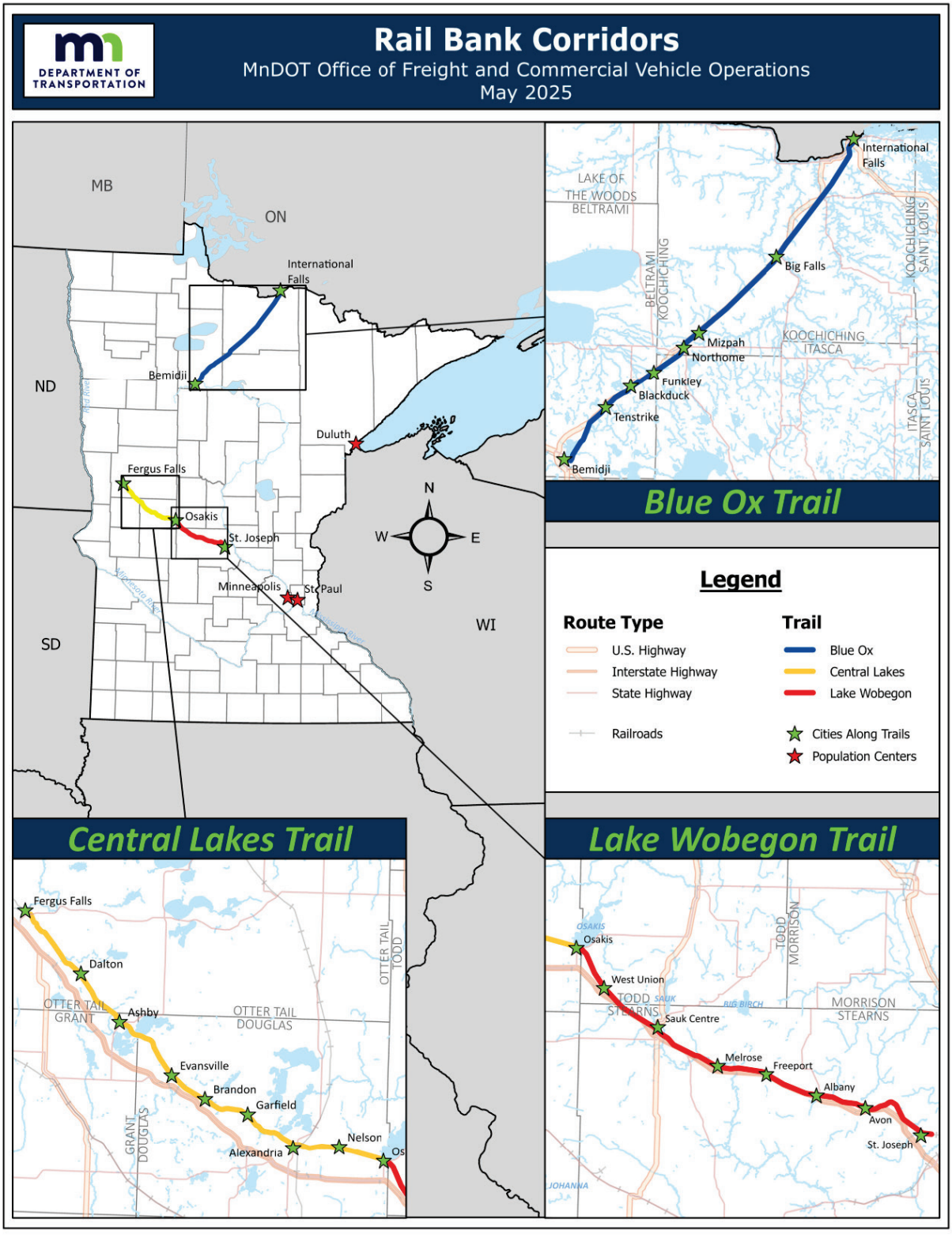
Within Minnesota there are also railroad clearance restrictions. For example, high-capacity boxcars have heights of 17 feet above rails. At least one short line railroad within Minnesota is unable to accommodate railcars of this height due to overhead obstructions.

### 2.1.1 RAILBANKED CORRIDORS

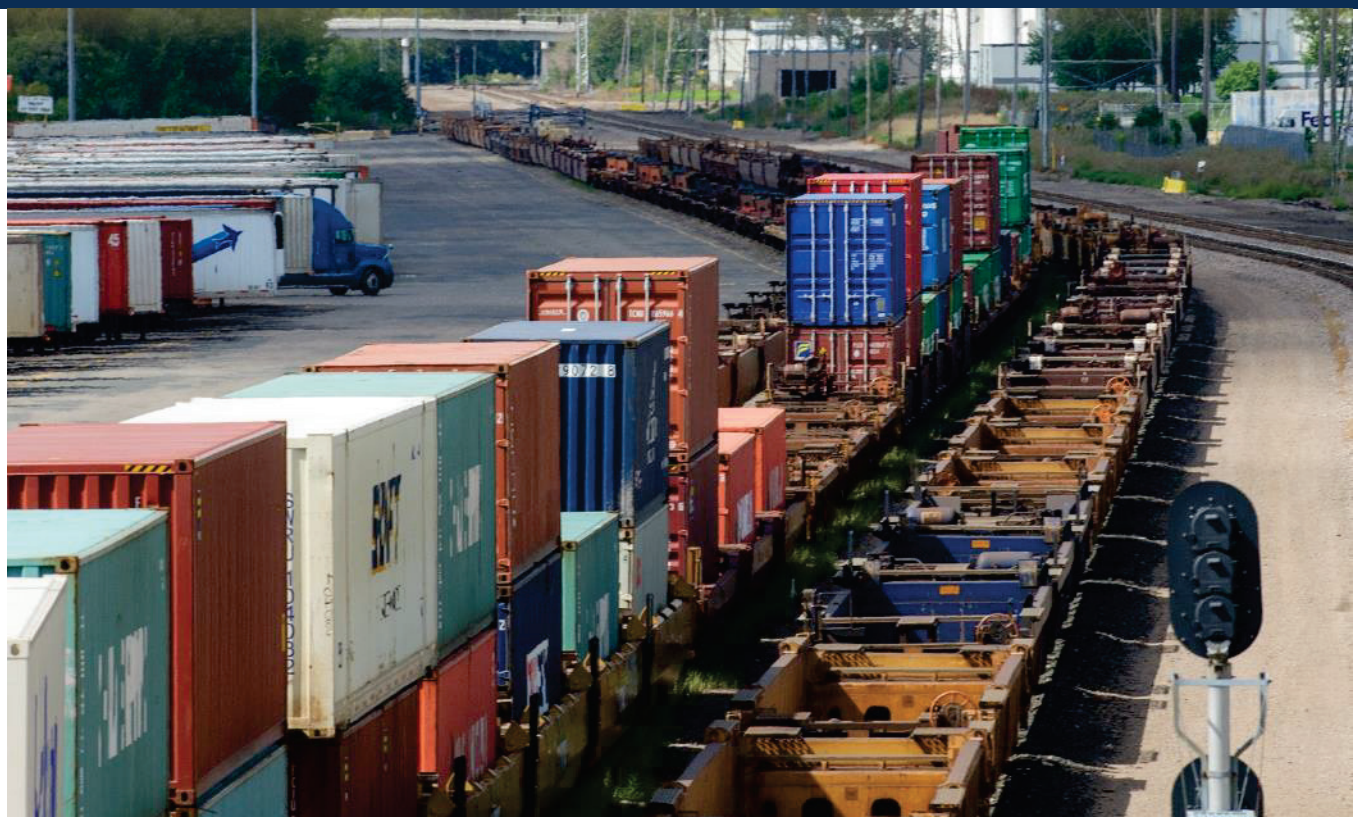
The Minnesota legislature established statutory authority for MnDOT to acquire abandoned rail lines and rights-of-way to preserve them for future public transportation use. Collectively, these properties comprise the Minnesota State Rail Bank Corridors. Railbanking was established nationally through the National Trails System Act of 1983. Through the railbank program, MnDOT may intervene during a rail corridor abandonment process before the U.S. Surface Transportation Board (STB). If negotiations are successful, the abandoning railroad transfers the corridor to the State of Minnesota and the corridor is given an "interim use" designation by which the corridor is used as an interim recreational trail until a railroad might need the corridor again for rail service. Railbanking is intended as a tool to preserve rail corridors; without the railbanking process, the corridor could potentially be lost as a continuous transportation corridor. It would be much more difficult to reassemble a transportation corridor than to preserve it. While railbanking has succeeded in preserving rail corridors, very seldom does rail service return to such corridors once they have been established as recreational trails. Minnesota State Rail Bank Corridors are shown in Figure 2-6.

**Rail banking preserves otherwise abandoned rail corridors for potential future rail use.**

**FIGURE 2-6: MINNESOTA STATE RAIL BANK CORRIDORS**




Source: MnDOT



### 2.1.2 RAIL MULTIMODAL FREIGHT FACILITIES

Multimodal facilities support the movement of freight between railroads and other modes of transportation like trucking and maritime shipping. These facilities play a critical role in Minnesota's transportation network because they allow shippers to utilize multiple modes of transportation in their supply chains, and multimodal facilities provide shippers that do not have direct access to rail track with the ability to use railroad shipping. For example, rail-served transload warehouses give companies that do not have direct rail service the option to ship and receive goods in railroad boxcars, with trucks handling the first- or final-mile of freight movement to and from the transload warehouse and the railroad handling the longer distance movement between the warehouse and the shipment's ultimate origin/destination.

**Transload enables shippers to use rail without rail infrastructure on their premises.**

Figure 2-7 below provides an overview of the multimodal freight facilities located in Minnesota. These facilities include four intermodal terminals, which support the movement of intermodal shipping containers and truck trailers on and off of railroad cars, 44 transload facilities that support the movement of a wide variety of non-containerized cargo, including dry bulk, liquid bulk, and dimensional (e.g. lumber or steel), and seven water-served multimodal facilities, which also handle a variety of cargo and connect to the Great Lakes or the Mississippi River systems. The map does not show grain elevators or individual industry facilities that have dedicated rail service for a single company.

The map below also illustrates the clusters of Minnesota's multimodal rail facilities around the Twin Cities and Duluth regions, transportation hubs served by multiple major railroads. Multimodal freight facilities are often situated close to major transportation corridors such as interstates and trunk highways, because they facilitate easy truck connections.

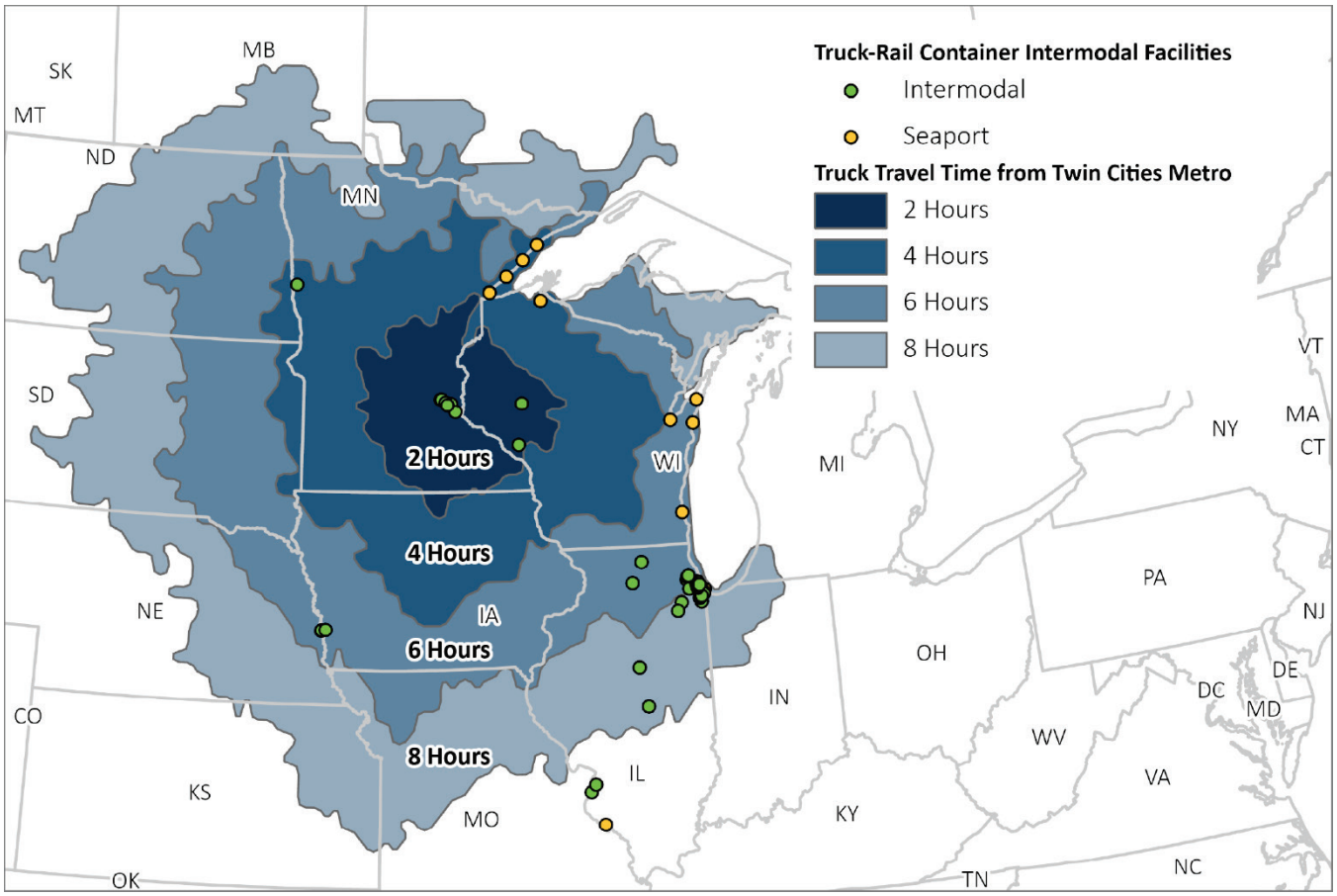
## FIGURE 2-7: MULTIMODAL FREIGHT FACILITIES

Source: BNSF, CN, CPKC, UP transload and intermodal websites, consultations with Class I railroads, and short line railroad surveys. 2024.

Figure 2-8 demonstrates a long-standing need among Minnesota's freight generators: that intermodal services in the state have historically been limited to the BNSF Intermodal Facility in St. Paul and the CPKC Shoreham Intermodal Facility in Minneapolis. Because of the lack of intermodal options outside the Twin Cities Metropolitan Area, large portions of Minnesota are more than a two-hour drive from an intermodal facility, stretching four to eight hours in northern and southwestern Minnesota.

Appendix F provides an inventory of identified transload and intermodal facilities in Minnesota. These facilities were identified based on surveys and consultations with railroads, as well as a review of railroad websites. Since the transportation industry is dynamic and ever-evolving, Figure 2-7 and the list in Appendix F may not cover all of Minnesota's multimodal freight facilities, and the specific types of commodities handled at each facility may change over time.

**FIGURE 2-8: INTERMODAL TERMINALS AND TRUCK TRAVEL TIME FROM TWIN CITIES METROPOLITAN AREA**




Source: 2024 MnDOT State Freight Plan

## 2.2 USE OF MINNESOTA'S FREIGHT RAIL SYSTEM

Railroads play a key role in the movement of goods in Minnesota. The state has the fourth-highest originating and terminating rail tonnage of any state in the nation.[5] However, the role that rail plays tends to be specialized and is used by specific industries and markets.

As shown in Table 2-2 rail accounts for 20% of the tonnage that moves to, from, or within Minnesota overall. However, rail's modal share is much higher for specific commodities, so that, for example, all coal shipped to Minnesota moves by rail, 91% of metallic ore tonnage shipped to/from/within Minnesota moves by rail as does 47% of basic chemicals tonnage.

**TABLE 2-2: RAIL MODAL SHARE BY COMMODITY AND MILEAGE RANGE TO/FROM MINNESOTA, 2019**

| Commodities | Rail Tons | Rail Modal Share | | | | | | All Mode Tons |
|---|---|---|---|---|---|---|---|---|
| | | 0 – 99 Miles | 100 – 249 Miles | 250 – 499 Miles | 500 – 999 Miles | 1,000 + Miles | All Mileage Ranges | |
| Metallic ores | 53,649,721 | 100% | 99% | 0% | 41% | 79% | 91% | 58,713,423 |
| Coal | 11,486,590 | Not applicable | Not applicable | 96% | 100% | Not applicable | 100% | 11,490,930 |
| Cereal grains | 11,406,674 | 2% | 1% | 9% | 60% | 62% | 11% | 103,668,955 |
| Animal feed | 4,672,747 | 3% | 1% | 12% | 54% | 75% | 16% | 29,401,797 |
| Basic chemicals | 4,628,291 | 13% | 22% | 61% | 73% | 77% | 47% | 9,925,589 |
| Other agricultural products | 3,616,890 | 0% | 2% | 2% | 36% | 70% | 8% | 43,834,888 |
| Other foodstuffs | 3,612,164 | 5% | 4% | 18% | 31% | 28% | 14% | 26,072,538 |
| Natural sands | 3,210,128 | 3% | 43% | 56% | 57% | 42% | 22% | 14,388,957 |
| Coal and petroleum products | 2,938,526 | 2% | 5% | 16% | 67% | 91% | 16% | 18,762,280 |
| Nonmetallic minerals | 2,882,855 | 17% | 6% | 16% | 16% | 44% | 17% | 16,494,791 |
| Mixed freight | 2,208,200 | 0% | 0% | 22% | 1% | 81% | 15% | 14,314,917 |
| Fertilizers | 1,979,122 | 7% | 21% | 34% | 44% | 36% | 25% | 7,798,606 |
| Other | 12,095,948 | 1% | 3% | 9% | 15% | 22% | 5% | 238,695,535 |
| GRAND TOTAL | 118,387,856 | 22% | 5% | 12% | 47% | 48% | 20% | 593,563,206 |

Source: STB 2019 Waybill Sample, Quetica's Freight Intelligence Tracker (QFIT)

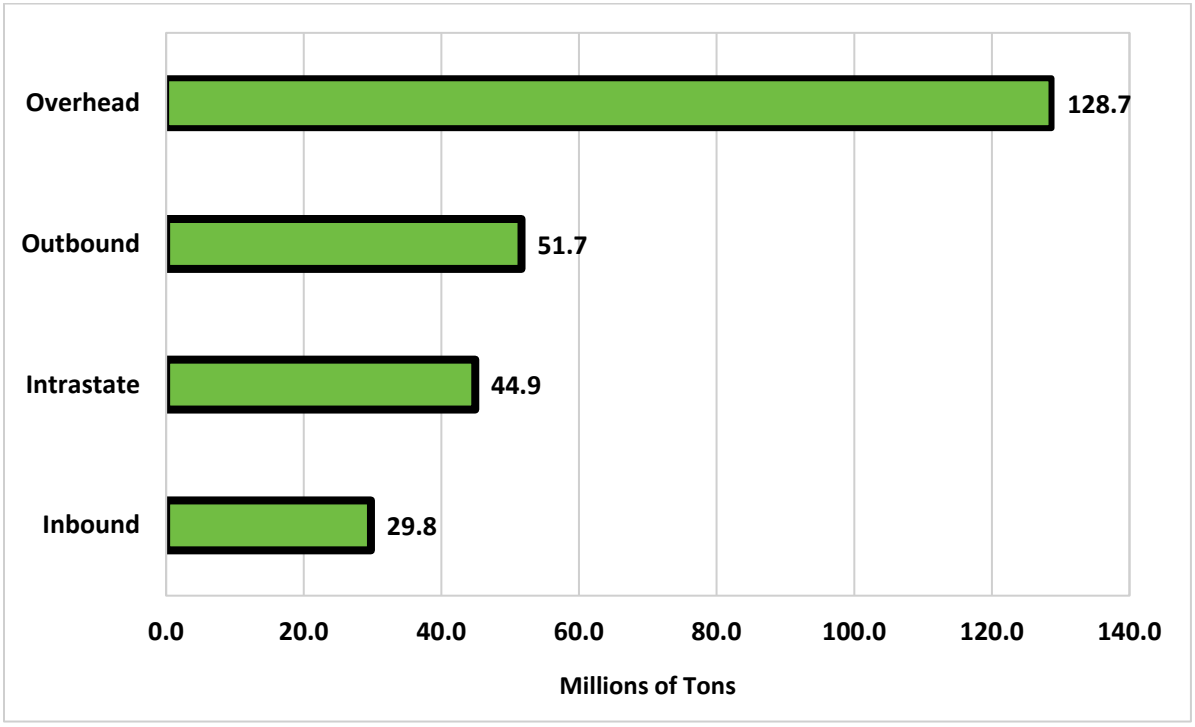
[5] Association of American Railroads State Rankings, https://www.aar.org/wp-content/uploads/2023/03/AAR-State-Rankings-2021.pdf.

Distance is also an important factor although the relationship between distance and rail modal share is inconsistent. Nationwide, the economics of rail tend to favor use of rail for longer distance moves, so overall in the U.S., rail only has a 3.5% modal share for movements less than 100 miles compared to 9.5% for moves over 100 miles.[6] However, in Minnesota rail is used for short distances shipments of iron ore from mining locations to port terminals, so rail has a 22% modal share for tonnage shipments less than 100 miles. For other shipment distances to, from, within Minnesota, rail's use tends to increase with shipment distance, so rail has a higher modal share for shipments over 500 miles compared to shipments between 100 and 500 miles.

Minnesota's rail flows have been analyzed using the STB Carload Waybill Sample, which is a sample of waybills (documents that accompany rail shipments) for rail carriers that terminate 4,500 or more carloads per year. Due to confidentiality requirements, information can only be displayed at an aggregate level and not in detail. The 2019 version of the database was used instead of slightly more recent versions available at the time to be consistent with data used in the Minnesota State Freight Plan.

As shown in Figure 2-9, the largest share of freight handled by the Minnesota rail network passes through Minnesota between other states (overhead). Minnesota also has a sizeable volume of intrastate traffic, primarily consisting of metallic ores moving between mines and harbors. More freight rail traffic moves from Minnesota to other states (outbound) than moves from other states to Minnesota (inbound).

**FIGURE 2-9: MINNESOTA RAIL TRAFFIC BY DIRECTION, 2019 TONS**



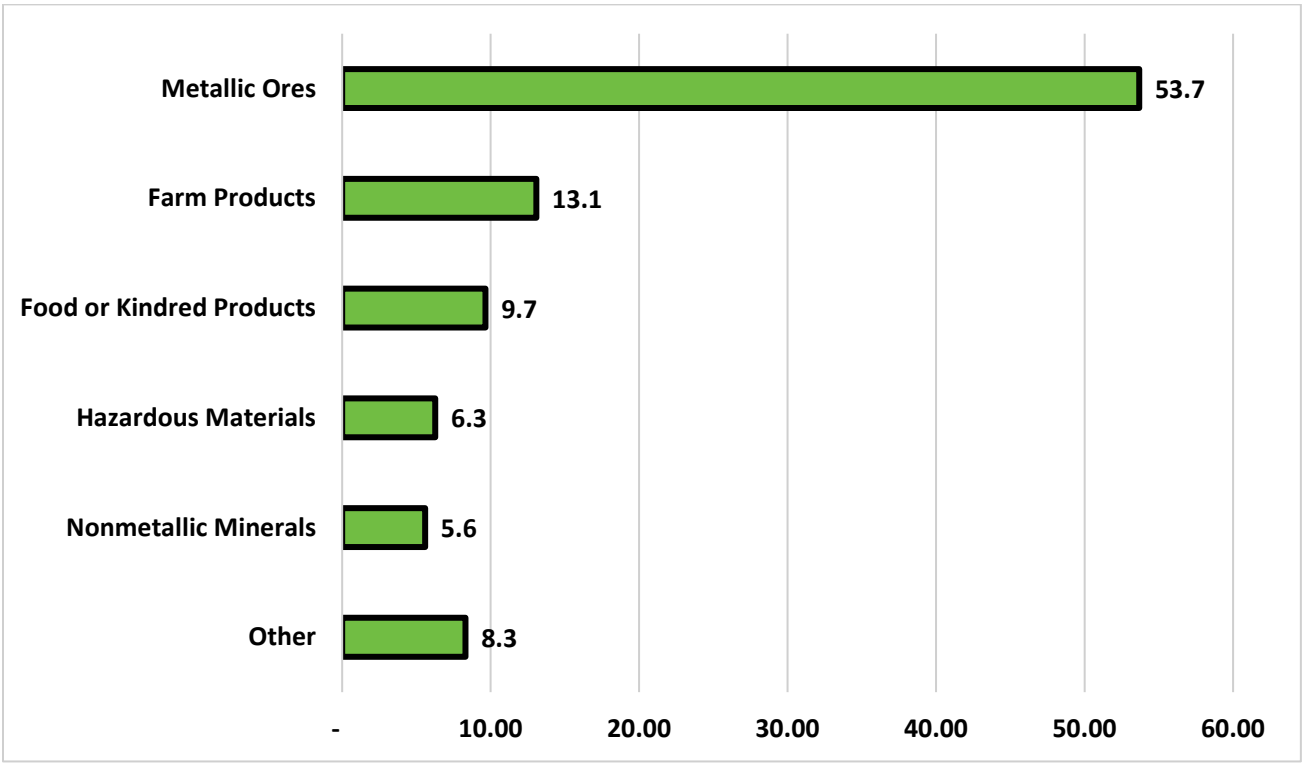

Source: STB 2019 Carload Waybill Sample

[6] Based on 2023 data from the Federal Highway Administration Freight Analysis Framework (FAF-5) database.

### 2.2.1 FREIGHT FLOWS ORIGINATING FROM MINNESOTA

Figure 2-10 displays originating rail traffic from Minnesota by tonnage. Iron ores, primarily taconite, represent the largest tonnage originating from Minnesota, accounting for over half of total tonnage.[7] Farm products, at 14% of tonnage, are the second highest source of rail flows originating in Minnesota. Most of this category is comprised of corn. Manufactured food products are the next major source of flows, accounting for 10% of originating tonnage and consist of corn syrup, soybean oil and vegetable oil. Shipments of hazardous materials such as flammable ethanol and alcohols as well as asphalt tar constitute 6% of originating tonnage, while nonmetallic mineral moves, consisting mostly of crushed stone, represent the fifth largest commodity category originating by rail from Minnesota.

**FIGURE 2-10: MINNESOTA ORIGINATING RAIL TRAFFIC BY COMMODITY, 2019 MILLION TONS**




Source: STB 2019 Carload Waybill Sample

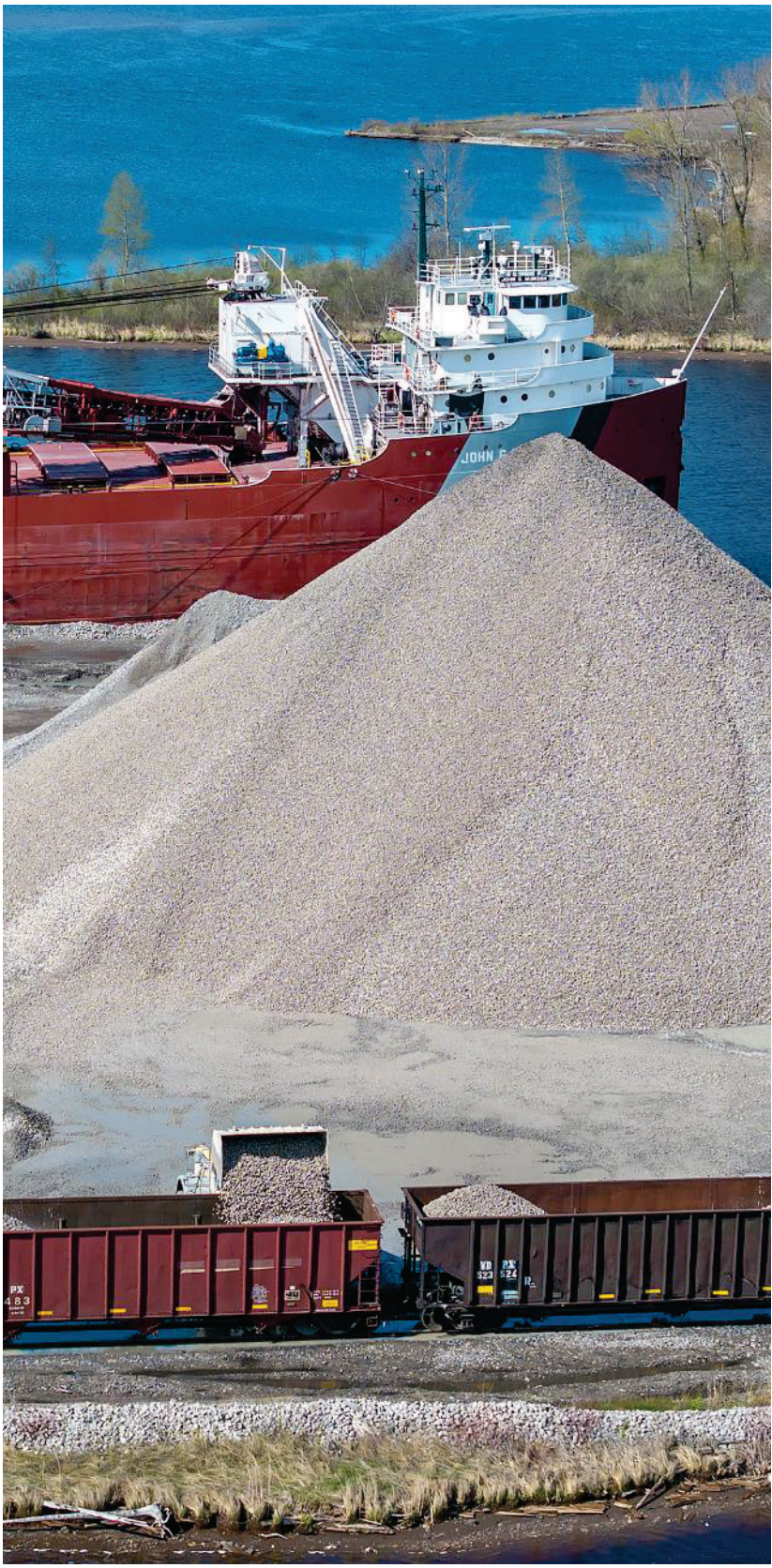
[7] Originating includes freight movements that are either intrastate or moving outbound from Minnesota to other states.

As shown in Figure 2-11, St. Louis County (includes the Iron Range and Duluth) has the highest originating tonnages in the state, with the vast majority of tonnages being intrastate moves of metallic ores, as well as outbound moves of metallic ores to Wisconsin. St. Louis County also originates nonmetallic minerals, paper products and farm products.[8]

Ramsey County (includes St. Paul) is the second largest source of rail flows in the state, including outbound movements of food products to Illinois, Texas, New Mexico, Washington; outbound moves of chemical products to Texas, Iowa, Missouri; intrastate moves of chemical products; and outbound moves of hazardous materials to Texas and Illinois.

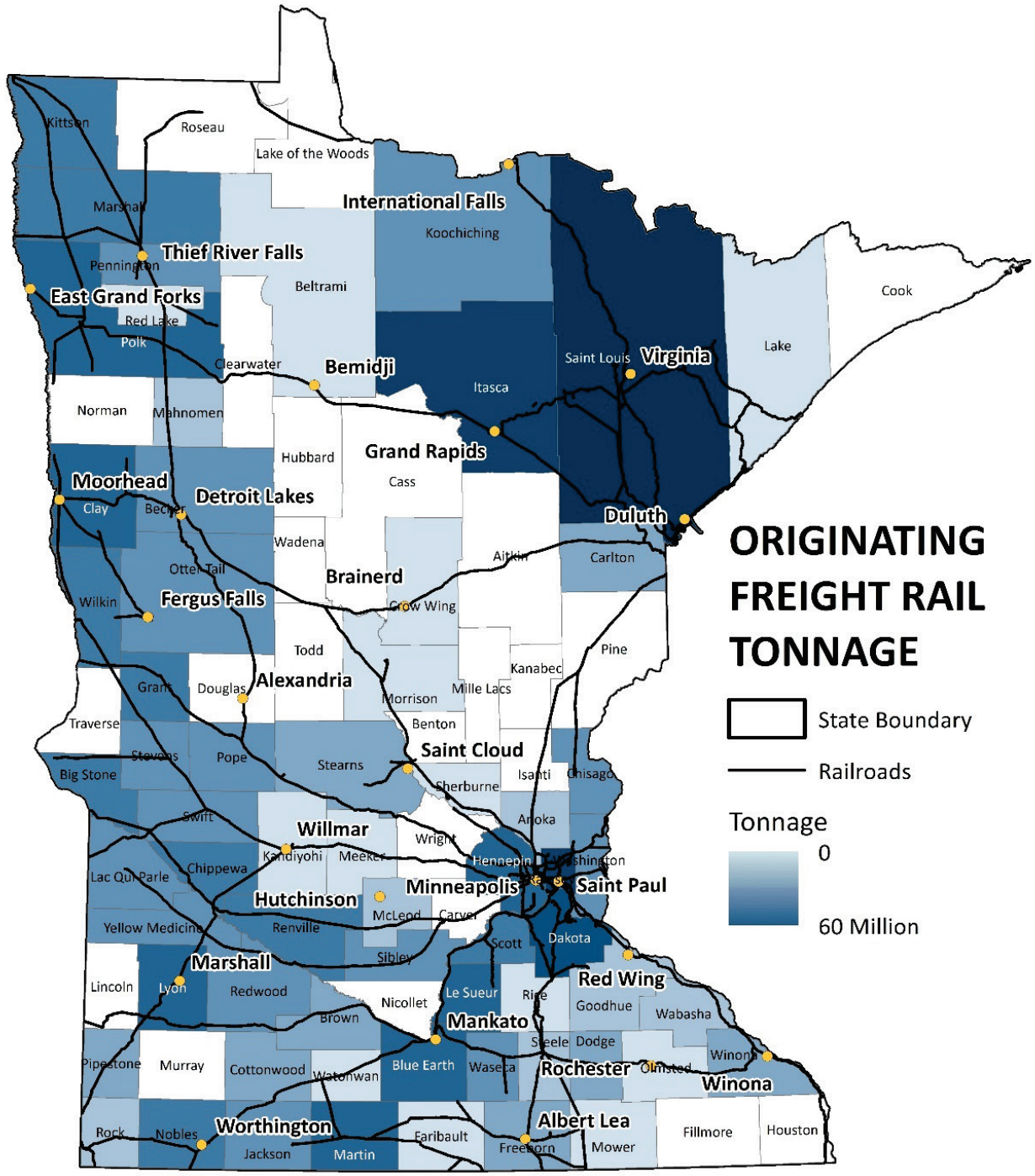
Itasca County (includes Grand Rapids) is the third largest source of rail flows in the state, with mostly metallic ore movements to Wisconsin, Illinois, other parts of Minnesota, and paper movements to Wisconsin.

Blue Earth County (includes Mankato) and Dakota County (of the Twin Cities metro) round out the top five counties by originating tonnage. Significant moves include food products to Illinois and Texas and petroleum products to Ontario, Canada.



[8] Note that Figure 2-11Figure 2-10 and all county maps in this section do not show values or value ranges in the legend. These have been omitted to conform to confidentiality requirements of the STB. Per the STB, Carload Waybill Sample data is to be presented in an aggregated format, and inclusion of specific freight flows to/from a geographically limited county would be contrary to these requirements.

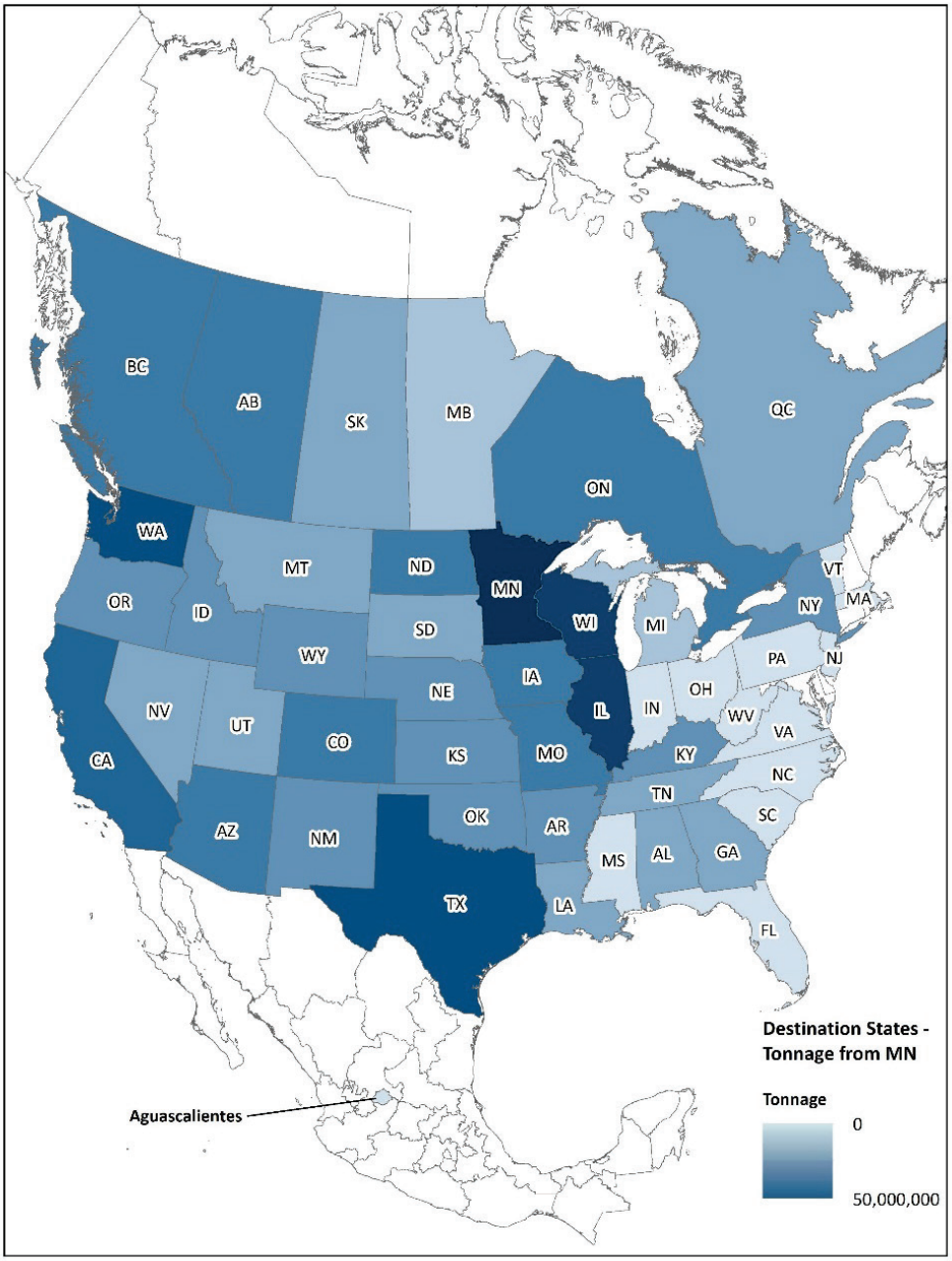
## FIGURE 2-11: ORIGINATING RAIL TRAFFIC BY MINNESOTA COUNTY, 2019 TONS




Source: STB 2019 Carload Waybill Sample

As shown in Figure 2-12, Minnesota, Illinois, Wisconsin, Texas, Washington, and California are the largest recipients of rail flows outbound from Minnesota. Minnesota sends a wide variety of commodities by rail to Illinois, including food products, metallic ores, hazardous materials, farm products and paper products. These moves either terminate in Illinois or continue from Chicago to points east. Wisconsin primarily receives metallic ores from Minnesota, while Washington and California primarily receive food products and farm products. Outbound moves to Texas are mostly comprised of food products, hazardous materials and nonmetallic minerals.

**FIGURE 2-12: DESTINATION OF MINNESOTA RAIL TRAFFIC BY STATE/PROVINCE, 2019 TONS**




Source: STB 2019 Carload Waybill Sample

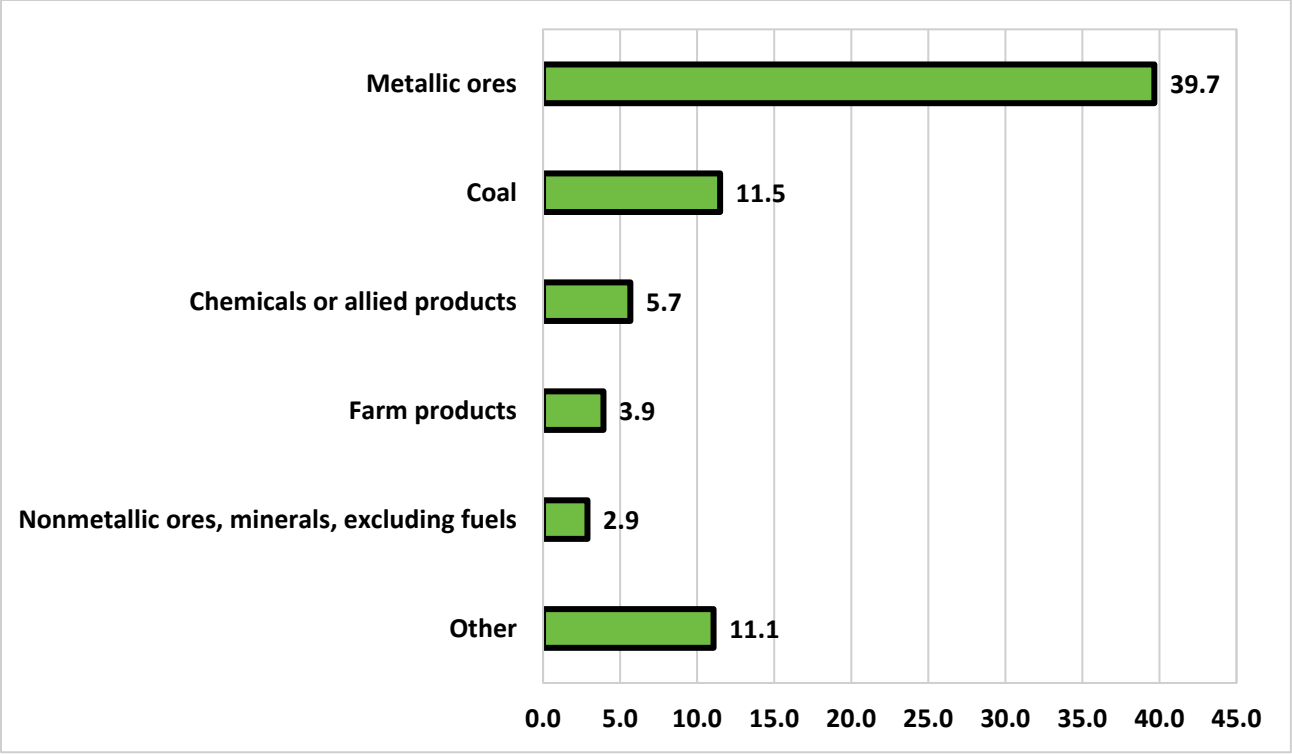
### 2.2.2 FREIGHT FLOWS TERMINATING IN MINNESOTA

As shown in Figure 2-13, metallic ores (specifically taconite) comprise the largest component of terminating moves to Minnesota, accounting for over half of total tonnage. Inbound moves of bituminous coal account for 15% of total terminating tonnage, while a variety of chemical products such as potassium compounds, plastic materials, fertilizer and other industrial chemicals together comprise five percent of terminating tonnage. Farm products account for five percent of terminating tonnage including oats, soybeans, corn, and barley. Hazardous materials account for four percent of terminating tonnage, consisting of petroleum products, sulfuric acid, and ethanol.

As shown in Figure 2-13, St. Louis County has the highest terminating tonnages in the state, with the vast majority of tonnages being intrastate moves of metallic ores and nonmetallic minerals, as well as inbound moves of clay/concrete/glass/stone from Wyoming.[9]

Lake County is the second largest recipient of rail flows in the state by tonnage. Almost all flows are intrastate moves of metallic ores.

**FIGURE 2-13: MINNESOTA TERMINATING RAIL TRAFFIC BY COMMODITY, 2019 MILLION TONS**




Source: STB 2019 Carload Waybill Sample

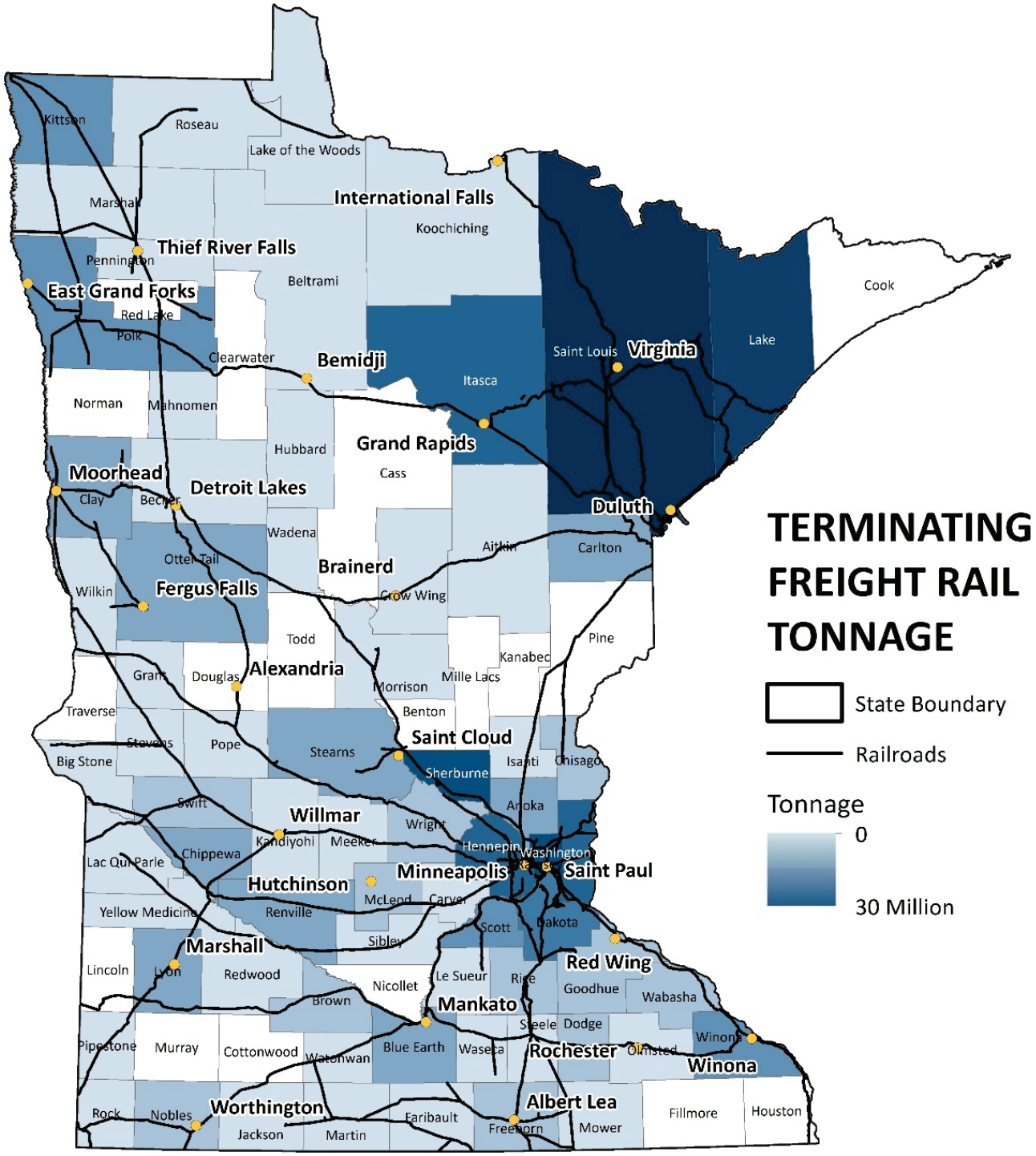
[9] Terminating include freight movements that are either intrastate or moving inbound to Minnesota to other states.

Sherburne County is the third largest recipient of rail flows into the state by tonnage, consisting mostly of coal shipments from Wyoming and Montana to the Sherburne County Generating Station (Sherco). In 2023 and 2024 Sherco closed, so the rail flows reflected in the 2019 STB Waybill Sample no longer exist.

Ramsey County has the fourth highest rail terminating tonnage. Significant flows into this county include inbound moves of chemical products from Canada, Texas, and Utah; food products from Canada, North Dakota, Illinois, and California; intrastate moves of food products and hazardous materials; and inbound moves of hazardous materials from Texas and Illinois.

Itasca County is the fifth highest county for terminating tonnage, most of which consists of coal movements from Wyoming and Montana to the Boswell Energy Center. Minnesota Power plans to retire the first of Boswell's generating units in 2030 and retire a second unit in 2035.

## FIGURE 2-14: TERMINATING RAIL TRAFFIC BY MINNESOTA COUNTY, 2019 TONS

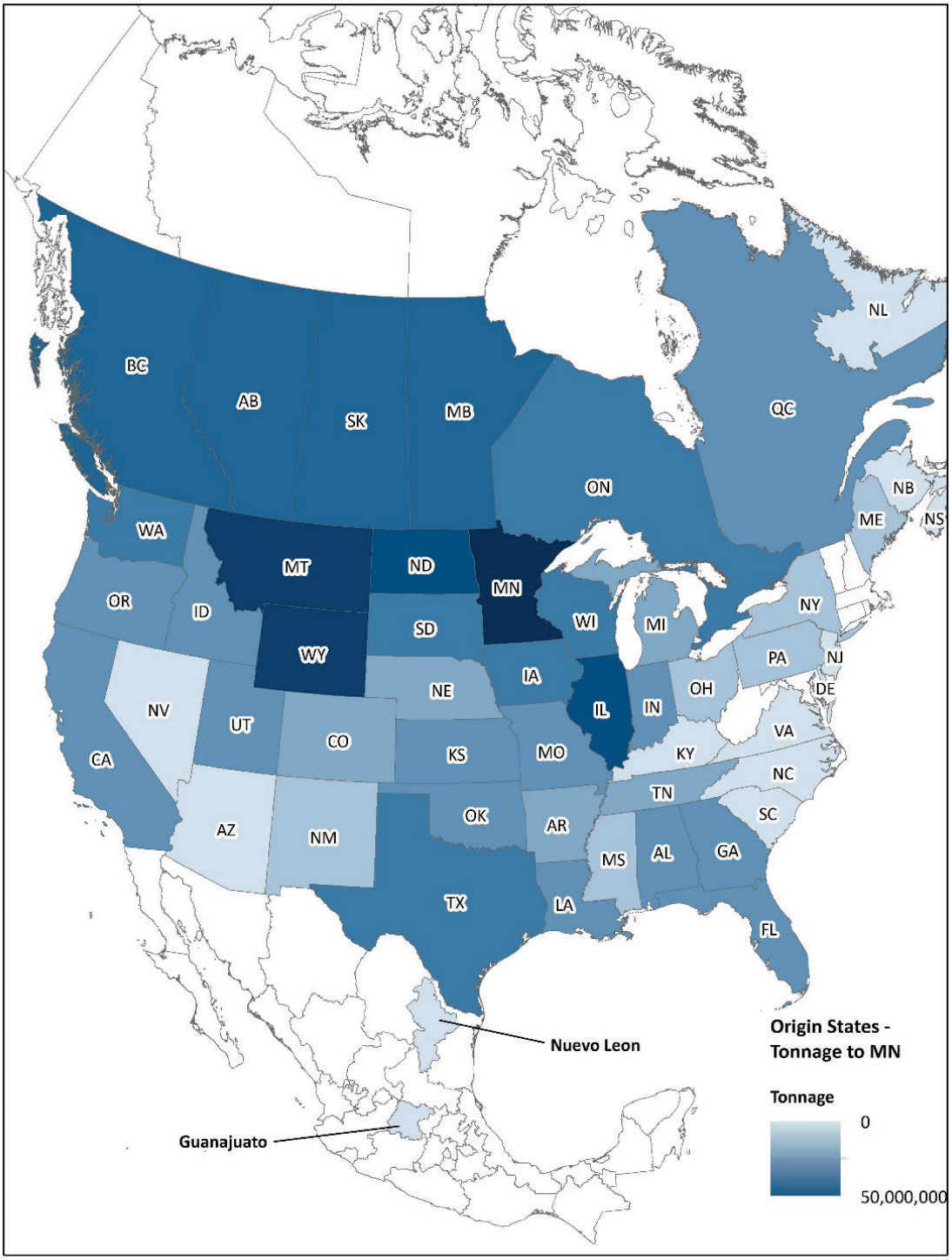



Source: STB 2019 Carload Waybill Sample

Figure 2-15 displays Minnesota's trading partners for terminating rail traffic. As of 2019, Wyoming and Montana were two of the largest trade partners to Minnesota by inbound tonnage, with rail being used for shipments of coal to the state's power plants. Most of these plants have since either been closed or are planned for closure in the future. Canadian provinces are also large trading partners, with Manitoba and Saskatchewan sending food products, while paper products and lumber or wood products are shipped from Alberta and British Columbia.

Other significant trading partners include Illinois, North Dakota, Wisconsin, and Texas. While trade with North Dakota comprises mostly of farm products and food products, inbound moves from Illinois, Wisconsin and Texas are a diverse mix of commodities. Major commodity moves include transportation equipment from Illinois, chemical products and hazardous materials from all three states, as well as non-metallic minerals, clay, concrete, glass and stone from Wisconsin and Illinois.

## FIGURE 2-15: ORIGIN OF RAIL TRAFFIC TERMINATING IN MINNESOTA BY STATE/PROVINCE, 2019 TONS

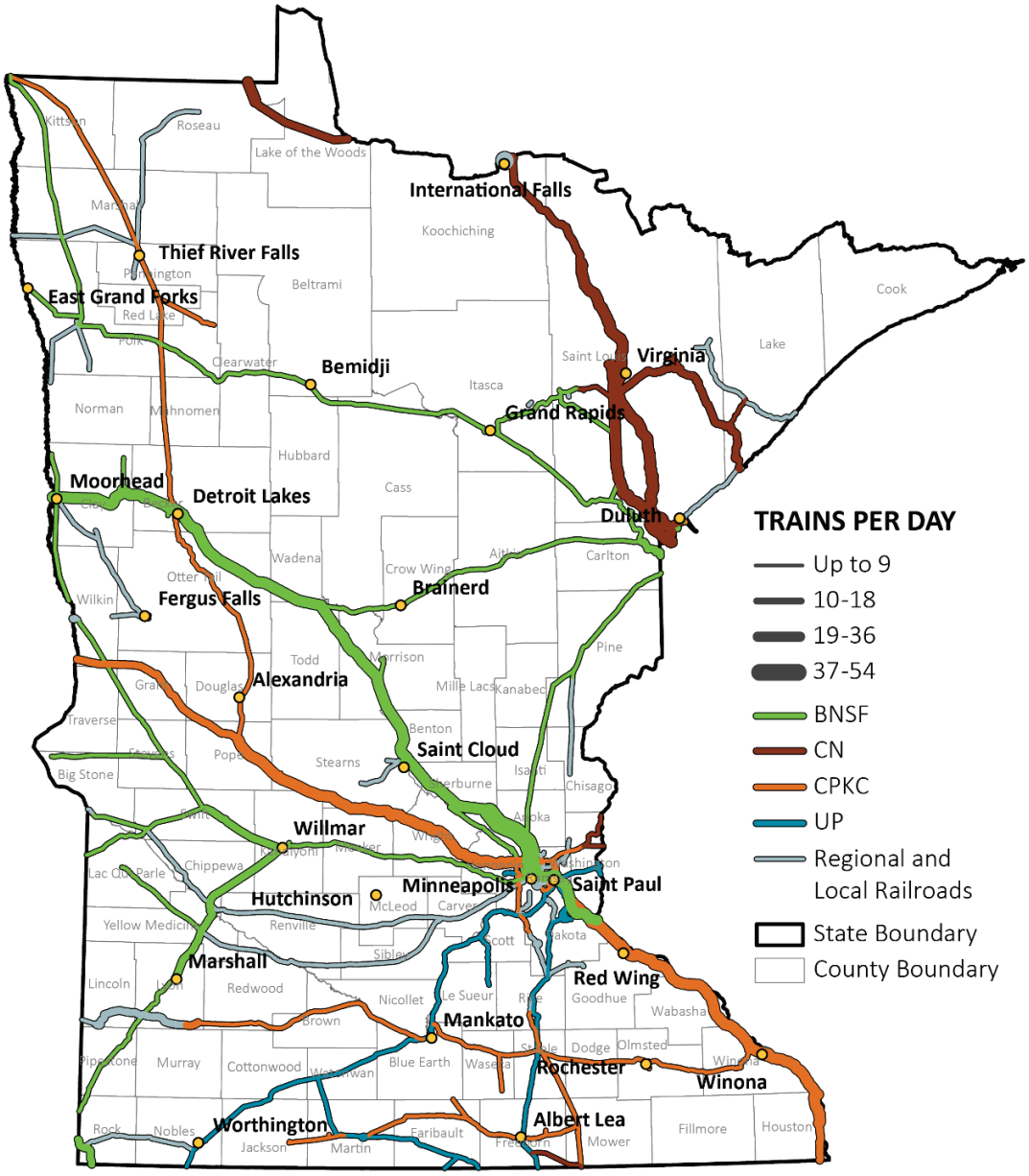



Source: STB 2019 Carload Waybill Sample

### 2.2.3 FREIGHT RAIL TRAFFIC DENSITY OF MINNESOTA RAIL LINES

Freight rail traffic can be described in relative terms as the density or number of trains per day operating in a given corridor or segment of track. The three rail lines with the highest freight density in Minnesota are the transcontinental rail lines of BNSF, CPKC, and CN, which connect the U.S. Midwest with the West Coast, shown in Figure 2-16. CN lines in northeastern Minnesota, connecting iron mines with ports also have high freight density. Most of the remaining Minnesota rail lines have 10 or fewer trains per day.

**FIGURE 2-16: FREIGHT TRAFFIC VOLUME OF RAIL LINES IN MINNESOTA, (DATA COLLECTED BY MNDOT 2009 – 2022)**

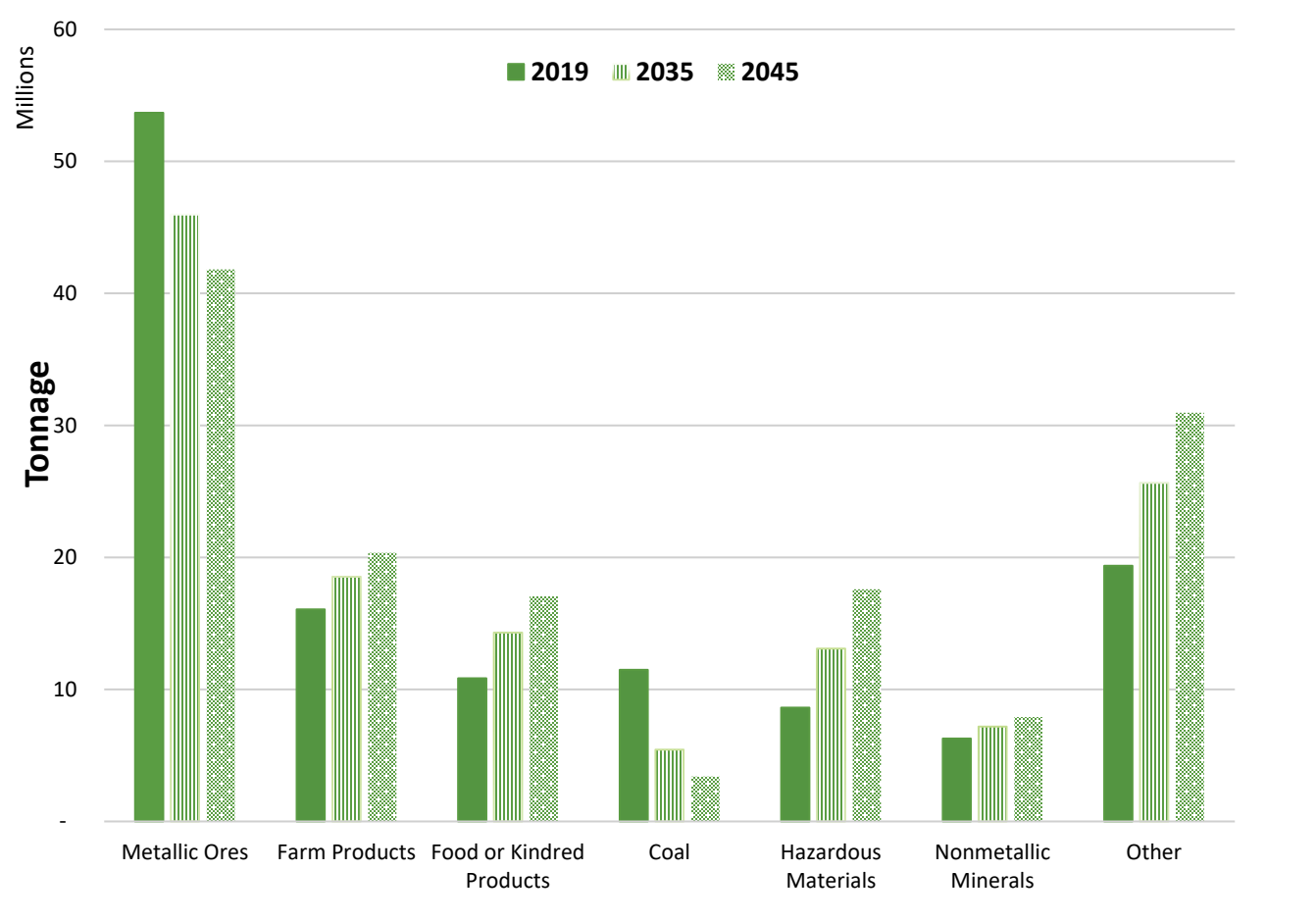



Source: MnDOT

### 2.2.4 FORECAST CHANGES IN MINNESOTA FREIGHT RAIL FLOWS

Forecast growth rates from the Federal Highway Administration's (FHWA) Freight Analysis Framework-5 (FAF-5) have been applied to 2019 STB Waybill rail freight flow data. As shown in Figure 2-17, metallic ore shipments are expected to decline, while other originating commodities such as farm and food products, and ethanol are expected to grow.

**FIGURE 2-17: FORECAST TONNAGE OF RAIL FREIGHT TO, FROM, WITHIN MINNESOTA**




Source: STB 2019 Carload Waybill Sample, FAF-5

### 2.2.5 FREIGHT RAIL BENEFITS

Freight rail removes vehicles and their associated externalities from the roadway, such as emissions, pavement damage, congestion, crash risk. Comparing the transport of a single container between BNSF railyards in St. Paul and Chicago (approximately 419 miles by rail and 400 miles by truck), the rail trip has a net external benefit of approximately $300 (in 2022 dollars), as detailed in Table 2-3.[10]

**TABLE 2-3: FREIGHT RAIL BENEFITS PER AVOIDED TRUCK TRIP, 2022 DOLLARS**

| Benefit Category | Truck Cost | Rail Cost | Net Benefit |
|---|---|---|---|
| CO2 Emissions[11] | $108.32 | $17.46 | $90.86 |
| Pavement Damage[12] | $42.40 | N/A | $42.40 |
| Congestion[13] | $84.00 | N/A | $84.00 |
| Safety[14] | $129.51 | $45.59 | $83.93 |
| **Total Benefit** | **$364.23** | **$63.04** | **$301.19** |

[10] This analysis assumes 200 containers per train and 1 container per truck; train costs are therefore divided by 200 to compare to a single truck.

[1111] Truck $CO_2$ emissions are quantified for a 400-mile trip using the EPA's MOVES national emissions factors for trucks, assuming 50% of miles traveled are on urban highways at a speed of 55 mph and 50% are on rural highways at a speed of 60 mph. These emissions are monetized using per ton values from USDOT's Benefit Cost Analysis Guidance for Discretionary Grant Programs, Table A-6. Rail CO2 emissions are monetized using per hour values for hauling freight trains from USDOT's BCA Guidance, Table A-5. The number of hours per trip is calculated to be 12.5, based on the BNSF's average intermodal rail speed of 33.6 mph (from EP724 Consolidated Data) and a distance between BNSF's Chicago and St. Paul yards of 419 rail miles.

[12] Monetized using values from the Addendum to the 1997 Highway Cost Allocation Study, May 2000, https://www.fhwa.dot.gov/policy/otps/costallocation.cfm, updated to 2022 dollars using GDP deflator, reflecting average of 40 and 60 kip 4-axle single unit trucks.

[13] Monetized using per mile values for trucks from USDOT's BCA Guidance, Table A-14.

[14] Truck safety costs assume 1.8 fatalities and 47.3 injuries per 100 million truck miles, based on FMCSA, Large Truck and Bus Crash Facts 2021, https://www.fmcsa.dot.gov/safety/data-and-statistics/large-truck-and-bus-crash-facts-2021#A5. Rail safety costs assume 1.5 fatalities and 11.1 injuries per million rail miles, calculated using national FRA safety data, https://safetydata.fra.dot.gov/OfficeofSafety/publicsite/Query/TenYearAccidentIncidentOverview.aspx. Monetization of these casualties is based on factors from USDOT's BCA Guidance, Table A-1.

Another way of looking at these benefits is to consider a project that diverts 1,000 rail carloads of freight from trucks to rail. Carrying 1,000 carloads requires approximately 4,000 trucks (assuming four trucks per carload) or 13.3 trains (assuming 75 carloads per train). [15, 16] The average distance shipped to/from Minnesota by rail is 649 miles according to the STB's 2019 waybill sample, and these trips are assumed to travel at an average speed of 20 miles per hour. Based on these values, and many of the same assumptions used to generate Table 2-4, the net benefits of such a project over 20 years is approximately $29.6 million (in discounted 2022 dollars).[17]

**TABLE 2-4: FREIGHT RAIL BENEFITS PER 1,000 CARLOADS, MILLIONS OF DISCOUNTED 2022 DOLLARS**

| Benefit Category | Truck Cost | Rail Cost | Net Benefit |
|---|---|---|---|
| CO2 Emissions | $12.45[18] | $2.28[19] | $10.18 |
| Pavement Damage[12] | $4.33 | N/A | $3.70 |
| Congestion[13] | $8.58 | N/A | $7.33 |
| Safety[14] | $13.23 | $2.96 | $8.34 |
| **Total Benefit** | **$38.59** | **$5.06** | **$29.56** |

[15] Based on roughly 80 tons per railcar from data compiled by the Association of American Railroads and 20 tons per truck from the FHWA's Vehicle Inventory and Use Survey (VIUS)

[16] Association of American Railroads Ten Year Trends

[17] In line with USDOT BCA guidance, benefits are discounted using a 3.1% annual discount rate, except for CO2 emissions, which use a 2.0% discount rate.

[18] Truck CO2 emissions are quantified based on 4,000 trucks making a 649-mile trip, while rail CO2 emissions are calculated based on 13.3 trains making a 32.5-hour trip (based on typical short line speeds of 20 mph and a distance of 649 rail miles). Emissions and monetization factors are based on EPA MOVES factors and USDOT BCA Guidance as described in footnote 11.

[19] Rail CO2 emissions are calculated based on 13.3 trains making a 32.5-hour trip (based on typical short line speeds of 20 mph and a distance of 649 rail miles). Rail CO2 emission costs also account for switcher locomotive movements in railyards. Rail switcher emissions costs assume a fuel consumption rate of 9.5 gallons per hour, based on Argonne National Laboratory, *Total Cost of Ownership for Line Haul, Yard Switchers and Regional Passenger Locomotives* and a rate of greenhouse gas emissions per gallon of fuel of 0.01018, based on the EPA's Greenhouse Gases Equivalencies Calculator. Switcher time per train is assumed to be 30 hours, based on WSP's *Analysis of STB Uniform Rail Costing System*.

## 2.3 PASSENGER RAIL SERVICES AND PERFORMANCE

Passenger rail services in Minnesota consist of the Borealis service and Empire Builder intercity passenger service, and the Northstar Commuter Rail service.

The Empire Builder operates between Chicago Union Station and Seattle, Washington/Portland, Oregon. It is a "long-distance" route because it is over 750 miles, so operating subsidies for the route are supported by the federal government. Amtrak services of less than 750 miles are typically funded through state support and are classified as "state-supported" routes. The Empire Builder consists of a single daily train in each direction. Westbound trains arrive at Minnesota stations in the evening and overnight hours. Eastbound trains pass through Minnesota in the overnight and morning hours.

The Borealis began service on May 21, 2024, expanding passenger rail service between St. Paul, Minnesota, and Chicago, Illinois. The Borealis makes one daily trip in each direction. The service development plan completed in 2021 estimated 124,200 riders the first year. However, actual ridership has been higher, with the Borealis carrying 177,800 riders through February 2025 (9 months of operations) and 223,610 riders during its first full year in operation. Amtrak has since announced ridership on Borealis reached 250,000 riders over the July 4 (2025) holiday. The Borealis service is Minnesota's first state-supported intercity passenger train in almost 40 years. Borealis trains are scheduled to leave St. Paul and Chicago at mid-day, providing a faster, more convenient and reliable schedule. Long-distance Empire Builder trains have a slower schedule and are often behind schedule in the eastbound direction due to accumulated delays coming from the West Coast. Many of the Empire Builder's stops in Minnesota are at night. For example, westbound train pass into Minnesota soon after leaving Winona, WI at 8:40 PM and then leave Minnesota to arrive in Fargo, ND at 4:13 AM. Eastbound trains leave Fargo, ND at 3:29 AM and arrive in Winona at 11:01 AM.

The Borealis and Empire Builder both serve 11 intermediate stops between St. Paul and Chicago, including two in Minnesota, as well as one just across the Minnesota border in La Crosse, Wisconsin that also serves Minnesota residents. The Empire Builder also serves three Minnesota stops west of St. Paul and two just across the Minnesota border in Fargo and Grand Forks, North Dakota, which also serves Minnesota residents.

The Borealis service was developed as an extension of the existing Hiawatha round trip through a partnership between CPKC, the Minnesota, Wisconsin, and Illinois Departments of Transportation, and Amtrak. The Hiawatha provides multiple daily roundtrips between Milwaukee and Chicago. Amtrak reached an agreement with CPKC to allow service to begin before the construction of capacity improvements are completed. These improvements will assist in improving passenger rail on-time performance to meet FRA mandates and improve passenger safety at two stations.

**Borealis service is Minnesota's first state-supported intercity passenger train in almost 40 years.**

*Photo courtesy of Tom Edwards, used with permission.*

## FIGURE 2-18: PASSENGER RAIL SERVICES IN MINNESOTA

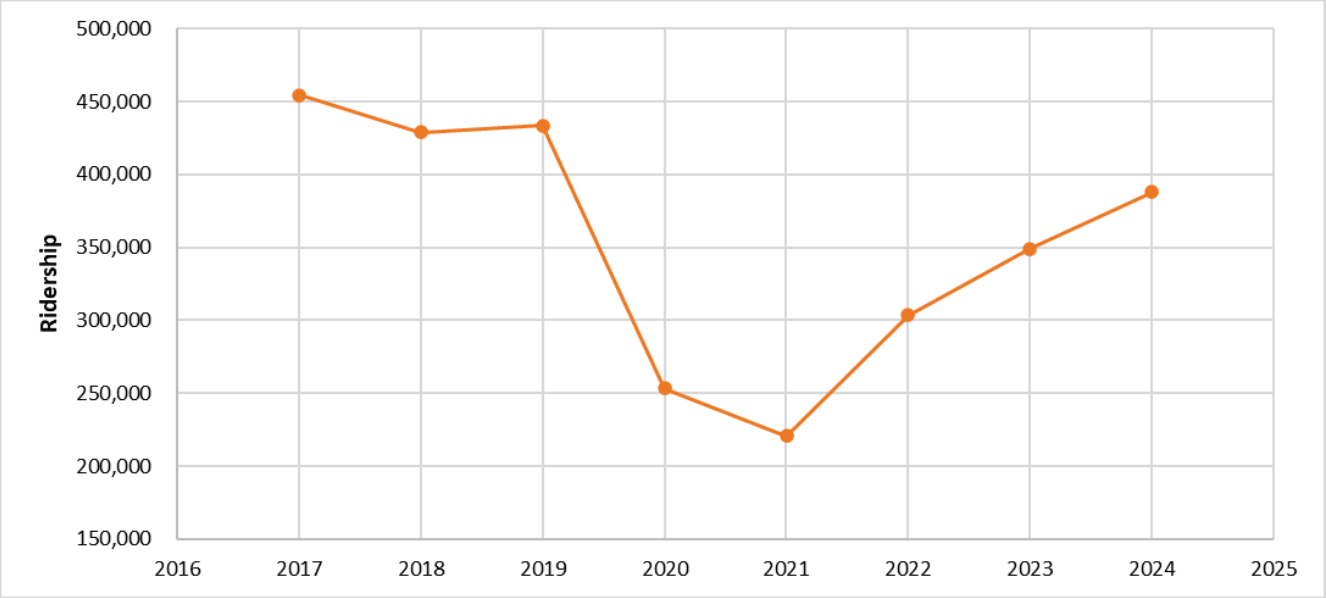
A comprehensive list of stations served by the Borealis and Empire Builder service is in Table 2-5. Some stations lack amenities, including Winona and St. Cloud, in terms of lighting, wayfinding, "last-mile" connections, which is important given the late arrival times of trains.

**TABLE 2-5: BOREALIS AND EMPIRE BUILDER STATIONS**

| Station | Routes Serving | Location Type | Transit Connection | Intercity Bus Connection | Parking | Non-Motorized Transportation Access |
|---|---|---|---|---|---|---|
| La Crosse, WI | Borealis, Empire Builder | Urban | La Crosse Municipal Transit | SMRT | Yes | None |
| Winona | Borealis, Empire Builder | Urban | Bus Winona Transit Service | None | Yes | None |
| Red Wing | Borealis, Empire Builder | Urban | Bus Hiawathaland Transit – Dial a Ride | None | Yes | Bike Racks |
| St. Paul-Minneapolis | Borealis, Empire Builder | Urban | Metro Transit Fixed Route Bus, Light Rail | Megabus, Greyhound, Jefferson Lines | Yes | Bike Racks |
| St. Cloud | Empire Builder | Urban | St Cloud Metro Bus | None | Yes | None |
| Staples | Empire Builder | Rural | Friendly Rider | None | Yes | None |
| Detroit Lakes | Empire Builder | Urban | Bus | Jefferson Lines | Yes | None |
| Fargo, ND | Empire Builder | Urban | Bus | None | Yes | None |
| Grand Forks, ND | Empire Builder | Rural | None | None | Yes | None |

The Empire Builder experienced a decrease in ridership following the COVID-19 pandemic. However, as of 2024 the service regained 90% of its pre-pandemic ridership. Figure 2-19 displays the Empire Builder's ridership between 2017 and 2024. Even with the addition of the Borealis service, year-over-year ridership in the Empire Builder increased in 2024.

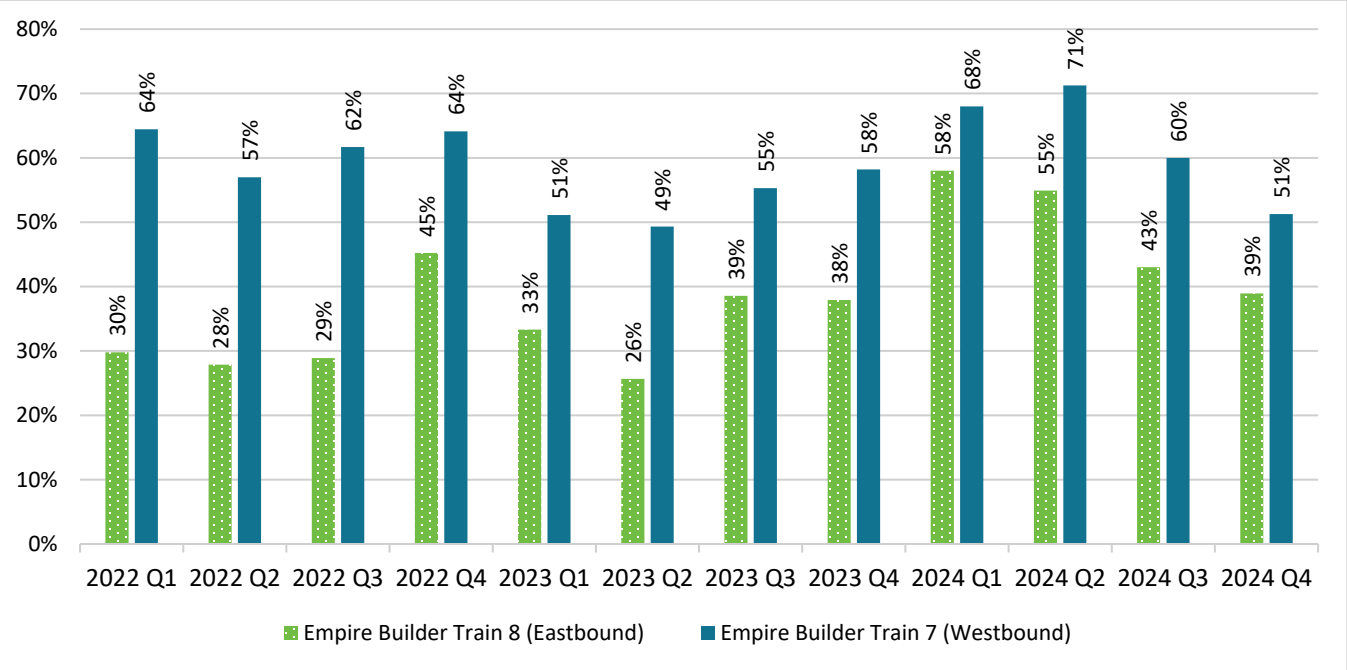
**FIGURE 2-19: EMPIRE BUILDER RIDERSHIP TRENDS**




In addition to ridership, the FRA measures the Empire Builder's performance over its entire route, including segments outside Minnesota, using the customer on-time performance (COTP) metric. COTP is the total share of riders arriving at their destination on time (within 15 minutes of their scheduled arrival time) divided by the service's total riders. The FRA's published "Metrics and Minimum Standards for Intercity Passenger Rail Service" requires an 80% COTP.[20] Figure 2-20 shows that the service did not meet the FRA's performance standards between 2022 and 2024. COTP was worse for Train 8, which is the eastbound train to Chicago, than it was for Train 7, which is the westbound train to Seattle, Washington/Portland, Oregon.

[20] https://railroads.dot.gov/legislation-regulations/regulations-rulemaking/metrics-and-minimum-standards-intercity-passenger

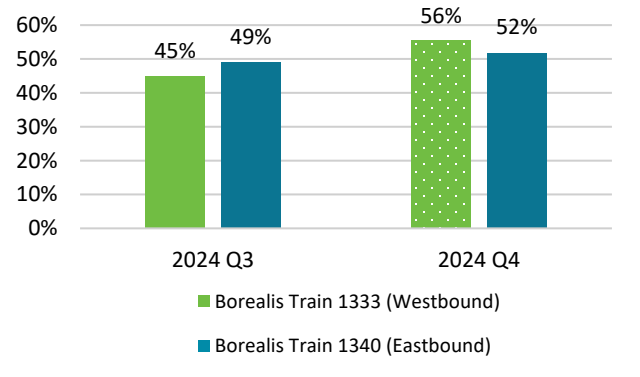
**FIGURE 2-20: EMPIRE BUILDER COTP**




Source: FRA

During its inaugural two quarters, about half of Borealis customers arrived on-time as shown in Figure 2-21. This is lower than the target of 80%. COTP improved in the fourth quarter of 2024 compared to the third quarter 2024. COTP for Train 1333, which is the westbound train to St. Paul, was lower than Train 1340, which is the eastbound train to Chicago. The host railroad allowed the Borealis to begin service before the capital improvements were completed. These capital improvements will address some bottlenecks that will help improve COTP.

**FIGURE 2-21: BOREALIS COTP**




Source: FRA

## 2.3.1 COMMUTER RAIL

Commuter rail in Minnesota has been studied since the 1980s. The dominant priority has been potential commuter rail service to the Minneapolis central business district, although connections to access downtown St. Paul have also been evaluated as well. Studies of commuter rail have focused on the use of existing rail corridors that are predominately privately owned and used for commercial freight rail purposes. In 2009, Minnesota's first commuter rail route, the Northstar Commuter Rail, began service between the Target Field Station in Minneapolis and the City of Big Lake. In 2025, the Metropolitan Council announced an intent to suspend Northstar Commuter Rail service in early 2026.

### 2.3.2 PASSENGER RAIL BENEFITS

Intercity passenger rail connects Minnesotans to communities across the country and yields significant public benefits. For example, shifting a single one-way car trip between St. Paul and Chicago to rail eliminates 400 miles of roadway travel. This reduction in automobile traffic – vehicle miles traveled - results in lower emissions, vehicle operating costs, congestion, and roadway crashes.

To quantify the public benefit of shifting trips from auto to passenger rail, Table 2-6 identifies specific cost factors related to travel based on the St. Paul to Chicago example. Of nearly $300 in benefits per diverted trip, $88.49 are societal benefits, such as safety, emissions and crash reduction. The remaining benefit accrues to the passenger rail user, related to reduced cost of operating a personal vehicle.

**TABLE 2-6: ESTIMATED PASSENGER RAIL BENEFITS PER ONE-WAY TRIP BETWEEN ST. PAUL AND CHICAGO - 2022 DOLLARS**

| Benefit Category | Net Benefit |
|---|---|
| Vehicle Operating Cost Reduction[21] | $206.96 |
| Emissions Reduction[22] | $33.77 |
| Congestion Reduction[21] | $33.23 |
| Crash Reduction[21] | $22.49 |
| Total Benefit | $296.45 |

Source: WSP Analysis

In addition to these benefits that have been quantified, other benefits that have not been quantified include:

- Provides access to downtown centers,
- Enhances local economic development by creating transportation hubs and by linking economic areas,
- Enhances connections between rural communities, larger metro areas, and airports to leverage the multimodal transportation network,
- Reduces need for parking at major destinations.

[21] Vehicle Operating Cost, Congestion Reduction, and Safety benefits are monetized using per mile values for light-duty vehicles from USDOT's Benefit Cost Analysis Guidance for Discretionary Grant Programs, Tables A-4 and A-14, December 2023.

[22] Emissions benefits are quantified for a 398-mile trip using the EPA's MOVES national emissions factors for passenger vehicles, assuming 50% of miles traveled are on urban highways at a speed of 55 mph and 50% are on rural highways at a speed of 60 mph, and monetized using per ton values from USDOT's Benefit Cost Analysis Guidance for Discretionary Grant Programs, Table A-6.

## 2.4 MINNESOTA'S HIGHWAY/RAIL GRADE CROSSINGS

According to the FRA crossing inventory database, a total of 4,138 public at-grade crossings are located in Minnesota, of which 2,477 have passive grade crossing protection (crossbucks, stop signs, pavement marking, etc.) while 1,661 have active crossing protection as shown in Table 2-7. Passive warning devices include stop and yield signs, crossbucks, pavement markings, etc. Active crossing protection includes warning devices like flashing red lights, bells and/or gates. The percentage of crossings with gates and lights in Minnesota is in line with the broader United States where about a one-third of crossings have gates and lights.

**TABLE 2-7: HIGHWAY/RAIL GRADE CROSSINGS BY CROSSING PROTECTION**

| Type of Protection | Number of Crossings | Percentage |
|---|---|---|
| Passive Warning Devices | 2,477 | 60% |
| Lights or other Signal without Gates | 244 | 6% |
| Gates and Lights | 1,417 | 34% |
| Total | 4,138 | 100% |

Source: FRA Crossing Inventory

### 2.4.1 SAFETY TRENDS

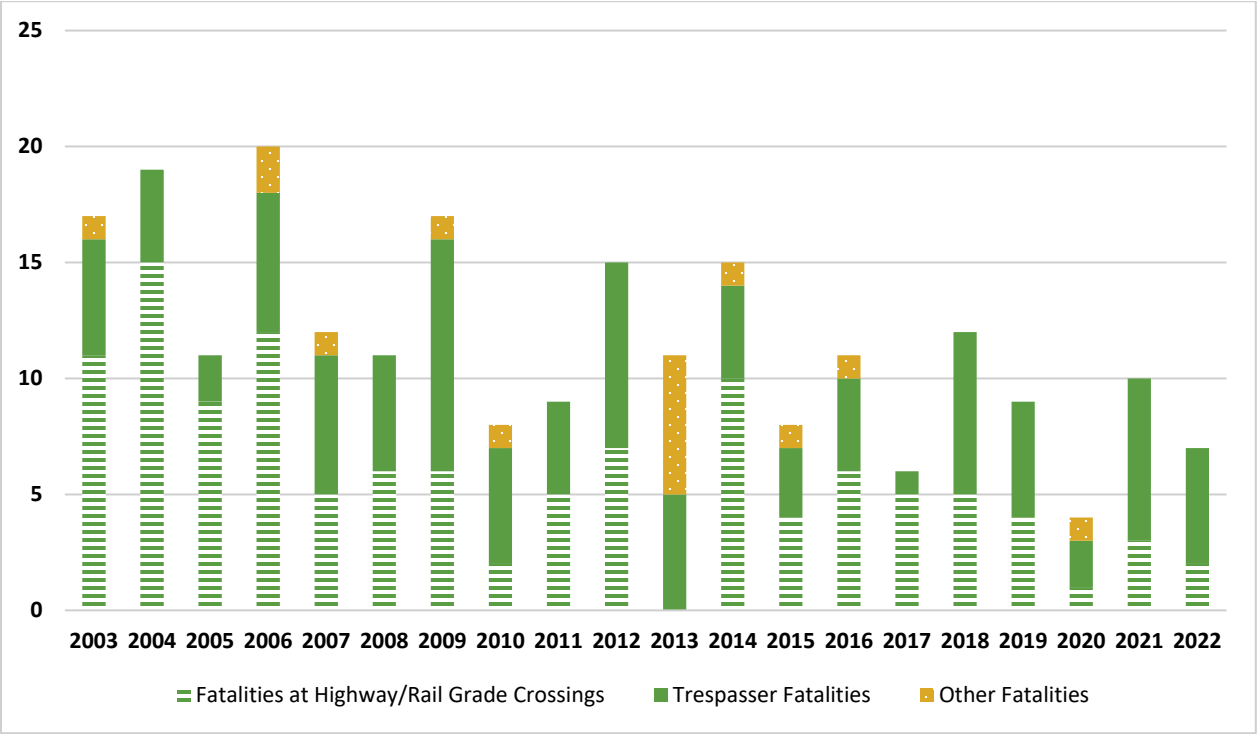
Minnesota's rail network has shown marked improvement across most safety performance measures over the past two decades. These are defined as follows:

- Train accidents[23] are collisions, derailments of trains or other equipment that cause damage to railroad equipment, track or structures. These declined from an average of 58 per year between 2003 and 2012 to an average of 42 per year between 2013 and 2022.
- Highway/rail incidents involve any impact between a rail and highway user (both motor vehicles and other users of the crossing as a designated crossing site, including walkways, sidewalks, etc., associated with the crossing. The frequency of these accidents decreased from 57 per year between 2003 and 2012 to 43 per year between 2013 and 2022.
- Other accidents/incidents do not fit into the first two categories. Railroad employees are required to report any work-related injuries or sickness, which are categorized as "other accidents/incidents." Situations where trespassers, railroad employees or contractors are struck by trains also fall into the "other" category. The other accidents/incidents declined from an average of 136 occurrences per year between 2003 and 2012 to 105 per year between 2013 and 2022.

[23] While highway safety statistics refer to "crashes," the FRA uses "Accidents/incidents" in railroad safety statistics. The FRA defines these as follows: "Accident/Incident" is the term used to describe the entire list of reportable events. These include collisions, derailments, and other events involving the operation of on-track equipment and causing reportable damage above an established threshold; impacts between railroad on-track equipment and highway users at crossings; and all other incidents or exposures that cause a fatality or injury to any person, or an occupational illness to a railroad employee."

Most fatalities associated with the Minnesota's rail network were the result of either a collision at a highway/rail grade crossing or a trespasser on railroad right-of-way struck by a train. As shown in Figure 2-22, fatalities at grade crossings have generally declined over the past 20 years, but trespasser fatalities have not.

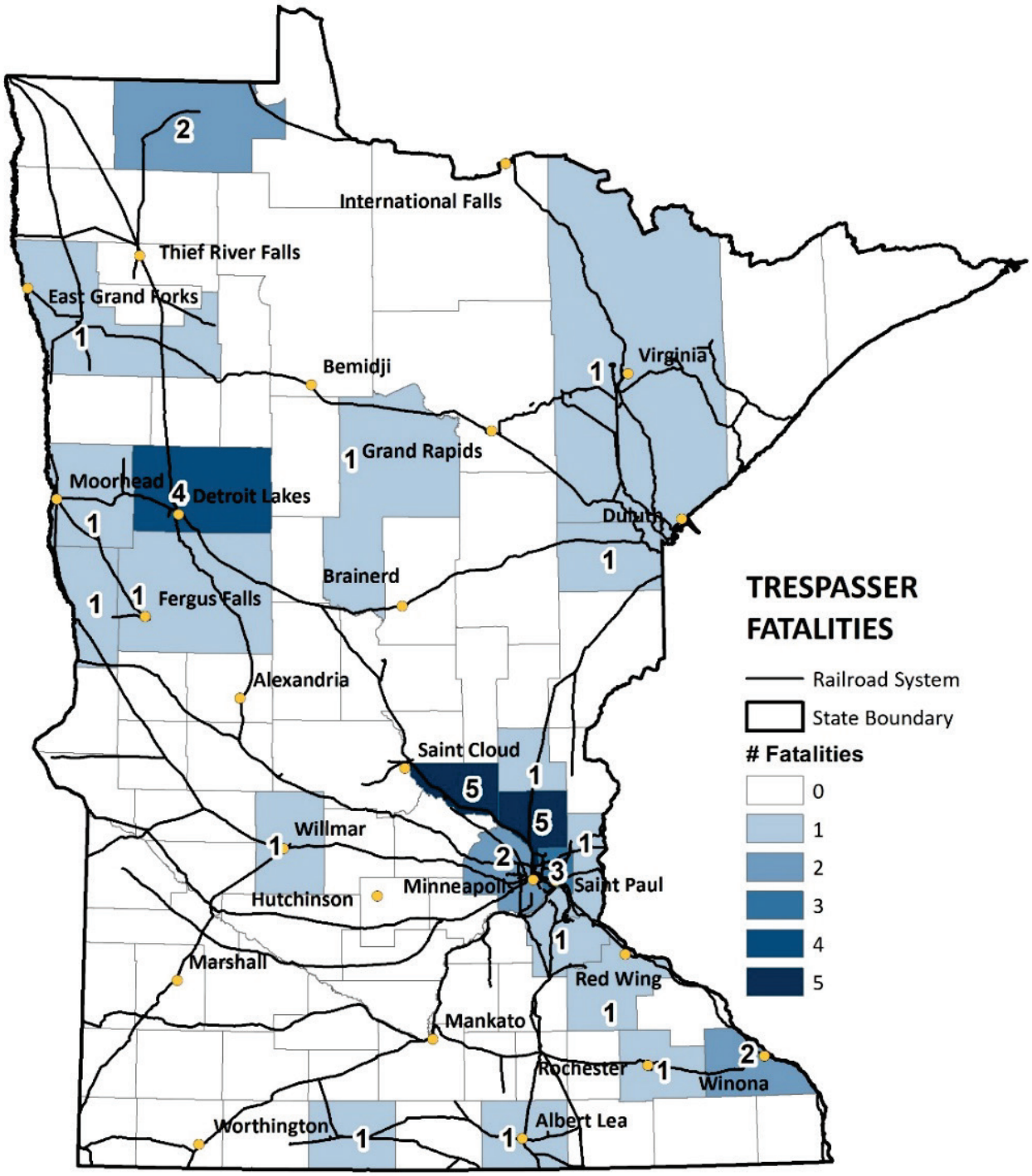
**FIGURE 2-22: RAIL-RELATED FATALITIES BETWEEN 2003 AND 2022**




Source: FRA Safety Data

Risks associated with trespassing incidents tend to be greatest in areas with high population density and busy rail corridors. The counties with the most trespasser fatalities or injuries over the past 10 years were Anoka, Sherburne, and Ramsey Counties – all of which are part of the Minneapolis-St. Paul-Bloomington Metropolitan Area. Becker County, which includes the City of Detroit Lakes, is also among the top four. Concentrations of trespasser fatalities are shown in Figure 2-23.

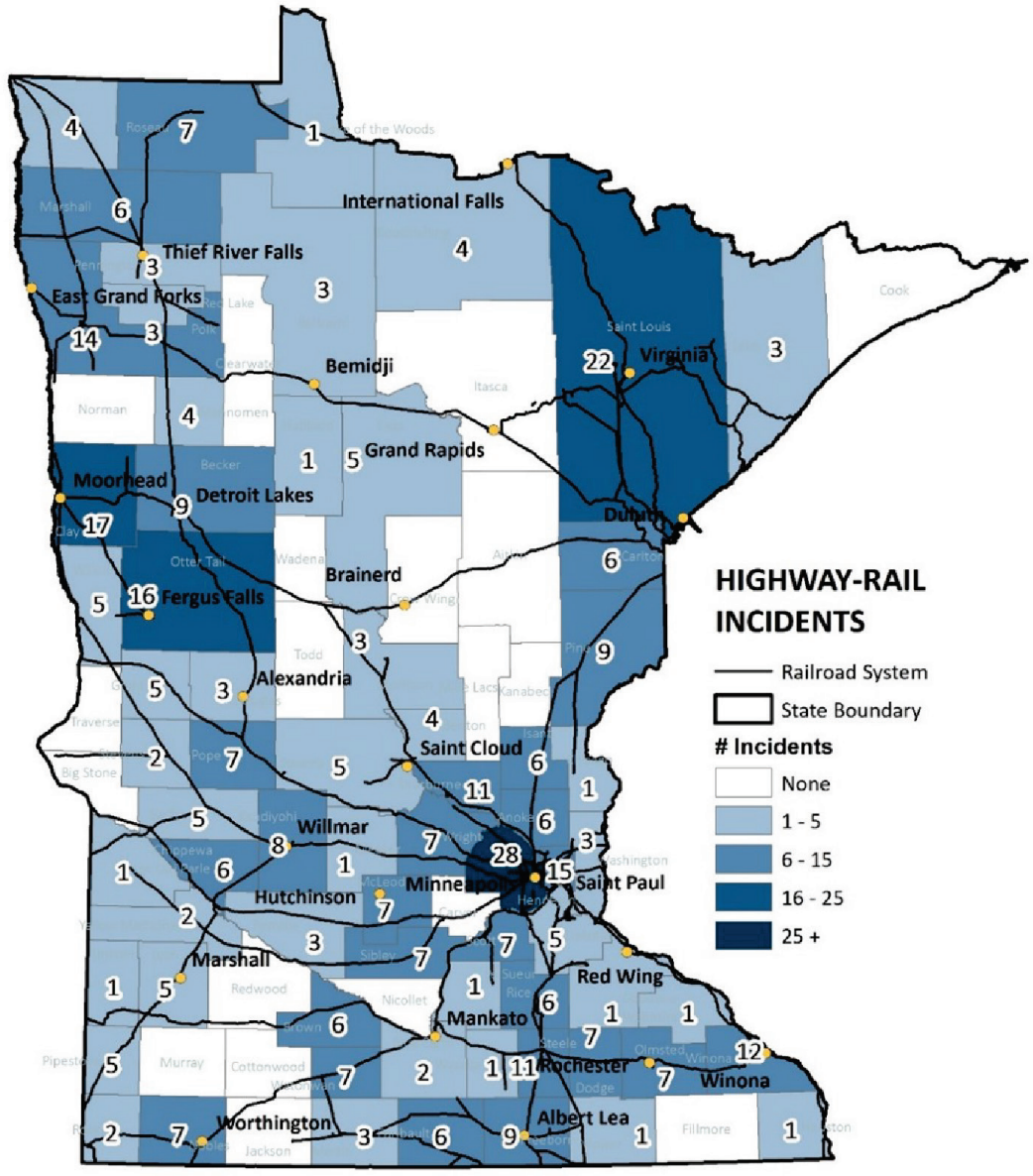
**FIGURE 2-23: TRESPASSER FATALITIES BY COUNTY BETWEEN 2013 AND 2022**




Source: FRA Safety Data, WSP analysis

Risks associated with rail/highway grade crossings relate generally to the number of crossings and train and automobile traffic volumes, but other parameters could have an impact as well. Hennepin, St. Louis, Clay, Ottertail and Ramsey counties have the most highway/rail grade-crossing crashes over the past 10 years.[24] Concentrations of highway/rail grade crossing incidents are shown in Figure 2-24.

**FIGURE 2-24: HIGHWAY/RAIL GRADE CROSSING INCIDENTS BY COUNTY BETWEEN 2013 AND 2022**

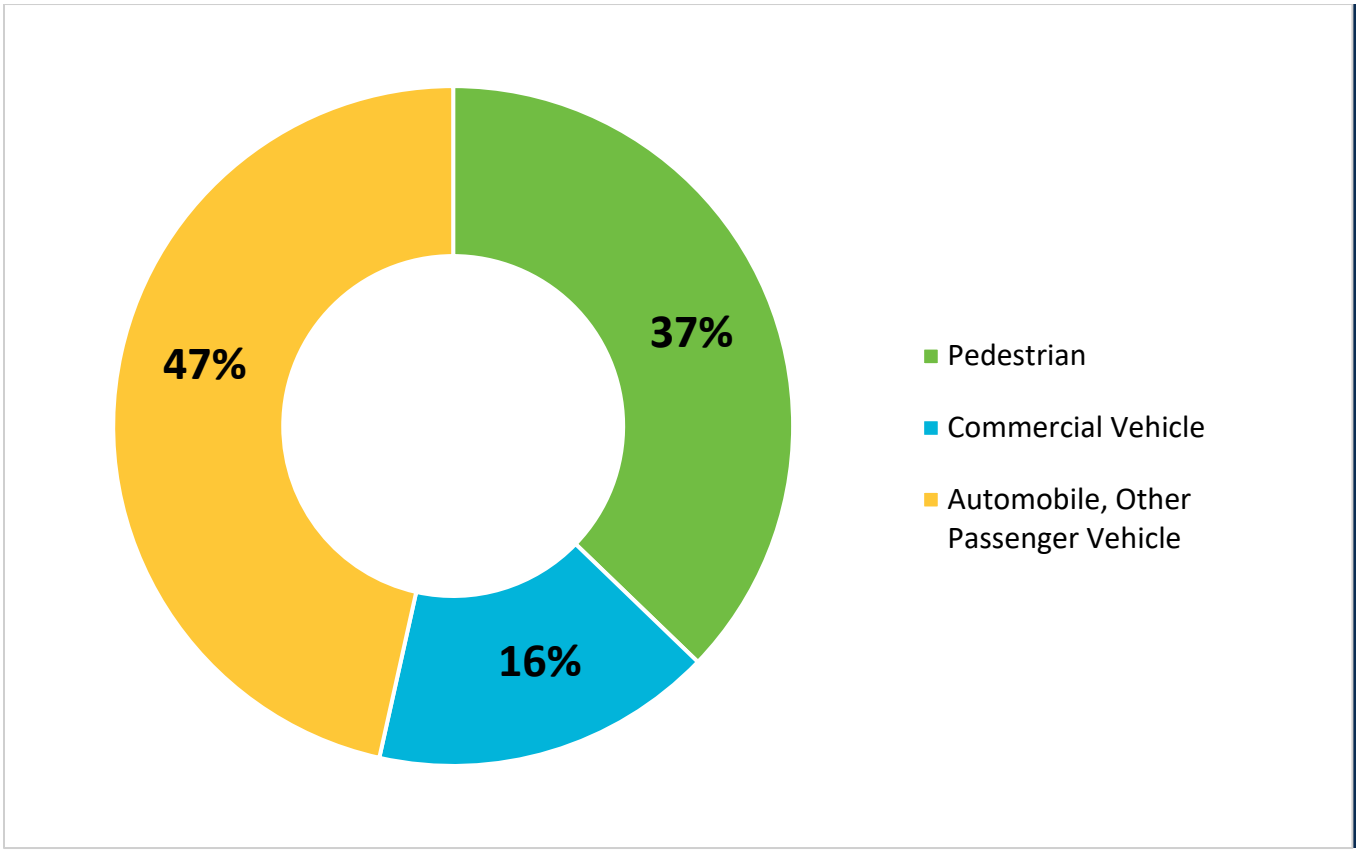



Source: FRA Safety Data

[24] Federal Railroad Administration, Office of Safety Analysis (2022)

As shown in Figure 2-25, nearly half of the fatal incidents (20) at highway/rail grade crossings between 2013 and 2022 identified "automobiles, other passenger vehicles," while more than a third involved pedestrians, and 16% involved commercial vehicles.

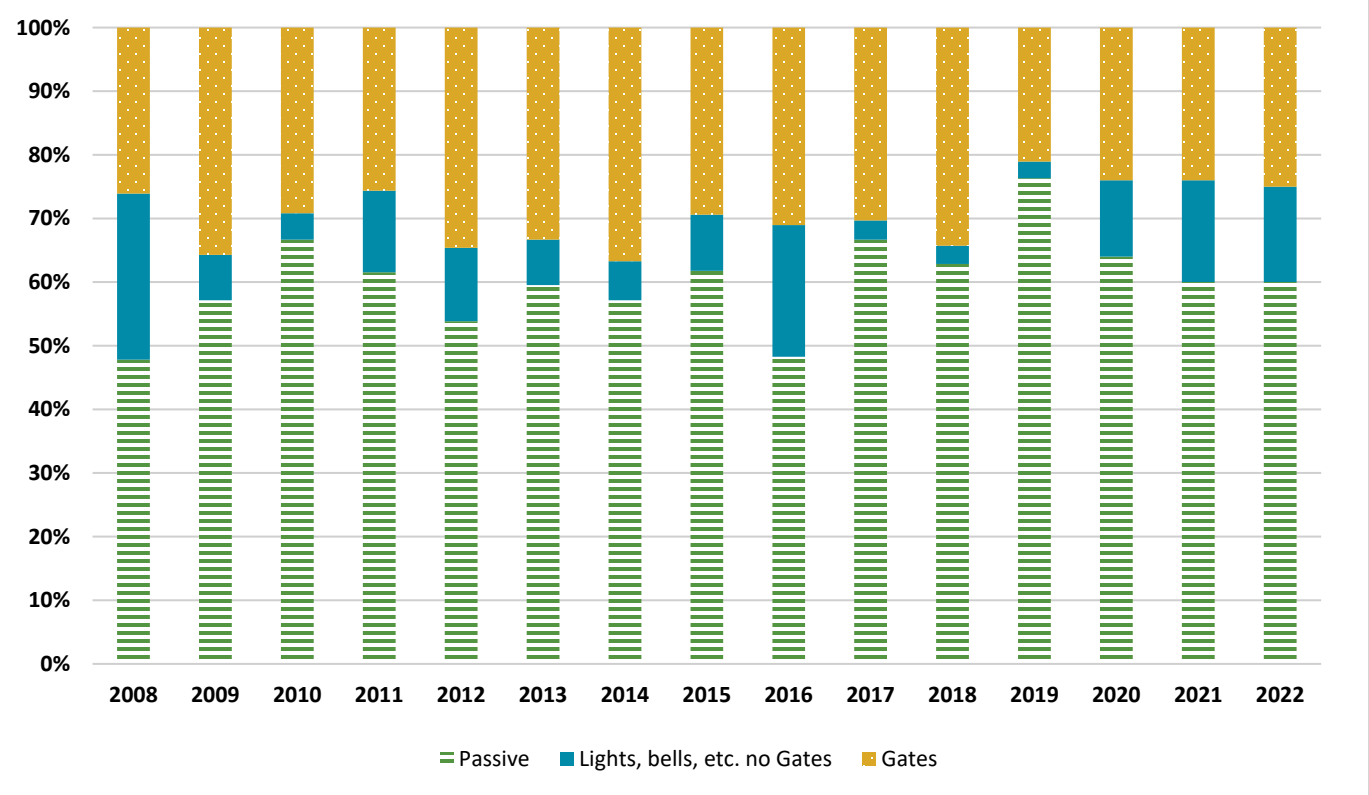
**FIGURE 2-25: PERCENTAGE OF FATAL INCIDENTS AT HIGHWAY/RAIL GRADE CROSSINGS BY USER TYPE BETWEEN 2013 AND 2022**




Source: FRA Safety Data

Most crashes at highway/rail grade crossings in Minnesota occur at crossings with passive warning devices like crossbucks or stop signs, rather than gates or other train-activated devices. As shown in Figure 2-26, the distribution of crashes by crossing protection type did not follow a significant trend between 2008 and 2022.

**FIGURE 2-26: PERCENTAGE OF CRASHES AT HIGHWAY/RAIL GRADE CROSSINGS BY TYPE OF PROTECTION**




Source: FRA

# 3. WHAT STATE, LOCAL, NATIONAL PROGRAMS ARE IN PLACE TO SUPPORT RAIL?

The Minnesota rail system is supported through a variety of state, local and federal funding programs and and/or financing opportunities. The diversity of the system that includes freight and passenger transportation provided by national, regional and short line railroads with multiple connectors, terminals and multimodal intersections, results in a wide range of programs and opportunities to support the State's rail system needs.

The landscape of programs at all levels of government continues to evolve based on policy changes and operational demands. Programs discussed in this chapter should continually be monitored for updates but currently include State-directed programs through MnDOT and the Minnesota Department of Employment and Economic Development, local and regional agencies based on statutory and regulatory authority at the time of publication, and federal formula (transit and safety) and discretionary funding programs found in the Infrastructure Investment and Jobs Act. This chapter provides details about funding levels, eligibility requirements and selection criteria.

## Chapter Contents


- Minnesota Department of Transportation rail funding/financing programs
  - MRSI
  - Passenger rail funding
  - Activities to Improve rail safety
  - Hazardous materials and safety inspection
  - State activities that support rail
- Local and regional agencies that support rail
  - Regional rail authorities
  - Other local and regional organizations that support rail
- Federal support for rail
  - Federal discretionary grant programs
  - Other federal programs that support rail

## 3.1 STATE PROGRAMS

### 3.1.1 MINNESOTA DEPARTMENT OF TRANSPORTATION RAIL FUNDING/FINANCING PROGRAMS

MnDOT supports freight and passenger rail, as well as measures to improve rail safety.

#### 3.1.1.1 MINNESOTA RAIL SERVICE IMPROVEMENT PROGRAM

The Minnesota Rail Service Improvement (MRSI) Program, established in 1976, strengthens Minnesota's shipping economy and supports economic development by providing financial assistance to improve the state's freight rail service. Using state-developed eligibility rules, the state and rail users enter into contracts with railroads for rail line rehabilitation or contractors for other rail service improvements. Through a combination of grants and loans, the program provides funding at favorable rates to entities seeking to rehabilitate or preserve rail lines or add new rail service. All grants and loans are dependent on the availability of state funds.

**MRSI provides financial assistance to improve Minnesota's freight rail service.**

The MSRI Program provides funding for projects in six categories:

1. The Freight Rail Economic Development Grant Program, established in 2017, provides grants for freight rail service improvements that support economic development. When grant funding becomes available through the state legislature, MnDOT holds a solicitation, and eligible entities apply for funding through a competitive process. If a project is selected for a grant, funds do not need to be repaid to the state but must follow the eligibility requirements associated with the funding.
2. Rail purchase assistance financially assists Regional Rail Authorities (RRAs) in acquiring rail lines that can be operated on a self-sustaining basis to provide local rail service. MnDOT can provide up to 50% of the value of the property. State funds only require repayment if the line is sold or ceases to serve a transportation function.
3. Rail rehabilitation loans provide low or no-interest loans to rehabilitate and preserve rail lines. Rail Line Rehabilitation projects are funded 70% by the State, 20% railroad, and 10% shippers for privately owned rail lines. If the line is owned by an RRA, the funding participation is 80 percent State, 10% Rail Authority and 10% shippers. If the line is rehabbed, the shipper and State funds are returned to those entities on an annual or quarterly basis over a period of 10 to 15 years.
4. Capital improvement loans provide rail users with 0% interest loans to improve rail service and strengthen the financial condition of the associated line. Applicants may apply for up to $200,000 and have up to 10 years to repay the loans.
5. Rail user & rail carrier loan guarantees assures up to 90% of a loan, to assist rail users and carrier in obtaining loans. Rail line rehabilitation, rolling stock acquisition and locomotive rehabilitation are eligible uses of the program.
6. State Rail Bank acquires and preserves abandoned rail lines for future transportation use or for transmitting energy, fuel or other commodities. Potential Rail Bank projects are driven by proposed abandonments, where intervention is required to retain the corridor for transportation purposes. Some properties are fully owned by MnDOT and others are partnerships to retain the rail corridor.

For the 2024 grant program (with funds appropriated in 2023), $9.6 million was available. Selected projects ranged from $246,000 to $1.9 million. Table 3-1 shows the number of projects, total funding, and average award between 2020 and 2023.

**TABLE 3-1: 2020 – 2023 MRSI FUNDING**

| Funding Source | MRSI Requests | MRSI Awards |
|---|---|---|
| 2020: $4 million in Bonding | 21 applicant requests totaling $21.3 million | 7 projects received $4.1 million (bonding plus revenues in the rail service account) |
| 2021: $6.5 million in General Funds | 16 applicant requests totaling $18.9 million | 8 projects received $6.5 million |
| 2022: $6.5 million in General Funds | 15 applicant requests totaling $14.6 million | 9 projects received $7.0 million (general fund plus remaining balance from previous projects) |
| 2023: $9.6 million in Bonding | 19 applicant requests totaling $22.4 million | 11 projects received $9.6 million |

Of the selected projects, most were to improve access to the rail network, such as through sidings, spurs, or other measures. Several projects were for track or bridge rehabilitation, while a few funded facilities such as freight rail storage buildings. Although funding for the program has increased significantly since 2020, the chart above shows there remains a significant funding gap for freight improvement projects vs. identified needs. In particular, short line railroads and small companies interested in shipping by rail often lack the capital to make major infrastructure investments to support optimal performance of the freight rail system.

#### 3.1.1.2 PASSENGER RAIL FUNDING

The Twin Cities-Milwaukee-Chicago (TCMC) Intercity Passenger Rail Project, later branded "Borealis" when the service began service, added a daily round-trip passenger train on the 411-mile corridor between Chicago, Illinois, and St. Paul, MN. The Borealis operates on the same route as the Empire Builder long-distance train. The new service complements the existing Empire Builder schedule, providing travel flexibility with both a morning and mid-day departure from Chicago and St. Paul. The capital improvements for the service reflect a funding partnership between Minnesota, Wisconsin, and Illinois Departments of Transportation, FRA, and Amtrak. FRA has provided three grants for the project. These include a Consolidated Rail Infrastructure and Improvements grant that will pay for up to 80% of the costs for the capital improvements and two Restoration and Enhancement grants that will help offset operating costs for the first six years of service while ridership grows. Minnesota's share of the costs for capital improvements and operations are being funded by the legislature through appropriations from the State's general fund.

**The Establishment of the Borealis intercity passenger rail service has been a partnership between Minnesota, Wisconsin, and the FRA.**

In 2023 the legislature appropriated capital funding to establish a new intercity passenger rail service between Minneapolis and Duluth/Superior. The funding will act as a match to federal grant funding to support capital construction for the project including final design work, track and signal upgrades, new and longer sidings, grade crossing improvements, station improvement and construction. Funding will also support establishment of intercity passenger train rolling stock for the service. The Minneapolis to Duluth/Superior route is also part of the FRA's Corridor ID program.

#### 3.1.1.3 MINNESOTA DEPARTMENT OF TRANSPORTATION ACTIVITIES TO IMPROVE RAIL SAFETY

MnDOT addresses risk factors at highway/rail grade crossings primarily through the Rail-Highway Grade Crossing Safety Improvement Program, which MnDOT administers under the federal Railway Highway Crossing (Section 130) Program. Established in 1974, the program now devotes $6.6 million annually to eligible projects, including crossing closures, grade separations, crossing surfaces, and installing or improving warning devices such as flashing light signals and gates.[25] Most of the funds are used to install new warning devices or replace antiquated crossing signal devices at any of the State's 4,200 public at-grade crossings. To date, active warning systems have been installed at more than 1,500 crossings.

**The federal Rail Highway Crossing (Section 130) Program applies $6.6 million per year to improve safety at grade crossings, through upgrades of warning devices (flashing light signals and gates), crossing closures, grade separations, improvement to crossing surfaces, approaches, and other improvements.**

The State also administers the Grade Crossing Safety Account (GCSA) with state funding. The GCSA receives approximately $1 million a year in appropriations and funds an additional 30-40 projects. Projects include line-of-sight improvements, vegetation removal, geometric improvements, upgrades to signage, crossing closure incentives, and other minor warning device enhancements or improvements.

MnDOT supports Operation Lifesaver, which is a nationwide non-profit working to deliver messages to the public on rail-road-driver interactions and best practices. This public education program is focused on avoiding and reducing fatalities and injuries at highway/rail grade crossings and along railroad rights-of-way. Through its programming, Operation Lifesaver's mission is to teach people how to make safe decisions around tracks and trains. Its instructors help drivers and pedestrians understand the signs, signals and conditions they might encounter at railway crossings. Operation Lifesaver also offers advice on the process of reporting highway/rail grade crossing equipment malfunctions.

In its recent Minnesota Rail Grade Crossing Action Plan, MnDOT proposed a series of actions to enhance its work to improve rail safety at highway/rail grade crossings, including:

- While historically Section 130 funds have been oriented toward replacement and installation of warning devices, there is a need to also focus on opportunities for crossing elimination, such as crossing closures and grade separations. MnDOT will complete a set of actions to improve crossing elimination.
- Address a backlog of warning devices that are antiquated/obsolete and in need of replacement.
- As planning for active transportation (pedestrian/bicycle) becomes a more integral element of multimodal planning, MnDOT will also include these modes in highway/rail grade crossing safety planning.
- Equity and transportation impact concerns will be incorporated into the highway/rail grade crossing program. MnDOT utilizes a risk-based ranking system to screen highway/rail grade crossings for potential safety improvement projects. Risk rankings are reevaluated annually to account for any variability in train and roadway traffic volumes, as well as to adjust for any changes

[25] Minnesota Rail Grade Crossing Action Plan (2022), pg. 14

in the FHWA Section 130 program eligibility regulations.

- In addition to the existing highway/rail crossing program, MnDOT continues to seek out new funding opportunities. Minnesota has received two grants through the Railroad Crossing Elimination Grants Program for corridor planning studies. The corridors to be evaluated are from Hinckley to Duluth, and from Moorhead to Duluth. These projects will evaluate existing conditions, identify alternatives, and develop a corridor-based project inventory to improve safety. MnDOT can help local jurisdictions with their rail safety initiatives and will implement a series of measures to improve the ability of MnDOT to communicate with and be a resource for local communities.

**MnDOT's safety inspectors enforce FRA rail safety regulations.**

#### 3.1.1.4 HAZARDOUS MATERIALS AND SAFETY INSPECTION

MnDOT also participates in the FRA's State Safety Participation Program. This program provides training and certification of the inspectors who help ensure railroad tracks, crossings, yards, equipment, and their associated safety, maintenance, and repair records are up to standard. Overarching responsibilities of the program are safety of track, hazardous material transport and motive power and equipment.

MnDOT's 2014 "Report on the Improvements to Highway-Rail Grade Crossings and Rail Safety" emphasized the importance of improving emergency services, to ensure rail safety. The 2014 Laws of Minnesota, Chap. 312, Art. 9, Sec. 10 also mandated that this study identify the key rail corridors that are used to transport Bakken oil from North Dakota through Minnesota. Recent legislation has aimed to address the findings of this report by mandating the provision and funding of training for local law enforcement and fire departments by the rail companies by amending Minnesota Statutes Section 115E.042[26].

#### 3.1.1.5 OTHER STATE ACTIVITIES THAT SUPPORT RAIL

Beyond funding and enforcement programs, other activities of MnDOT and other state agencies support rail.

- MnDOT Office of Environmental Stewardship can help rail projects with meeting environmental review requirements.
- The Office of Land Management helps coordinate with railroad companies when construction activities impact railroad company right-of-way and require land acquisition or easements.
- The Minnesota Department of Employment and Economic Development is the state's principal economic development agency, which could impact rail if economic development sites are rail-served.
- The Minnesota Department of Agriculture oversees the state's food supply, environmental health, and agricultural economy, which is relevant to rail, given the importance of rail to the agriculture and food industries in Minnesota.
- The Minnesota Department of Revenue is in charge of tax collection for Minnesota. Class II and Class III railroads are eligible for a Short Line Railroad Infrastructure Modernization Credit.

[26] Sec. 115E.042 MN Statutes

## 3.2 LOCAL AND REGIONAL AGENCIES THAT SUPPORT RAIL

### 3.2.1 REGIONAL RAIL AUTHORITIES

In 1980, Minnesota passed the Regional Railroad Authorities Act, which authorizes a municipality or a region of municipalities that receive state or federal funding to preserve and improve local rail service for agriculture, industry, or passenger rail.[27] RRAs are permitted by statute to undertake a number of activities including railroad acquisition, bus rapid transit development, eminent domain, and taxation. RRAs are authorized under the statute to levy a property tax of up to 0.04835% the estimated market value on all taxable property situated in the municipalities named in the organizing resolution and to issue revenue bonds for rail capital projects and operations to be repaid by project revenues and other revenues including the property tax levy.

**Minnesota's rail authorities are established by municipalities, counties, or regions and can own, operate, fund rail infrastructure and conduct rail planning.**

The Minnesota Regional Railroad Authorities Act was passed around the time that the U.S. Congress had passed the Staggers Rail Act, which gave railroads the ability to end rail service on unprofitable rail lines. At the time, rail corridor preservation was a major concern, and the Regional Railroad Authorities Act was enacted to help address this concern. Localities with rail lines that may be abandoned were given greater means to acquire these rail lines and preserve service.

Some RRAs have acquired rail lines, such as the Minnesota Valley Regional Rail Authority (MVRRA) which has acquired the 94.7-mile line operated by Minnesota Prairie Line, Inc. (MPLI) in Southern Minnesota, or the St. Louis and Lake Counties Regional Railroad Authority which operates the North Shore Scenic Railroad along 25.8 miles of track on the North Shore of Lake Superior from Duluth to Two Harbors, or the Buffalo Ridge Regional Railroad Authority which leases its 42 mile rail line to the Ellis & Eastern Railroad. The Ramsey County Railroad Authority owns and manages the Union Depot in St. Paul. More recently, RRAs have become involved with passenger rail, helping to fund studies or advocating for passenger rail. Minnesota does have other existing regional rail authorities, but they are less active operationally.

### 3.2.2 OTHER LOCAL AND REGIONAL ORGANIZATIONS THAT SUPPORT RAIL

Several types of organizations in Minnesota conduct regional transportation planning, which could include rail planning.

- Metropolitan Planning Organizations (MPOs) are federally designated policy boards created and designed to provide transportation planning for urbanized areas with populations of over 50,000. Minnesota has eight MPOs. Rail is among the modes that MPOs plan is rail. The largest MPO in the state is the Metropolitan Council, which was established in 1967 to coordinate planning and development in the Twin Cities metropolitan area.
- Minnesota's 12 regional development organizations are authorized by Minnesota statute to carry out planning efforts in Greater Minnesota.
- Eight Area Transportation Partnerships were also created in Minnesota. ATPs help ensure public involvement and regional planning efforts in Greater Minnesota inform MnDOT's four-year State Transportation Improvement Program (STIP).

[27] Minnesota Statutes, chapter 398A.

## 3.3 FEDERAL SUPPORT FOR RAIL

Federal funding for railroads is available through competitive grants and financial assistance tools predominantly offered through the U.S. Department of Transportation and the Federal Railroad Administration. Other agencies offering funding opportunities include the Federal Transit Administration, US Environmental Protection Agency, and the Economic Development Administration.

The 2021 Infrastructure Investment and Jobs Act includes $66 billion in new funding for rail between federal fiscal year 2022 and 2026. Additional grant opportunities for rail can also be included in the annual Consolidated Appropriations legislation including Congressionally Directed Spending/Community Development Projects. Table 3-2 summarizes the relevant USDOT and other Federal discretionary grant programs.

**TABLE 3-2: FEDERAL DISCRETIONARY GRANT PROGRAMS**

| Program | Annual Funding | Average Award | Eligible Projects | Eligible Applicants | Maximum Federal Share |
|---|---|---|---|---|---|
| **FRA Grant Programs[28]** | | | | | |
| **Consolidated Rail Infrastructure and Safety Improvement Program** | $1B/year | FY 21: $8M<br>FY 22: $20.5M<br>FY 23 – FY 24: $19.7M | Mode: Rail<br><br>Project Types:<br>Research<br>Planning<br>Capital improvements<br>Equipment<br>Workforce development | Public agencies<br>Amtrak<br>Class II & III RRs<br>Universities<br>Labor organizations<br>Equipment manufacturers<br>Transportation Research Board | 80% |
| **Corridor Identification & Development Program** | Up to 5% of the Federal State Partnership program for Intercity Passenger Rail<br><br>$500,000 for each Step 1 project | As of 2025 awards have been for Step 1, which is $500K, but some awards have been for Step 2, with higher amounts. | Mode: Intercity Passenger Rail<br><br>Project Types: Project Planning and Development<br>Step 1: Develop a scope, schedule and budget to prepare a Service Development Plan (SDP)<br>Step 2: Prepare a SDP<br>Step 3: preliminary engineering, environmental and other project development activities | Public agencies<br>Amtrak<br>Interstate compacts<br>Regional planning associations<br>Regional passenger rail authorities<br>Tribes | 100% Step 1<br>90% Step 2<br>80% Step 3 |
| **Federal State Partnership for Intercity Passenger Rail (FSP)** | $3.8B/year outside the Northeast Corridor<br>FY 22 – FY 26 | FY 22: $818.6M<br>Note 4 of 10 projects were awarded more than $700M each | Mode: Intercity Passenger Rail<br>Project Types:<br>Project Development and Implementation: State of good repair<br>Performance improvements<br>New and expanded service | Public agencies<br>Amtrak<br>Tribes | 80% |

[28] https://railroads.dot.gov/grants

| Program | Annual Funding | Average Award | Eligible Projects | Eligible Applicants | Maximum Federal Share |
|---|---|---|---|---|---|
| **Interstate Rail Compacts Grant Program** | $3M/year | $300K | Mode: Intercity Passenger Rail<br>Project Types: Planning and administration | Entities implementing Interstate Rail Compacts pursuant to section 410 of the Amtrak Reform and Accountability Reform Act of 1997 (49 U.S.C. 24101 note) | 50% |
| **Railroad Crossing Elimination (RCE)** | $500M/year<br>FY 22 – FY 26 | FY 22: $9.1M | Mode: road/rail grade crossings<br>Project Types:<br>Grade separations or closures<br>Track relocation<br>Other safety improvements<br>Includes construction, planning, environmental review, and design | Public Agencies including MPOs and Port Authorities, Tribes | 80% |
| **Railroad Restoration and Enhancement (RREG)** | $50M/year FY 22 – FY 26 | $24.4 for FY 21 – FY 24 | Mode: Intercity Passenger Rail<br>Project Types:<br>Operating assistance for initiating, restoring, or enhancing intercity rail passenger service | Public Agencies | 90% yr. 1<br>80% yr 2<br>70% yr 3<br>60% yr 4<br>50% yr 5<br>30% yr 6 |
| **USDOT Multimodal Discretionary Grant Programs[29], [30]** | | | | | |
| **Infrastructure Project Assistance Program (MEGA)** | $1B/year<br>FY 22 – FY 26 | FY 23 – FY 24<br>$186M all modes<br>Rail: $206.9M | Mode: All freight modes, intercity passenger rail, certain transit projects<br>Project Types:<br>Large complex capital projects that would otherwise be difficult to fund | Public agencies<br>Tribes<br>Amtrak | 60% from MEGA, 80% total Federal |
| **Nationally significant multimodal freight and highway projects, or Infrastructure for Rebuilding America (INFRA)** | $480M/year non-highway<br>FY 22 – FY 26 | FY 23 – FY 24<br>$104M<br>Rail: $22.6M | Mode: All freight modes, 70% for highway projects including grade separation projects, 30% for non-highway<br>Project Types (rail related):<br>Freight intermodal or freight rail, freight projects on the National Multimodal Freight Network | Public agencies<br>MPOs<br>Federal land management agency<br>Tribes<br>Multistate corridor organizations | 60% from INFRA, 81.42% total Federal (MN sliding scale) |
| **Better Utilizing Infrastructure to Leverage Development (BUILD), formerly Rebuilding America Infrastructure with Sustainability and Equity (RAISE)** | $1.5B/year<br>FY 22 – FY 26 | FY 23: $9.3M | Mode: All surface transportation modes<br>Project Types (rail related):<br>Passenger and freight rail, intermodal projects | Public agencies<br>Transit agencies<br>Tribes | 80% unless in a rural area, a historically disadvantaged community (HDC), or an area of persistent |

[29] https://www.transportation.gov/grants/mpdg-program,

[30] https://www.transportation.gov/BUILDgrants

| Program | Annual Funding | Average Award | Eligible Projects | Eligible Applicants | Maximum Federal Share |
|---|---|---|---|---|---|
| | | | | | poverty (APP) up to 100% at Secretary's discretion for rural, HDC, or APP |

### 3.3.1 OTHER FEDERAL PROGRAMS THAT SUPPORT RAIL

- MnDOT administers Minnesota's apportionment of the FHWA **Section 130 grade crossing safety program**, which was $6.5 million for federal fiscal year 2024. This program is apportioned to Minnesota and other states by a formula that considers the number of public highway/rail grade crossings in the state, as well as other factors.
- The **FTA provides a series of programs** that support all transit modes. The Fixed Guideway Capital Investment Grants program funds fixed guideway investments including new and expanded rapid rail, commuter rail, light rail, streetcars, bus rapid transit, and ferries, as well as corridor-based bus rapid transit investments that emulate the features of rail. The FTA also administers the Rail Vehicle Replacement grant program, a competitive program to fund capital projects to replace rail rolling stock, including locomotives. The Rail Vehicle Replacement program is a set-aside of the State of Good Repair Formula Grant Program. The FTA administers a series of formula grant programs, including the Urbanized Area Formula Grants Program and the State of Good Repair Grants Program, based on annual allocations.
- The **Congestion Mitigation and Air Quality** program provides a flexible funding source to state and local governments for transportation projects and programs to meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality, particularly in areas that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter (nonattainment areas), and for former nonattainment areas that are now in compliance (known as "maintenance" areas).
- The **U.S. Economic Development Administration (EDA) Public Works and Economic Adjustment Assistance** program provides funding to help distressed communities build, design, or engineer critical infrastructure and facilities that will help implement regional development strategies and advance bottom-up economic development goals to promote regional prosperity, including rail projects.
- The federal government also offers two financing programs that can provide loans, loan guarantees for rail projects, including **the Transportation Infrastructure Finance and Innovation Act (TIFIA)** program and the **Railroad Rehabilitation & Improvement Financing (RRIF) Program.**

# 4. WHAT TRENDS COULD IMPACT RAIL IN MINNESOTA?

Demographic shifts and evolving industry compositions will shape the future of Minnesota's rail system. Land use patterns will influence rail-dependent economic development and passenger demand. Population growth will not only determine capacity requirements for passenger rail but also inform strategic service locations. Climate trends will require increased attention resiliency. Policymakers should consider these trends when formulating policies, establishing priorities, and allocating public investments for rail infrastructure and operations.

**Chapter Contents**


- Demographic trends
- Industry trends
- Forecast population growth
- Land use trends
- Passenger travel demand and growth
- Summary of resiliency assessment

## 4.1 DEMOGRAPHIC TRENDS

The U.S. Census Bureau estimates that Minnesota's population was 5.7 million people in 2023. The state's population has grown an average of 0.70% per year over the past decade, according to the American Community Survey, which reflects national population growth. Between 2013 and 2024, the median age of a Minnesota state resident climbed from 37.1 to 38.5– signifying an aging population. Minnesota's median age, which has historically been lower than the national median, now matches the national figure.[31] This rise is expected to impact the size of the state's labor force, as the working age share of the population declines.[32]

**Minnesota's aging population could increase the demand for alternatives to highway transportation.**

Minnesota's five largest population centers are the cities of Minneapolis, St. Paul, Rochester, Bloomington, and Duluth. Minneapolis, with more than 426,000 residents in 2022, is the state's largest city. The Minneapolis–St. Paul–Bloomington, MN-WI Metropolitan Statistical Area (MSA) is comprised of an area that spans 16 counties and is home to 3.7 million people.[33] The metropolitan area ranks as the 16th largest in the United States in terms of population size. Other major metropolitan areas in Minnesota are the Duluth, MN-WI MSA, the Fargo-Moorhead, MN-ND MSA, and the Rochester, MN MSA which are each home to more than 200,000 people. Large population centers like these are important economic markets for freight rail and important origins and destinations for passenger rail.

## 4.2 INDUSTRY TRENDS

As shown in Figure 4-1 between 2018 and 2023, agriculture, other services (non-governmental), and real estate were the fastest growing industries in the state. By contrast, mining, food services, and professional services were the slowest growing industries in the state over this period. Industry growth trends at the national level were similar, with agriculture, information technology, and real estate having the highest rates of growth– each industry averaging seven percent growth per year. The slowest growing industries nationwide were mining, arts, and professional services. Minnesota outpaced national growth in agriculture, which indicates a strong performance of this rail-using industry.[34]

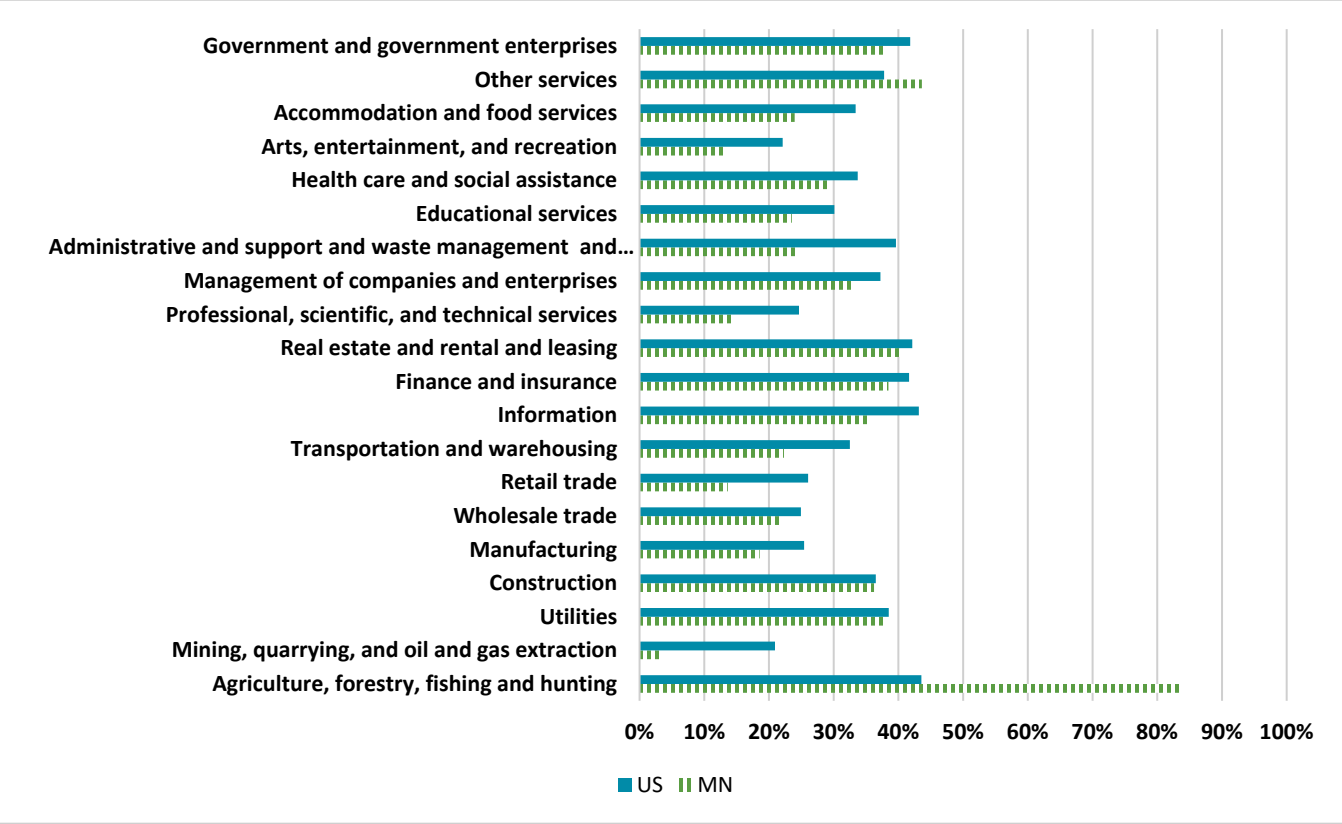
[31] United States Census, American Community Survey (5-Year Estimates)

[32] Minnesota State Freight Plan - Working Paper 2: Current and Future Freight Trends

[33] United States Census, American Community Survey (5-Year Estimates)

[34] Bureau of Labor Statistics, Industries at a Glance

**FIGURE 4-1: PERCENT GDP GROWTH BY INDUSTRY - U.S. & MINNESOTA (2018-2023)**

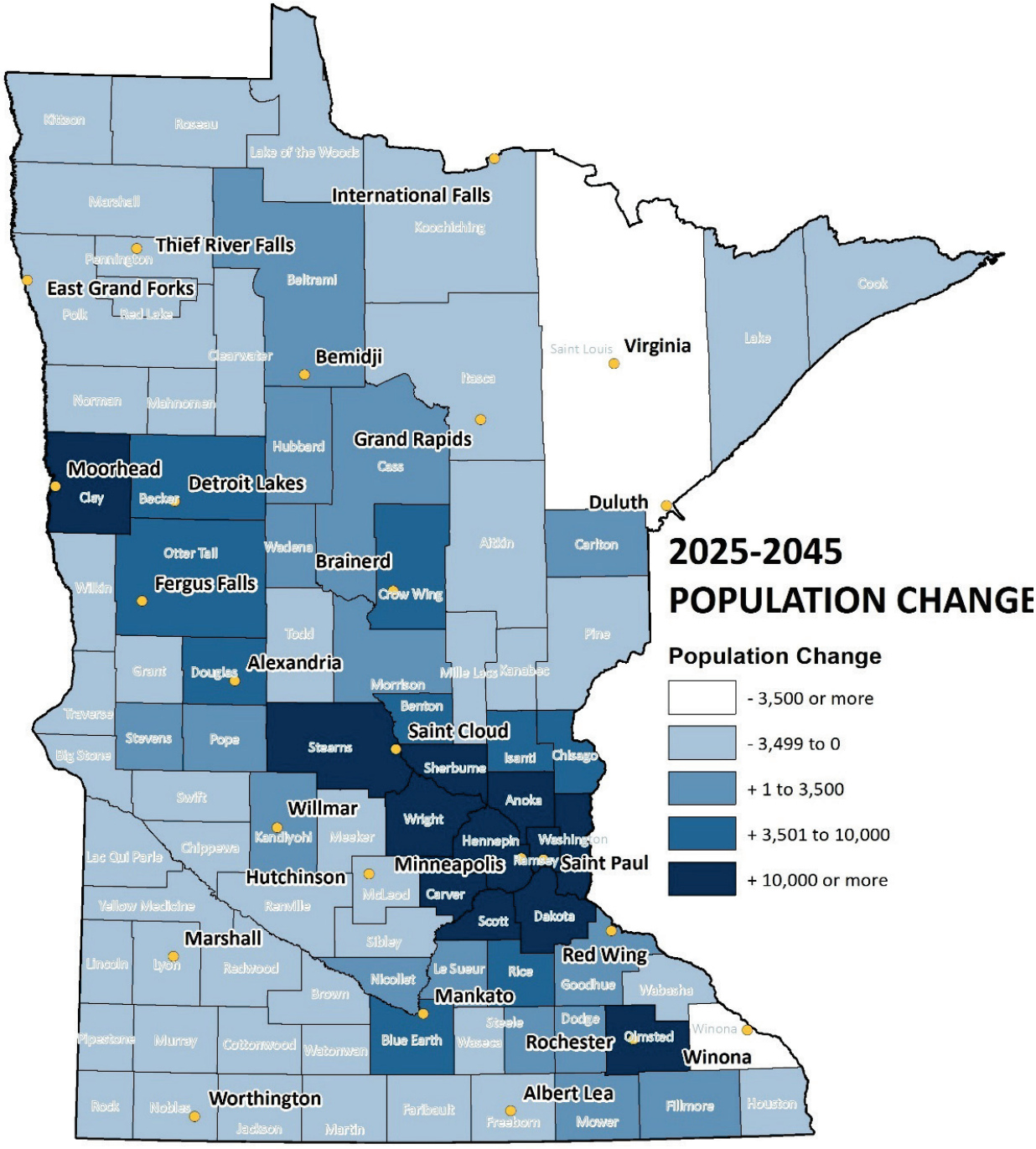



Source: Bureau of Economic Analysis

## 4.3 POPULATION GROWTH FORECAST

Population forecasts for the State of Minnesota shown in Figure 4-2, are drawn from the projections of the Minnesota State Demographic Center. The state is expected to gain 434,000 residents between 2025 and 2045. The five counties with the largest forecasted declines in population by 2045 are St. Louis (- 12,400), Winona (-5,300), Pine (-2,600), Martin (-2,500), and Polk (-2,300). The counties with the largest forecasted increases in population are Hennepin (+119,000), Dakota (+39,900), Wright (+38,700), Washington (+37,500) and Olmsted (+34,500). Three of the leading five counties are in the seven-county Twin-Cities metro area, while Wright and Olmstead are located in central and south-eastern Minnesota respectively. These forecasts may be indicators of future increases in demand for freight and passenger rail services in these growth centers.

## FIGURE 4-2: EXPECTED POPULATION CHANGE BY COUNTY



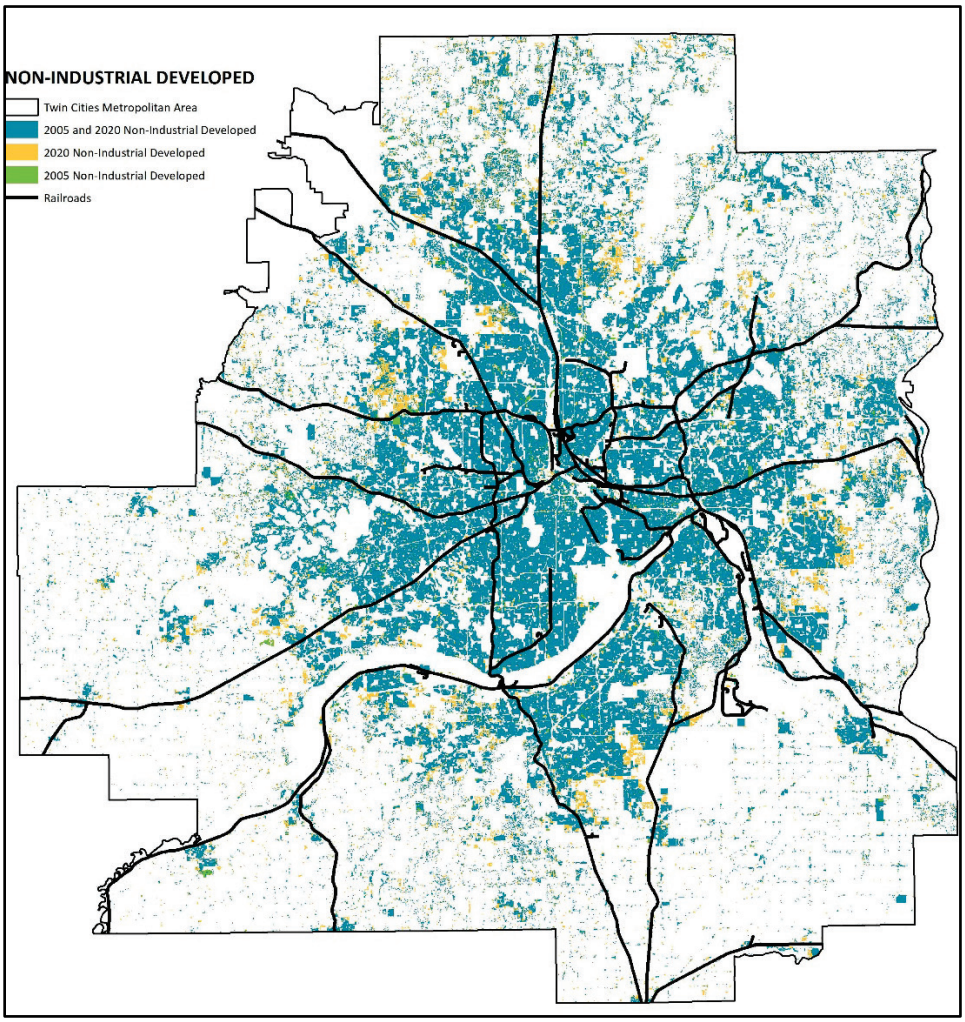

Source: Minnesota State Demographic Center

## 4.4 LAND USE TRENDS

During outreach conducted for this Rail Plan, freight railroads expressed concern that encroachment by other land uses reduces the total number of potential locations available for a viable industrial base in urban areas. There are also circumstances where changing land use on formerly industrial property can create conflicts between railroads, railroad customers and adjacent property owners. Outreach for the plan observed the concern that new industrial development typically occurs where property prices are lower on the outer fringes of a metropolitan area, which are frequently added in locations without rail service. This is particularly true in the Twin Cities.

An analysis of land use records maintained by the Metropolitan Council suggests that between 2005 and 2020, the acreage of land devoted to residential, commercial, office, and other developed non-industrial uses increased by 11.5% within the Twin Cities area. As shown in Figure 4-3, railroads operating within the Twin Cities operate within a highly developed area, which continues to be more developed over time. This can limit properties available to freight railroad customers in the Twin Cities.

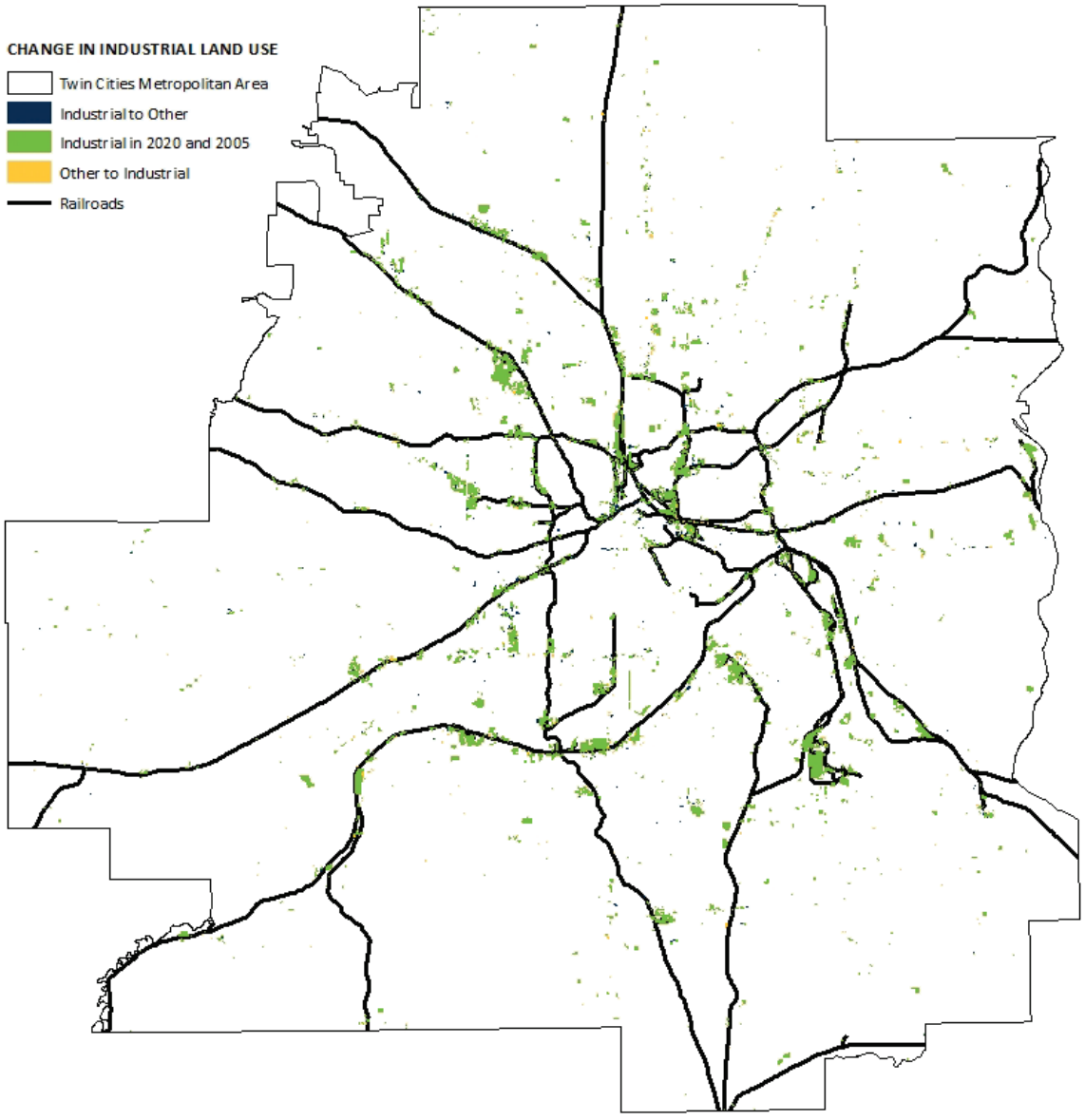
**FIGURE 4-3: RAIL AND NON-INDUSTRIAL DEVELOPMENT IN THE TWIN CITIES METROPOLITAN AREA**




Source: Metropolitan Council

Data from the Metropolitan Council suggests that the acreage of properties within a quarter mile of rail lines zoned industrial increased slightly by 377 acres between 2005 and 2020. As shown in Figure 4-4, many of the areas zoned industrial in the Twin Cities metropolitan area are located near rail lines. The supply of industrial properties has also changed due to former industrial properties having been converted to other uses, and other properties conversion to industrial. Additionally, some formerly rail-served properties may have been converted to other uses, while new industrial properties may have been located near rail lines but not rail-served. Some examples are apparent in Figure 4-4 as parcels zoned industrial follow a linear pattern, some along rail lines, and some not on rail lines but instead along other corridors.

**FIGURE 4-4: RAIL AND INDUSTRIAL DEVELOPMENT IN THE TWIN CITIES METROPOLITAN AREA**

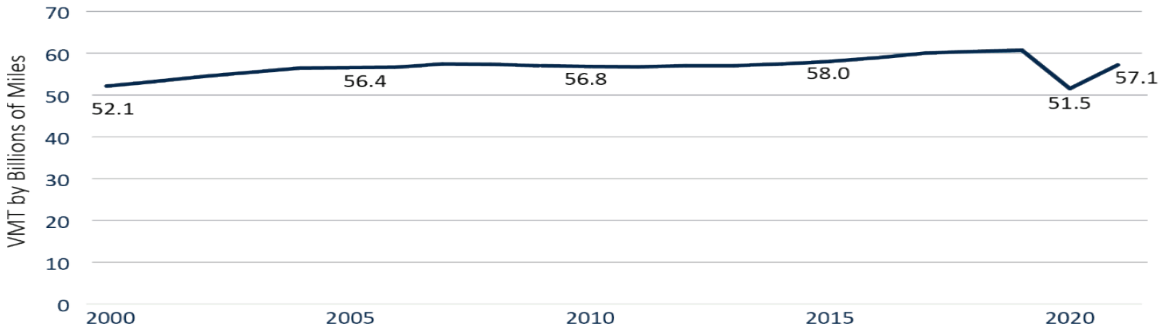



Source: Metropolitan Council

## 4.5 PASSENGER TRAVEL DEMAND AND GROWTH

Passenger rail service provides an alternative means of transportation for a range of trips that might otherwise use the state's highway or aviation systems. Passenger rail service is efficient and is better for health and climate by reducing carbon emissions - through reducing vehicle miles traveled and using less carbon intensive fuel per person mile. As illustrated in Figure 4-5, statewide passenger vehicle miles traveled (VMT) increased 16.5% from 52.1 billion per year to 60.7 billion per year between 2000 and 2019.[35] From 2018 to 2019 VMT decreased by 1% and in 2020 VMT dropped to 51.5 billion VMT because of the stay-at-home restrictions that resulted from the COVID-19 pandemic. MnDOT's 2022 Vehicle Miles Traveled Report (published 2023) found VMT to have nearly returned to pre-pandemic levels at approximately 57.5 billion per year.[36] The growth of VMT suggests that demand for passenger travel, including passenger rail will likely continue if past increases persist into the future.

**FIGURE 4-5: TOTAL VEHICLE MILES TRAVELED IN MINNESOTA, 2000-2021**




Source: Statewide Multimodal Transportation Plan

## 4.6 CLIMATE RESILIENCY

An analysis was performed for the Rail Plan, which investigated the vulnerability and resilience of the rail network for flooding and wildfire risk, accounting for climate change. The assessment built upon work that had been prepared for the Minnesota 2019 State Hazard Mitigation Plan.[37] The analysis estimated that 4.4% of rail lines in the state are potentially exposed to a 100-year flood (100-year flood is an event that has a 1% annual probability). Climate change is expected to increase the frequency and severity of extreme precipitation events. Railroad bridges were generally not designed with increased flooding in mind. The analysis estimated that the increased impacts of extreme precipitation events on railroad bridges would be particularly pronounced in Duluth, St. Paul, and around Mankato.

The estimated annual probability of wildfires around rail lines in Minnesota is 0.000823%. In general, the wildfire threat is highest in an arc extending from northwest Minnesota to just north of the Twin Cities and in the Boundary Waters region of northeast Minnesota.

[35] Minnesota Department of Transportation, Minnesota GO Statewide Multimodal Transportation Plan https://minnesotago.org/final-plans/smtp-final-plan-2022/chapter-2.

[36] Minnesota Department of Transportation, Vehicle Miles of Travel Trends in Minnesota, Office of Transportation System Management, March 2024, https://edocs-public.dot.state.mn.us/edocs_public/DMResultSet/DisplayDoc?docnumber=20012322&identifier=20012322.

[37] https://dps.mn.gov/divisions/hsem/hazard-mitigation/Pages/state-hazard-mitigation-plan.aspx

# 5. WHOM DID WE TALK TO IN PREPARING THIS RAIL PLAN?

The Statewide Multimodal Transportation Plan (SMTP) establishes the framework for MnDOT's family of plans, a series of multimodal transportation plans that combine to outline critical objectives to address transportation challenges and achieve the Minnesota GO Vision. Open decision-making, a key objective across all MnDOT activities, is integral to the Rail Plan. By incorporating opportunities for Minnesotans to participate in the Plan's development, MnDOT ensures equitable transportation decisions through an inclusive and collaborative process.

For this Rail Plan, MnDOT implemented a comprehensive stakeholder engagement program, including public meetings, advisory committee sessions, stakeholder interviews, focus groups, and on-line surveys. This extensive public involvement has directly informed the Plan's content and recommendations, ensuring that the final document reflects the diverse needs and perspectives of Minnesota's communities.

**Chapter Contents**


- Public and agency participation
- Railroad interviews and data collection
- Stakeholder interviews
- Project website and interactive map
- On-line surveys
- Advisory committee meetings
- Public meetings
- Community events
- Issues raised
- Coordination with neighboring states

## 5.1 PUBLIC AND AGENCY PARTICIPATION

Stakeholder and public outreach and coordination was designed to focus on the role of freight and passenger rail in Minnesota and to meet the following goals:

- Create opportunities for public participation throughout the planning process to inform transportation decisions, focusing on meeting people where they are.
- Use creative and culturally appropriate engagement methods to reach more individuals statewide, including traditionally underrepresented communities.
- Offer a variety of platforms to provide input, including online, in-person and hybrid engagement opportunities.
- Guide the development of objectives and strategies for rail transportation in Minnesota.
- Understand desired origins and destinations for access using passenger rail
- Use plain language and graphics, as well as alternate formats and languages, to convey information.
- Conduct activities in accordance with federal and state requirements for public engagement and MnDOT's Public Engagement Policy.

The intended outcome was that all audiences throughout the state actively participated in the planning process and helped shape the Rail Plan. Audiences were identified as: private organizations, tribal partners, other governmental partners, MnDOT, non-profit organizations and advocacy organizations, community-based organizations, the general public, and historically hard-to-reach communities.

To meet these goals, several approaches were used to engage stakeholders and the public:

- Railroad interviews and data collection
- Stakeholder interviews
- Project website
- Online surveys
- Advisory committee meetings
- Public meetings
- Community events

The public process integrates equity targets that were developed by the project team. These targets were developed through audience analysis and an equity workshop, where the project team identified gaps in previous outreach efforts, and discussed how the rail system impacts historically underserved communities. The Equity targets developed include:

- Focus public engagement toward historically underrepresented communities. This was done by identifying locations across Minnesota where railroads pass through, or have facilities in, cities with historically underrepresented communities (identified by the Justice40 mapping tool).
- While in-person engagement was not possible in all communities, engagement utilized community partnerships to reach local networks to direct them to online engagement opportunities. This approach follows the engagement principle of going to where people already are.
- The use of accessible and plain language in engagement materials and communications to ensure all materials produced were accessible to different communities by utilizing translations and interpreters as necessary: Spanish, Somali, Hmong, Karen.

### 5.1.1 RAILROAD INTERVIEWS AND DATA COLLECTION

MnDOT circulated surveys to Class II and III railroad carriers in Minnesota to gauge issues and concerns of these operators. MnDOT received responses from the following carriers:

- Buffalo Ridge Regional Railroad Authority
- Cloquet Terminal Railroad
- Minnesota Commercial Railway
- Minnesota, Dakota & Western Railway
- Minnesota Northern & St. Croix Valley Railroads
- Northern Lines Railway
- Northern Plains Railroad, Inc.
- Otter Trail Valley Railroad
- Progressive Rail Inc.
- Rapid City, Pierre & Eastern Railroad
- Red River Valley & Western Railroad Company
- Twin Cities & Western Railroad

### 5.1.2 STAKEHOLDER INTERVIEWS

MnDOT conducted interviews with a variety of stakeholders to inform the development of the Rail Plan, shown in Table 5-1.

**TABLE 5-1: STAKEHOLDERS INTERVIEWED**

| Organization | Interest Represented |
|---|---|
| Duluth Seaway Port Authority | Local Government |
| Lake Superior Warehousing | Transportation and Logistics |
| Duluth-Superior Metropolitan Interstate Council | Regional Government |
| Arrowhead Regional Development Commission | Regional Government |
| Iron Mining Association of Minnesota | Mining |
| CH Robinson | Transportation and Logistics |
| Specialty Soy and Grains Alliance | Agricultural |
| Minnesota Valley Regional Rail Authority | Regional Rail Authority |
| St. Paul Port Authority | Local Government |
| Minnesota Biofuels | Energy |
| Buffalo Valley Railroad Authority | Regional Rail Authority |
| St. Louis County Regional Railroad Authority | Regional Rail Authority |
| Ramsey County Regional Rail Authority | Regional Rail Authority |
| Fargo-Moorhead Metropolitan Council of Governments | Regional Government |
| Southern Minnesota Beet Sugar Cooperative | Agricultural |
| Northarvest Bean Growers Association | Agricultural |
| Minnesota Grain & Feed Association | Agricultural |
| Minnesota Iron Range Resources and Rehabilitation Board | Economic Development |
| Cloquet Terminal Railroad Company | Short Line/Terminal Railroads |
| Progressive Rail Incorporated | Short Line/Terminal Railroads |

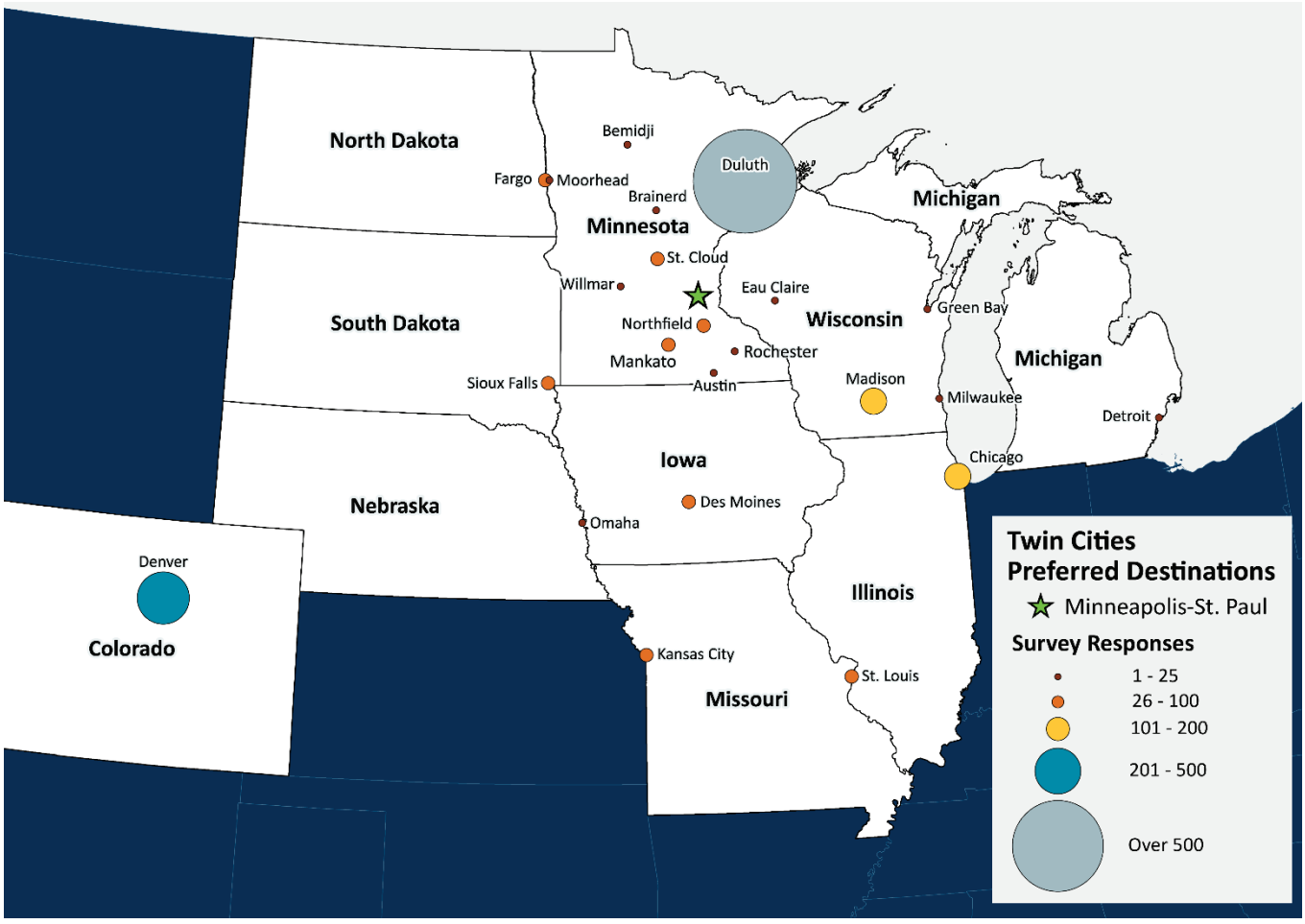
### 5.1.3 PROJECT WEBSITE AND INTERACTIVE MAP

MnDOT maintained the Rail Plan Update website page on "Let's Talk Transportation," MnDOT's online public engagement platform, https://talk.dot.state.mn.us/state-rail-plan. Rail Plan information, resources, and public engagement opportunities were made available on the website, in addition to various engagement tools such as online surveys, an interactive mapping comment tool, and areas for questions and public comments. The interactive mapping comment tool received 1,108 comments.

### 5.1.4 ONLINE SURVEYS

MnDOT published two online surveys during the development of the Rail Plan. Both were available on the project's Let's Talk Transportation website. The surveys were promoted through social media and other means, and distributed to community organizations. The first survey received 1,003 comments and asked for respondent's thoughts on railroad safety, rail system improvements, and passenger rail service ridership and improvements. In the second survey, which received 4,119 responses, participants were asked in greater detail about their previous use of passenger rail services on the Amtrak Empire Builder, Borealis, and Northstar, their priorities for future rail projects, and routes or destinations they would like to see available in the future. As shown in Figure 5-1, Duluth was the destination most frequently mentioned by survey respondents, followed by Denver, CO; Madison, WI, and Chicago, IL.

**FIGURE 5-1: PREFERRED DESTINATIONS FROM TWIN CITIES**




Source: Public survey advisory committee meetings

MnDOT created two advisory committees to support development of the Rail Plan, a Policy Advisory Committee and a Technical Advisory Committee. Each committee was comprised of public and private sector industry leaders, representing key stakeholder groups and subject matter experts.

Table 5-2 identifies advisory committee members. Five meetings in total were held, one, to introduce the Rail Plan to both groups, and two separate meetings for each group.

**TABLE 5-2: ADVISORY COMMITTEE MEMBERS**

| Policy Advisory Committee | | Technical Advisory Committee | |
|---|---|---|---|
| Organization | Interest Represented | Organization | Interest Represented |
| Progressive Rail | Short Line/Terminal Railroads | MnDOT (Office of Freight and Commercial Vehicle Operations) | State Government |
| Northern Plains Rail Companies | Short Line/Terminal Railroads | MnDOT Metro District Planning | State Government |
| Midwest Interstate Passenger Rail Commission | Advocacy | Northern Lines Railway | Rail Industry |
| All Aboard Minnesota | Advocacy | City of Mankato | Local Government |
| Great River Rail Commission | Advocacy | City of Moorhead | Local Government |
| MN Corn Growers Association | Agricultural Shipper | Southwest Regional Development Commission | Regional Planning Organization |
| Northarvest Bean Growers Association | Agricultural | Progressive Rail Inc. | Rail Industry |
| MN Department of Agriculture | State Agency | | |
| Metropolitan Council | Regional Government | | |
| Hennepin County Regional Rail Authority | Regional Rail Authority | | |
| St. Cloud Municipal Planning Organization | Local Government | | |
| Brotherhood of Locomotive Engineers and Trainmen | Workforce | | |
| St. Paul Port Authority | Local Government | | |
| Hennepin County Regional Rail Authority | Local Government | | |

### 5.1.5 PUBLIC MEETINGS

Two rounds of public meetings were held in the spring and winter of 2024. Locations were chosen to cover areas impacted by the rail system across the regions of the state. The purpose of the first round of public meetings was to gather feedback on priorities for rail system improvements, needs, and issues. Meetings were held in April 2024 in Duluth, St. Cloud, Rochester, and St. Paul.

The second round of public meetings were conducted in December 2024 and were held in Duluth, Moorhead, Rochester, and St. Paul, and provided an overview of draft plan content for comment and review. In total 208 people were engaged across all public meetings (Table 5-3). Individual summaries of each public meeting can be found in Appendix G.

**TABLE 5-3: PUBLIC MEETINGS**

| Date | Location | City | Attendees |
|---|---|---|---|
| April 16, 2024 | Great River Regional Library | St. Cloud | 10 |
| April 17, 2024 | Lake Superior Railroad Museum | Duluth | 15 |
| April 24, 2024 | Union Depot | St. Paul | 41 |
| April 25, 2024 | Blue Earth Historical Society | Mankato | 25 |
| December 3, 2024 | Lake Superior Railroad Museum | Duluth | 10 |
| December 5, 2024 | Rochester Public Library | Rochester | 42 |
| December 17, 2024 | Moorhead Public Library | Moorhead | 16 |
| December 18, 2024 | Union Depot | St. Paul | 49 |

### 5.1.6 COMMUNITY EVENTS

MnDOT identified community events throughout the state, with the goal of sharing information and conducting interactive exercises with the general public. A focus was given to attending events that help reach traditionally underrepresented populations, communities located near rail facilities or passenger rail locations, and individuals interested in the rail system.

Pop-up tabling at community events consisted of informational displays, factsheets, and a prioritization activity used to gather feedback from participants. In total, the project team engaged with approximately 775 members of the public across all community events (Table 5-4). Individual summaries of each public meeting can be found in Appendix G.

**TABLE 5-4: COMMUNITY EVENTS INFORMATION**

| Date | Name | Location | Interactions |
|---|---|---|---|
| February 17, 2024 | Minneapolis Connections Conference | Minneapolis | 60 |
| May 3, 2024 | Canadian Pacific Kansas City Final Spike Anniversary Steam Tour | St. Paul | 158 |
| May 15, 2024 | Mobility Mingle | St. Paul | 26 |
| May 21, 2024 | Amtrak Borealis Opening Celebration | Winona | 15 |
| June 1, 2024 | WaterFest | St. Paul | 78 |
| June 2, 2024 | Train Days | St. Paul | 321 |
| August 10, 2024 | The Black Market | St. Paul | 36 |
| September 14, 2024 | Hispanic Heritage Festival | Red Wing | 65 |
| September 21, 2024 | Mankato Pow Wow | Mankato | 80 |

## 5.1.7 ISSUES RAISED

Feedback was gathered from the public through the variety of engagement strategies described above. Questions focused on understanding the public's current experience of passenger and freight rail systems, identifying areas for improvement, and desired prioritization in future rail planning. The most common areas of feedback collected covered themes of safety, environment, maintenance, noise, service improvements and network expansion. Respondents wish for future rail planning to prioritize reduction of burdens to nearby communities, strengthen safety measures at crossings for pedestrians and vehicles, prioritize maintenance of bridges, crossings, and rail infrastructure, and bolster freight capacity as a means to reduce trucking volumes. Regarding passenger rail service in Minnesota, respondents desire to ride intercity passenger rail within Minnesota and outside, but experience barriers of cost, travel times, and reliability. Improved accessibility, dining options, and wi-fi amenities would improve the experience for those already riding. Finally, expanding the passenger rail network to new locations within Minnesota is

popular with stakeholders who provided feedback, predominantly connections between the Twin Cities Metro Area and other major population centers across the state.

Public Feedback on safety:

- Public education on rail safety: There is a strong desire for better community education and more public awareness initiatives, with suggestions to increase education on safe behavior around railways, particularly for pedestrians and drivers at crossings. This includes safety advocacy through programs like Operation Lifesaver.
- Improved safety measures at crossings: The public mentioned improved safety infrastructure at crossings to protect both pedestrians and vehicles, with emphasis on reducing risks for conductors, passengers, and nearby communities. Removals of at-grade crossings and added pedestrian paths and enhanced safety measures at crossings, particularly near residential areas were mentioned frequently.
- Comparative rail safety standards: Some express concerns over the U.S. lagging in rail safety compared to other countries, citing examples such as Miami's Bright Line, which illustrates the need for stronger regulations and preventive measures before accidents happen in Minnesota.
- Environmental and health risks: Many comments throughout engagement period concerned frequency of train accidents in the U.S., especially given the severe environmental and public health consequences associated with derailments and wrecks.

Public feedback on the environment:

- Prioritize freight transportation: Prioritize planning to shift more freight transportation to rail to enhance comparative environmental benefits.
- Consider electrification: Stakeholders express interest in planning for the electrification of both passenger and freight rail systems.
- Land use: Those engaged expressed desire for future planning to utilize unused or decommissioned rail lines in planning for future trail development and active transportation use.

Public feedback on noise and vibrations:

- Quiet Zones: Heard predominately from residents outside of the Twin Cities Metro area, individuals engaged expressed a desire for more information on the quiet zone process, and how to engage government or rail companies.
- Noise and vibration impacts: Train noise and vibrations from nearby freight rail operations are described as disruptive, with residents reporting loud sounds and feeling vibrations as trains pass.

Public feedback on crossings:

- Maintenance of crossings and tracks: Many respondents stressed the need for consistent maintenance at rail crossings to prevent vehicle damage and reduce derailment risks. They expressed specific concerns about crossings damaging cars and poor track conditions leading to accidents.
- Derailment prevention: Repeated concerns over derailments were heard, particularly in Rochester and rural areas. The public expressed views that neglected maintenance raises safety risks, and desire future rail planning to target reducing risks of derailment.
- Infrastructure: Bridges and other rail infrastructure are seen as under-maintained, with calls for more attention to long-term upkeep to prevent incidents.

Public feedback on passenger rail service:

- Amenities: Improvements to wi-fi, accessibility improvements on board and at stations, more competitive fare pricing and dining options, and enhanced facilities at stations.
- Reliability: Concerns over delays and timeliness were frequently heard. Respondents reported lengthy delays while traveling via Amtrak service which reduces passenger confidence and likelihood of return ridership.
- Service frequency: Many respondents express frustration with limited hours, particularly that services do not extend into evenings or weekends, making it challenging to rely on rail for varied schedules. They express a desire for expanded service at convenient travel times.
- Network expansion: Expanding passenger rail service to new city locations was the most commonly heard theme of feedback during engagement. The public expressed desire to plan for more rail connections from the Twin Cities Metro Area to cities within Minnesota such as Duluth, Rochester, Mankato, and St. Cloud, and to cities outside the state such as Sioux Falls, Des Moines Kansas City, and increased service frequency to Chicago.
- Transit connections: Enhanced local transportation service to provide connections to other modes from existing stations.

## 5.2 COORDINATION WITH NEIGHBORING STATES

MnDOT coordinated with the Departments of Transportation for Iowa, North Dakota, and Wisconsin on topics and concerns of shared interest, including possibilities for potential coordination in future passenger rail investment.

A summary of these coordination efforts is as follows:

- Iowa Department of Transportation (IDOT)
  - » There was discussion of a proposed north/south passenger rail route from Kansas City through Des Moines and into various locations in Minnesota. IDOT has published a concept for this line, along with a line from the Twin Cities to Omaha, which includes a stop in Sioux City. The feasibility of developing these various corridors could be studied in the future.
  - » IDOT mentioned that the agency and MnDOT coordinate regional rail planning efforts through multi state organizations such as the Midwest Interstate Passenger Rail Commission (MIPRC).
  - » IDOT spoke of a few developments in Iowa that could impact Minnesota rail operations. This includes the expansion of the Pattison Sand Mines on the CP River Route, the relocation of a CN railyard in Waterloo to improve community connectivity, CN's acquisition of the Iowa Northern Railway, and grade crossing elimination projects to ease bottlenecks and congestion.
- North Dakota Department of Transportation (NDDOT)
  - » NDDOT discussed rail-related concerns they are facing. These include safety concerns, such as unsignalized highway/rail grade crossings, privacy laws that limit the ability of emergency managers to track hazardous materials, and a shortage of track inspectors. NDDOT described freight traffic trends, such as reduced demand for coal. A new grade separation project in Grand Forks, ND, at the North Dakota/Minnesota border would impact Minnesota drivers that pass through this crossing. This is a crossing at

42nd Street and Demers Avenue, which has frequently been blocked by trains.

  - NDDOT supports the reinstatement of the long-distance North Coast Hiawatha passenger route between Chicago, IL and Seattle, WA. NDDOT particularly encourages the routing of the service through Bismarck. The cities of Jamestown, Dickinson, and Bismarck, as well as Governor Doug Burgum, have also signaled their support for North Coast Hiawatha. NDDOT is also working with MIPRC.

- Wisconsin Department of Transportation (WisDOT)
  - The proposed Northern Lights Express would extend into Superior, WI. WisDOT indicates that the city of Superior is very supportive of the project.
  - The North Central Wisconsin Regional Planning Commission (NCWRPC) recently completed an intermodal strategy report focused on forest products and agricultural exports. This could impact Minnesota, since an intermodal terminal built in Wisconsin could also serve Minnesota shippers.[38]
  - WisDOT discussed $53 million in planned capital project improvements for the Borealis service. Also talked about capacity issues raised by other stakeholders and routing alternatives. With the currently planned improvements, the existing route should have sufficient capacity, and there is no reason to think that other routes would be preferable at this time. Discussed potential sources of delay for passenger trains in La Crosse, given reported sightings of Amtrak trains waiting by the river. WisDOT stated that bridge openings appear to be the primary source of delay in the area, and the reason why trains wait by the river.

[38] North Central Wisconsin Regional Planning Commission, *Intermodal Terminal Opportunities for Wisconsin and Eastern Minnesota,* December 28, 2023, https://www.ncwrpc.org/wp-content/uploads/NCWRPC-Intermodal-Report-August-16-2024-FINAL.pdf.

# 6. HOW WAS THE RAIL PLAN COORDINATED WITH THE OVERALL MINNESOTA TRANSPORTATION VISION AND OBJECTIVES?

Minnesota established a foundation for transportation plans, policies, programs and investments in 2011 with the Minnesota GO Vision. This 50-year vision provides a framework to guide the state's transportation efforts. The SMTP serves as a 20-year plan based on the Minnesota GO Vision, creating actionable objectives to progress towards the Vision's goals. Building on these guiding principles, the Rail Plan establishes a rail-specific vision to inform decision-making for the State's rail system.

**Chapter Contents**


- Vision, objectives, strategies, and actions

## 6.1 VISION, OBJECTIVES, STRATEGIES, ACTIONS

### 6.1.1 MINNESOTA'S STATEWIDE MULTIMODAL TRANSPORTATION OBJECTIVES

The vision of the Rail Plan aligns with MnDOT's overarching planning guidance as set forth in its multimodal long-range transportation plan, the Statewide Multimodal Transportation Plan (SMTP) and the Minnesota GO vision. In 2011, MnDOT created the 50-year Minnesota GO vision to set guiding principles for everyone with a role in making the transportation system work for Minnesotans. The vision says that "Minnesota's multimodal transportation system maximizes the health of people, the environment and our economy." It answers the question, "What are we trying to achieve with transportation over the next 50 years?" The 50-year vision is the foundation of the State's transportation planning efforts to help guide policies and investments in the multimodal systems to benefit Minnesotans.

The SMTP is a 20-year plan that is updated every five years and is based on the Minnesota GO Vision. As part of the SMTP, MnDOT collaborated with the public, transportation stakeholders and its partners to develop the policy direction that is translated into the vision, objectives and actions guiding implementation of the Rail Plan. SMTP objectives are summarized in Figure 6-1.

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**Minnesota GO Vision**

*Minnesota's multimodal transportation system maximizes the health of people, the environment and our economy*

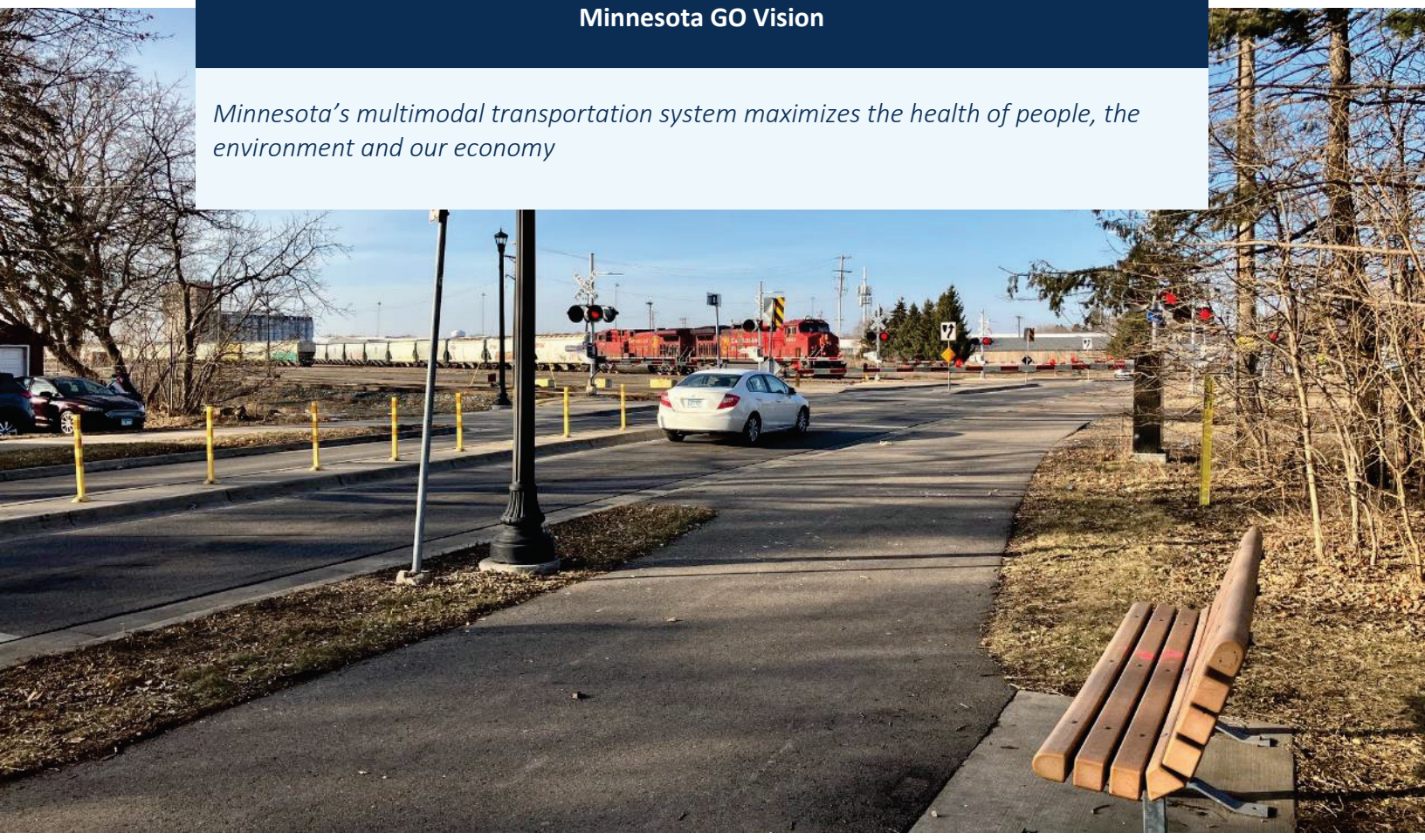


**FIGURE 6-1: SMTP OBJECTIVES WITH OBJECTIVE STATEMENTS**

**Transportation Safety**

- Safeguard transportation users as well as the communities the system travels through.
- Apply proven strategies to reduce fatalities and serious injuries for all modes.
- Foster a culture of transportation safety in Minnesota.

**System Stewardship**

- Strategically build, maintain, operate, and adapt the transportation system based on data, performance, and community needs.
- Ensure effective and efficient use of resources.

**Climate Action**

- Advance a sustainable and resilient transportation system.
- Enhance transportation options and technology to reduce greenhouse gas emissions.
- Adapt Minnesota's transportation system to a changing climate.

**Critical Connections**

- Maintain and improve multimodal tranpsortation connections essential for Minnesotans' prosperity and quality of life.
- Strategically consider new connections that help meet performance targets and maximize social, economic, and environmental benefits.

**Healthy Equitable Communities**

- Foster healthy and vibrant places that reduce disparities and promote healthy outcomes for people, the environment and our economy.

**Open decision making**

- Make equitable transportation decisions through inclusive and collaborative processes that are supported by data and analysis.

The SMTP provides the framework for MnDOT's Family of Plans, which includes each of the modal plans, and establishes guidance and priorities for state transportation decisions. The framework and supporting plans are critical to addressing transportation challenges and identifying and leveraging opportunities to achieve the 50-year vision.

The Rail Plan provides the strategic and policy direction for freight and passenger rail in alignment with the SMTP and consistent with FRA requirements. Rooted in the Minnesota GO Vision, the Rail Plan vision is:

**Minnesota State Rail Plan Vision**

*Minnesota Rail System will provide efficient, cost-effective and environmentally responsible transportation for the movement of goods and people accessible to all Minnesotans while maintaining the quality of life in the communities through which it travels.*

SMTP objectives create a useful framework for categorizing issues and opportunities that were brought up during the preparation of the Rail Plan and proposing potential actions based on the findings. Some findings and potential actions are responsive to multiple objectives, particularly proposals for passenger rail service. But issues/opportunities, and potential actions regarding the freight rail system often can be categorized by objective. The SMTP document includes numerous strategies and actions intended to achieve SMTP objectives. Most of these are multimodal and are not specific to rail. All strategies and actions that could impact rail are detailed in Technical Memorandum #3 and can be reviewed on the SMTP website. This document focuses specifically on those relevant to rail.

# 7. IN PREPARING THIS RAIL PLAN, WHAT DID WE LEARN AND WHAT ACTIONS WERE SUGGESTED?

The Rail Plan has been developed by integrating technical analysis of the rail system with extensive public and stakeholder feedback. This comprehensive approach examines the rail system's current usage, operational factors, and future potential. Issues and opportunities identified through this process inform actions aligned with the State's transportation objectives.

Issues and opportunities are organized consistent with the SMTP's objectives, that most closely relate to freight. These objectives are:

- Safety
- System stewardship
- Climate action
- Critical connections
- Healthy equitable communities
- Open decision making

**Chapter Contents**


- Safety
- System stewardship
- Climate action
- Critical connections
- Healthy equitable communities
- Additional freight actions
- Multi objective passenger rail initiatives


## 7.1 SAFETY

Safe interactions between freight, passenger transportation and the public are a key part of SMTP objectives. Improving rail crossing safety is a major objective for rail and so is improving safety where railroads and people interact to lower the likelihood of crashes. Improving safety at highway/rail grade crossings is an important issue because of past accidents with people driving, walking, biking or taking transit.

### 7.1.1 ISSUES AND OPPORTUNITIES RAISED DURING RAIL PLAN PREPARATION

Maintaining and improving grade crossing safety was a common theme mentioned across many stakeholder groups in the state. Minnesota's rail network has improved across most safety performance measures over the past two decades. For example, the frequency of highway/rail accidents decreased from 57 per year between 2003 and 2012 to 43 per year between 2013 and 2022. While significant progress has been made in Minnesota, grade crossing warning devices have a limited life span of about 25 years, and many current warning devices will need replacement by 2030. A further challenge is limited funding for grade crossing improvements. However, there are opportunities to improve safety at unprotected crossings that could be upgraded with active protection like lights and gates. In Minnesota, the majority of crashes are still at unprotected crossings with no apparent trend relating crash rates to crossing protection. This suggests that there remain significant opportunities to upgrade signals at crossings.

The analysis of safety data for this Rail Plan also suggests the importance of considering non-motorized safety at crossings. One third of crossings fatalities between 2013 and 2022 in Minnesota were pedestrians. Some of these incidents may have been intentional (suicides), but a significant number were likely accidental deaths.

In addition to safety improvements at highway/rail grade crossings, many stakeholders noted that trespassing on railroad property remains an important concern in Minnesota, particularly in densely developed areas. While highway/rail crashes have declined over the past 20 years, trespassing-related pedestrian fatalities have not declined. As of May 2024, railroads in Minnesota may employ their own police officers, a practice commonly used in other states. Railroad and planning stakeholders have indicated that they are hopeful this new ability will enable railroads to better secure their properties and reduce the likelihood of trespassing, and the associated safety hazards. Outdoor enthusiasts sometimes are blocked by rail lines from accessing natural areas, and these individuals should be directed toward safe locations to cross rights-of-way, such as established public crossings.

Another opportunity to address trespassing concerns is continued engagement with the Operation Lifesaver program, which educates the public on the importance of following warning signs, lights, and gates at rail crossings.

An opportunity for future safety improvements in Minnesota is to conduct further corridor grade crossing assessments, including focusing on opportunities to close or eliminate existing grade crossings, or identifying targeted opportunities for grade crossing separation with under or overpasses. Stakeholders in multiple areas of the state mentioned the potential benefit of closing some grade crossings to limit the potential areas for conflict between highway and rail traffic, which can significantly improve safety.

Traditionally, federal funding for crossing improvements has primarily been used for signal upgrades, such as adding gates and lights to unprotected crossings. At least 50% of a state's allocation under the federal Railway-Highway Crossing (Section 130) Program were required to be spent on the installation of protective devices at crossings. This requirement was lifted in 2023.

Some stakeholders are interested in exploring technologies to improve safety. For example, as automobiles become more automated, they can in the future communicate with crossings and/or oncoming trains so that vehicles automatically avoid being struck by trains. Other stakeholders are interested in crossing enforcement, so that automatic cameras can deter motorists from driving around gates or through crossings with other signals activated.

Grade crossing separations were generally not funded through the Section 130 program, not only because of the requirement to use at least half of the allocation for protective devices, but also because grade separations cost millions of dollars. The Federal Railroad Crossing Elimination Program creates an opportunity to consider grade separations and other solutions like roadway bypasses as alternatives. Crossing assessments can consider the impact of crossing in the community, the frequency of blockages and other considerations to determine which one of a broader range of potential improvements is appropriate. A rarely used crossing near alternative crossings could be considered for closure, whereas a vital transportation link where the crossing impacts community mobility could be an opportunity for a grade separation.

The shipment of hazardous materials by rail remains a concern to some stakeholders. Concern over the potential for derailments of hazardous materials prompted the Minnesota Legislature to introduce legislation that would limit the length of trains, establish requirements for hot box detector equipment, help first responders react to a train incident or derailment that includes the release of oil or other hazardous materials.

One of passenger rail's strengths is its safety record. Compared to driving, rail travel is a safer mode of transportation. According to the National Safety Council, from 2012 through 2022 the rate of passenger deaths per 100,000,000 passenger miles traveled for highway travel was 17 times higher than traveling by train.[39] The size of Minnesota's network of passenger routes limits opportunities for many residents to use this form of transportation. The use of Positive Train Control in new passenger rail systems will further support operational safety.

### 7.1.2 ACTIONS SUGGESTED BY THE FINDINGS REGARDING SAFETY

| | Actions |
|---|---|
| 1. | Identify pedestrian/bicycle safety issues at highway/rail grade crossings and develop strategies to address the issues. |
| 2. | Develop a rail trespassing prevention program in coordination with railroads to include a focus on unhoused people and shared-use facilities (bridges where pedestrians use rail bridges). Stakeholders have identified safety issues with unhoused people occupying railroad property. |
| 3. | Work with rail system owners to design and maintain infrastructure to support current and new technologies with proven safety benefits for all users. |
| 4. | Continue to support effective education and enforcement efforts focused on unsafe transportation behaviors, for example Operation Lifesaver. |
| 5. | Continue to eliminate highway/rail grade crossings where feasible. Maintain a pipeline of construction-ready projects to be considered for federal Railroad Crossing Elimination Grant Program. |
| 6. | Continue highway/rail grade crossing improvement measures through MnDOT's administration of Section 130 funds. |
| 7. | Invest to increase safe and reliable movement of hazardous materials, including training first responders on rail hazmat response. |
| 8. | Continue to support the safety of the rail system through participation in the FRA State Safety Inspector Program. |
| 9. | Ensure critical access routes for emergency response, finding solutions to any locations that are "islands" due to frequent, prolonged blocked highway/rail grade crossings that isolate communities. |

[39] https://injuryfacts.nsc.org/home-and-community/safety-topics/deaths-by-transportation-mode/

## 7.2 SYSTEM STEWARDSHIP

### 7.2.1 ISSUES AND OPPORTUNITIES RAISED DURING RAIL PLAN PREPARATION

The SMTP's System Stewardship objective relates to maintaining high standards for transportation infrastructure condition and taking fiscally responsible preventative measures to maintain infrastructure while improving safety, transportation options, and managing congestion. Stewardship of Minnesota's railroad infrastructure is divided among many different groups: Class I railroads own their networks and handle their own system maintenance and improvements. These major railroads have noted that they have spent, and continue to spend, millions in Minnesota to modernize, optimize, and increase the capacity of their networks. By comparison, short line railroads in Minnesota often have fewer financial resources because of operating low density rail lines.

The condition of short line railroad infrastructure is a major weakness and opportunity. Short line railroads in Minnesota often operate on older rail lines that were abandoned or sold by larger Class I railroads, and these short lines need continued infusions of public funding to pay for the significant capital expenses of upgrading tracks to accommodate the size and weight of modern locomotives and railroad cars. A total of 254 miles of rail in Minnesota cannot accommodate modern, 286,000-pound railcars, which places those railroads and their customers at a disadvantage. A total of 363 miles are limited to 10 mph or lower per standards established by the FRA. While the level of traffic on these rail lines may make it difficult to justify the higher level of inspection and maintenance to enable 25 mph or higher speeds, it is nevertheless inefficient to operate below 10 mph in terms of crew time and fuel usage.

In one instance, clearance is an issue for a short line railroad. For a rail line to accommodate the vertical clearance of any railroad equipment used today requires at least 20 feet, 8 inches, to accommodate railcars as high as 20 feet, 2 inches plus at least an additional 6 inches to account for railcar jostling. However, only certain rail lines need that clearance, those that are used by multilevel automobile railcars and hi cube double stack intermodal containers. A far more frequent requirement is to accommodate hi cube boxcars, which are 17 feet. At least one rail line in Minnesota cannot accommodate these railcars.

Minnesota offers grant funding for rail improvements, and tax credits for short line capital investments, and similar programs are available at the federal level. However, in the case of grant programs, the investment needs of railroads routinely exceed the amount of available grants. Additionally, some short line stakeholders and economic development stakeholders felt that MnDOT could better communicate the availability of its funding programs to shippers.

Maintaining and rehabilitating rural short lines is a particularly important topic for many rural stakeholders, who see their rail connections as important economic development assets for their communities. Additionally, corridor investments were identified as a need, including adding/increasing siding length, and rehabilitating outdated structures to alleviate these problems as freight shipments grow.

**Rail connections are important economic development assets to rural communities.**

When rail lines are abandoned, most often that transportation corridor is permanently lost. It is costly and difficult to assemble a new transportation corridor. It is beneficial to preserve rail corridors where possible, either through rail banking, or purchasing inactive, abandoned corridors to ensure they remain intact.

Prior state rail plans identified public-private partnerships (P3s) as a potential area to support rail network investment. However, Class I railroads consulted for this project did not indicate much interest in P3s beyond further work to improve grade crossing safety or grade crossing separation.

Another stewardship opportunity relates to **mode shift from trucking to rail.** A benefits calculation noted that trucking operations contribute to pavement damage and road congestion, and shifting truck loads to rail can reduce the negative impacts of trucking on Minnesota's highways. At the same time, rail operations have significant safety benefits over trucking, and shifting truck traffic to rail would be expected to improve safety on Minnesota's roadways.

In order to be competitive with automobile travel, passenger services must operate over rail lines maintained at high standards of condition. The FRA sets standards for the condition of rail lines and groups them into Track Classes which regulate operating speeds.

For passenger trains to operate at speeds up to 79 mph, the typical speed of passenger trains in the United States, Class 4 track is required, which has a high standard of maintenance. Some freight railroads do not benefit from these higher speeds and elect to maintain their track at a lower Class to reduce expenses. Operating passenger trains on these tracks affords the state the opportunity to increase the track class and thus improving the condition of the railroad's track.

Operation at any track class is safe; however, a strength of passenger rail is its required state of good repair and signal systems. These requirements make passenger trains a good steward of the rail network, but detailed public-private coordination and arrangements are needed to ensure that parties are appropriately compensated for additional costs that are incurred to support track improvements.

### 7.2.2 ACTIONS SUGGESTED BY THE FINDINGS RELATED TO SYSTEM STEWARDSHIP

| | Actions |
|---|---|
| 1. | Support efforts to maintain key assets on multiuse rail corridors in a state of good repair. |
| 2. | Support efforts to maintain low density rail lines in usable condition to facilitate rail corridor preservation. |
| 3. | Work with railroads to support projects to upgrade freight track to the 286,000-pound standard. |
| 4. | Eliminate rail bottlenecks and address design constraints (height and width clearances and geometric issues), such as rail lines that cannot accommodate 17-foot hi cube boxcars. |

## 7.3 CLIMATE ACTION

### 7.3.1 ISSUES AND OPPORTUNITIES RAISED DURING RAIL PLAN PREPARATION

Carbon dioxide ($CO_2$) emissions from transportation are a major contributor to climate change, and the SMTP seeks to advance a sustainable and resilient transportation system that reduces emissions while also adapting to Minnesota's own changing climate. The Rail Plan update adopts several strategies from the SMTP that envision a lower emissions, more resilient transportation system, and these strategies will play an important role in the transportation sector's ability to achieve the 2050 targets for the reduction of GHG emissions and VMT adopted during the 2023 state legislative session.[40] These strategies include reducing dependence on fossil fuels and improve the resiliency of transportation infrastructure and shift vehicle and truck trips to passenger and freight rail.

Freight railroad operations are integral to carbon emissions reduction and infrastructure resilience. Railroads are also actively seeking to reduce their emissions footprints. A particularly noteworthy climate-related advantage of railroads is their relatively **low carbon intensity compared to trucking.** A calculation of freight rail benefits using EPA emissions models identified that rail operations are more energy efficient and have correspondingly lower emissions than truck operations on a per ton-mile basis. Therefore, there are climate action opportunities associated with **shifting loads from trucking to rail.** Shifting a greater share of Minnesota's freight from trucking to railroads could reduce the overall volume of $CO_2$ emissions associated with freight transportation in Minnesota. Consistent with the new statutory requirement to achieve net-zero emissions by 2050. However, only certain types of freight and longer-distance trade lanes will be suited for a shift from trucking to railroads, and additional rail service, transload, or intermodal facilities may be needed to support mode shift. Investment in facilities like this is discussed in the "Critical Connections" section.

Passenger trains use less energy and emit less $CO_2$ than cars per person. Estimates by the Oak Ridge National Laboratory suggest that passenger trains use about 56% of the energy as automobiles per passenger-mile.[41] This means a train trip can reduce emissions by nearly half compared to car travel. Train traffic becomes more efficient if the locomotive is powered by green fuel sources. As technology advances, there may be opportunities to employ these locomotives in Minnesota's passenger service, reducing the need for carbon-based fuel, and accordingly reducing or eliminating emissions. Rail emissions savings also relate to the ridership on trains, since the more passengers that are on a train, the more avoided automobile trips with associated avoided emissions.

Another major area of opportunity is the **implementation of alternative fuels and electrification for freight rail operations.** All four Class I railroads in Minnesota are developing and testing fleets of locomotives that utilize alternative or lower carbon fuels such as biodiesel, hydrogen, and battery-electric hybrids, with different railroads exploring different technologies. These railroads expressed interest in public support for decarbonization of freight rail through support of alternative fuel research and investment in infrastructure to supply alternative fuels to the rail system. A near-term area of opportunity may be implementation of new fuels or electrification

[40] Minnesota Statute 174.01 Subd. 3 required MnDOT to set targets to suballocate emissions across the state by transportation sector. Targets for rail were included with the "Non-Surface Transportation emissions" category of the statewide allocation to achieve net-zero emissions by 2050.

[41] https://tedb.ornl.gov/wp-content/uploads/2022/03/TEDB_Ed_40.pdf#page=63, Table 2.13, comparing intercity and commuter rail to automobile travel.

for yard switchers operating in densely populated areas, which would reduce local air pollution.

MnDOT can support efforts to replace the broad use of carbon/fossil-based fuels currently used to power rail operations with sustainable alternatives, such as alternative fuels or electrification. Among other strategies, MnDOT is interested in exploring the potential to electrify a portion of Minnesota's freight rail network to assist the state's ability to meet mandates aimed at reducing the impacts of the transportation system on human health and the environment.

MnDOT staff in the Freight and Railroad Planning unit prepared a memorandum on electrifying freight rail operations, and considerations for Minnesota. The memorandum considers opportunities to decrease reliance on fossil fuels for freight motive power, considering overhead catenary systems, battery fuel cell locomotives, discontinuous catenary systems, and hybrid locomotive options. It considers the history and context of deployment of electrified freight rail systems in several different operational models. The memo also provides a preliminary summary of the potential costs and benefits of current electrification technology, including cost estimates to electrify the rail system on a per-mile basis, and barriers to implementation. Additional study is necessary to determine the level of coordination and commitment necessary to operate passenger rail with electrified technology over existing private freight rights of way. MnDOT will continue to consider how it can support decarbonization efforts in the rail network going forward.

A challenge for the implementation of alternative fuels and electrification is the **high cost and long lifespan of locomotives.** Locomotives have multi-million-dollar price tags and have multi-decade lifespans that can be extended further through restoration and rehabilitation. As a result, many locomotives that utilize current fuels have dated emissions control systems or diesel engines may continue to be used for decades to come. Passenger rail locomotives are also transitioning to more efficient models. For example, Amtrak reports that its new Airo trainsets are more fuel efficient than previous Amtrak trainsets.

In the broader picture of alternative fuels and electrification, stakeholders have noted that Minnesota has some noteworthy advantages for development and adoption of new fuel technology. The state has a robust biofuel industry, and the presence of this industry's assets may make the adoption of certain types of alternative fuels easier in Minnesota.

### 7.3.2 ACTIONS SUGGESTED BY THE FINDINGS ON CLIMATE ACTION

| Actions | |
|---|---|
| 1. | Encourage the use of and invest in alternative fuel technologies for locomotives and rail yard equipment. |
| 2. | Partner with rail stakeholders to promote expanded use of freight rail and to reduce GHGs generated by less efficient modes. |
| 3. | Expand passenger rail services to encourage the shift toward use of high-occupancy, lower emissions modes. |
| 4. | Integrate transportation and land use decisions to encourage mode shifts and to reduce the distance needed to travel for daily needs, for example transit oriented development around passenger rail facilities. |

## 7.4 CRITICAL CONNECTIONS

### 7.4.1 ISSUES AND OPPORTUNITIES RAISED DURING RAIL PLAN PREPARATION

The SMTP's objective of critical connections is focused on the maintenance and improvement of multimodal transportation connections essential for Minnesotans' prosperity and quality of life. This objective's strategies are directly relevant to rail, including ensuring efficient, affordable, reliable, and safe movement of goods and people, as well as supporting a vibrant and growing economy.

Passenger rail station improvements and expansions will support growing passenger rail services in Minnesota. In Ramsey County, plans to expand areas where trains are stored at Union Depot will support improved operations and future expansions to service. Stakeholders consulted for this Rail Plan indicated that improvements in access to passenger rail stations are critical in reaching final destinations, with a focus on sidewalks, transit access, and other improvements for bicycles and pedestrians.

Passenger rail services strengthen connections by providing Minnesota's residents with fast, convenient, and reliable access between large population centers and rural communities. These connections provide more than just access for business travelers or tourists; they link communities with important healthcare destinations, educational institutions, and other modes of transportation. New and expanded passenger train routes will enhance these connections and increase access for all residents of the state.

Providing transportation options is key to reducing per capita vehicle miles traveled.

When it comes to freight rail operations, critical connections often relate to economic development and access to railroad shipping.

A major strength of Minnesota's economy is its diversity, with its **robust agriculture, natural resource, and manufacturing sectors.** This characteristic of the state is important to freight rail operations because it demonstrates the strength of demand for and sustained utilization of rai service and investments in the state.

> **Given their locations, agricultural shippers must often truck export containers long distances to the nearest intermodal terminals.**

While Minnesota has strong intermodal service offerings with three intermodal terminals in the Twin Cities and one terminal in Duluth, **improving connections to the rail system** will continue to be important for improving the efficiency and reliability of freight movements. There is strong interest from businesses and economic development agencies in providing more locations such as intermodal facilities

where businesses can access the rail network. During this study, agricultural shippers that export product by intermodal container explained that it is costly to truck containers to the Twin Cities, since these shippers can be located hundreds of miles from the Twin Cities. Building an intermodal terminal closer to agricultural shippers is currently challenging, since such a service would create a container imbalance. Import containers often contain consumer goods and are destined for population centers. Moving empty containers to rural areas by rail to be stuffed with agricultural exports can be costly. Furthermore, shipping companies earn most of their revenues shipping containers eastbound from Asia to the United States. To maximize revenue, they want to move containers back to Asia as quickly as possible so they may prefer that containers return empty to Asia rather than be loaded with agricultural products if that speeds the journey back.

To illustrate the challenges of establishing intermodal terminals outside of the Twin Cities or Duluth, BNSF once operated an intermodal terminal in Dilworth but closed the facility after traffic levels dropped. The terminal had suffered from an imbalance in container demand, where farmers needed containers to ship export agriculture, but the demand for inbound containers was insufficient to supply available containers for export. Currently, intermodal trains pass through Dilworth without stopping. There is at least one example of an intermodal terminal connected with a container transload facility in Omaha, NE where westbound intermodal trains are stopped, containers are removed and filled with agricultural exports and then reloaded onto the train. A key to the success of such a service is volume and speed. The operator will fill an entire train and minimize the delay. The operator must also work with shipping companies, so that the delays caused by unloading containers in Asia are minimized. MnDOT or another public sector entity would only play a facilitating role in establishing such a service or help to fund needed infrastructure improvements. The facility operator/marketer would have primary responsibility to make the service a success.

Opportunity potentially exists to increase intermodal market share by assisting with infrastructure projects that could facilitate/provide an incentive to railroads and logistics providers to increase the volumes of intermodal shipments. In general, diverting freight from truck to rail generates significant public benefits. Intermodal containerized rail competes closely with trucking. **An analysis performed for this Rail Plan found that diverting a single container to rail from truck between Chicago and the Twin Cities results in $319 in public benefits**, due to reduced emissions, safety benefits, reduced congestion and pavement damage.

A related type of access improvement is transload facilities, which enable companies shipping non-containerized goods (such as dry, liquid, or break-bulk materials) to access railroad shipping. Minnesota already has an extensive network of transload facilities on both Class I and short line railroads, but a common finding from prior Minnesota District Freight Plans was shippers' desire for the creation of additional transload facilities to further improve local access to the rail network. Railroads responding to the survey for this Rail Plan often considered transload among their highest traffic opportunities.

Rail-served industrial facilities, dedicated to specific industrial users are important rail connections. Railroads expressed concern about the **loss of rail-served industrial land in the Twin Cities area**, which limits the locations where these rail-served facilities can be built. An analysis of land use data in the Twin Cities found that between 2005 and 2020, the acreage of land devoted to residential, commercial, office, and other developed non-industrial uses increased by 11.5%. Industrial land uses increased slightly over that same time period, but not all of it would necessarily be usable for rail-served industry. Railroads providing input for this plan documented specific instances of rail-served shippers closing, but not being replaced by new shippers because the property had been rezoned in such a way that it would be difficult for a new industrial user to take over the site. Railroads generally reported that prospective new customers were having difficulty with site permits. Also, a significant portion of the new industrial development in the Twin Cities is along arterial roadways which are not rail-served. However, new transload and rail-

served warehouse facilities are being developed outside of the Twin Cities, particularly on the I-94 corridor to St. Cloud. Further improvement of rail service access for businesses can be achieved through grant and loan programs like MRSI.

Investments in rail access are also important in the context of **competition**. While Minnesota has multiple major and smaller railroads, individual businesses and communities are often served by a single railroad. This single-service model is a potential problem because shippers are concerned about receiving non-competitive railroad rates, or inconsistent rail service. A related concern is **rail lines that serve one major customer** such as a power plant; railroads and rail-served businesses note that these lines are at risk of closure if the line's main "tenant" making rail service to the line no longer commercially feasible.

A major strength and opportunity will continue to be the **creation of new rail connections to Mexico**: the 2023 merger of the Canadian Pacific and Kansas City Southern railroad, and the creation of tri-national joint service offerings by Union Pacific and Canadian National are expected to provide Minnesota's companies with improved rail access to the southern US and Mexico. Conversely, a potential threat for Minnesota's rail network performance has been **rail service disruptions in Canada**. Minnesota has two significant rail border crossings, and many Minnesota businesses rely on Canadian railroads to access foreign markets through ports in British Columbia. Disruptions in Canada like natural disasters and strikes can threaten the reliability of this Canadian-based rail service. For example, during 2021 wildfires and flooding in British Columbia resulted in a temporary halt of all rail service to the Port of Vancouver, while a 2024 potential strike of Canada Border Services Agency staff would have significantly limited or stopped CN and CPKC trains from entering Canada from Minnesota.

A common concern among businesses and economic development stakeholders has been **changing operating practices at Class I railroads**. Class I railroads have increasingly emphasized serving customers with larger volumes of freight or longer shipping distances. As a result, rail shippers who move smaller volumes of freight, or who have relatively shorter shipping distances have expressed concern over the quality of service they receive from Class I railroads. Additionally, railroads are under pressure from investors to reduce their operating expenses and have partially done so by reducing the number of trains they operate, number of locomotives they operate, and number of staff they employ. This "leaning" of railroad assets and staff is a concern for some shippers who feel that large railroads can no longer easily accommodate upswings in traffic without a reserve of locomotives and crews.

In addition to the broad topics listed above, rail, business and planning stakeholders in the Twin Cities have noted concern on other fronts:

- The potential **traffic impacts of the Rethinking I-94 initiative** were identified as a concern from some shippers that use intermodal terminals in the Twin Cities. This MnDOT-led project has identified potential future configurations of I-94 in the Twin Cities, including potential removal of the existing freeway and its replacement with at-grade surface streets. Shippers expressed concern about these removal proposals because I-94 provides a major truck route to access many of the intermodal facilities in the Twin Cities. Removal or reconfiguration of I-94 could disrupt access to those facilities or result in trucks being routed through neighborhoods on surface streets.
- **Increased passenger rail service**: freight railroad stakeholders indicated concerns that the addition of improved passenger rail service could impact capacity on rail lines, particularly in and around the Twin Cities area.

- Changing truck weight limits: some industries in Minnesota, such as agricultural producers, have lobbied for Minnesota to increase its truck weight limits, which poses a competitive threat to the rail system. Rail stakeholders are concerned that increasing truck weight limits would make trucking more competitive against rail and increase transportation system emissions if some freight was shifted from rail to trucking.
- A railroad contact information clearinghouse: planners have noted that they sometimes do not know how to get in touch with staff at railroads, which is important when working on topics such as blocked crossings in communities.

### 7.4.2 ACTIONS SUGGESTED BY THE FINDINGS REGARDING CRITICAL CONNECTIONS

| | Actions |
|---|---|
| 1. | Develop and improve multimodal options including passenger rail within and between cities and regions. |
| 2. | Increase intermodal market share by assisting with infrastructure projects that could facilitate/provide an incentive to railroads and logistics providers to increase the volumes of intermodal shipments. |
| 3. | Investigate options to provide intermodal access to agricultural shippers, potentially including funding needed for infrastructure improvements and facilitating discussions between stakeholders. |
| 4. | Promote and/or fund transload facilities to divert freight from highway to rail. |
| 5. | Help shippers to gain and improve their access to the rail network through rail spurs, sidings and switches to shipper premises. |
| 6. | Identify and support projects to provide shippers access to multiple Class 1 railroads including through investments in rail spurs, switches and/or short line infrastructure. |
| 7. | Provide guidance to local communities on how to incorporate freight rail considerations in land use planning. |
| 8. | Expand and improve passenger rail network connections and stations for accessible, safe and convenient options for people to walk, roll, bicycle and take transit. Work with local units of government or applicable agencies to identify needed improvements and actionable next steps to fund those improvements. |

## 7.5 HEALTHY EQUITABLE COMMUNITIES

### 7.5.1 ISSUES AND OPPORTUNITIES RAISED DURING RAIL PLAN PREPARATION

The SMTP's objective of Healthy Equitable Communities is focused on fostering healthy and vibrant places that reduce disparities and promote healthy outcomes for people, the environment, and the economy. This approach supports economic resilience and social equity, creating environments where all residents can thrive. This objective is important to freight rail because rail operations, like train movements and switching, can create negative impacts for local residents, such as diesel exhaust emissions, noise, vibration, and rail-related traffic congestion. Additionally, as documented in the safety section of this analysis, the intersection of rail and road infrastructure can create safety challenges at grade crossings and may be associated with trespassing activity.

Residents in disadvantaged communities are more likely to live near rail lines and yards and experience the negative impacts of rail as shown by an analysis

done for this Rail Plan. Disadvantaged census tracts near rail yards are also more likely to have high diesel particulate matter pollution than non-disadvantaged census tracts. An analysis determined that people in disadvantaged areas are more likely to live near rail highway crash events. Living near rail lines, members of disadvantaged communities are more likely to be impacted from train noise, such as trains completing required whistle blasts as they approach highway/rail grade crossings.

Negative impacts from rail operations can be mitigated in several ways. One way to mitigate the effects of rail lines on local communities is for local agencies to invest in creating quiet zones. Quiet zones refer to areas where substantial safety investments have been made, and trains are not required to use horns at crossings. Creation of these zones can improve grade crossing safety, reduce rail-related noise, and improve community livability. Neither MnDOT nor private railroads are able to designate a Quiet Zone. In Minnesota, local governments such as cities and/or counties are responsible for all costs to establish a Quiet Zone. MnDOT does not allocate funding to establish these zones.

**Disadvantaged communities are often disproportionately impacted by the rail-related pollution and noise.**

Helping railroads to invest in lower emissions technologies can help to reduce risk from particulate matter and nitrogen oxides pollution which can mitigate associated negative health impacts. Additionally, rail infrastructure also can physically divide communities. The artificial barriers created by rail tracks can divide both urban and rural communities, and force residents to routinely cross tracks, increasing the likelihood of highway/rail crashes, or trespassing on rail property. Investments in active warning devices, safe options to access the opposite sides of tracks and providing education on rail operations can mitigate crash risks.

During outreach for this Rail Plan, stakeholders advocating for active transportation expressed frustration that rail facilities were blocking active transportation networks. Nearly all of the Minnesota rail network is privately owned. As components of the national rail network that facilitate interstate commerce, rail facilities and rights-of-way are subject to the jurisdiction of the U.S. Surface Transportation Board and are insulated from state and local laws, including condemnation or restrictions that would interfere with interstate commerce. Recognizing this framework, establishing partnerships among stakeholders is important to developing options to increase trail connectivity while maintaining efficient rail operations.

Rail can also support livable communities by helping local economic development, connecting communities to freight and labor markets, both regionally and nationally, and providing shippers with access to international gateways.

### 7.5.2 ACTIONS SUGGESTED BY THE FINDINGS REGARDING HEALTHY EQUITABLE COMMUNITIES

| Actions |
|---|
| 1. Collaborate with partners to identify and plan economic development sites that can enhance multimodal transportation connectivity. |
| 2. Partner with rail stakeholders to identify mutually beneficial opportunities to mitigate rail transportation barriers that divide, separate, or harm communities. |
| 3. Provide guidance on establishing quiet zones and collaborate on mitigation strategies for noise, vibration and light pollution disproportionately impacting disadvantaged communities. |
| 4. Consider measures to reduce emissions associated with rail yards and idling trains that disproportionately divide and harm disadvantaged communities. |
| 5. Provide guidance to active transportation advocates and local jurisdictions regarding the legal status of the rail network and potential solutions that could provide potential "win-win" solutions for railroads and the active transportation communities. |

## 7.6 OPEN DECISION MAKING

The SMTP's objective of Open Decision Making is about making equitable transportation decisions through inclusive and collaborative processes and being open about how and why decisions were made. Stakeholders and members of the general public were enthusiastic participants in the development of the Rail Plan, and the desire of Minnesotans to be involved in the process confirmed the value of open decision making. The engagement activities for the Rail Plan were well attended and provided highly productive feedback. MnDOT will continue to ensure that people have opportunities to play an active and direct role in decision making, strengthen relationships with communities, provide consistent, equitable communication, learn from community experiences, and share research and data to drive decision-making.

## 7.7 ADDITIONAL FREIGHT ACTIONS

Several freight actions that were identified during the preparation of this plan do not fit into SMTP objective categories. These were specific tax and funding policies that were identified by freight railroads and not necessarily the policies of MnDOT.

- Consider changes to the MRSI program. Railroads consulted for the Rail Plan suggested several changes to the MRSI program. These are as follows:
  - » Consider raising the $200,000 maximum loan amount
  - » Explore ways that grants could be timed to coincide with federal grant programs like CRISI, where state grants could be provided as matching for federal grants
- Explore dedicated source of funding for MRSI
- Explore tax implications of freight railroad improvements. Freight railroads have mentioned that when they receive competitive grants, this is accompanied by a subsequent increase in property tax. They would prefer not to be penalized for improving their rail systems. The tax increase is considered by railroads to be inconsistent with the purpose of the public assistance. Consider changes to tax code that could mitigate these increases.

## 7.8 MULTI OBJECTIVE PASSENGER RAIL INITIATIVES

By their nature, many passenger rail improvements can address multiple SMTP objectives:

- Transportation safety – Passenger rail trips that replace car-based trips provide safety benefits to travelers. Riding a train is 17 times safer that riding a car.[42]
- System stewardship – Passenger rail services are often accompanied by rail system improvements that represent co-investment in the freight system, which is an efficient use of funds. Fewer car trips can lessen highway maintenance needs and reduce the burden on other public and private infrastructure.
- Climate action – Passenger rail services generate fewer emissions on a per-user basis than trips using the highway. By displacing automobile trips, passenger rail service provides climate action benefits.
- Critical connections – New or expanded passenger rail services provide new multimodal connections and enhance transportation choices for the people and communities of Minnesota
- Healthy equitable communities – Expanded passenger rail service can help to reduce disparities between communities by making connections to improve social and economic opportunities.

**TABLE 7-1: PASSENGER RAIL IMPROVEMENT IMPACTS ON RIDERSHIP AND RELATIVE COSTS**

| Passenger Rail Improvement | Impact on Ridership | Relative Costs and Complications |
|---|---|---|
| Improvement that reduces travel time or improves on time performance, customer experience an existing service | Ridership will be higher | It depends on the nature of the improvement, but the costs could be significantly lower compared to adding a new service. |
| Add frequency to existing service | Adding a frequency can result in increased ridership, as it reinforces the existing service's status as a viable transportation option. | Adding frequencies may require additional implementation steps such as additional infrastructure and revised agreements with relevant stakeholders. |
| Extend existing service | While the level of ridership of a service extension requires analysis, the extension of an existing service can boost ridership. | Extending an existing service may be costly and could be more complicated than adding a frequency to an existing service. Depending on the extension, some may be less costly and complicated than an entirely new service on lines that do not currently host passenger trains. |
| Establish a new passenger rail route (on an existing route owned and operated by a freight railroad) | There may be network effect benefits and synergies for existing services depending on scheduling. Analysis of projected ridership is important. | Compared to new frequencies or extensions to existing services, development of a new service may be more costly and complicated to establish on lines that do not currently host passenger trains. |

[42] https://www.railpassengers.org/happening-now/news/blog/lets-not-compromise-safety/#:~:text=Once%20you%20normalize%20the%20data,7.3%20fatalities%20per%20billion%20miles..

An analysis of data and stakeholder feedback suggested actions that span across multiple SMTP objectives and passenger rail initiatives.

Look for opportunities to maximize ridership on Minnesota passenger rail services. Expanding ridership opportunities ensures passenger rail services support achievement of SMTP objectives. Passenger rail improvements create opportunities to increase ridership and access to the system, supporting statewide goals for the multimodal transportation system. Impacts are considered in Table 7-1.

- Consider public input. A key function of this Rail Plan is to obtain and evaluate feedback. Two public surveys were conducted that asked respondents about their passenger rail preferences. Both surveys identified a goal to expand passenger rail service beyond its current network. In the first survey, respondents were asked what prevented them from riding the train. The most frequent response was that trains do not serve the area where they live. Consistent with this response, when asked what would encourage increased use of passenger rail, the most common response was to expand passenger rail to their part of the state. These findings were consistent with the second survey, where respondents said that expanding passenger rail was their top priority.

  Several other notable findings of the surveys were:

  - The strategy of developing a core network of passenger rail service to large cities within the state with multiple daily frequencies was favored over solely adding frequency to existing routes. The second most favored strategy was to focus on extending service to all parts of Minnesota, even if this entails only one train per day.
  - Respondents preferred a mix of connections both within Minnesota and those between Minnesota and areas out of the state. The Twin Cities was cited as the primary hub. Within the state, Duluth was the most often identified destination, with Mankato, St. Cloud, and Rochester being additional preferences. Denver, Chicago, and Madison received considerable interest among respondents as potential out-of-state destinations.
  - In the first survey, respondents were asked about changes that would encourage them to use passenger rail services. Beyond service expansion, the most important considerations were speed and frequency of travel (trains per day).

  Taking into consideration the costs and benefits of passenger rail and stakeholder feedback, several potential strategies were identified:

  - Expand the core network of passenger rail service within Minnesota. Service expansion should be carried out in a way that maximizes incremental improvements to support increased ridership and provides a viable transportation alternative. Additional service should support and expand preexisting services.
  - Existing services and routes should be prioritized through partnerships with other states and through improvements to existing routes.
  - Existing service investments and new proposals should identify and support safety measures, ensuring that new passenger services are coupled with appropriate crossing improvements, trespasser mitigation measures, and station access improvements.

- **Evaluate longer-term equipment needs and acquisition options.** As MnDOT continues the existing state-supported service between the Twin Cities and Chicago, and evaluates additional services, rolling stock is an important consideration. Ordering equipment can have a long lead time. There are also considerations regarding whether equipment should be sourced through purchase and ownership by the State, leased from a third party, or provided by a contract rail service provider or other states.
- **Consider potential improvements in available passenger rail amenities**. During outreach, stakeholder expressed concern about two passenger rail amenities in particular: on-board wi-fi access and on-board bicycle storage to make use of passenger rail services viable for the types of trips required by users. To accomplish improvements to these and other amenities, it is important to continue coordination with rail service operators to evaluate solutions.
- **Support potential incentives for commercial and high-density housing near stations.** Stakeholders consulted for this Rail Plan were interested in commercial and residential real estate development oriented toward transit and designed at higher densities within station areas. In some circumstances, public transportation systems can reduce automobile use. Land use and real estate decisions are most often made at the local level. However, possible next steps may include the potential for MnDOT support for station area planning or grant programs that could create incentives for this type of development near rail stations.

# 8. WHAT INFRASTRUCTURE INVESTMENTS WERE RECOMMENDED?

This Rail Plan identified 195 freight railroad capital projects including 101 funded projects, 65 unfunded projects, and 29 projects with unknown costs. Projects are categorized with funding gaps identified for determining alignment with funding and financing opportunities. The funding categories include multimodal and access projects, state of good repair and modernization, capacity, safety and grade crossing, and connectivity projects.

Passenger rail projects differ from freight rail projects in that the focus is at the corridor level that includes projects that meet the operational needs for the service. Passenger rail projects must meet state statutory requirements and be prioritized based on a transparent scoring process. FRA processes provide the framework for development and inform scoring and prioritization based on federally defined project phases.

While some of the actions in Section 7 are suggestive of potential investments, they do not point to specific infrastructure investments. However, in preparing the Rail Plan, numerous investments were recommended, as described below in Section 8.

## Chapter Contents


- Freight and safety infrastructure projects
- Passenger rail corridor Investment projects & prioritization

## 8.1 FREIGHT AND SAFETY INFRASTRUCTURE PROJECTS

Freight rail projects were identified that are funded or are unfunded but could potentially receive public sector funding. Most projects with identified funding are funded through the MRSI Program or the FHWA Section 130 highway/rail grade program, although projects that have received federal discretionary grants were identified as well. These two programs are described in Technical Memorandum #1. The MRSI program funded 11 projects in 2024 as shown in Table 8-1. Project improvements include renewing bridges and signals, constructing loading facilities, creating new siding tracks and switches, adding industrial space, and improving connectivity to other lines. Additional MRSI project details are in Section D.1 of Appendix D. MnDOT assesses projects that apply for MRSI funding by several categories and award a score, with the highest scores receiving funding as it is available based on the budget allocation from the Minnesota state legislature. The scoring criteria for the project proposals include a project summary, rail service impacts, economic impacts, equity, environmental impacts, project readiness, and project funding. The points are awarded based on the quality and completeness of information provided for each criterion.[43]

**TABLE 8-1: 2024 FUNDED MRSI PROJECTS**

| Score | Applicant | Description | Amount Awarded |
|---|---|---|---|
| 83.5 | Progressive Rail, Incorporated | Progressive Rail-Bridge Program | $468,137 |
| 77.6 | Nexus Cooperative | Phase 2 Rail Loader and Storage | $1,900,000 |
| 76.8 | Meadowlands Farmers Co-op | Echo Agronomy Siding Track Construction | $1,106,942 |
| 76.7 | Seven Rivers Intermodal Terminal LLC | Seven Rivers Intermodal Terminal Expansion | $511,446 |
| 76.7 | American Crystal Sugar Company | Crookston Packaged Product Rail Transportation Capacity Increase | $960,000 |
| 72.2 | Louisiana-Pacific Corporation | Louisiana-Pacific Watkins Rail Improvement | $1,500,000 |
| 71.6 | DeRock Capital Group, LLC | Hector, MN Warehouse/Transload | $246,000 |
| 71.3 | City of Little Falls | Camp Ripley Spur Crossings Improvement Project | $613,600 |
| 70.3 | Sanimax USA, LLC | Sanimax USA Rail Project | $400,000 |
| 68.9 | Minnesota Northern Railroad Company | Crookston Industrial Park and Innovation Center (Phase 1) | $1,565,451 |
| 64.5 | Twin Cities & Western Railroad Company | Converting Stub Track to Double-Ended Siding for the Improvement of Railroad Switching Efficiency | $328,424 *(Partial Award)* |

Source: MnDOT 2024 MRSI Grants

[43] Minnesota Department of Transportation (MnDOT). Minnesota Rail Service Improvement Program (MRSI) - Grant. [Minnesota Department of Transportation website]. Accessed September 20, 2024. https://www.dot.state.mn.us/ofrw/railroad/mrsi-grant.html

### 8.1.1 MRSI PROJECTS

The MRSI projects are spread across the state throughout every MnDOT district, with several located around the Twin Cities metro area with many rail connections.

### 8.1.2 SECTION 130 PROJECTS

Federal Section 130 funds, support projects aimed at eliminating hazards at highway/rail grade crossings, including the closure and consolidation of crossings. The total Section 130 funds allocated to Minnesota for FY2022 - FY2026 period is approximately $32.6 million.[44]

A total of 81 projects were programmed to be funded between 2024 and 2027 as shown in D.2 of Appendix D. These projects are freight-focused and cover each of MnDOT's eight districts, including the Twin Cities metro area. The allocation also provides funding for MnDOT to maintain the rail crossing database. The majority of the projects are focused on installing gates, lights, and signal systems at rail crossings.

### 8.1.3 FUNDED AND UNFUNDED PROJECTS BY CATEGORY

Table 8-3 illustrates the funded freight projects by category. A total of 195 freight projects have been identified through engagement activities and relevant plan reviews. That includes 101 projects that have been funded, 65 projects that are not funded and another 29 projects that are not funded and are without a cost estimate. State of Good Repair/Modernization projects have the largest funding gap with over $224 million in unfunded needs, followed by $176 million in unfunded needs for Capacity projects, and then $70 million in unfunded Safety/Crossing improvement project needs, $53.8 million in Multimodal/Access needs and $35.8 million in capacity needs. Project categories are described in Table 8-2.

**TABLE 8-2: CAPITAL PROJECTS CATEGORIES**

| |
|---|
| **Multimodal and access initiatives** ***are designed to enhance customer access to the rail network, ensuring a more seamless and efficient travel experience.*** |
| **State of Good Repair and modernization projects** ***focus on restoring and upgrading rail infrastructure to meet contemporary standards.*** |
| **Capacity projects** ***aim to expand the network's ability to accommodate increased passenger and freight volumes.*** |
| **Safety and crossing projects** ***address critical safety issues, particularly at grade crossings.*** |
| **Connectivity projects** ***work to improve integration between rail lines, fostering a more cohesive and efficient transportation network.*** |

Source: CPCS Analysis, 2024

[44] FHWA, FY 202226 Estimated Program-By-Program Apportionments Under the Infrastructure Investment and Jobs Act, Public Law 117-58 (Bipartisan Infrastructure Law), accessed September 26, 2024. https://www.fhwa.dot.gov/bipartisan-infrastructure-law/docs/Est_FY_2022-2026_Apportionments_Infrastructure.pdf

**TABLE 8-3: FUNDED AND UNFUNDED CAPITAL PROJECTS BY CATEGORY**

| Freight Rail Project Category | Total Number of Projects | Amount | Number of Funded Projects | Amount | Number of Unfunded Projects | Amount (GAP) | Unknown Cost Projects |
|---|---|---|---|---|---|---|---|
| **All Projects** | 195 | $700,961,659 | 101 | $171,357,908 | 65 | $529,603,751 | 29 |
| **Capacity** | 8 | $178,170,446 | 2 | $2,411,446 | 5 | $175,759,000 | 1 |
| **Multimodal/ Access** | 21 | $59,895,817 | 7 | $6,106,817 | 9 | $53,789,000 | 5 |
| **Safety/ Crossing Improvement** | 143 | $233,535,508 | 89 | $157,515,508 | 32 | $76,020,000 | 22 |
| **State of Good Repair/ Modernization** | 23 | $229,359,888 | 3 | $5,324,137 | 19 | $224,035,751 | 1 |

Source: CPCS and WSP analysis, 2024

### 8.1.4 UNFUNDED FREIGHT PROJECTS/NEEDS

A total of 94 unfunded freight projects were identified, of which 65 projects had cost estimates provided. The total estimated cost of the 65 unfunded projects is $530 million. The unfunded but identified freight projects are from the following sources:

- Consultation with stakeholders conducted during 2024
- Survey administered to Minnesota's short line and regional railroads
- Consultation with Minnesota's Class I railroads
- Regional planning studies
- RailNOW, which is a compilation of needs identified by the short line and regional railroad industry.[45]

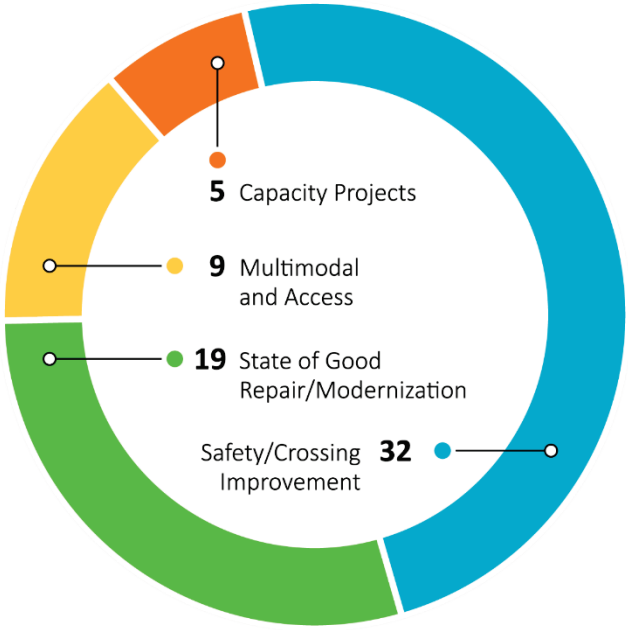
Section D.3 of Appendix D contains tables with a listing of projects that lack an identified funding source. These projects represent unfunded needs.

Consultations were conducted with railroad stakeholders including Port Authorities, warehousing, and commodity carriers, Class I railroads, and a survey was administered to short line railroad companies in Minnesota. The short line survey received 15 responses which identified 22 projects. Eleven projects were identified through the industry survey, RailNOW.

Sixty-five projects included in Table 8-3: Funded and unfunded capital projects by category had descriptions that allowed for categorization which is shown in Table 8-2.

[45] RailNow - 2024-2029 forecast

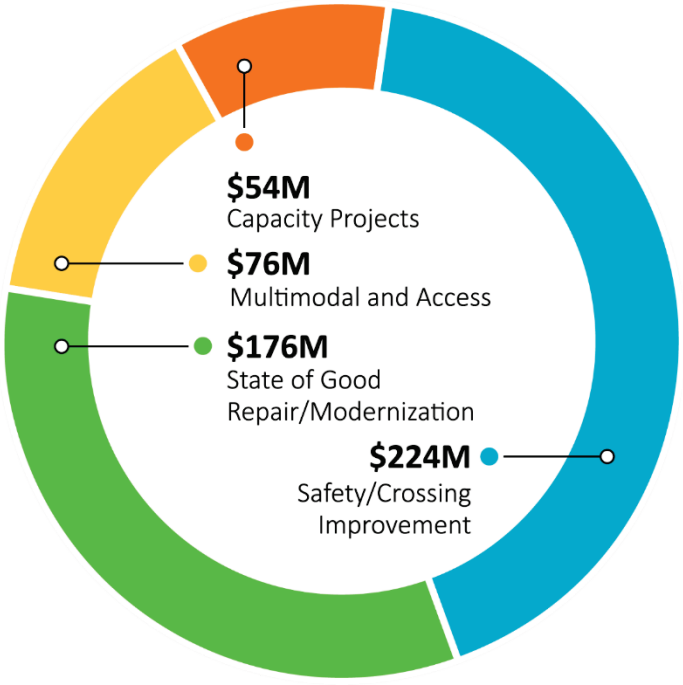
**FIGURE 8-1: NUMBER OF UNFUNDED FREIGHT PROJECTS CATEGORIZATION**




Source: CPCS and WSP analysis, 2024
Note: The figure above includes projects that had an unknown or unavailable funding status at time of preparation.

By value, the State of Good Repair/Modernization projects are the largest category per Figure 8-2.

**FIGURE 8-2: UNFUNDED FREIGHT RAIL CATEGORIES BY TOTAL PROJECT COSTS**



## 8.2 PASSENGER RAIL CORRIDOR INVESTMENT PROJECTS & PRIORITIZATION

Intercity passenger rail investment in Minnesota is led by MnDOT and its partners. Building upon previous state rail plans, this Rail Plan is intended to comply with Minnesota's updated requirements and to support a shared understanding of longer-term possibilities for the state's passenger rail system. The Rail Plan follows the requirements of Minn. Stat. 174.03, Subd. 1b, which states that the Rail Plan:

> *"...prioritizes future passenger rail capital improvement projects based on a scoring system. The plan must identify the criteria, weight of each criterion, and process used to score each [capital improvement] project based on the weighted criteria. The plan must list the candidate projects evaluated, the score assigned, and any other reasons for prioritizing a project other than the score."*

In contrast to freight projects, which are often discrete infrastructure improvements, state and federal requirements to expand or establish a new passenger rail service are not a single infrastructure project, but a program of projects and coordinated actions to make the service possible. Equally important are agreements that must be established before initiating passenger rail service, potential acquisition of equipment to provide the service, and coordination with governmental and non-governmental partners with interests in the service. Related actions can include, but are not limited to:

- To advance a passenger rail service, coordination is often required between agencies, state governments, and the USDOT and FRA. For many new potential routes, this includes evaluation of route choice, which will include one or more of the destinations identified in Appendix E.
- Agreements with the host railroad(s). Nearly all passenger rail projects in the United States rely on existing rail lines owned by freight railroads. There is little that can be accomplished without the agreement of the property owners, and projects must be structured so that freight railroads see them as mutually beneficial for the freight railroad and the passenger rail project sponsors.
- Agreements with service providers. The parameters of the services to be provided must be contractually defined to such an extent that all parties understand and can establish the operation, maintenance, and equipment requirements of the service, all the way down to details such as cleaning during layovers, amenities, and other services provided on the train.
- Agreements with the FRA. The FRA not only provides funding for intercity passenger rail projects, but also regulatory approval. Regulatory approval includes environmental approvals under the National Environmental Policy Act.
- Agreements with local units of government. Local units of government may own stations or station property off of the railroad rights-of-way and have a variety of local interests that may relate to, or impact, the provision of passenger rail transportation. Local units of government are consulted on use of the stations and any required changes to stations or station adjacent areas, or new stations. Locating layover and maintenance facilities may also be required.

### 8.2.1 FEDERAL RAILROAD ADMINISTRATION PROCESSES

Given the complexity of establishing passenger rail services, the FRA has developed a process for development of new passenger rail projects, summarized in the infographic shown as Figure 8-3.

**FIGURE 8-3: FRA PROJECT LIFECYCLE**

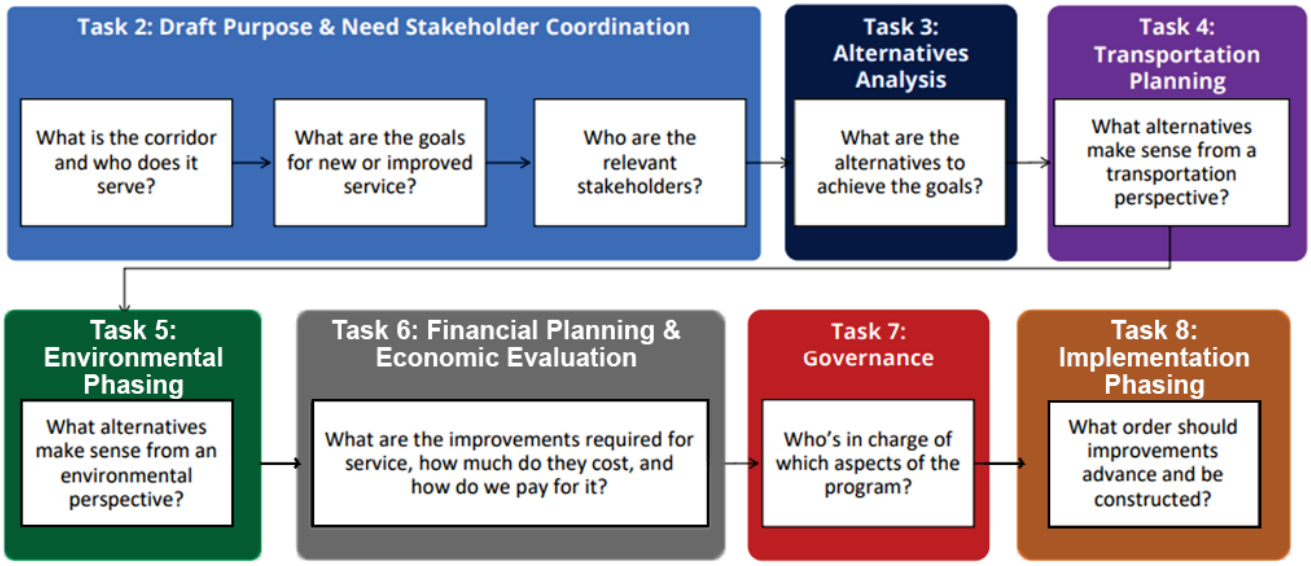
The FRA defines each stage as follows:

| | |
|---|---|
| Systems Planning | Systems planning examines broad needs, challenges, and opportunities that can be addressed with a transportation-related solution, including capital projects. This Rail Plan is a component of systems planning. |
| Project Planning | Project planning defines the passenger rail service, its purpose and need, how it would operate, what the service would be, what the likely ridership and capital/operating costs would be, where the funding would likely come from, who would manage the service, and anticipated benefits of the service. The FRA's primary tool for project planning is a Service Development Plan (SDP), although less extensive feasibility studies could proceed SDPs. |
| Project Development | The project development phase ensures that the project is ready for implementation, including preliminary engineering, environmental review, and other studies. |
| Final Design | During final design, all agreements and funding commitments are finalized. Final engineering and specification plans for the project are completed. |
| Construction | Infrastructure is constructed, necessary equipment is procured. |
| Operation | Service is operating and infrastructure is maintained. |

#### 8.2.1.1 CORRIDOR ID PROGRAM

In the 2021 Infrastructure, Investment, and Jobs Act the federal government charged the FRA with creating the Corridor Identification & Development Program (CID Program). Among projects selected for the CID Program was MnDOT's Northern Lights Express (NLX). The CID Program is a new, standardized approach for planning new or expanded passenger rail services across the nation. It is intended to assist project sponsors with Project Planning and Project Development phases of the project lifecycle shown in Figure 8-3. A key element of the Project Planning phase is to prepare a Service Development Plan (SDP) which asks a series of questions about projects as shown in Figure 8-4.

**FIGURE 8-4: SERVICE DEVELOPMENT PLAN**




Source: FRA

There will likely be many project proposals, but upon further analysis and consideration, not all proposals will proceed. The Corridor ID program is considered by the FRA to be a vehicle to develop a pipeline of corridor infrastructure projects that can be eligible for priority funding under the FRA's Federal State Partnership program or other federal discretionary grant programs.

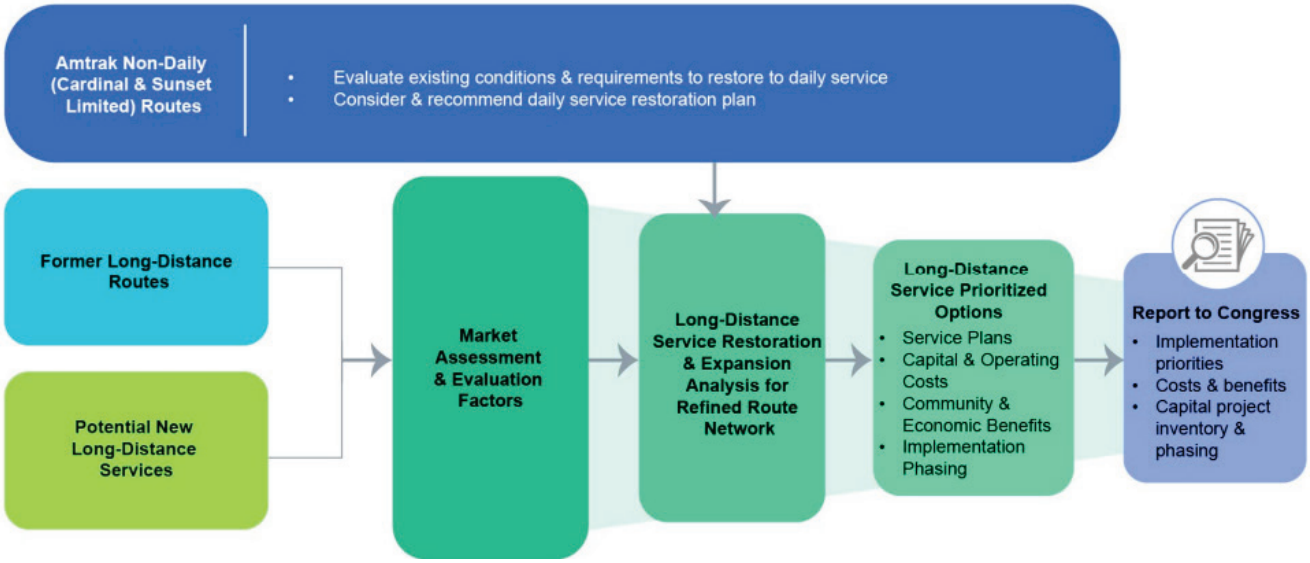
#### 8.2.1.2 FRA LONG-DISTANCE SERVICE STUDY

In January 2025, the FRA completed a study that evaluated potential additions to the national network of long-distance passenger rail routes.

These are routes over 750 miles that are funded by the federal government. Officially titled the "Amtrak Long-distance Service Study," the study evaluated options for restoring and enhancing daily service on routes, selected preferred options for restoring or enhancing service, developed a prioritized inventory of capital projects and estimate costs, recommended methods for Amtrak to interact with communities on routes, and identified funding sources. Figure 8-5 summarizes the FRA long-distance study approach.

The study identified four routes that may pass through or have an endpoint in Minnesota. These routes include Phoenix-Minneapolis/St. Paul, Denver-Minneapolis/St. Paul, San Antonio-Minneapolis/St. Paul, and Seattle-Chicago (North Coast Hiawatha route which is in the Corridor ID program). If all these routes are implemented, the Twin Cities would become a new hub for long-distance trains.

**FIGURE 8-5: LONG-DISTANCE STUDY APPROACH**




Source: FRA Long-Distance Study

## 8.2.2 CORRIDOR AND INVESTMENT IDENTIFICATION

### 8.2.2.1 CORRIDOR TYPES

During the Public Engagement Phase of the Rail Plan, many passenger rail concepts, routes, and destinations were proposed by stakeholders and the public through public comments, surveys, listening sessions, and interviews. Through an internal evaluation process that considered a potential corridor's scope, appropriateness, and overlap, the original list was condensed into a list of corridors that may encompass multiple route options. These potential corridors are sorted based on their general characteristics, defined as follows:

- New passenger rail corridors or services are proposed services between metropolitan areas where none currently exists.
- Expanded passenger rail frequencies or extensions are geographic extensions of existing intercity corridors or the addition of service on existing corridors through additional route frequencies.
- Capital improvement projects within existing corridors are infrastructure improvements aimed to enhance the reliability, speed, capacity of existing or future intercity passenger rail service on that corridor.

Proposed corridors are in varying levels of development, with origins and destinations that are located across Minnesota and the region. A complete list of potential and proposed corridors is discussed below.

The inclusion of projects in the Rail Plan's ranking and prioritization is representative of the public engagement during this planning process and is not an endorsement or commitment by MnDOT.

### 8.2.2.2 CORRIDOR PRIORITIZATION AND READINESS

Passenger rail prioritization in the Rail Plan is based on future corridor development that would support intercity passenger rail service between key origins and destinations. Corridors are sorted based on project score into three priority levels. Each priority level relates to prior planning, engineering, and public process that has been conducted in support of the

corridor. A complete list of corridors with details regarding corridor scoring is available in Appendix E.

- Current or advanced program development corridors are passenger rail corridors where significant levels of planning, environmental evaluation, and sometimes even engineering is completed. These corridors are identified as "Priority 1" in Appendix E.

  To reach the level of *Current or Advance Program Development*, a given corridor may have one or more of the following characteristics:

  - An identified route, potentially including station locations
  - Coordination with one or more host railroad may be underway
  - Decisions about service frequency or other service-specific characteristics may be underway or complete.
  - Aligns with service expansion to existing passenger rail services in the state.

- Corridors in planning are corridors that are in the early stages of the project planning phase of a project's lifecycle, including corridors selected as part of a state or federal program. Corridors reach the *Corridors in Planning* stage through actions that result in selection of primary origins and destinations, early evaluation of mode choice for the corridor, and an initial understanding of the appropriate federal processes to advance the corridor's development. In Appendix E, *Corridors in Planning* are identified as "Priority 2." Four potential future corridors are in planning.

- Potential future corridors are opportunity locations for system expansion where origins and destinations have been identified, but no immediate planning work is scheduled or anticipated. Coordination between planning efforts is crucial for *Potential Future Corridors*, because there is sometimes overlap between origins and destinations, and because the potential corridors may also be part of a potential future state-supported or long-distance passenger rail service that provides access both to places within Minnesota and places outside the state. *Potential Future Corridors* are identified as "Priority 3" in Appendix E.

#### 8.2.2.3 PROCEDURE TO ESTABLISH PRIORITIES

Prioritization of passenger rail initiatives, including both potential service investment and capital infrastructure investments in the existing system, are subject to a requirement in Minnesota statute that requires a system that "prioritizes future passenger rail capital improvement projects based on a scoring system." This scoring matrix for study corridors does not replace a more complete benefit-cost analysis of a route, typically completed at the time of project development, nor track ownership or condition. Final route alignments are considered in future analysis, following adoption of the Rail Plan.

Rail track and other infrastructure used for passenger rail in the state is predominately owned by private railroad companies. As such, capital investments require close coordination with the owners of infrastructure and the systems operating a passenger rail service. There are two general categories of public investments that might be made in support of passenger rail infrastructure:

- Capital improvements. Directed capital improvements, including those projects described in Appendix E Appendix E, support existing passenger rail services. These investments may occur as one-time or recurring investments in one or more specific aspect of a passenger rail service, such as creation of a new track siding, station improvements, or signal upgrades. Capital improvements for passenger rail may be coordinated with the freight rail system. This is because the existing passenger rail services located in Minnesota rely upon jointly operated infrastructure that carries both freight and passenger service.

- **New corridor development.** Adding new passenger rail services necessitates significant public, outreach, and involvement, evaluation of a wide range of potential infrastructure investments to support a new service, and choices about route, station locations, and frequency. Investment in a new passenger rail service often requires acquisition of rolling stock, a function that is actively under evaluation by MnDOT, and one which has a long lead time. New corridor development may involve investments across long distances, and the total number of included capital improvements may be extensive. For such projects, involvement of one or more host railroad, many local communities, a service provider, and often both the state and the federal government necessitates planning over a multi-year time horizon. New corridors were proposed as part of the Rail Plan process, and are scored in Table E-6, Appendix E, based on the criteria established in Table 8-4: Scoring criteria of new corridors.

**TABLE 8-4: SCORING CRITERIA OF NEW CORRIDORS**

| Category | Explanation & Weighting | Range |
|---|---|---|
| Level of planning / preparedness | Points established based on the total level and relevancy of prior planning, including federal or state funded studies; continuity of work and evaluation; level of public participation and dialogue | 0 – 10 |
| Population centers served: Potential connections to the Twin Cities metropolitan areas, other Minnesota MPO areas, and rural areas | 2 points for Twin Cities<br>1 point for other Minnesota MPO<br>1 point for rural connections | 0 – 4 |
| Connection to existing routes | 3 points for connections to existing service and connections to metropolitan areas with a population of over 500,000 outside Minnesota and connected to the US intercity passenger rail network<br>2 points for connections to existing service in one location<br>1 point for bus or other modal connections but no rail connection | 0 – 3 |
| Connections to underserved or historically disadvantaged communities | Points for lack of existing passenger rail access; presence of one or more existing low to moderate income census tracts in potential jurisdictions served | 0 – 3 |
| Total | | 0 – 20 |

The assessment of passenger rail focuses on five primary study areas:

### Northwest Study Area:

- Existing Empire Builder service area
- Potential for additional service between Fargo-Moorhead and the Twin Cities recently evaluated by MnDOT
- Includes the Big Sky Passenger Rail Authority project for North Coast Hiawatha, potentially expanding connection options between Chicago and the Pacific Northwest.

### Northeast Study Area

- A preferred alignment was identified in 2017
- Duluth is the northern terminus
- Included in the FRA Corridor ID program

### Twin Cities Metro

- Primary origin and destination and transfer point
- Future analysis may evaluate the connection between Minneapolis and St. Paul central business districts and MSP Airport

### Southeast Study Area

- Existing Empire Builder and Borealis service area
- Includes Corridor ID studies initiated by Wisconsin partners
- Potential for future capital investment to support service in the corridor

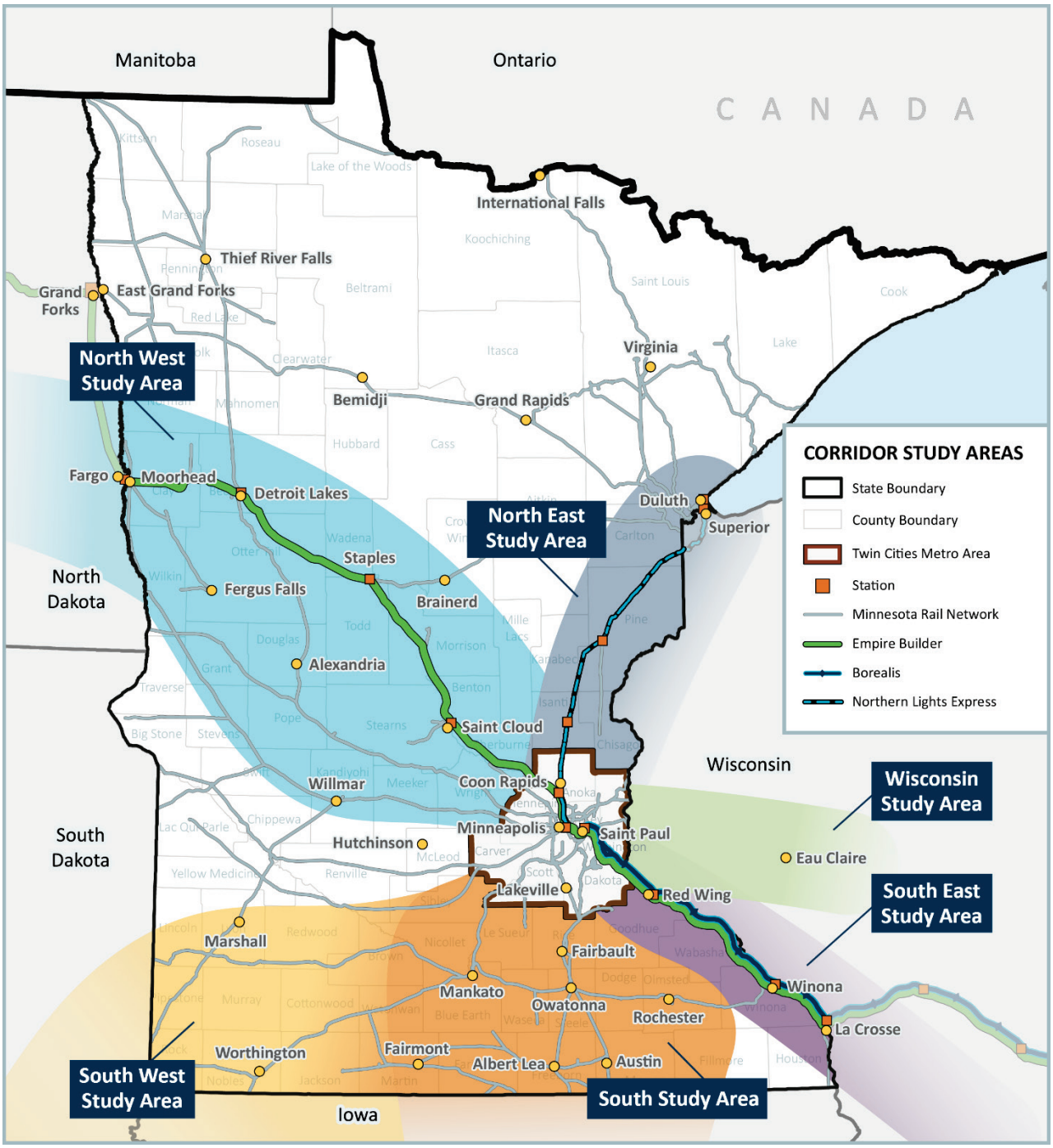
### South Study Area

- One or more potential alignments
- Further analysis required
- Potential for system connections to Des Moines, Kansas City, St. Louis

### Southwest Study Area

- One or more potential alignments
- Further analysis required
- Potential for future system connections to Sioux Falls, Omaha, Kansas City

## FIGURE 8-6: PASSENGER RAIL STUDY AREAS



### 8.2.3 GENERAL APPROACH TO CONSIDERING PASSENGER RAIL CORRIDORS

As MnDOT considers new passenger rail corridors, several concepts will help to guide these considerations:

- **MnDOT will define corridors in a way that is flexible and considers intermediate segments within potential passenger rail corridors**. MnDOT will take a flexible approach to assessing and potentially advancing passenger rail corridors and routes. Corridors may be studied and developed incrementally and in corridor segments or phases. Passenger rail development could focus on sections of a corridor, where the ultimate purpose is to develop the entire corridor or finalize decision-making about specific route choices. MnDOT may work with partners, so MnDOT and other parties could each potentially, study pieces of a corridor. While the FRA has established the Service Development Plan (SDP) as the primary written document for corridor planning, MnDOT could sponsor/participate in planning efforts that precede a full SDP effort, focusing on corridor segments.
- **MnDOT will consider corridors within Minnesota in a national and regional context.** Corridors within Minnesota may be components of larger, national or regional passenger rail corridors or routes. MnDOT will consider whether activities within Minnesota can enhance national or regional passenger rail networks. MnDOT may enter multi-state partnerships where appropriate. The nature of these partnerships will depend upon their purpose. They could be mutual planning arrangements, partnerships to pursue federal grant monies, or partners in corridor construction and implementation.
- **MnDOT will be open to a range of alternatives for passenger rail corridors.** Often, passenger rail corridors are defined by specific existing freight corridors, routes, or track. MnDOT will seek to consider a broad range of passenger rail alternatives, which may include alternatives beyond an existing freight rail corridor, for service at appropriate or higher speeds as may be warranted or feasible.

General passenger rail goals are below:

**Passenger Rail Goals:**

*1. Develop and expand a passenger rail system connecting Minnesota's rural and urban areas to the region.*

*2. Invest in passenger rail to leverage or expand capacity, reliability, convenience, safety, and performance in the transportation system for efficient movement of people and goods.*

*3. Support travel options, including rail, that connect destinations, especially where intercity travel can be made easier, more convenient, or broaden access for all Minnesotans.*

*4. Leverage investments in passenger rail to support accessibility, economic growth, and choices that expand personal mobility and convenience.*

*5. Recognize statewide and local benefits to a high-capacity passenger rail system, including the possibility to advance climate action goals.*

### 8.2.4 AMENDMENTS – PASSENGER RAIL DEVELOPMENT

State rail plans are adopted at a specific point in time. This Rail Plan includes corridors that were appropriate to advance from the 2015 State Rail Plan and were recommended or proposed by stakeholders during the planning process. During the evaluation process, commuter rail development and capital improvement projects were identified for future study:

- Commuter rail development. Changes arising in travel patterns following the COVID-19 pandemic necessitate continued evaluation of proposed changes to existing commuter services.
- Capital improvement projects. Capital improvements to the systems serving the state's passenger rail services may result in benefits to service delivery. Those improvements may provide for system capacity expansion through construction of new track or bridge improvements or could result in more consistent on-time performance or faster service.

If necessary, based on changing market demand, evaluation of capital needs, or updates to corridors for evaluation, amendments to the Rail Plan should be proposed, if such an update is necessary prior to the next, complete update of the Rail Plan.

The FRA finalized its long-distance passenger rail planning process in January 2025. That plan will be evaluated for its relation to the passenger rail systems serving Minnesota, and for opportunities to conduct planning or implementation initiatives in coordination with FRA and other partners. This is consistent with MnDOT's approach of considering Minnesota passenger corridors in a national and regional context.

# 9. PUTTING IT ALL TOGETHER, WHAT DOES THIS RAIL PLAN RECOMMEND, AND WHAT ARE THE BENEFITS TO MINNESOTA?

**Chapter Contents**


- General recommendations
- Benefits of completing the rail plan
- Monitoring process


## 9.1 GENERAL RECOMMENDATIONS

Many of the actions and investments proposed in this Rail Plan point to activities that MnDOT and other public sector entities already perform:

- **Planning, funding, and implementing passenger rail initiatives.** Developing passenger rail initiatives is a process whereby initiatives move from concept level planning to project planning, project development, final design and construction, and implementation. MnDOT will continue to advance passenger rail initiatives through this process and investigate opportunities to improve existing services.
- **Funding freight rail improvements through the MRSI program.** MnDOT will continue to support freight rail in Minnesota through the MRSI program. It may also be prudent to revisit some of the freight rail industry recommended changes to the MRSI program and determine whether any revision merits a proposal to the Minnesota Legislature.
- **Improving safety at highway/rail grade crossings by administering the federal Section 130 program.** MnDOT will continue to move forward with the actions as specified in the Minnesota Grade Crossing Action Plan.

For other actions proposed in this Rail Plan, MnDOT or other public entities would play a facilitating, advisory, and/or a funding role in areas such as intermodal initiatives, land use planning, or active transportation planning, where local municipalities or private companies would have primary responsibility for completing actions.

An important purpose of rail plans is to identify state actions that may necessitate applications for federal funding support. MnDOT will maintain a pipeline of potential projects for federal grant opportunities. Table 9-1 matches federal competitive grant programs to railroad project categories and costs based on input received for this plan. While the project categories identified would be a good fit for the listed funding opportunities, further analysis is needed to determine if specific projects align with the statutory and administratively determined merit or selection criteria outlined in each program's Notice of Funding Opportunity. Descriptions of each program are provided in Technical Memorandum #1 of this Rail Plan.

### TABLE 9-1: ELIGIBLE FEDERAL GRANT PROGRAMS FOR PROJECTS

| Project Cost | Number of Projects | Project or Project Category | Discretionary Grant Programs |
|---|---|---|---|
| >$500 million | None | NA | NA |
| $100 - $500 million | 1 | East Metro Rail Yards | Mega - $100 - $500M category<br>INFRA – large project (>$100M), must be ready for construction within 18 months of obligation |
| $50 - $100 million | 2 | MRRRA – State of Good Repair (SOGR)/Modernization<br>TC&W – Joint Elimination – SOGR | INFRA – small project<br>CRISI – planning grants available<br>BUILD – minimum $5 million in urban areas/$1 million in rural areas, maximum grant is $25 million, planning grants available |
| $25 - $50 million | 2 | Ellis &Eastern – SOGR<br>Buffalo Ridge RRA – EE Multimodal/Access | INFRA – small project<br>CRISI – planning grants available<br>BUILD – planning grants available |
| $10 - $25 million | 8 | 4 Safety/Crossing Improvement<br>1 SOGR/Modernization<br>2 Capacity<br>1 Multimodal/Access | Safety projects –<br>RCE – 1 grade separation<br>CRISI – 3 CP projects not eligible<br>INFRA – small project<br>BUILD<br>Section 130<br>MRSI<br>SOGR project<br>CRISI planning grant<br>BUILD planning grant<br>Capacity projects<br>INFRA – small project<br>BUILD<br>Multimodal Access project<br>INFRA – small project<br>BUILD<br>MRSI |
| $1 - $10 million | 22 | 5 Safety/Crossing Improvement<br>11 SOGR/Modernization<br>2 Capacity<br>4 Multimodal/Access | Determined on a Project by Project Basis<br>INFRA – small project<br>CRISI – for Short Line projects and grade separations<br>RCE – for grade separations<br>BUILD<br>Section 130<br>MRSI<br>EDA – if in an economically distressed area |

| Project Cost | Number of Projects | Project or Project Category | Discretionary Grant Programs |
|---|---|---|---|
| $10,000 - $1 million | 30 | 23 Safety/Crossing Improvements<br>4 SOGR/Modernization<br>0 Capacity<br>3 Multimodal/Access | Determined on a Project by Project Basis<br>INFRA – small project<br>CRISI – for Short Line projects and grade separations<br>RCE – for grade separations<br>BUILD<br>Section 130<br>MRSI<br>EDA – if in an economically distressed area |
| Unknown | 29 | 22 Safety/Crossing Improvements<br>1 SOGR/Modernization<br>1 Capacity<br>5 Multimodal/Access | Determined on a Project by Project Basis<br>INFRA – small project<br>CRISI – for Short Line projects and grade separations<br>RCE – for grade separations<br>BUILD<br>Section 130<br>MRSI<br>EDA – if in an economically distressed area |

## 9.2 MONITORING PROGRESS

Meaningful and available performance measures are needed to monitor the progress of the Rail Plan and achieve its objectives.

Table 9-2 lists performance measures that focus on the six Statewide Multimodal Transportation Plan objectives. Also listed are the sources of these performance measures, since some have previously been proposed or are in use elsewhere:

- Dashboard. Performance measures are tracked by MnDOT in its Performance Measure Dashboard[46]
- Freight Plan. Performance measures have previously been proposed as part of the Minnesota State Freight Plan[47]
- Rail Plan. Performance measures are newly proposed as part of this Rail Plan

Gathering information for performance measures will require resources. Some information may need to be gathered by a survey of private railroad companies, which is a resource-intensive process. MnDOT will use these measures occasionally to assess progress such as while preparing a periodic Rail Plan update, as access to data may present challenges. Other performance data are publicly available, and thus easier to gather and assess on a more frequent annual or bi-annual basis.

Selective rail-related performance measures that are already included in the multimodal Performance Measure Dashboard will be monitored, plus several others including:

- Passenger rail performance measures, including ridership and on-time performance
- Rail miles unable to accommodate 286,000-pound railcars

[46] https://www.dot.state.mn.us/measures/

[47] https://www.dot.state.mn.us/planning/freightplan/index.html

## TABLE 9-2: PERFORMANCE MEASURES

| Measure | Description | Current Condition | Target | MnDOT's Role | Reporting | Source |
|---|---|---|---|---|---|---|
| **Safety** | | | | | | |
| Train Derailments | Annual total number | 18 (2020) | 0 | Partner | Number and trend | Dashboard, Freight Plan |
| Rail grade crossing fatalities and serious injury crashes | Annual number of crashes at highway/rail grade crossings that result in a fatality or serious injury | 4 fatalities and 11 serious injuries (2021) | 0 | Lead and Partner | Number and trend | Dashboard, Freight Plan |
| Rail grade crossing risk | Annual percent of highest risk crossings receiving improvements | | ≥5% annually | Lead and Partner | Percent and trend | Freight Plan |
| Railroad Trespassing Incidents | Three year rolling average fatalities | 4.6 | Decreasing trend | Partner | Number and trend | Freight Plan |
| Number of grade crossings | Number of public highway/rail crossings | 4,138 | Decreasing trend | Lead and Partner | Number and trend | Rail Plan |
| **System Stewardship** | | | | | | |
| Track meeting 286k standard | Track that cannot meet 286K standard | 254 miles | 0 | Support | Miles | Rail Plan |
| Mileage of rail line abandoned or out of service | Mileage of U.S. rail network that is abandoned or out of service status in Minnesota | | No increase | Partner and support | Miles | Rail Plan |
| DBE goals obtained | Percent of MnDOT funded rail projects with DBE goals | | 100% | Partner | Percent | Rail Plan |
| **Climate Action** | | | | | | |
| Rail Greenhouse Gas Emissions | Net zero emission by 2050 | | | | | MnDOT Dashboard |
| Zero or low emission locomotives placed online | Number of zero or low emissions locomotives publicly funded (total number if available from private partners) | 0 | Increasing trend | Partner and Support | Number and trend | Rail Plan |

| Measure | Description | Current Condition | Target | MnDOT's Role | Reporting | Source |
|---|---|---|---|---|---|---|
| **Critical Connections** | | | | | | |
| **Intercity passenger rail customer On-Time Performance** | Quarterly on-time performance for intercity passenger rail routes | Borealis 53.8% in Q3, 2024, 61.3% in Q4 2024 | 80% for two consecutive quarters | Support | Percent and trend | Rail Plan |
| **Intercity Passenger rail ridership** | | | Increasing trend | Support | Trend | Rail Plan |
| **Intercity Passenger Rail Passengers per Train** | Number of train-miles divided by the number of passenger miles | | Increasing trend | Support | Trend | Rail Plan |
| **Percent of Minnesotans within a 1-hour drive to access intercity passenger rail** | | | Increasing percentage and trend | Support | Percent and trend | Rail Plan |
| **Healthy Equitable Communities** | | | | | | |
| **Air quality** | Number of criteria pollutants below National Ambient Air Quality Standards threshold each year | Minnesota is in compliance with NAAQS | All criteria pollutants below NAAQS | Partner | Number and which pollutants not meeting standards | Rail Plan |
| **Open Decision Making** | | | | | | |
| **Project level public engagement measures** | e.g. post project surveys | In development | Work plan item | Partner | Percent and trend | Rail Plan |
| **Partner coordination** | MnDOT coordination with railroad stakeholders | | Bi-annual meetings to discuss agreed upon agenda | Lead | Number | Rail Plan |

## 9.3 BENEFITS OF COMPLETING THE RAIL PLAN

An analysis of rail impacts was completed in 2.2.5 and 2.3.2 of this Rail Plan, suggesting that the actions and investments of this Rail Plan could have major benefits and help significantly forward SMTP objectives, including:

- Diverting one passenger in a light duty vehicle from highway to rail between Chicago and the Twin Cities saves $296 in emissions, congestion, safety, and vehicle operating costs. But this does not count all benefits. Additionally, passenger rail provides communities with transportation options, particularly valuable for those that do not own automobiles. People may enjoy and prefer train journeys to other modes such as traveling in a car. Passenger rail can support economic development by connecting economies and creating transportation hubs within communities.
- Diverting a single truck trailer to intermodal rail between the Twin Cities and Chicago provides $301 in public benefits, and a project that diverts the equivalent of 1,000 rail carloads to rail from truck over 20 years results in $38.6 million in benefits. These calculated benefits reflect savings in emissions, pavement damage, congestion, and highway crashes only. They do not include savings to shippers that may result from rail improvements that lower shipping costs, nor do they account for the economic development benefits as rail helps to attract/strengthen shippers in Minnesota communities. Freight rail is particularly important for rural communities, whose industries often require shipments of bulk raw materials, where shipment distances are long, and roadway networks into shipper locations are not always as well developed.

# APPENDICES

# APPENDIX A. TRANSPORTATION COMMUNITY IMPACTS ANALYSIS

This appendix provides an analysis of the statewide rail system's benefits and burdens to address the community impacts of transportation upon specific populations, including Black, Indigenous, and People of Color (BIPOC), people who are low-income, people who have limited English proficiency, people who are age 65 or older and age 16 or younger, and households without a vehicle. This analysis uses both qualitative and quantitative data analysis to review existing conditions and provide recommendations to avoid, minimize, or mitigate burdens through the project planning and decision-making process. Recommendations are provided at the end of this appendix.

## *A.1 Community impacts analysis overview*

The three fundamental transportation impact principles of this analysis are to:

- Avoid, minimize or mitigate disproportionately high adverse human health and environmental effects, including social and economic effects, on minority and low-income populations.
- Ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- Prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

Minority and low-income populations as:

- Black – a person having origins in any of the black racial groups of Africa.
- American Indian and Alaskan Native – a person having origins in any original people of North America and who maintains cultural identification through tribal affiliation or community recognition.
- Asian – a person having origins in any of the original peoples of the Far East, Southeast Asia or the Indian subcontinent.
- Native Hawaiian or Other Pacific Islander – a person having origins in any of the original people of Hawaii, Guam, Samoa and other Pacific Islands.
- Hispanic – a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.
- Low-income – a person whose household income (or in the case of a community or group, whose median household income) is at or below the U.S. Department of Health and Human Services poverty guidelines.

MnDOT chooses to expand its community impact analysis to include people aged 65 and older, people aged 16 and younger, people with limited English proficiency, people with disabilities, and households with zero vehicles because these groups tend to have additional transportation needs.

## *A.2 Overview and commitment*

In 2022, MnDOT adopted a Transportation Equity Statement of Commitment in the SMTP:

> **Acknowledgment of Past Harms**
>
> MnDOT acknowledges the transportation system and agency decisions have underserved, excluded, harmed and overburdened some communities. We understand some of our past decisions denied Black and Indigenous communities as well as people with disabilities the full participation of transportation benefits. These and other underserved communities have historically carried disproportionate burdens of transportation decisions.
>
> **What Transportation Equity Means to MnDOT**
>
> MnDOT is committed to creating an equitable transportation system. Transportation equity means the benefits and burdens of transportation systems, services and spending are fair and just, which historically has not been the case. Transportation equity requires ensuring underserved communities, especially Black, Indigenous and People of Color, share in the power of decision making. The journey of transforming our transportation systems, services and decision-making processes will require ongoing listening, learning, changing, implementing and adapting. Everyone in our agency regardless of position or work assignment has a role to advance transportation equity. We will partner with community members, community-based organizations, transportation service providers, Tribal Nations and government institutions to evolve our work and to positively change outcomes for our communities.

Historically, transportation policy, design, and operations decisions have led to inequities for underserved populations, and these communities continue to bear a disproportionate burden of the negative impacts of those decisions today. Analyzing transportation impacts will ensure the benefits and burdens resulting from transportation investments and policy decisions are equitably distributed among all communities. MnDOT does this by working toward three fundamental principles:

- Avoid, minimize or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
- Ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- Prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.[48]

In the context of a state rail system, community impacts analysis address planning, development, and operation of the rail system do not disproportionately burden or harm particular populations.

[48] Environmental justice at MnDOT, www.mndot.gov/environmentaljustice

### A.2.1 Overview of Minnesota's transportation impacted population

According to the U.S. Census Bureau, American Community Survey 2022 5-Year Estimates, there are 5,695,292 people living in Minnesota. Table A-1 shows Minnesota's population based on race, ethnicity, age, limited English proficiency and households with zero vehicles. As noted in the table:

- Approximately 20% of Minnesota's population is Black, Indigenous, and People of Color (BIPOC)
- Minnesota's Black population is the state largest minority population, closely followed by Hispanic and Asian populations
- People aged 65 and older account for approximately 17% of the state's population, while those aged 16 and under account for 20%
- Approximately 12% of households are below the poverty level
- Approximately 5% of people are limited English-speaking
- Approximately 11% of people in Minnesota have a disability
- Nearly 7% of Minnesota households do not have a vehicle

**TABLE A-1: MINNESOTA DEMOGRAPHICS, U.S. CENSUS, 2022 AMERICAN COMMUNITY SURVEY 5-YEAR ESTIMATES**

| Population | Total Group Population | Percent of Population |
|---|---|---|
| Total population | 5,695,292 | 100.00% |
| Total households | 2,256,126 | 100.00% |
| White alone | 4,537,219 | 79.76% |
| Black alone | 382,082 | 6.71% |
| American Indian or Alaska Native alone | 51,434 | 0.90% |
| Asian alone | 286,146 | 5.02% |
| Native Hawaiian and Other Pacific Islander alone | 2,324 | 0.04% |
| Some other race alone | 133,098 | 2.34% |
| Two or more races | 302,989 | 5.32% |
| Hispanic | 327,049 | 5.74% |
| Age 65 and older | 939,396 | 16.49% |
| Age 16 and under | 1,158,045 | 20.33% |
| Households below the poverty level[49] | 278,388 | 12.34% |
| Limited English-speaking people[50] | 240,339 | 4.49% |
| Households with zero vehicles | 148,463 | 6.58% |

[49] Households with incomes less than $25,000.

[50] For population 5 years and older. Total estimated Minnesota population age 5 and older is 5,354,746.

Race/ethnicity, socioeconomic status and other demographic factors are important to understand because they can be an indicator of one's health, access, and life outcomes. Transportation impact populations in Minnesota tend to disproportionately bear the burdens of the statewide transportation system. Minnesota continues to grow more diverse, but economic and social disparities continue to persist throughout the state. As Minnesota looks to the future, the transportation system needs to adapt to changing needs and address systemic disparities that reinforce and reproduce harms. Transportation infrastructure and policy are one way to serve transportation impact populations more equitably.

**FIGURE A-1: MNDOT DISTRICTS**

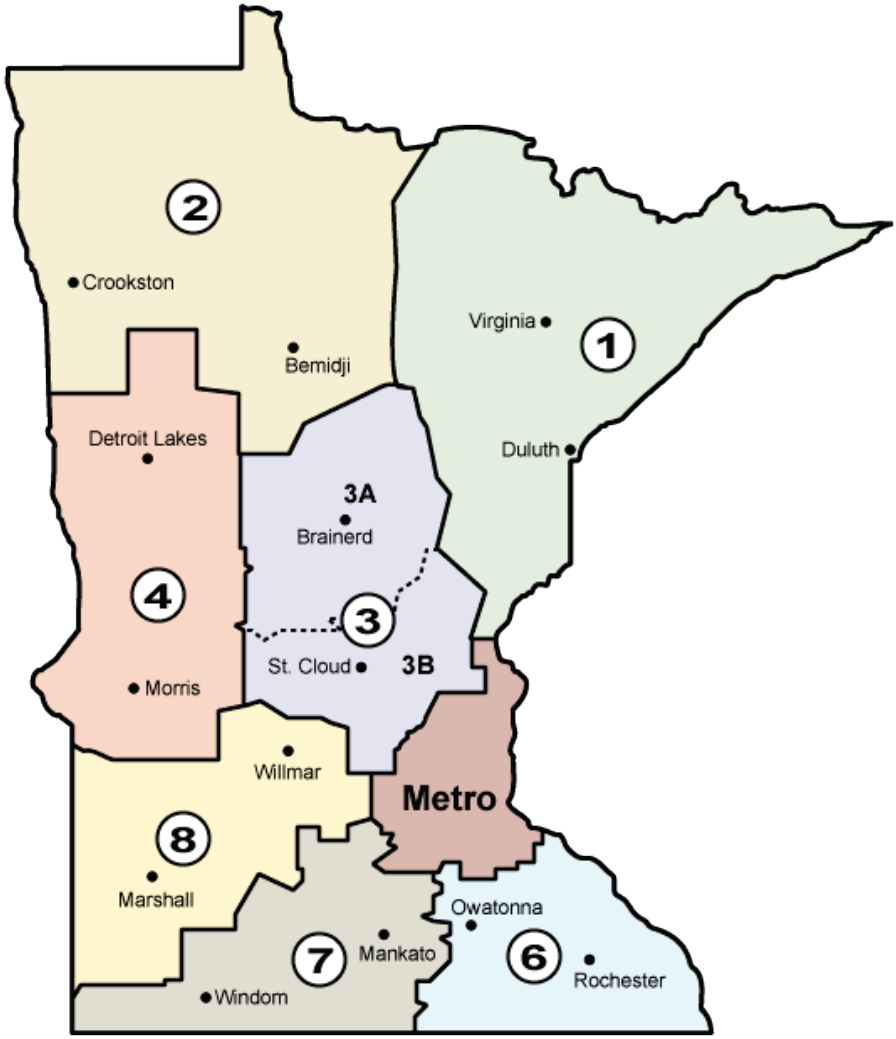



Figure A-1 displays MnDOT's district boundaries, Table A-2 through Table A-5 provide a breakdown of these transportation impact populations within MnDOT Districts.

## TABLE A-2: RACE/ETHNICITY BY MNDOT DISTRICT

| MnDOT District | Total Population | White alone | Percent White alone | Black alone | Percent Black alone | American Indian or Alaskan Native alone | Percent American Indian or Alaskan Native alone | Asian alone | Percent Asian alone |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 355,085 | 322,046 | 90.70% | 5,020 | 1.41% | 7,877 | 2.22% | 2,687 | 0.76% |
| 2 | 164,074 | 139,246 | 84.87% | 2,047 | 1.25% | 11,181 | 6.81% | 1,458 | 0.89% |
| 3 | 694,621 | 620,650 | 89.35% | 21,706 | 3.12% | 5,994 | 0.86% | 8,367 | 1.20% |
| 4 | 256,902 | 230,650 | 89.78% | 4,489 | 1.75% | 5,421 | 2.11% | 1,972 | 0.77% |
| Metro | 3,205,294 | 2,335,81 | 72.87% | 317,081 | 9.89% | 16,152 | 0.50% | 246,940 | 7.70% |
| 6 | 517,713 | 444,981 | 85.95% | 20,550 | 3.97% | 1,800 | 0.35% | 16,834 | 3.25% |
| 7 | 290,400 | 256,681 | 88.39% | 6,723 | 2.32% | 1,225 | 0.42% | 4,874 | 1.68% |
| 8 | 211,203 | 187,148 | 88.61% | 4,466 | 2.11% | 1,784 | 0.84% | 3,014 | 1.43% |

| MnDOT District | Total Population | Native Hawaiian and Other Pacific Islander alone | Percent Native Hawaiian and Other Pacific Islander alone | Some Other Race alone | Percent Some Other Race alone | Two or More Races | Percent Two or More Races | Hispanic | Percent Hispanic |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 355,085 | 75 | 0.02% | 1,811 | 0.51% | 15,569 | 4.38% | 6,843 | 1.93% |
| 2 | 164,074 | 50 | 0.03% | 1,531 | 0.93% | 8,561 | 5.22% | 6,006 | 3.66% |
| 3 | 694,621 | 145 | 0.02% | 9,345 | 1.35% | 28,414 | 4.09% | 21,534 | 3.10% |
| 4 | 256,902 | 416 | 0.16% | 2,878 | 1.12% | 11,076 | 4.31% | 9,435 | 3.67% |
| Metro | 3,205,294 | 776 | 0.02% | 91,488 | 2.85% | 197,040 | 6.15% | 211,477 | 6.60% |
| 6 | 517,713 | 522 | 0.10% | 10,626 | 2.05% | 22,400 | 4.33% | 31,678 | 6.12% |
| 7 | 290,400 | 85 | 0.03% | 8,367 | 2.88% | 12,445 | 4.29% | 23,994 | 8.26% |
| 8 | 211,203 | 255 | 0.12% | 7,052 | 3.34% | 7,484 | 3.54% | 16,082 | 7.61% |

Source: 2022 American Community Survey 5-Year Estimates

Table A-3 provides a breakdown of the race/ethnicity of people within each District. Metro District, which includes the Twin Cities metropolitan area, has the largest population (56.3% of the state's total population) and the largest BIPOC population (27.1% of Metro's total population is BIPOC). However, breaking the population data down by race/ethnicity shows that:

- The majority of the state's Black population (83.0%), Asian population (86.3%), and Hispanic population (64.7%) live in the Metro District.
- Although District 2 has the smallest total population, it has the largest American Indian or Alaskan Native population outside the Metro.
- As a percentage of the total District population, District 2 has the largest American Indian or Alaskan Native population (6.8%).
- As a percentage of the total District population, District 7 has the largest Hispanic population (8.3%).

**TABLE A-3: PEOPLE AGE 65 AND OLDER AND AGE 16 AND UNDER BY MNDOT DISTRICT**

| MnDOT District | Total District Population | Age 65 and Older Population | Age 65 and Older Percent of District Population | Age 16 and Under Population | Age 16 and Under Percent of District Population |
|---|---|---|---|---|---|
| 1 | 355,085 | 77,646 | 21.87% | 59,422 | 16.73% |
| 2 | 164,074 | 32,471 | 19.79% | 34,235 | 20.87% |
| 3 | 694,621 | 114,241 | 16.45% | 148,955 | 21.44% |
| 4 | 256,902 | 52,749 | 20.53% | 52,733 | 20.53% |
| Metro | 3,205,294 | 472,652 | 14.75% | 655,721 | 20.46% |
| 6 | 517,713 | 93,072 | 17.98% | 104,923 | 20.27% |
| 7 | 290,400 | 53,557 | 18.44% | 57,742 | 19.88% |
| 8 | 211,203 | 43,008 | 20.36% | 44,314 | 20.98% |

Source: 2022 American Community Survey 5-Year Estimates

As shown in Table A-4, District 1 has the largest percentage (21.9%) of people aged 65 and older. The Metro District has the smallest percentage (14.8%) of people aged 65 and older. District 3 has the highest percentage of those aged 16 and younger (21.4%), while District 1 has the smallest percentage (16.7%) of people aged 16 and younger.

**TABLE A-4: HOUSEHOLDS BELOW THE POVERTY LEVEL BY MNDOT DISTRICT**

| MnDOT District | Total District Households | District Households Below Poverty Level | Percent below Poverty Level |
|---|---|---|---|
| 1 | 149,230 | 25,908 | 17.36% |
| 2 | 65,697 | 11,298 | 17.20% |
| 3 | 265,201 | 34,002 | 12.82% |
| 4 | 105,418 | 17,264 | 16.38% |
| Metro | 1,264,187 | 132,493 | 10.48% |
| 6 | 206,181 | 26,954 | 13.07% |
| 7 | 115,457 | 17,232 | 14.93% |
| 8 | 84,755 | 13,237 | 15.62% |

Source: 2022 American Community Survey 5-Year Estimates

Using American Community Survey data for households with a yearly income less than $25,000, Table A-4 shows the estimated number of households below the poverty level. An estimated 12.3%, or approximately 278,388 Minnesota households, are below poverty level. Districts 1 and 2 have the highest percentage of their populations below the poverty level, 17.4% and 17.2% respectively.

### TABLE A-5: LIMITED ENGLISH-SPEAKING POPULATION BY MNDOT DISTRICT

| MnDOT District | Total District Population age 5 years and older | District Limited English-Speaking Population age 5 years and older | Percent Limited English-Speaking age 5 years and older |
|---|---|---|---|
| 1 | 338,380 | 2,417 | 0.71% |
| 2 | 154,182 | 1,677 | 1.09% |
| 3 | 651,932 | 12,301 | 1.89% |
| 4 | 241,468 | 3,680 | 1.52% |
| Metro | 3,009,478 | 184,858 | 6.14% |
| 6 | 487,513 | 18,974 | 3.89% |
| 7 | 273,573 | 10,250 | 3.75% |
| 8 | 198,220 | 6,182 | 3.12% |

Source: 2022 American Community Survey 5-Year Estimates

Table A-5 shows the estimated number of Minnesotans who speak English "less than very well" according to the American Community Survey. This is important to MnDOT because language can be a barrier to participate in transportation planning processes. As the table shows, an estimated 4.5%, or 240,339 Minnesotans over the age of 5, speak English "less than very well." Of those who speak limited English, most live in the Metro District.

### TABLE A-6: LANGUAGES SPOKEN AT HOME IN MINNESOTA

| Language | Total Population | Percent of Total Population | Population that speaks English "less than very well" | Percent of Population that speaks English "less than very well" |
|---|---|---|---|---|
| English only | 4,711,130 | 88.00% | N/A | N/A |
| Spanish | 208,102 | 3.90% | 77,964 | 1.50% |
| Other Indo-European languages | 106,681 | 2.00% | 28,158 | 0.50% |
| Asian and Pacific Islander languages | 182,913 | 3.40% | 79,353 | 1.50% |
| Other languages | 145,920 | 2.70% | 54,864 | 1.00% |

Source: 2022 American Community Survey 5-Year Estimates

Table A-6 compares languages spoken by people who speak English "less than very well." Spanish is the most common language spoken in Minnesota besides English. Similar percentages of the total population speak Spanish and Asian and Pacific Islander languages, which includes Hmong, Chinese, Vietnamese, and other Asian languages. Other languages include African languages like Amharic and Somali.

**TABLE A-7: HOUSEHOLDS WITH ZERO VEHICLES BY MNDOT DISTRICT**

| MnDOT District | Total District Households | Households with No Vehicle | Percent of Households with No Vehicle |
|---|---|---|---|
| 1 | 149,230 | 10,747 | 7.20% |
| 2 | 65,697 | 3,851 | 5.86% |
| 3 | 265,201 | 12,352 | 4.66% |
| 4 | 105,418 | 6,357 | 6.03% |
| Metro | 1,264,187 | 91,625 | 7.25% |
| 6 | 206,181 | 12,752 | 6.18% |
| 7 | 115,457 | 6,336 | 5.49% |
| 8 | 84,755 | 4,443 | 5.24% |

Source: 2022 American Community Survey 5-Year Estimates

Table A-7 shows the number of households with zero vehicles that may have a greater reliance on transit and walking and biking. An estimated 6.6%, or 148,463 Minnesota households, do not have a vehicle. Most households without a vehicle are in Metro District.

### A.2.2 Equity analysis

Across the nation, transportation impacted populations disproportionately bear transportation-related burdens. In Minnesota, Black and Indigenous people are more likely to be killed while walking and biking due to traffic-related crashes than other racial and ethnic groups.[51] Likewise, lower-income Minnesotans are more likely to be exposed to air pollution from vehicles because they are more likely to live near busy roads than people who are wealthier.[52]

Although MnDOT has been collecting data to identify these disparities for the state highway system, no equity analysis has been completed on the state's railway system. This analysis seeks to better understand the distribution of rail system benefits and burdens on transportation impacted populations across Minnesota.

[51] MnDOT Statewide Pedestrian Safety Analysis Final Report 2021, www.mndot.gov/trafficeng/safety/reportspubl.html

[52] 2022 MnDOT Statewide Multimodal Transportation Plan, "Health Trend," www.minnesotago.org/

### *A.2.2.1 Research questions*

To identify topics for the equity analysis, MnDOT staff provided feedback at a State Rail Plan Equity meeting in August 2023 that identified possible ways railroads impact transportation impacted populations differently, including safety, noise, pollution, passenger rail services, and statewide investments. This input identified key questions for the equity analysis:

- Rail Burdens
  - » Safety: Are rail crashes more likely to occur in transportation impact areas?
  - » Pollution: Are transportation impacted areas likely to have higher levels of diesel emissions from the rail system?
- Rail Benefits
  - » Transit Access: Do transportation impacted areas have equal access to Northstar and Amtrak passenger rail stations as compared to other areas?

### *A.2.2.2 Methodology*

To answer these research questions, we conducted geographic analyses to understand how the benefits and burdens are distributed across transportation impacted census tracts and other census tracts that are adjacent to or intersecting with the state rail system.

#### Disadvantaged areas

Previously, applicants to FRA Justice40-covered grant programs were advised to use the Climate and Economic Justice Screening Tool (CEJST) to identify disadvantaged census tracts using a tool known as "CEJST" to identify transportation impact areas for the equity analysis.[53] CEJST was developed by the White House Council on Environmental Quality to identify disadvantaged communities as part of the Biden-Harris Administration's Justice40 Initiative. The tool's methodology uses a variety of demographic and socioeconomic datasets as indicators of burdens, which includes American Community Survey data like race/ethnicity, poverty level, and age, as well as other climate, environmental, and health burdens on communities from other data sources. So, while there is overlap with the transportation impact populations in Minnesota explored above, there are additional factors considered for the CEJST disadvantaged areas. For the equity analysis, we will refer to the CEJST communities as "disadvantaged areas" to clarify this distinction.

[53] As of 2025, the CEJST tool is no longer available, and EJ screens are removed from Federal websites.

Geographic analysis

- To understand the distribution of benefits and burdens of the Minnesota rail system on disadvantaged areas compared to other areas, we first used GIS to layer CEJST census tracts on the statewide rail system to identify where census tracts intersect or are adjacent to rail infrastructure. We then overlaid geocoded data on burdens and benefits, from the following sources:
    - Safety: 2019-2023 FRA Injury/Illness Summary – Casualty Data (Form 55A) for passenger on train, non-trespasser on rail property, trespasser, and non-trespasser off rail property types of crashes
    - Pollution: 2023 National Air Toxics Assessment (NATA) Diesel particulate matter exposure, as compiled by the EPA's EJScreen, and overlapped rail yards from the North American Rail Network Lines Bureau of Transportation Statistics as of March 2024.
    - Transit Access: Amtrak and Northstar passenger rail stations as of March 2024.

We then calculated the percentage of benefits and burdens that occurred there, comparing it to the percentage of residents who live in the disadvantaged areas adjacent and intersecting with rail lines and the areas that are intersecting and adjacent to rail lines that are not disadvantaged.

### A.2.3 Findings

#### *A.2.3.1 Population*

As described above in the methodology, we layered CEJST disadvantaged areas, which are census tracts that the Justice40 initiative identified as either disadvantaged or non-disadvantaged, with a map of the statewide rail lines. This allowed us to identify census tracts that intersect with or are directly adjacent to rail lines. Because of their proximity to rail lines, people living in these census tracts are more likely to experience impacts from the state rail system.

**TABLE A-8: POPULATION NEAR RAIL LINES**

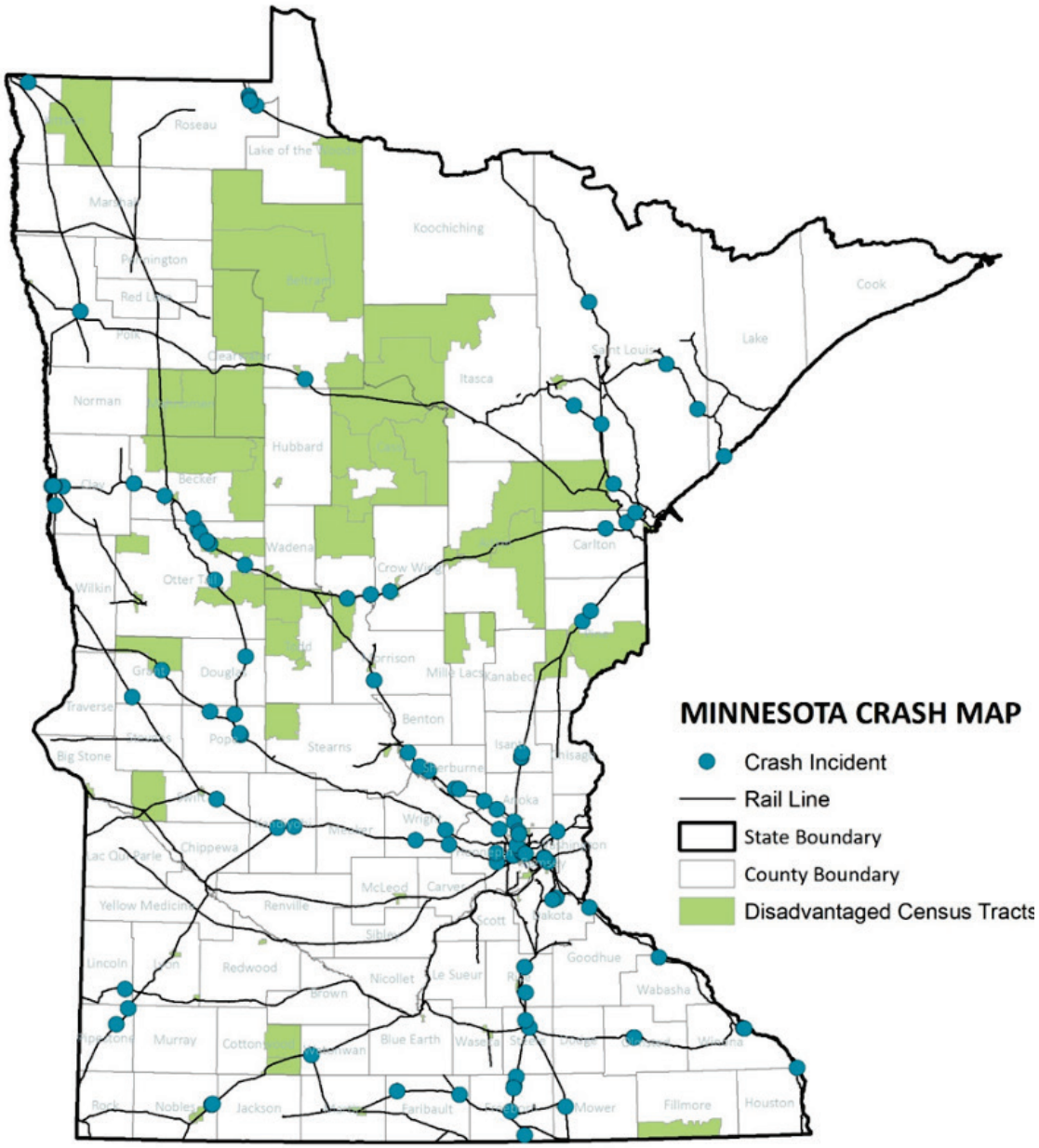
| | Disadvantaged Area | Non-Disadvantaged Area | Minnesota (all) |
|---|---|---|---|
| Total Census Tracts | 200 | 1,138 | 1,338 |
| Total Population | 716,657 | 4,846,721 | 5,563,378 |
| Total Census Tracts Intersecting with Rail Line | 106 | 605 | 711 |
| Population Intersecting with Rail Line | 386,256 | 2,578,410 | 2,964,666 |
| Percent of Area Population Intersecting with Rail Line | 53.90% | 53.20% | 53.29% |

The data analysis found that 53.3% of Minnesotans live in census tracts intersecting with or directly adjacent to a rail line. **People living in disadvantaged areas are slightly more likely to live near a rail line than people from non-disadvantaged areas.** While 53.9% of people living in disadvantaged areas live near a rail line, 53.2% of people in non-disadvantaged areas live near a rail line.

### *A.2.3.2 Safety*

To analyze rail crash rates in disadvantaged areas compared to non-disadvantaged areas, we mapped crashes involving someone from the general public from the 2019-2023 FRA Injury/Illness Summary – Casualty Data (Form 55A) and layered CEJST census tracks to identify if crashes occurred in disadvantaged or non-disadvantaged areas. Figure A-2 shows crashes from 2019-2023 and the disadvantaged census tracts.

**FIGURE A-2: RAIL CRASHES FROM 2019-2023 IN MINNESOTA**



We analyzed how crashes affected people living in disadvantaged and non-disadvantaged areas in Table A-9.

**TABLE A-9: RAIL CRASHES BY AREA BETWEEN 2019-2023**

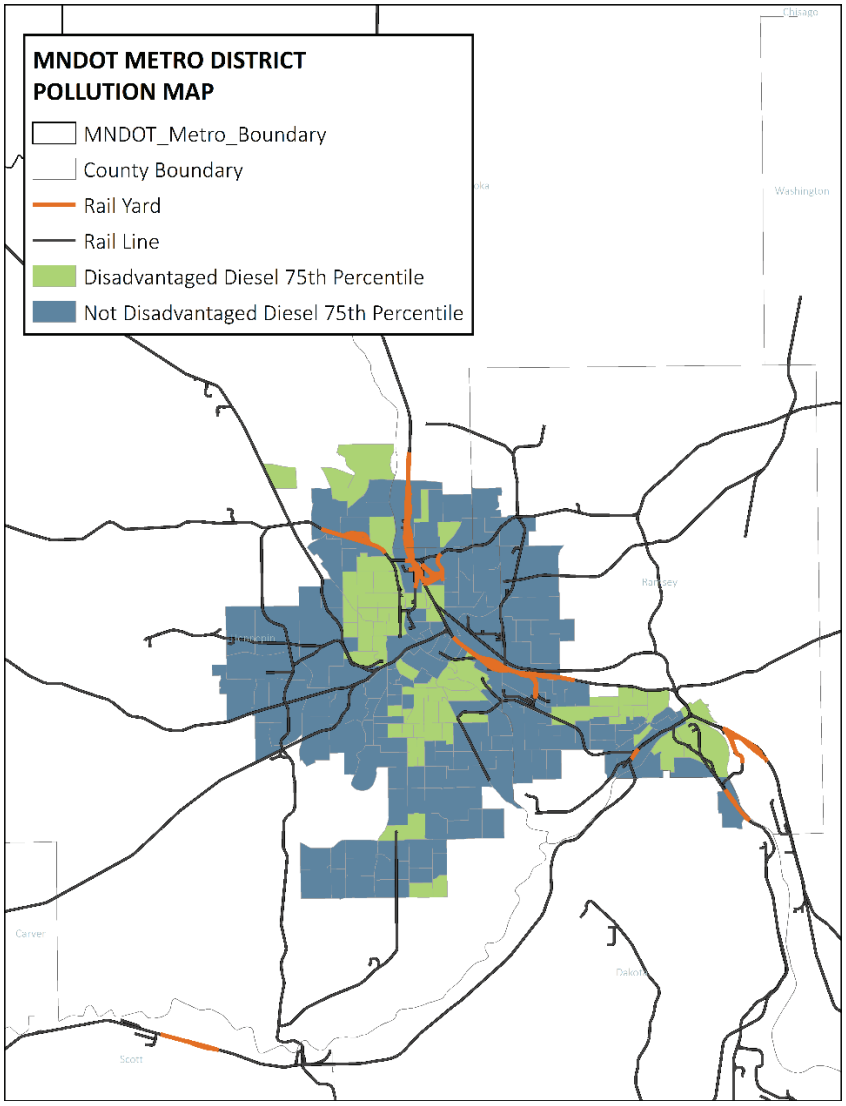
| | Disadvantaged Area | Non-Disadvantaged Area | Minnesota (all) |
|---|---|---|---|
| Population Intersecting with Rail Line | 386,256 | 2,578,410 | 2,964,666 |
| Total Census Tracts with Crashes | 13 | 72 | 85 |
| Percent of Census Tracts with Crashes | 15.29% | 84.71% | N/A |
| Total Crashes by Area | 21 | 95 | 116 |
| Percent of Crashes by Area | 18% | 82% | N/A |
| Crash Rate by Area | 0.00544% | 0.00368% | 0.00391% |
| Average crashes per tract | 1.62 | 1.32 | 1.36 |
| Average population per tract | 29,712.00 | 35,811.25 | 34,878.42 |
| Area residents per crash | 18,393 | 27,141 | 25,557 |
| Comparison to mean | -28% | 6% | N/A |

Between 2019 and 2023, there were 116 crashes. Twenty-one crashes occurred in disadvantaged areas, and 95 occurred in non-disadvantaged areas. Between 2019-2023, the crash rate per resident in disadvantaged areas adjacent to a rail line was 0.0054%; in non-disadvantaged areas adjacent to a rail line, the crash rate was 0.0037%. In relative terms, the crash rate is 47.6% higher in disadvantaged areas than in non-disadvantaged areas. When correcting for population, people in disadvantaged areas are more likely than people in non-disadvantaged areas to live near where a crash has occurred. On average, disadvantaged areas also had 22.4% more crashes per tract than non-disadvantaged areas. Compared to the average crash rate by area throughout the state, those in disadvantaged areas are 28% more likely to live near a crash, and those in non-disadvantaged areas are 6% less likely to live near a crash. Although we don't know if the people involved in the crashes live in the area that the crash occurred in, there could be rail improvements that could make the community safer overall for residents and people who pass through. Also, because people from disadvantaged communities are less likely to own a car and more likely to rely on walking and biking, future analysis on rail crashes may want to look at the types of crashes (pedestrian vs. car).

### *A.2.3.3 Pollution*

Research has found that people living in close proximity to rail yards are more likely to be exposed to high rates of diesel PM emissions from locomotives, trucks and yard equipment.[54] A census tract is considered diesel PM pollution burdened if the exposure of diesel PM in that area is above the 75th percentile nationwide. In Minnesota, only the Twin Cities metropolitan area has areas with diesel PM emissions above the 75th percentile nationwide. Figure A-3 provides an overview of census tracts in the Metro District with high diesel PM emissions and the location of rail yards.

**FIGURE A-3: DIESEL PM POLLUTION IN THE METRO DISTRICT**




[54] Hricko, A., Rowland, G., Eckel, S., Logan, A., Taher, M., & Wilson, J. (2014). Global trade, local impacts: lessons from California on health impacts and transportation impact concerns for residents living near freight rail yards. International journal of environmental research and public health, 11(2), 1914–1941. https://doi.org/10.3390/ijerph110201914

Diesel PM emissions result from fuel burned from any diesel engine. The census tracts highlighted in the map may not necessarily be polluted directly by, or as a result of the rail transportation system. So, for this analysis, we focused on the census tracts directly adjacent to rail yards, which is shown in Table A-10.

**TABLE A-10: RAIL YARD PROXIMITY AND DIESEL PM BY AREA**

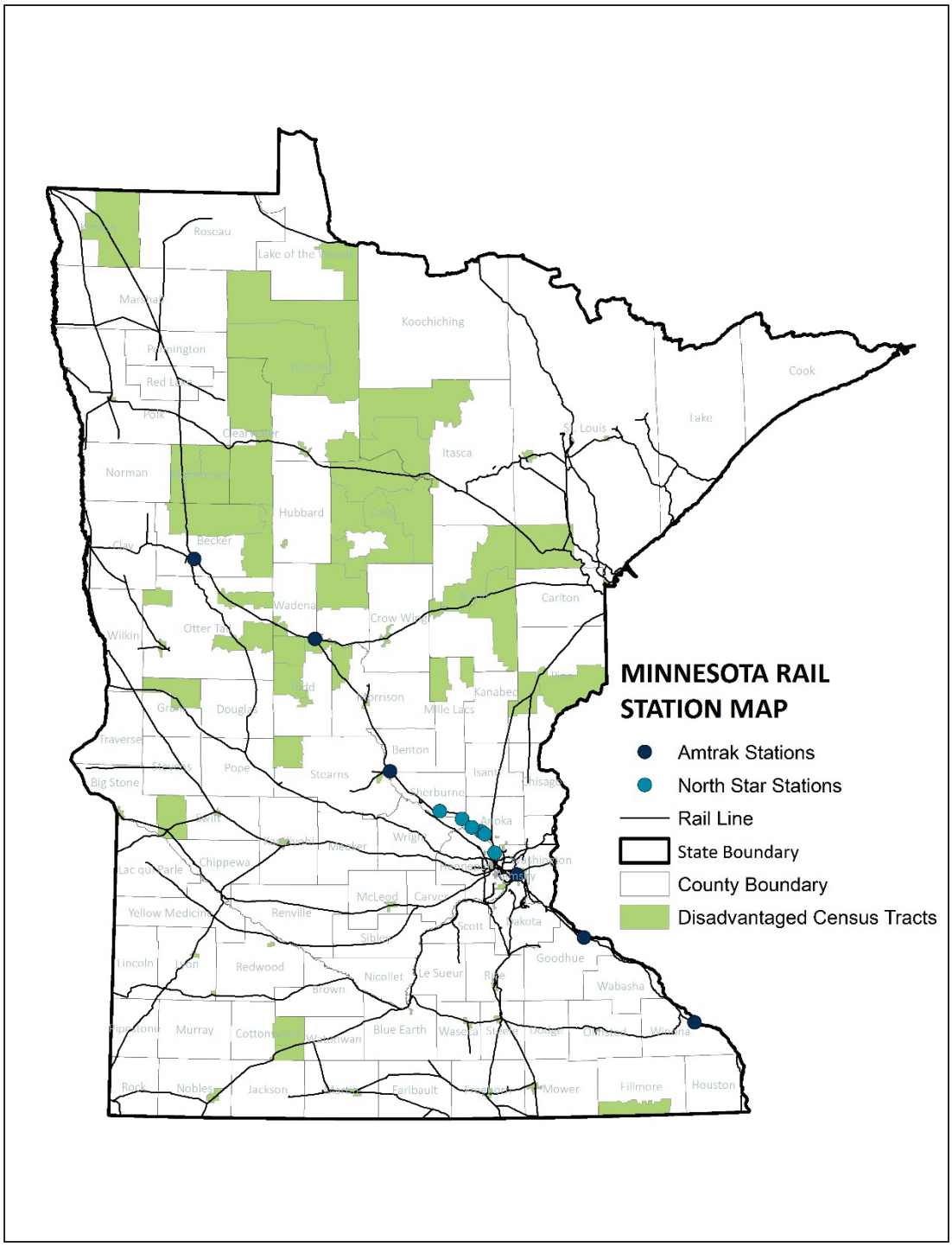
| | Disadvantaged Area | Non-Disadvantaged Area | Minnesota (all) |
|---|---|---|---|
| Total Population | 716,657 | 4,846,721 | 5,563,378 |
| Total Census Tracts Adjacent to Rail Yards | 15 | 55 | 70 |
| Population of Census Tracts Adjacent to Rail Yards | 58,171 | 219,854 | 278,025 |
| Percent of Area Population Living Adjacent to Rail Yards | 8.12% | 4.54% | 5.00% |
| Total Census Tracts with Diesel PM above 75 Percentile | 65 | 145 | 210 |
| Population of Census Tracts with Diesel PM above 75 Percentile | 215,826 | 510,455 | 726,281 |
| Total Census Tracts Adjacent to Rail Yard with Diesel PM above 75 Percentile | 2 | 16 | 18 |
| Population of Census Tracts Adjacent to Rail Yard with Diesel PM above 75 Percentile | 16,712 | 57,653 | 74,365 |
| Percent of Area Population Adjacent to Rail Yard with Diesel PM above 75 Percentile | 28.73% | 26.22% | 26.75% |

The data analysis found that 5% of Minnesotans live in census tracts directly adjacent to a rail yard and 1.3% of Minnesotans live both adjacent to a rail yard and live in areas with diesel PM emissions above the 75th percentile nationwide. People living in disadvantaged areas are more likely to live near rail yards (8.1%) than people from non-disadvantaged areas (4.5%). While 28.7% of people in disadvantaged areas near a rail yard live in a census tract with diesel PM above 75th percentile, 26.2% of people in non-disadvantaged areas near a rail yard live in a census tract with high levels of diesel PM pollution. Disadvantaged census tracts near rail yards are more likely to have high diesel PM pollution than non-disadvantaged census tracts.

### *A.2.3.4 Passenger rail access*

Public transit provides a means of transportation for people who do not have access to a personal vehicle or who are unable to drive due to age, disability, or other reasons. It provides an important service to ensure all people can access economic opportunities, education, healthcare, and other services regardless of their income level, age, or ability. Passenger rail services, including Northstar and Amtrak service, is a crucial benefit of the Minnesota rail system. Figure A-4 highlights the passenger rail station locations in Minnesota.

**FIGURE A-4: PASSENGER RAIL STATIONS IN MINNESOTA**




For this analysis, we looked at access to passenger rail stations for disadvantaged and non-disadvantaged areas. Any census tract that touches a passenger rail station is considered an area with access to passenger rail.

**TABLE A-11: PASSENGER RAIL ACCESS BY AREA**

| | Disadvantaged Area | Non-Disadvantaged Area | Minnesota (all) |
|---|---|---|---|
| Population Intersecting with Rail Line | 386,256 | 2,578,410 | 2,964,666 |
| Number of Census Tracts Intersecting with Northstar Stations | 59 | 128 | 187 |
| Number of Census Tracts Intersecting with Amtrak Stations | 4 | 6 | 10 |
| Population Intersecting with Northstar Stations | 231,507 | 573,114 | 804,621 |
| Population Intersecting with Amtrak Stations | 10,138 | 29,527 | 39,665 |
| Percent of Area Population Intersecting with a Northstar Station | 32.30% | 11.82% | 14.46% |
| Percent of Area Population Intersecting with an Amtrak Station | 1.41% | 0.61% | 0.71% |
| Percent of Area Population Intersecting with a Passenger Rail Station | 33.72% | 12.43% | 15.18% |

The data found that 28.5% of Minnesotans who live along a rail line also live near a passenger rail station. Thirty-two percent of people living in disadvantaged areas live near a Northstar station compared to 11.8% of people living in non-disadvantaged areas. There is a somewhat similar likelihood of living near an Amtrak station if you live in a disadvantaged area (1.4%) or non-disadvantaged area (0.6%). **Overall, if you live in a disadvantaged area in Minnesota, you are more likely to live in close proximity to a passenger rail station than people from non-disadvantaged areas.**

### A.2.4 Limitations and additional research

This rail equity analysis is the first of its kind by MnDOT. There will be opportunities for MnDOT and partners to expand or improve upon this research in the future. The limitations of this analysis include:

- Census tracts: Using census tracts to identify disadvantaged areas in our geographic analysis is potentially limiting. The size and shape of census tracts varies across the state. In rural areas, census tracts tend to be geographically larger and in urban areas they tend to be smaller. In areas where the census tract is geographically larger, there may be locations in the community where they do not experience impacts from the rail line intersecting with the tract, but in areas with smaller census tracts, the tracts not immediately adjacent may also experience impacts because of their proximity to the rail lines.
- Pollution data: The pollution data from this analysis used census tracts that have diesel PM emissions above the 75th percentile nationwide. Minnesota tends to have lower diesel PM emissions than national trends, so few census tracts were highlighted for being above the 75th percentile of emissions nationwide. Future analysis may want to look at diesel PM emission above the 75th percentile statewide to get a better understanding of emissions occurring near rail yards in Greater Minnesota.

The opportunities to delve deeper into equity and the state rail system:

- Crash analysis: Data pulled from the FRA Injury/Illness Summary – Casualty Data (Form 55A) for the safety analysis has some, but somewhat inconsistent, detailed information on crashes. More analysis could be done to look at the severity of crashes (e.g. fatality or injury), who was involved in the crash (e.g. a pedestrian or driver), and the reason for the crash (e.g. vehicle stalled at crossing). Future safety analyses could further explore the types of crashes occurring in disadvantaged areas compared to non-disadvantaged areas.
- Noise analysis: We requested more detailed location information on Quiet Zones from FRA, but did not receive a response in time for this analysis. Quiet zones are segments of a rail line where train engineers do not need to sound their horns when approaching crossings, which they are otherwise required by FRA to do. The process to create a quiet zone is typically spurred by residents complaining to their city or county about noise. The municipality funds crossing safety improvements and/or crossing closures to mitigate crossing safety risks compensating for not having the train horn warning and files to establish a quiet zone with the FRA. As of 2022, there were a total of 84 quiet zones in Minnesota, which is the state with the third most quiet zones in the nation following Texas (181) and Wisconsin (92). Because of the significant cost of improvements, there may be discrepancies in quiet zone establishments across different populations with different funding availability as well as the propensity of which communities report rail noise and how those complaints are considered in the development of quiet zones. More analysis should be done in the future to understand the distribution of noise pollution from the rail system across the state.
- Rail investments analysis: Transportation equity means that the burdens and benefits of transportation systems, services and spending are fair and just. Reviewing past MnDOT rail investments, to determine if those projects occurred in disadvantaged areas or non-disadvantaged areas, could help identify how transportation benefits have been distributed in past, as well as inform future project criteria and prioritization for MnDOT's Railway-Highway Crossings (Section 130) Program and Minnesota Rail Service Improvement (MRSI) Program.
- Other data analysis tools: USDOT released new equity tools in 2023 to understand transportation-specific impacts to communities, including the Justice40 Rail Explorer[55] and USDOT Equitable Transportation Community Explorer. [56]These tools look at how a community or project area is experiencing disadvantage related to a lack of transportation investments and opportunities and may be used for more project-specific equity analyses by MnDOT and partners.

### A.2.5 Transportation community impacts and transportation equity plan strategies

Minnesota continues to grow more diverse, but economic and social disparities continue to persist. It is important that as Minnesota looks to the future, the transportation system adapts to changing needs and addresses systemic disparities.

Transportation equity means that the burdens and benefits of transportation systems, services and spending are fair and just, and transforming transportation systems will require ongoing listening, learning, changing, implementing, and adapting. The following strategies provide a systems-level approach to advance transportation

[55] As of 2025 the Justice40 Rail Explorer tool is no longer available.

[56] As of 2025 the USDOT Equitable Transportation Community Explorer Tool is no longer available.

equity, avoid and minimize negative impacts on transportation impacted populations, and encourage the full and fair participation of transportation impacted in decision-making processes related to the statewide rail system.

#### *A.2.5.1 Community engagement*

- Continue to identify and learn about the communities affected by the statewide rail system.
- Create opportunities for impacted communities to inform rail policy and process decision-making through public engagement activities.
- Use equitable engagement practices to ensure transportation impacted populations and communities most burdened by the rail system can participate in engagement activities (e.g. provide in-person and online engagement opportunities, translate communications materials, etc.).
- Inform communities how rail decision-making processes work and how their feedback influences policies, processes, and projects.
- Close the communication loop after engagement activities and report back to community members on how their feedback was used or considered in decision-making.
- Share with communities how MnDOT is working to advance transportation equity in the rail system to improve accountability and transparency.

#### *A.2.5.2 Collaborative partnerships and stakeholder engagement*

- Foster relationships with community organizations that serve people from transportation impacted populations and disadvantaged areas.
- Collaborate with community organizations on public engagement opportunities to reach and actively engage transportation impacted populations and disadvantaged areas.
- Discuss the results of the equity analysis with rail authorities, local governments, tribal nations, and community organizations, which could provide valuable context and future directions for rail equity work.
- Collaborate with rail authorities, local governments, tribal nations, and community organizations to avoid, minimize and mitigate impacts of the rail transportation system on transportation impacted populations.
- As the opportunity arises, facilitate dialogue and collaboration between railroads, rail authorities, local governments, tribal nations, and community organizations to create solutions that address rail burdens.

#### *A.2.5.3 Data analysis*

- Continue to analyze the impacts of the statewide rail system on transportation impacted populations and disadvantaged areas both quantitatively and qualitatively.
- Establish processes or mechanisms for ongoing monitoring of rail impacts.
- Consider conducting the additional rail equity research proposed in the equity analysis.

#### *A.2.5.4 Investments and project prioritization*

- Ensure that state investments in rail projects are equitably distributed among all communities, including transportation impacted populations and disadvantaged areas.
- Include equity and community impacts criteria in MnDOT's prioritization framework for projects applying for rail funding to support a fair and just distribution of investments.
- Use a disadvantaged area criterion to rank or score rail projects that apply for state funding to target resources in communities most likely to be affected by rail burdens or benefitted by rail investments.

#### *A.2.5.5 Performance metrics and accountability*

- Establish clear goals, objectives, and performance metrics for the statewide rail systems related to transportation impacts, equity, and community engagement.
- Monitor and evaluate progress towards achieving rail equity goals regularly.
- Continue to document how transportation equity is integrated into MnDOT rail policies, plans, and projects to support transparency, accountability, and learning.
- Continue to document how rail plans and projects are aiming to avoid, minimize, and mitigate negative impacts of the statewide rail system on transportation impacted populations and disadvantaged areas.

# APPENDIX B. CLASS I RAILROAD PROFILES

Class I railroads have annual revenues greater than $1 billion and connect Minnesota to other areas of the North American continent.[57] Four Class I railroads operate in Minnesota: BNSF Railway (BNSF), Canadian National Railway (CN), Canadian Pacific Kansas City (CPKC), and Union Pacific (UP). Each of these major railroads have operations of varying complexity in Minnesota, as evidenced by the varying route miles in the state, and their total system mileage, as shown in the table below. Some railroads do not operate all of the rail miles that they own in Minnesota, instead leasing trackage to other railroads. Additionally, Class I railroads may operate other railroads' tracks, referred to as "trackage rights."

**TABLE B-1: SUMMARY OF CLASS I MILEAGE IN MINNESOTA**

| Operator Name | Total Route Miles (U.S., Canada, and Mexico) | Miles Owned/Operated in MN | Miles Owned/ Not Operated in MN | Miles Accessed by Trackage Rights in MN |
|---|---|---|---|---|
| **BNSF** | 32,500 | 1,480 | 9 | 222 |
| **CN** | 18,800 | 378 | | |
| **CPKC** | 28,046 | 1,021 | 111 | 570 |
| **UP** | 32,452 | 402 | 16 | 226 |
| Total | **111,798** | **3,281** | **136** | **1,018** |

Source: Class I R-1 Annual Reports with STB, 2023

Each of these major railroads has a different footprint across North America: BNSF and UP primarily cover the western half of the United States, while CN and CPKC span the full width of Canada from the Pacific Ocean to the Atlantic Ocean, with lines extending north to south through the middle of the United States. Additionally, these major railroads are important in enabling Minnesota's businesses to connect to the rest of North America, including connections into Canada and Mexico. Summaries of each of these four railroads are provided below.

[57] STB. Revenue thresholds as of 2022, accessed April 2, 2024. https://www.stb.gov/reports-data/economic-data/

## *B.1 BNSF Railway (BNSF)*

BNSF operates over 32,500 miles of rail track in 28 of the 50 United States and three Canadian provinces. BNSF is headquartered in Fort Worth, Texas, and is the largest railroad system in the United States by revenue, employed personnel, and track miles, employing about 37,000 people, with 27 major intermodal facilities, and operates an average of 1,200 trains per day.[58]

In addition to being the largest Class I railroad in the U.S., BNSF operates more mileage in Minnesota than other railroads. In Minnesota, BNSF supports a wide range of industries, hauling agricultural, consumer, and industrial products across their network, including grain, fresh produce, coal, and wood products.[59]

### B.1.1 New projects

Since the last update of the Minnesota state rail plan, BNSF has undertaken significant capital investment projects aimed at enhancing rail infrastructure in Minnesota. A new grain shuttle facility was completed in Ulen, facilitating the movement of 63 million tons of grain in 2021. BNSF has indicated that the early success and growth potential of this type of facility may drive increased investments in new facilities across Minnesota.

Another major project since the completion of the prior state rail plan was the construction of the Willmar Wye, which was undertaken as a public-private partnership between BNSF, MnDOT, the City of Willmar, and Kandiyohi County. This project was completed in October 2022 and included the construction of a new BNSF rail line to provide a new link between the Morris and Marshall subdivisions and reduce rail traffic in downtown Willmar. The project also included the realignment of two highways, the creation of two new bridges, and the creation of a new rail-served industrial park on the west side of Willmar. The project was funded by a combination of BNSF, MnDOT, county, and city dollars in addition to $10 million in USDOT grants.

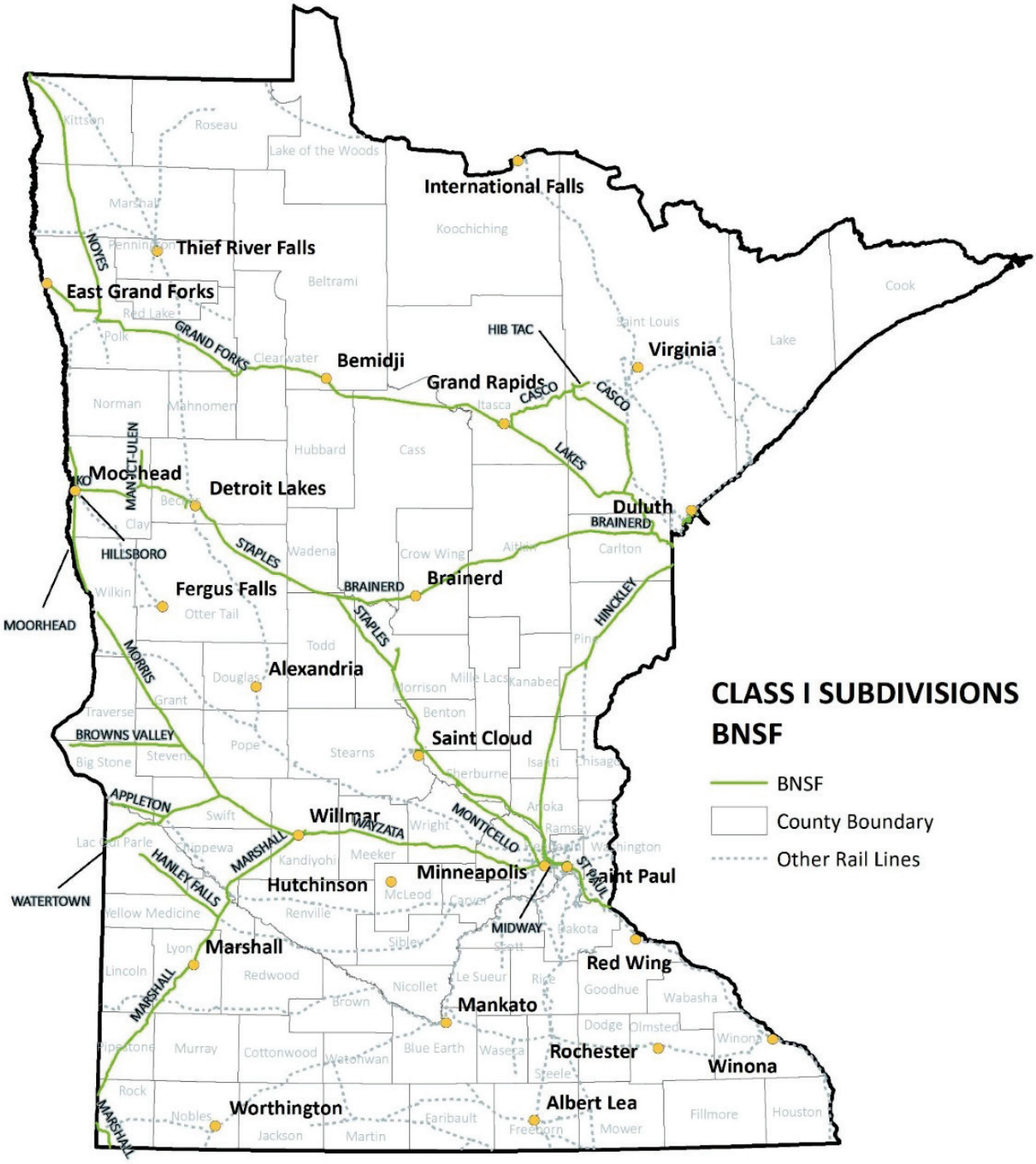
### B.1.2 Future improvements

Similar to challenges in urban areas in other states, the limited availability of industrial property poses challenges for providing rail service around the Twin Cities metro area. BNSF has indicated that there is increasing demand from customers for rail services that are located close to metropolitan areas. However, due to the increasing scarcity of industrial areas, BNSF operates facilities 60 to 90 miles away from the cities, primarily in the northern suburbs and far-western exurbs.

[58] BNSF Railway. As of 2024, accessed March 2024. https://www.bnsf.com/?portal=Employee

[59] BNSF Railway. "BNSF Fact Sheet." As of March 2024, accessed March 2024. https://www.bnsf.com/bnsf-resources/pdf/about-bnsf/fact_sheet.pdf.

## FIGURE B-1: BNSF RAILWAY SUBDIVISIONS



## TABLE B-2: BNSF RAILWAY SUBDIVISIONS IN MINNESOTA

| Subdivision | From/to | Tracks | Signal | Maximum Speed in MPH (instead of FRA Track Class) | Miles in Minnesota | Height or Weight Restrictions | Other Railroad Trackage Rights |
|---|---|---|---|---|---|---|---|
| Great Lakes Division | | | | | | | |
| St. Paul | St. Paul (0.2 mi west of Warner Rd)/St. Paul (0.2 mi east of Warner Rd) | 1 | CTC | | <1 | | AMTK, CPRS, TCWR |
| Lakes Division | | | | | | | |
| Casco | Taconite (1.1 mi north of CR 13)/Taconite (0.6 mi south of CR 13) | 1 | | | 2 | | CN |
| Southern Division | | | | | | | |
| Moorhead | Minnesota-North Dakota state line/ Breckenridge Twp | 1 | CTC | | 3 | | RL, RRVW |
| System Division | | | | | | | |
| Midway | St. Paul (U of MN Transit Way)/St. Paul (0.04 mi west of U of MN Transit Way) | 2 | | | <1 | | AMTK, CPRS, MNNR, MNRX, TCWR, UP |
| Twin Cities Division | | | | | | | |
| Appleton | Benson/State Line | 1 | TWC | 40 | 44 | | TCWR |
| Brainerd | Chub Lake/ Stapes | 1 | TWC | 49 | 120 | | |
| Browns Valley | Alberta/Barry | 1 | TWC | 25 | 31 | | |
| Casco | Brookston/ Braxton Jct. | 1 | CTC | 50 | 70 | | CN |
| Grand Forks | Cass Lake/East Grand Forks | 1 | TWC | 49 | 131 | | CPRS, MNN |
| Hanley Falls | Hazel Run/Madison | 1 | TWC | 25 | 28 | | |
| Hib Tac | KY Junction/ Mahoning | 1 | TWC | 20 | 3 | | CN |
| Hillsboro | OTV Junction/ Moorhead Jct | 1 | CTC | 49 | 2 | | AMTK |
| Hinckley | Foxboro/ Coon Creek | 1 | TWC ABS | 50 | 113 | Between Boylston and Coon Creek, | CPRS, UP |

| Subdivision | From/to | Tracks | Signal | Maximum Speed in MPH (instead of FRA Track Class) | Miles in Minnesota | Height or Weight Restrictions | Other Railroad Trackage Rights |
|---|---|---|---|---|---|---|---|
| | | | | | | taconite loads up to 272K | |
| KO | East Dillworth/ Moorhead Jct. | 2 | ABS | 60 | 9 | Hannaford to Walum: 268K | AMTK, OTVR |
| Lakes | Chub Lake/Cass Lake | 1 | CTC (MP 34.0 – MP 108.5: Chub Lake – Gunn)<br>TWC (MP 108.5 – MP 164.9: Grand Rapids – Cass Lake) | 50 | 131 | Between Superior and Saunders, taconite loads up to 272K | CPRS, CTRR |
| Marshall | Ihlen/Wilmar | 1 | TWC | 49 | 112 | | |
| Midway | Seventh St./ University | 1 (Intermodal Terminal; UM Transit Way – Hennepin 2 Ave.; Harrison – Broadway: 8 total miles)<br>2 elsewhere | CTC | 45 | 11 | | AMTK, CPRS, MNNR, MNRX, TCWR, UP |
| Monticello | Lyndale Jct./ Rogers | 1 | TWC | 25 | 21 | | CPRS, UP |
| Moorhead | Kent/OTV Junction | 1 | TWC ABS | 60 | 40 | | |
| Morris | CP 98/CP 212 | 1 | CTC | 40 | 104 | MP 7.2 – MP 40.0: 268K | RL, RRVW |
| Noyes | CP 839/Noyes | 1 | TWC | 35 | 91 | | CPRS |
| Staples | University/East Dilworth | 1 (Little Falls – Philbrook; Sherburne Co. Rd. 43NW – 125th Ave. SE)<br>2 elsewhere | CTC<br>TWC ABS | 79 | 239 | | AMTK, CPRS, MNRX, UP |
| St. Paul | St. Croix/ University | 2 (Western terminus – I-35E; 10 miles)<br>1 elsewhere | CTC | 70 | 28 | | AMTK, CPRS, MNNR, MNRX, TCWR, UP |
| Watertown | Appleton/ | 1 | TWC | 40 | 25 | | |

| Subdivision | From/to | Tracks | Signal | Maximum Speed in MPH (instead of FRA Track Class) | Miles in Minnesota | Height or Weight Restrictions | Other Railroad Trackage Rights |
|---|---|---|---|---|---|---|---|
| | Nassau | | | | | | |
| Wayzata | Rollins Avenue/CP 98 | 1 | CTC | 60 | 89 | | CPRS, MNRX, TCWR, UP |

## *B.2 Canadian National Railway (CN)*

CN operates 18,800 miles of track and has a network that spans the full width of Canada from the west to east coasts, dropping into the United States through Minnesota and Wisconsin to Chicago and then through Indiana and Michigan. CN also owns the lines of the former Illinois Central Railroad, which spanned from Chicago to the Gulf of Mexico. CN is headquartered in Montreal, Quebec, and has U.S. headquarters in the Chicago area. CN is Canada's largest railway system by revenue generation and network mileage, and employed approximately 22,000 people in 2023, with over 500 employees in Minnesota.

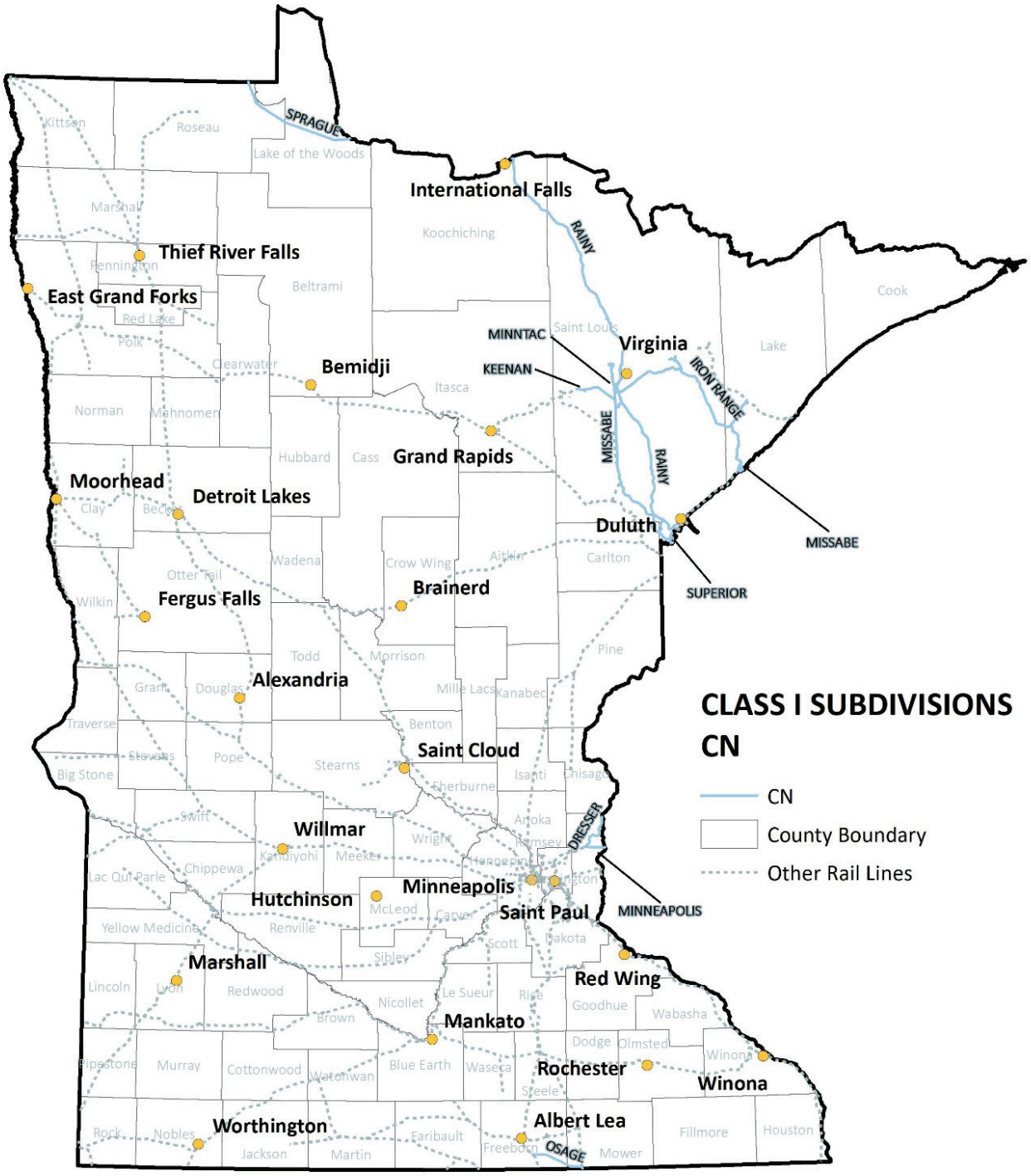
In Minnesota, CN's geographic coverage is limited to the northeast portions of Minnesota. Within the state, CN plays an important role in moving iron ore from the Iron Range to port facilities in Duluth and Two Harbors, and it also serves as an intermodal facility in Duluth. CN's mainline that connects West Coast ports to Chicago passes through Minnesota.

### B.2.1 New Projects

Since the completion of the prior state rail plan, CN has invested in its network in Minnesota, among the largest being an expansion of double-track sections and geometric adjustments to its mainline on Steelton Hill in Duluth. These improvements addressed steep grades and traffic bottlenecks created by the hill, and improved safety and efficiency of the overall CN network between Winnipeg and Chicago.

Since the completion of Steelton Hill improvements, CN has undertaken additional projects in Minnesota, including the creation of new tracks at its iron ore handling facilities in Two Harbors, which will improve the safety and efficiency of iron ore train operations in and around the Two Harbors Area.

## FIGURE B-2: CANADIAN NATIONAL RAILWAY SUBDIVISIONS



## TABLE B-3: CANADIAN NATIONAL RAILWAY SUBDIVISIONS IN MINNESOTA

| Subdivision | From/to | Tracks | Signal | Maximum Speed in MPH (instead of FRA Track Class) | Miles in Minnesota | Height or Weight Restrictions | Other Railroad Trackage Rights |
|---|---|---|---|---|---|---|---|
| Iowa Division | | | | | | | |
| Osage | Glenville/Lyle | 1 | MAN | | 19 | | |
| Lakehead Division | | | | | | | |
| Sprague | Baudette/ International Boundary | 1 | CTC | 60 | 44 | | |
| Lakes Division | | | | | | | |
| Dresser | Withrow/Marine | 1 | TA | 25 | 9 | 268K | CPRS |
| Hinsdale Spur | Hinsdale/ Wyman | 1 | | | 7 | | |
| Iron Range | Iron Jct./Two Harbors | 1 | CTC | 40 | 74 | At Wales Spur, the heaviest 4-axle car permitted is 263,000 lbs. | |
| Keenan | Emmert/Keenan | 1 | TA (MP 15.3 – 8.2); Rule 520 (MP 8.2 – 2.0); CTC (MP 2.0 – 0.0) | 25 | 15 | | BNSF |
| Minneapolis | Withrow/Minnesota-Wisconsin state line | 1 | TA | 40 | 7 | | |
| MinnTac | South MinnTac/ Wolf | 1 | CTC | 40 | 8 | | PVTX |
| Missabe | Largo/Duluth Docks | 2 for 7.6 mi<br>1 for 61.3 mi | CTC | 60 | 68 | | BNSF |
| Rainy | Duluth Jct./ Nopeming Jct. | 1 | CTC | 55 | 156 | | BNSF, MDW |
| Superior | Proctor Jct./South Pokegama | 1 | CTC | 60 | 16 | 180K for ore cars | BNSF |
| Syl Laskin Lead | Colby (0.4 mi west of Township Rd. | 1 | | | 1 | | |

| Subdivision | From/to | Tracks | Signal | Maximum Speed in MPH (instead of FRA Track Class) | Miles in Minnesota | Height or Weight Restrictions | Other Railroad Trackage Rights |
|---|---|---|---|---|---|---|---|
| | 6401)/Colby (0.6 mi east of Township Rd. 6401) | | | | | | |
| Thunderbird Mine Lead | Mountain Iron (1 mi south of CR 372)/ Mountain Iron (1 mi north of CR 372) | 1 | | | 2 | | |
| Two Harbors | Waldo/Two Harbors | 1 | TA | 20 | 5 | | |
| United Taconite Spur | McDavitt/ Makinen | 1 | | | 4 | | |

### B.2.2 Future improvements

In addition to local projects, CN is in the process of making investments to improve its bridges and international border crossing in Ranier, which will further improve the efficiency of train movements between Chicago and Winnipeg.

Outside of Minnesota, CN is currently exploring the creation of a new consolidated intermodal container yard in the southwestern suburbs of Chicago, which would further increase the capacity of their network, and may result in further train traffic being routed through CN's network in Minnesota.

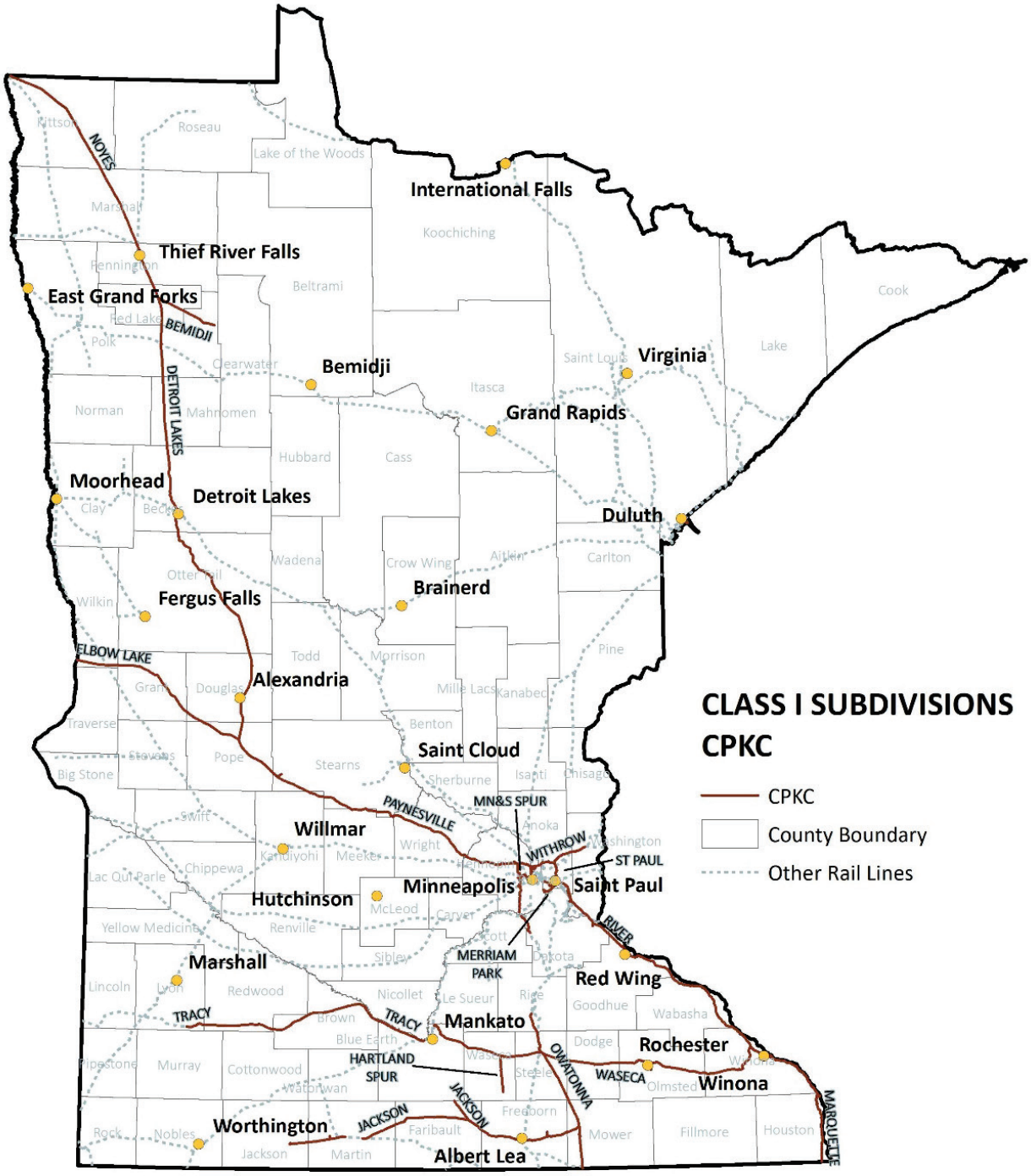
## *B.3 CPKC*

CPKC is a newly created (2023) railroad formed from the merger of the Canadian Pacific (CP) and Kansas City Southern (KCS) railroad companies. This merger created a network of over 20,000 miles of track across Canada, the United States, and Mexico. With the merger, CPKC has become the only single consolidated rail network that directly connects Canada, the United States, and Mexico. Before the merger, CP and KCS were the two smallest Class I railroads. The merger has resulted in new connections between cities, including a direct route from the Midwest to the border of Southern Texas in Laredo. CPKC's expanded network is likely to alter the railroad business landscape in North America.

CPKC's global headquarters are located in Calgary, Canada with U.S. headquarters in Kansas City, Missouri. The railroad employs about 20,000 people. In Minnesota, CPKC's top markets are grain, energy, chemicals, and plastics, as well as metals and fertilizers.[60]

[60] Canadian Pacific Kansas City. "CPKC Annual Report 2023." As of December 2023, Accessed April 2024. https://s21.q4cdn.com/736796105/files/doc_financials/2023/ar/cpkc-annualreport2023-final.pdf

## FIGURE B-3: CPKC SUBDIVISIONS



## TABLE B-4: CPKC SUBDIVISIONS IN MINNESOTA

| Subdivision | From/to | Tracks | Signal | Maximum Speed in MPH (instead of FRA Track Class) | Miles in Minnesota | Height or Weight Restrictions | Other Railroad Trackage Rights |
|---|---|---|---|---|---|---|---|
| East Division | | | | | | | |
| Bemidji | Gully/Plummer | 1 | TWC | 10 | 22 | | |
| Detroit Lakes | Glenwood West/Thief River Falls North | 1 | TWC | 49 | 188 | | |
| Elbow Lake | Glenwood/Tenney | 1 | CTC | 60 | 64 | | RL, RRVW |
| Ford Line Spur | St. Paul (Emma St.)/ St. Paul (Cleveland Ave.) | 1 | | | 5 | | |
| Hartland Spur | Waseca/Hartland | 1 | GCOR 6.28 | 10 | 19 | 263K | |
| Jackson | Ramsey/Jackson | 1 | TWC | 40 | 107 | | |
| Marquette | New Albin/Bluff | 1 | TWC | 40 | 23 | | |
| Merriam Park | St Paul Yard/Midway | 1 | CTC | 70 | 9 | | AMTK, BNSF, MNNR, TCWR, UP |
| MN&S Spur | Auto Club/MN&S Jct | 1 | BRT | 15 | 19 | | TCWR |
| Noyes | Thief River Falls North/Noyes | 1 | TWC | 40 | 77 | | BNSF, MNN, NPR |
| Owatonna | Lyle/Comus | 1 | TWC | 40 | 66 | | |
| Paynesville | BN University/ Glenwood East | 1 | CTC | 60 | 119 | | CN, TCWR |
| River | River Jct West/St Paul Yard | 1 | CTC | 79 | 119 | | AMTK, BNSF, UP |
| St Paul | Soo Jct/Cardigan Jct West | 1 | CTC | 25 | 6 | | |
| Tomah | Mississippi Drawbridge/River Jct West | 1 | CTC | 79 | 4 | | AMTK, UP |
| Tracy | Waseca/Tracy West | 1 | TWC | 40 | 129 | | RCPE |
| Waseca | Goodview/ Waseca | 1 | TWC | 40 | 98 | | |
| Withrow | Withrow/Shoreham | 1 | CTC | 40 | 21 | | CN |

### B.3.1 New projects

Since the completion of the last state rail plan, CP made significant investments in Minnesota to improve capacity on its lines in Minnesota, including upgrades to support Positive Train Control (PTC) and Centralized Traffic Control (CTC) operations, and the creation of new double-track sections of track and new passing sidings.

### B.3.2 Future improvements

CPKC's merger has created a greater need for new strategic investments. Since the merger, $346 million has been dedicated to increasing the capacity along the network's North-South corridor, including 26 specific locations where enhancements include constructing double tracks, new sidings, or extending existing sidings.[61]

CPKC plans to initiate intermodal service connecting former CP and KCS locations, facilitating a link between Mexico and Texas with the Midwest and Canada. CPKC facilities in the Chicago area are planned to become a pivotal hub for intermodal traffic traveling between Eastern Canada, Detroit, Kansas City, the Dallas region, and various destinations in Mexico. Specific to Minnesota, the former CP terminal in Minneapolis will serve as a key node for intermodal shipments originating from Western Canada and the Upper Midwest, destined for points along the former KCS and KCS de Mexico networks. New daily train routes are also planned, including new intermodal and manifest train routes between Minneapolis and Toluca, Mexico.

CPKC also has plans to expand its locomotive fleet, the current growth plans allow for the storage of 135 locomotives. However, by the end of the third year of the plan, the railroad will be utilizing the 135 in storage and have an estimated need for an additional 14 locomotives. CPKC also has plans to be carbon neutral. These plans include utilizing hydrogen fuel cells and batteries to create the first North American hydrogen-run locomotive fleet.[62]

## *B.4 Union Pacific Railroad (UP)*

UP is the second-largest railroad in North America by revenue and number of employees, very closely following BNSF in all categories. UP has a rail network of just over 32,000 miles across 23 states and is headquartered in Omaha, Nebraska. This large railroad employs over 31,000 people and operates about 7,300 locomotives.

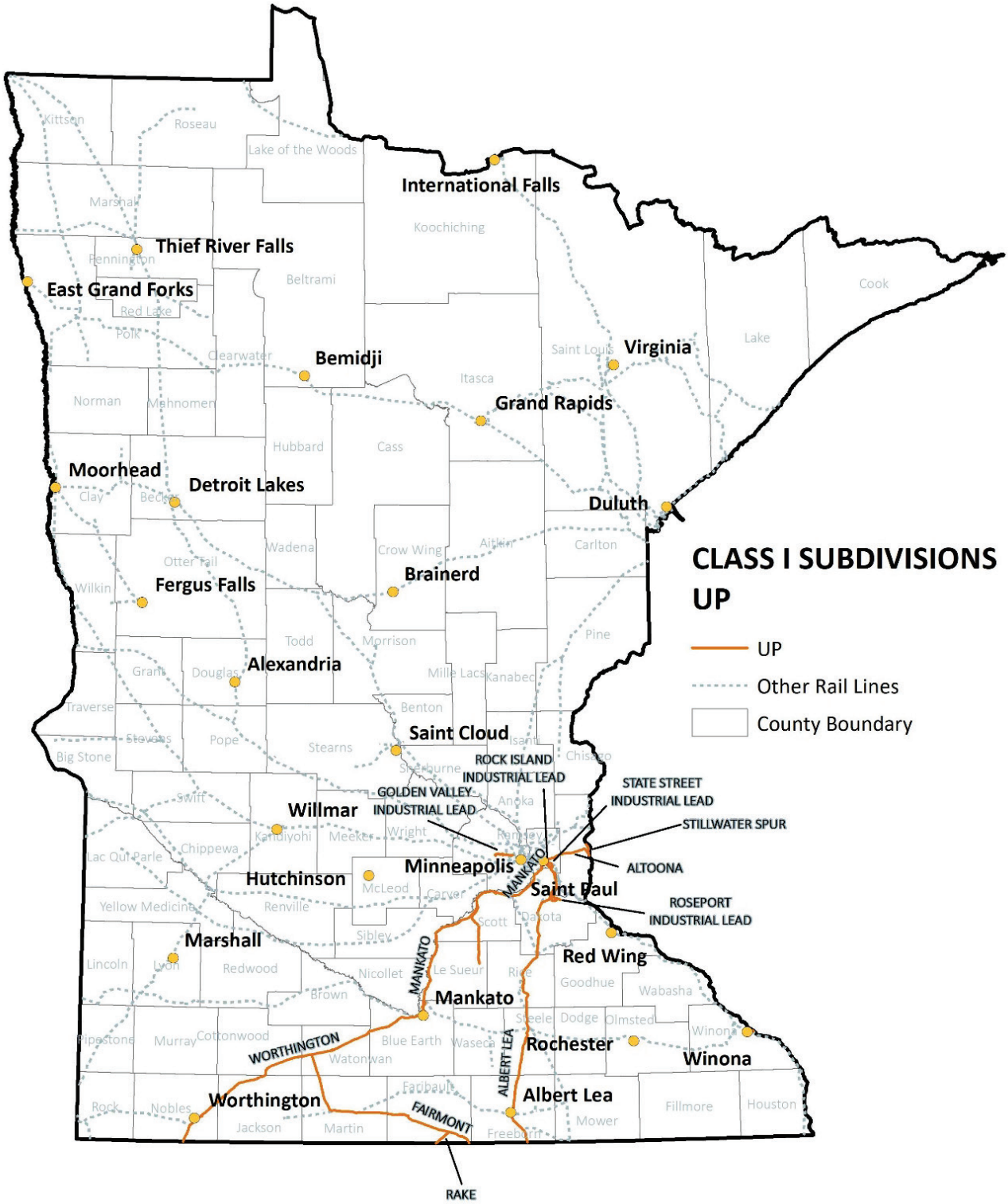
In Minnesota, UP operates two main rail corridors along the state's southern border. UP top outbound commodities from Minnesota include grain, meals and oils, biofuels, sweeteners, petroleum coke, and other petroleum products. UP's top terminating commodities in Minnesota are coal, fertilizer, intermodal wholesale products, non-metallic minerals, and industrial chemicals. UP's originating volume from Minnesota is higher than its terminating volume. UP's 312 Minnesota employees handled 96,000 outbound cars and 31,000 inbound cars in 2022.[63]

[61] Trains News Wire. "CP and KCS Project Dramatic Rise in Daily Train Counts." Trains.com. November 2, 2021.

[62] CPKC. "CPKC delivers strong fourth-quarter results." CPKC, As of January 2024, Accessed April 2024, https://www.cpkcr.com/en/media/CPKC-delivers-strong-fourth-quarter-results

[63] Union Pacific Railroad. "U.S. Railroad Guide.," As of 2022, Accessed March 2024. https://www.up.com/aboutup/usguide/index.htm.

## FIGURE B-4: UNION PACIFIC RAILROAD SUBDIVISIONS



## TABLE B-5. UP SUBDIVISIONS IN MINNESOTA

| Subdivision | From/to | Tracks | Signal | Maximum Speed in MPH (instead of FRA Track Class) | Miles in Minnesota | Height or Weight Restrictions | Other Railroad Trackage Rights |
|---|---|---|---|---|---|---|---|
| Great Lakes Division | | | | | | | |
| Albert Lea | St. Paul/ Minnesota-Iowa state line | 1 | CTC | | 112 | | AMTK, CN, CPRS, PGR |
| Altoona | St. Paul/Minnesota-Wisconsin state line | 1 and 2 | MAN (Lake Elmo – St. Croix River; about 7 miles)<br>ABS elsewhere | | 18 | | MNNR |
| Fairmont | Minnesota-Iowa state line/ Butterfield | 1 | | | 75 | | CPRS |
| Golden Valley Industrial Lead | Golden Valley/ Plymouth | 1 | | | 4 | | |
| Mankato | St. Paul/St. James | 1 | ABS, MAN | | 118 | | CPRS, RCPE |
| Rake | Bricelyn/ Minnesota-Iowa state line | 1 | MAN | | 6 | | |
| Rock Island Industrial Lead | St. Paul (Lafayette Fwy)/ St. Paul (Andrew St) | 1 | | | 2 | | |
| Roseport Industrial Lead | Inver Grove Heights/ Rosemount | 1 | CTC | | 13 | | CPRS |
| State Street Industrial Lead | St. Paul/ South St. Paul | 1 | | | 4 | | |
| Stillwater Spur | Stillwater/West Lakeland Twp | 1 | | | 5 | | MNNR |
| Worthington | St. Paul/ Minnesota-Iowa state line | 1 | | | 66 | | MSWY |
| Iowa Division | | | | | | | |
| Osage | Glenville/ Freeman Twp | 1 | MAN | | <1 | | CN |

### B.4.1 New projects

Since the last state rail plan update, UP has made significant investments in Minnesota. In particular, the railroad opened a new intermodal terminal in Minneapolis, which provides domestic service between the Twin Cities and Los Angeles, providing businesses with shipping options to and from the West coast.

### B.4.2 Future improvements

UP has allocated $3.4 billion for 2024 capital improvements. UP also stated in their annual 'Building America 2022 report their alignment with the United Nation's Sustainable Development Goals (SDGs). Their goals include diversifying their workforce and net neutral emissions by 2050.

# APPENDIX C. SHORT LINE AND REGIONAL RAILROAD PROFILES

### TABLE C-1: SUMMARY OF SHORT LINE AND REGIONAL RAILROADS IN MINNESOTA

| Railroad Abbreviation/Name | Headquarters Location | Mileage Owned/Leased | Mileage Trackage Rights | Mileage out of Service | FRA Track Class | Weight Restrictions |
|---|---|---|---|---|---|---|
| BRRRA/Buffalo Ridge Regional Rail Authority | Luverne, MN | 42 | N/A | N/A | Not Reported | 263k |
| CTRR/Cloquet Terminal Railroad | Cloquet, MN | 2.5 | 0 | 0 | 2 miles class 2 and above | None |
| MNNR/Minnesota Commercial Railway | St. Paul, MN | 86 | 0 | Not Reported | 63 miles class 1<br>23 miles excepted | 286k |
| MDW/Minnesota, Dakota & Western Railway | International Falls, MN | 2.3 | 182 | N/A | Class 1 | None |
| MNN & SCXY/KBN Inc (Minnesota Northern & St. Croix Valley Railroads) | Crookston MN | 165.26 | 81.5 | Not Reported | Class 1 | None |
| MPL/MVRRA (Minnesota Prairie Line Railroad operating on behalf of the Minnesota Valley Regional Rail Authority | Redwood Falls, MN | 94.4 | | | 48 miles Excepted, 46.4 Class 2 and above | 263K for 48 miles, 46.4 miles 286K |
| NPR/Northern Plains Railroad, Inc. | Grand Forks, ND | 45.52 | 0 | 0 | Class 2 and above | 286k |
| OTVR/Otter Tail Valley Railroad | Fergus Falls, MN | 81 | 0 | 0 | 12.8 miles class 1<br>66.7 miles class 2<br>1.5 miles excepted | None |
| PGR/Progressive Rail Inc | Lakeville MN | 76.75 | 0 | Not Reported | 61.25 miles class 1<br>15.5 miles excepted | None |
| RRVW/Red River Valley & Western Railroad Company | Wahpeton, ND | 2.96 | 27.42 | N/A | Class 2 and above | None |

| Railroad Abbreviation/Name | Headquarters Location | Mileage Owned/Leased | Mileage Trackage Rights | Mileage out of Service | FRA Track Class | Weight Restrictions |
|---|---|---|---|---|---|---|
| RCPE/Rapid City, Pierre, & Eastern Railroad | Rapid City, SD | 41.45 / 130.55 | 89.1 | N/A | Class 2 and above | None |
| TCWR/Twin Cities & Western Railroad | Glencoe, MN | 144 | Not Reported | N/A | Class 2 and above | 1 bridge unable to accommodate 286k cars, weight rating TBD |
| NLR/Northern Lines Railway | St. Cloud, MN | 0/19 | 3 | 1.4 | 10.5 Excepted, 8.5 Class 1 | 286k |
| SLLX/North Shore Scenic Railroad | Duluth, MN | 28 | Not Reported | Not Reported | Not Reported | Not Reported |
| LSMR/Lake Superior & Mississippi Railroad | Duluth, MN | 5.2 | Not Reported | Not Reported | Not Reported | Not Reported |

# APPENDIX D. FREIGHT RAIL PROJECTS

## *D.1 MRSI funded projects*

Table D-1 is an inventory of projects awarded funding from the MRSI program. There were 19 applications to the program in 2024, 11 were awarded either full or partial awards. All projects in this table are considered short term as they have been funded.

**TABLE D-1: 2024 MRSI FUNDED PROJECTS**

| County | District | Project Sponsor | Serving RR | Project Description | Likely Timing | Project Category | Anticipated Benefits of the Project | Project Cost (Year of $ if available) |
|---|---|---|---|---|---|---|---|---|
| **Polk** | 2 | American Crystal Sugar Company | MNN RR | American Crystal Sugar Company (Crookston) – $960,000 to expand a packaging warehouse to cover the rail spur adjacent to the building, increasing the ability to access and load railcars. | 2024 | Multimodal and Access | Increased ability to load railcars | $960,000 |
| **Polk** | 2 | Minnesota Northern Railroad Company | MNN RR | Minnesota Northern Railroad Company (Crookston) – $1.56 million to develop land for a new industrial park and innovation center, including installing 2,478 feet of track and site preparation for an initial spur, a turnout from the track to the site, bin storage, and a crossing to the spur. | 2024 | Capacity Projects | Improved business development opportunities | $1,565,451 |

| County | District | Project Sponsor | Serving RR | Project Description | Likely Timing | Project Category | Anticipated Benefits of the Project | Project Cost (Year of $ if available) |
|---|---|---|---|---|---|---|---|---|
| **Morrison** | 3 | Little Falls | BNSF | 4th St NE & 1st St NE, Construct sidewalk at RR Xing in City of Little Falls. City of Little Falls (Little Falls) – $693,882 to reconstruct and update an existing signal to an active warning railroad crossing, install Americans with Disabilities Act -compliant pedestrian crosswalks, and close an existing road crossing of the spur line to enhance safety and accessibility. | 2027 | Safety/Crossing Improvement | Reduced likelihood of train-vehicle collisions | $603,882 ($483,106 FHWA) |
| **Mower** | 6 | Northern Country Co-op | CPKC | Northern Country Co-op (Lansing) – $1.9 million to develop a unit train loading facility and install storage bins to hold product until it can be loaded onto a train. | 2024 | Capacity Projects | Increased capacity for local business | $1,900,000 |
| **Winona** | 6 | Seven Rivers Intermodal Terminal LLC | CPKC | Seven Rivers Intermodal Terminal LLC (Winona) – $511,446 to add 2,440 feet of track and two internal switches within an existing terminal to increase yard capacity and inbound shipments for distribution. | 2024 | Capacity Projects | Increased capacity for local business | $511,446 |

| County | District | Project Sponsor | Serving RR | Project Description | Likely Timing | Project Category | Anticipated Benefits of the Project | Project Cost (Year of $ if available) |
|---|---|---|---|---|---|---|---|---|
| **Renville** | 8 | DeRock Capital Group | TCWR RR | DeRock Capital Group, LLC (Hector) – $246,000 to add a switch to the sidetrack, 350 feet of rail, ties, rail bed, and update two existing loading rail docks, and complete groundwork next to the rail spur to increase transloading capabilities. | 2024 | Multimodal and Access | Improved access to rail network for business | $246,000 |
| **Meeker** | 8 | Louisiana-Pacific Corporation | CPKC | Louisiana-Pacific Corporation (Watkins) – $1.5 million to install new railcar offloading stations with outdoor bulk storage and material handling upgrades. | 2024 | Capacity Projects | Improved rail shipping capacity for business | $1,500,000 |
| **Yellow Medicine** | 8 | Meadowlands Farmers Co-op | MPLI | Meadowlands Farmers Co-op (Echo) – $1.1 million to construct 2,150 feet of new siding track to transport fertilizer by rail for a new agronomy center to be built adjacent to the siding. | 2024 | Capacity Projects | Improved rail shipping capacity for business | $1,106,942 |
| **Dakota** | Metro | Progressive Rail | PGR RR | Progressive Rail, Incorporated (Lakeville) – $468,137 to renew and improve eight bridge structures located on Progressive Rail's 97-mile system of Minnesota rail lines. | 2024 | State of Good Repair / Modernization | Improved infrastructure condition | $468,137 |

| County | District | Project Sponsor | Serving RR | Project Description | Likely Timing | Project Category | Anticipated Benefits of the Project | Project Cost (Year of $ if available) |
|---|---|---|---|---|---|---|---|---|
| **Ramsey** | Metro | Sanimax USA | N/A | Sanimax USA, LLC (South St. Paul) – $400,000 to enhance the rail loading system to enable the direct loading of materials into railcars and installation of a conveyance system linking the truck loadout to the rail loading area. | 2024 | Multimodal and Access | Improved access to rail network for business | $400,000 |
| **Carver** | Metro | TCWR RR | TWCR | Twin Cities & Western Railroad Company (near Cologne) – $328,424 to extend the stub track over a recently acquired parcel and create a full siding with connections to the TC&W mainline enabling greater access and track capacity to support a large transload operation. | 2024 | Multimodal and Access | Improved business development opportunities | $328,424 (partial award) |

Source: WSP and CPCS analysis of publicly available information on MRSI-funded Minnesota rail projects

## *D.2 Section 130 projects*

The Table D-2 provides an inventory of projects in Minnesota that are funded by federal Section 130 funds. These projects are scheduled for 2024 to 2027, which are considered short-term. All projects are anticipated to provide safety benefits by maintaining and improving grade crossings and warning devices. All projects are sponsored by MnDOT.

**TABLE D-2: SECTION 130 PROJECTS**

| County | District | RR Name | Project Description | Likely Timing | Project Cost (Year of $ if available) |
|---|---|---|---|---|---|
| **Lake** | 1 | CN (WCL) | CN (WCL), Install gates, flashing lights, and constant warning circuitry at County Rd 61, Scenic Dr, Two Harbors, Lake County | 2025 | $500,000 ($450,000 FWHA) |
| **St. Louis** | 1 | CN (WCL) | CN (WCL) Install gates, flashing lights, and constant warning circuitry at County Rd 133, Meadowlands Twp, St Louis County (CSAH 133) | 2025 | $500,000 ($450,000 FHWA) |
| **St. Louis** | 1 | CN (WCL) | CN (WCL) Install gates, flashing lights, and constant warning circuitry at MN 37, Iron Junction, St Louis County | 2025 | $380,000 ($5,000 FHWA) |
| **St. Louis** | 1 | CN (WCL) | CN (WCL) CSAH 98, Canosia Rd, Hermantown, St Louis County. Replace the existing signal system. | 2026 | $400,000 ($360,000 FHWA) |
| **St. Louis** | 1 | CN (WCL) | CN (WCL) CSAH 91, N 40th Ave W, Duluth, St Louis County. Replace the existing signal system | 2026 | $400,000 ($360,000 FHWA) |
| **St. Louis** | 1 | CN (WCL) | CN (WCL), Install gates and flashing lights at CR 316, Maxwell Rd, Mountain Iron, St Louis County | 2024 | $450,000 (FHWA) |
| **St. Louis** | 1 | CN (WCL) | CN (WCL), Replace existing signal system at CSAH 16, Town Line Rd, McDavitt Twp, St Louis County | 2024 | $500,000 ($5,000 FHWA) |
| **St. Louis** | 1 | CN (WCL) | CN (WCL), Replace existing signal system at M 60, Unity Drive, Mountain Iron, St Louis County | 2024 | $500,000 ($5,000 FHWA) |
| **Marshall** | 2 | NPR RR | NPR RR, upgrade existing signal system at US 75, S Main St, Warren, Marshall County | 2024 | $10,000 |
| **Marshall** | 2 | BNSF | BNSF RR, Replace existing signal system at CSAH 62, 5th St, Stephen, Marshall County | 2025 | $400,000 ($200,000 FHWA) |
| **Marshall** | 2 | BNSF | BNSF RR, Replace existing signal system at CSAH 5, 400TH St NW, Stephen, Marshall County | 2025 | $400,000, ($200,000 FHWA) |
| **Red Lake** | 2 | CPKC (Soo) | CPKC (Soo), Replace existing signal system at CSAH1, Plummer, Red Lake County | 2025 | $300,000 ($270,000 FHWA) |
| **Roseau** | 2 | MNN RR | MNN RR, replace the existing signal system at MNTH 11, Badger, Roseau County | 2026 | $10,000 |
| **Roseau** | 2 | MNN RR | MNN RR, Replace existing signal system at CSAH 2, University Ave, Badger, Roseau County | 2026 | $200,000 (FHWA) |
| **Benton** | 3 | BNSF | BNSF RR, Replace existing signal system at M343, 4 ½ St NE, St Cloud, Benton County | 2026 | $350,000 ($175,000 FHWA) |
| **Benton** | 3 | BNSF | BNSF RR, Install gates, flashing lights and constant warning circuitry at Benton CSAH 2 (Main St W), Benton County | 2025 | $400,000, ($200000 FHWA) |

| County | District | RR Name | Project Description | Likely Timing | Project Cost (Year of $ if available) |
|---|---|---|---|---|---|
| **Kanabec** | 3 | BNSF | BNSF RR, Install gates, flashing lights and constant warning circuitry at Kanabec CSAH 28 (133rd), Kanabec County | 2025 | $385,000 FHWA |
| **Stearns** | 3 | CPKC (Soo) | CPKC (Soo), Install gates, flashing lights and constant warning circuitry at M 40 (Washburne Ave) in Paynesville, Stearns County | 2025 | $300,000, ($270,000 FHWA) |
| **Wright** | 3 | BNSF | BNSF RR, Install gates, and flashing lights at T707, Darrow Ave Se, Franklin TWP, Wright County | 2024 | $400,000 (FHWA) |
| **Wright** | 3 | CPKC (Soo) | CPKC (Soo), Install gates, flashing lights, and constant warning circuitry at M 6 (Birch Ave) in Maple Lake, Wright County | 2025 | $300,000 ($270,000 FHWA) |
| **Becker** | 4 | CPKC (Soo) | CPKC (Soo), Replace existing signal system at MSAS 101, Willow St, Detroit Lakes, Becker County | 2026 | $275,000 ($247,500 FHWA) |
| **Clay** | 4 | BNSF | BNSF RR, Replace existing signal system at CSAH 17, 100th St, S Glyndon, Clay County | 2025 | $400,000 ($200,000 FHWA) |
| **Douglas** | 4 | CPKC (Soo) | CPKC (Soo), Replace existing signal system at CSAH 1, Kensington Ave, Kensington, Douglas County | 2025 | $300,000 ($270,000 FHWA) |
| **Douglas** | 4 | CPKC (Soo) | CPKC (Soo), Install flashing lights and gates at M3, Sunset Access Rd, Forada, Douglas County | 2026 | $300,000 (FHWA) |
| **Grant** | 4 | BNSF | BNSF RR, Install gates and flashing lights at CR 33, Macville TWP, Grant County | 2024 | $225,000 ($202,500 FHWA) |
| **Otter Tail** | 4 | OTVR RR | OTVR RR, Replace existing signal system at MSAS 123, Friberg Ave, Fergus Falls, Otter Tail County | 2024 | $300,000 (FHWA) |
| **Otter Tail** | 4 | BNSF | BNSF RR, Install gates and flashing lights at T94, 570th Ave, Newton TWP, Otter Tail County | 2024 | $300,000 (FHWA) |
| **Otter Tail** | 4 | OTVR RR | OTVR RR, Replace existing signal system at MSAS 116, Mill St, Fergus Falls, Otter Tail County | 2024 | $225,000 (FHWA) |
| **Otter Tail** | 4 | OTVR RR | OTVR RR, Replace existing signal system at MSAS 145, Cascade St, Fergus Falls, Otter Tail County | 2024 | $225,000 (FHWA) |
| **Otter Tail** | 4 | OTVR RR | OTVR RR, Replace existing signal system at MSAS 101, W Summit Ave, Fergus Falls, Otter Tail County | 2026 | $220,000 (FHWA) |
| **Otter Tail** | 4 | BNSF | BNSF RR, Replace existing signal system at CSAH 51, Perham, Otter Tail County | 2026 | $350,000 ($175,000 FHWA) |
| **Otter Tail** | 4 | CPKC (Soo) | CPKC (Soo), Replace existing signal system at MN 78, Ottertail, Otter Tail County | 2026 | $355,000 ($5,000 FHWA; $350,000 Truck Highway) |
| **Otter Tail** | 4 | OTVR RR | OTVR RR, Replace existing signal system at T1019, 170th Ave, Fergus Falls, Otter Tail County | 2026 | $220,000 FHWA |
| **Rice** | 6 | UP RR | UP RR, Replace existing signal system at MSAS 103, 14th St NE, Faribault, Rice County | 2025 | $445,000 ($400,500 FHWA) |
| **Rice** | 6 | UP RR | UP RR, Replace existing signal system at 3rd St W, W 2nd St, and St Olaf Ave, Northfield, Rice County | 2026 | $2,000,000 ($1,800,000 FHWA) |
| **Steele** | 6 | CPKC (DME) | CPKC (DME), Install gates and flashing lights at CR 180, E Main St, Owatonna, Steele County | 2025 | $300,000 (FHWA) |

| County | District | RR Name | Project Description | Likely Timing | Project Cost (Year of $ if available) |
|---|---|---|---|---|---|
| **Winona** | 6 | CPKC (DME) | CPKC (DME), Replace existing signal system at CSAH 29, Fremont St, Lewiston, Winona County | 2024 | $275,000 ($247,500 FHWA) |
| **Winona** | 6 | CPKC (DME) | CPKC (DME), Install flashing lights and gates at M83, West Ave, St Charles, Winona County | 2026 | $300,000 (FHWA) |
| **Blue Earth** | 7 | UP RR | UP RR, Install gates and flashing lights at T 184, 200th St, Judson Twp, Blue Earth County | 2024 | $400,000 (FHWA) |
| **Brown** | 7 | CPKC (DME) | CPKC (DME), Install gates and flashing lights at M 12, Springfield, Brown County | 2025 | $300,000 (FHWA) |
| **Brown** | 7 | CPKC (DME) | CPKC (DME), Install gates and flashing lights at CSAH 7, 330th Ave, Cobden, Brown County | 2025 | $300,000 FHWA |
| **Brown** | 7 | CPKC (DME) | CPKC (DME), Install gates and flashing lights at MSAS 109, 16th St. S, New Ulm, Brown County | 2025 | $300,000 FHWA |
| **Le Sueur** | 7 | UP RR | UP RR, Replace existing signal system at MN 21, Montgomery Ave SE, Montgomery, Le Sueur County | 2025 | $255,000, ($5,000 FHWA) |
| **Martin** | 7 | CP | Replace the existing rail signal system at Hwy 263 Guide St., Welcome, Martin County. | 2025 | $300,000 |
| **Rock** | 7 | EE RR | EE RR Replace existing rail signal system at Hwy 75 S Kinnis Ave, Luverne, Rock County | 2025 | $300,000 |
| **Watonwan** | 7 | UP RR | UP RR, Replace existing signal system at CSAH 55, West Rd, St James, Watonwan County | 2024 | $400,000 ($360,000 FHWA) |
| **Chippewa** | 8 | TCWR RR | TCWR RR, Replace existing signal system at CSAH 16, Montevideo, Chippewa County | 2026 | $220,000 (FHWA) |
| **Chippewa** | 8 | TCWR RR | TCWR RR, Replace existing signal system at MN 40, Lac Qui Parle Ave, Milan, Chippewa County | 2026 | $310,000 ($300,000 FHWA; $10,000 TH) |
| **Lac Qui Parle** | 8 | BNSF | BNSF RR, Install gates and flashing lights at CSAH 34, 240th St, Perry Twp, Lac Qui Parle County | 2024 | $400,000 (FHWA) |
| **Lac Qui Parle** | 8 | BNSF | BNSF RR, Install gates and flashing lights at CSAH 2, South Ave, Boyd, Lac Qui Parle County | 2024 | $400,000 (FHWA) |
| **Lyon** | 8 | BNSF | BNSF RR, Install gates and flashing lights at CR 51, Shelburne Twp, Lyon County | 2024 | $400,000 (FHWA) |
| **Lyon** | 8 | CPKC (DME) | CPKC (DME), Replace existing signal system at CSAH 29, E Center St, Tracy, Lyon County | 2024 | $300,000 ($270,000 FHWA) |
| **Lyon** | 8 | CPKC (DME) | CPKC (DME), Replace existing signal system at CSAH 11, 4th St, Tracy, Lyon County | 2024 | $300,000 ($270,000 FHWA) |
| **Lyon** | 8 | RCPE RR | RCPE RR, Replace existing signal system at CSAH 5, 210th Ave, Balaton, Lyon County | 2025 | $230,000 (FHWA) |
| **McLeod** | 8 | TCWR RR | Upgrade railroad signal system at Hwy 15 in Sumter Twp, McLeod County | 2024 | $10,000 |
| **McLeod** | 8 | TCWR RR | TCWR RR, Replace existing signal system at MSAS 107, Chandler Ve N, Glencoe, McLeod County | 2024 | $206,000 (FHWA) |
| **McLeod** | 8 | TCWR RR | TCWR RR, Upgrade existing signal system at MNTH 15, Sumter Twp, McLeod County | 2024 | $505,000 ($5,000 FHWA; $500,000 TH) |
| **McLeod** | 8 | TCWR RR | TCWR RR, Replace existing signal system at CSAH 111, Prior St, Stewart, McLeod County | 2026 | $220,000 (FHWA) |
| **McLeod** | 8 | TCWR RR | TCWR RR, Replace existing signal system at MSAS 107, Chandler Ave N, Glencoe, McLeod County | 2024 | $206,000, $20600 (FHWA) |

| County | District | RR Name | Project Description | Likely Timing | Project Cost (Year of $ if available) |
|---|---|---|---|---|---|
| **Meeker** | 8 | BNSF | BNSF RR, Replace existing signal system at T56, 708th Ave, Dassel Twp, Meeker County | 2024 | $385,000 ($5,000 FHWA; $195,000 Bond, $200,000 other) |
| **Meeker** | 8 | BNSF | BNSF RR, Replace existing signal system at CSAH 4, 4th St, Dassel, Meeker County | 2024 | $385,000 ($192,500 FHWA) |
| **Meeker** | 8 | BNSF | BNSF RR, Install flashing lights and gates at T184, 237th St, Dassel Twp, Meeker County | 2026 | $350,000 (FHWA) |
| **Pipestone** | 8 | BNSF | BNSF RR, Install flashing lights and gates at M2, Washington Ave, Holland, Pipestone County | 2026 | $350,000 (FHWA) |
| **Pipestone** | 8 | BNSF RR | BNSF RR, Install gates and flashing lights at M2, Washington Ave, Holland, Pipestone County | 2026 | $350,000 FHWA |
| **Yellow Medicine** | 8 | BNSF | BNSF RR, Replace existing signal system at CSAH 38, 2nd St N, Hanley Falls, Yellow Medicine County | 2025 | $400,000 ($200,000 FHWA) |
| **Yellow Medicine** | 8 | BNSF | BNSF RR, Replace existing signal system at CSAH 18, South St, Hanley Falls, Yellow Medicine County | 2026 | $350,000 ($175,000 FHWA; $175,000 Other) |
| **Yellow Medicine** | 8 | BNSF | BNSF RR, Install gates and flashing lights at CSAH3, 200th Ave, Wood Lake, Yellow Medicine County | 2024 | $400,000 (FHWA) |
| **Itasca** | 1 & 2 | BNSF | BNSF RR, Replace existing signal system at MSAS 119, 7th Ave SE, Grand Rapids, Itasca County | 2026 | $400,000 ($200,000 FHWA) |
| **Koochiching** | 1 & 2 | CN (WCL) | CN (WCL), Install gates and flashing lights at CR 111, Koochiching County | 2024 | $450,000 (FHWA) |
| **Carver and Hennepin** | Metro | TCWR RR | TCWR RR, Replace existing signal system at MSAS 123, Market BLVD, Chanhassen, Carver and Hennepin Counties | 2025 | $230,000 FHWA |
| **Dakota** | Metro | PGR RR | PGR RR, Replace existing signal system at MSAS 105, Holyoke Ave, Lakeville, Dakota County | 2024 | $235,000 (FHWA) |
| **Dakota** | Metro | PGR RR | PGR RR, Replace existing signal system at CSAH 32, 110th St W, Eagan, Dakota County | 2026 | $220,000 (FHWA) |
| **Dakota** | Metro | PGR RR | PGR RR, Replace existing signal system at CSAH 26, Lone Oak Rd, Eagan, Dakota County | 2026 | $220,000 (FHWA) |
| **Hennepin** | Metro | BNSF | BNSF RR, Replace existing signal system at MSAS 101, Zachary Lane, Maple Grove, Hennepin County | 2024 | $400,000 ($5,000 FHWA) |
| **Hennepin** | Metro | CPKC (Soo) | CPKC (Soo), Replace existing signal system at MSAS 101, Boone Ave, New Hope, Hennepin County | 2026 | $300,000 ($270,000 FHWA) |
| **Hennepin** | Metro | CPKC (Soo) | CPKC (Soo), Replace existing signal system at CSAH 156, Winnetka Ave N, New Hope, Hennepin County | 2025 | $300,000, ($270,000 FHWA) |
| **Hennepin** | Metro | PGR RR | PGR RR, Replace existing signal system at CSAH 32, Penn Ave S, Bloomington, Hennepin County | 2025 | $225,000 FHWA |
| **Hennepin** | Metro | PGR RR | PGR RR, Replace existing signal system at MSAS 411, W 102nd St, Bloomington, Hennepin County | 2025 | $225,000 FHWA |
| **Hennepin** | Metro | PGR RR | PGR RR, Replace existing signal system at M 278, Queen Ave S, Bloomington, Hennepin County | 2025 | $225,000 FHWA |
| **Ramsey** | Metro | BNSF | BNSF RR, Replace existing signal system at CASH 32, Energy Park Dr, St Paul, Ramsey County | 2024 | $400,000 ($5,000 FHWA) |
| **Ramsey** | Metro | MNNR RR | MNNR RR, Replace existing signal system at CSAH 60, Otter Lake Rd, Gem Lake, Ramsey County | 2026 | $203,500 (FHWA) |

| County | District | RR Name | Project Description | Likely Timing | Project Cost (Year of $ if available) |
|---|---|---|---|---|---|
| **N/A** | N/A | N/A | 2024 Railroad Crossing Database and Inventory | 2024 | $199,000 total ($99,000 FHWA) |
| **N/A** | N/A | N/A | 2025 Railroad Crossing Database and Inventory inspection. | 2025 | $199,000 ($99,000 FHWA) |
| **N/A** | N/A | N/A | 2026 Railroad Crossing Database and Inventory inspection | 2026 | $199,000 ($99,000 FHWA) |

Source: WSP and CPCS analysis of publicly available information of Section 130 funded Minnesota rail projects

In addition to projects that are funded through MnDOT administered programs are projects that won Federal discretionary grants shown in Table D-3.

### TABLE D-3: FUNDED PROJECTS THAT WON A FEDERAL DISCRETIONARY GRANT

| County | Project Sponsor | Funding Source | Serving RR | Project Description | Likely Timing | Project Category | Anticipated Benefits of the Project | Project Cost (Year of $ if available) |
|---|---|---|---|---|---|---|---|---|
| **Clay** | City of Moorhead | USDOT Rural program ($26,309,600) | BNSF | Construct two underpasses that will eliminate two at-grade railroad crossings on 11th street in Downtown Moorhead, as part of a comprehensive project to improve US Highway 10 and US Highway 75 through downtown Moorhead. | Short Term | Safety/Crossing Improvement | Safety and mobility benefits. | $114,700,000 |
| **Kandiyohi** | Kandiyohi County | Kandiyohi County and FRA RCE ($4,824,563/50%) | BNSF | Final design and construction of an overpass over a BNSF rail line and includes reconstructing one mile of a rural two-lane highway | Short Term | Safety/Crossing Improvement | Eliminate an at-grade crossing, improve regional railroad operations, and also facilitate multimodal freight movement by constructing new rail access to the industrial park | $9,649,126 |

| County | Project Sponsor | Funding Source | Serving RR | Project Description | Likely Timing | Project Category | Anticipated Benefits of the Project | Project Cost (Year of $ if available) |
|---|---|---|---|---|---|---|---|---|
| **Morrison** | Town of Little Falls | Little Falls and FRA RCE ($3.2 million/80%) | BNSF | Planning, project development, and final design work for a bridge allowing Minnesota Trunk Highway 27 to cross a BNSF line and the Mississippi River | Short Term | Safety/Crossing Improvement | Forty-six trains per day currently block a river crossing; creating a grade separated crossing will allow for continued safe operation of the BNSF rail line and improved safety | $4,000,000 |
| **Renville** | Minnesota Valley Regional Rail Authority (MVRRA) | MVRRA and FRA CRISI ($520,000/80%) | MVRRA operated by Minnesota Prairie Line Inc. | Project development for track reconstruction between Fairfax and Hanley Falls including the assessment of grade crossing safety improvements. Would bring the track up to 286k standards and allow an interchange connection with the BNSF | Short Term | State of Good Repair/Modernization | Increase track rating, allow for 25 mph travel and create interchange connection with BNSF | $650,000 |
| **Multiple** | MnDOT | MnDOT and FRA RCE ($480,000/80%) | BNSF | Corridor planning study to evaluate a 112-mile segment of BNSF's Hinckley Subdivision (from the Minnesota/Wisconsin border to the Twin Cities area). This corridor includes approximately 121 at-grade crossings (96 of which are public), and this subdivision has been identified as the selected alternative for the proposed Northern Lights Express (NLX) corridor. This study intends to evaluate each crossing for closing or safety improvement | Short Term | Safety/Crossing Improvement | Safer corridor through identification of potential crossing closures, consolidation or improvements | $600,000 |
| **Multiple** | Twin Cities & Western Railroad Company (TC&W) | TC&W and FRA CRISI (50%) | TC&W | Convert approximately 13 miles of jointed rail into continuous welded rail (CWR) | Short Term | State of Good Repair/Modernization | Safety eliminating rail joints as part of a larger project to install CWR on system | $4,206,000 |

## *D.3 Unfunded projects*

For the following projects, no funding source has been identified as of the date of this Rail Plan. The unfunded, but identified freight projects are from the following sources:

- Consultations with stakeholders conducted during 2024
- Survey administered to Minnesota's short line and regional railroads
- Consultation with Minnesota's Class I railroads
- Regional planning studies
- RailNOW, which is a compilation of needs identified by the short line and regional railroad industry.[64]

**TABLE D-4: UNFUNDED CAPACITY PROJECTS**

| County | Project Sponsor | Serving RR | Project Description | Likely Timing | Anticipated Benefits of the Project | Project Cost (Year of $ if available) |
|---|---|---|---|---|---|---|
| **Ramsey** | NuStar Pipeline Operating Partnership, L.P. | MCR | NuStar Roseville Butane Rail Unloading & Additional Storage | Unknown | Add more capacity to potentially grow business | Unknown |
| **Ramsey** | Ramsey County | Multiple | East Metro Rail Yards Improvement Project - A series of track extensions, new tracks, new connections aimed to improve fluidity, capacity | Unknown | Improve fluidity and capacity in East Metro area | $140,000,000 |
| **Multiple** | Twin Cities & Western | TCWR | Building 2 passing sidings | Unknown | Enable traffic to pass | $4,059,000 |

[64] RailNow - 2024-2029 forecast

## TABLE D-5: UNFUNDED MULTIMODAL & ACCESS PROJECTS

| County | Project Sponsor | Serving RR | Project Description | Likely Timing | Anticipated Benefits of the Project | Project Cost (Year of $ if available) |
|---|---|---|---|---|---|---|
| Wright | Commercial Realty Solutions | Unknown | I-94 West Metro Railroad Industrial Park - Access to 72-acre industrial park | Unknown | Economic development | $4,114,000 |
| Nobles and Rock | Ellis & Eastern Railroad | EE RR | Rail spur and sidings in Luverne, MN | Unknown | Economic development, truck to rail diversion | $2,900,000 |
| Polk | Lake Agassiz Bean, LLC | BNSF | Lake Agassiz Bean LLC | Unknown | | Unknown |
| Koochiching | Rainy Lake Oil | MDW | Rainy Lake Oil & Propane Terminal | Unknown | Economic development | Unknown |
| Koochiching | Rainy Lake Oil | MDW | Rainy Lake Oil Fuel Terminal | Unknown | Economic development | Unknown |
| Renville | Step Saver Inc | TCWR RR | Step Saver Inc | Unknown | Economic development | Unknown |
| Scott | Twin Cities & Western | TCWR | Rehab three-quarters of a mile of track in Savage, MN owned, unused by CPKC to access riverport facilities | Unknown | Economic development, truck rail diversion | $525,000 |
| St. Louis | U.S. Energy, a division of U.S. Venture Inc | CN | Biwabik Transloading Development | Unknown | Improved access to rail network for business | Unknown |

## TABLE D-6: UNFUNDED SAFETY/CROSSING PROJECTS

| County | Project Sponsor | Serving RR | Project Description | Likely Timing | Anticipated Benefits of the Project | Project Cost (Year of $ if available) |
|---|---|---|---|---|---|---|
| St. Louis | BNSF | BNSF | Grade Separation of DOT# 061628K TH 95 - Crossing along proposed NLX Minneapolis-Duluth route, station proposed adjacent to crossing in Cambridge | Unknown | Reduced likelihood of train-vehicle collisions | Unknown |
| Isanti | BNSF | BNSF | Removal or Replacement of DOT# 061494N 379th Ave in Stanchfield, MN - Existing bridge does not meet current standard clearance requirements and could pose an obstacle for NLX route. | Unknown | Reduced likelihood of train-vehicle collisions | Unknown |
| Clay | BNSF | BNSF | Grade Separation of DOT# 081331J Main St - Crossing cuts the yard at Dilworth Hub, closure could improve operations / efficiency. Relies on new grade separation at 14th Street over the Dilworth yard as part of Clay County master plan | Unknown | Reduced likelihood of train-vehicle collisions | Unknown |
| Otter Tail | BNSF | BNSF | Grade Separation of DOT# 085930T CR 34 - 3 tracks, 2000 AADT, grade separation could facilitate closure of 6th and/or 3rd Ave in Perham | Unknown | Reduced likelihood of train-vehicle collisions | Unknown |

| County | Project Sponsor | Serving RR | Project Description | Likely Timing | Anticipated Benefits of the Project | Project Cost (Year of $ if available) |
|---|---|---|---|---|---|---|
| **Anoka** | BNSF | BNSF | Grade Separation of DOT# 082926T Ferry St (MN 47) - 2MT, 18300 AADT, 40 TPD, QZ, near Northstar passenger station | Unknown | Reduced likelihood of train-vehicle collisions | Unknown |
| **Anoka** | BNSF | BNSF | Grade Separation of: DOT# 082810S Egret Blvd DOT# 082914Y Crooked Lake Blvd (CSAH 18) - Hanson Blvd (974412C) grade separation, in 2019, adjacent Crooked Lake and Egret separations create sealed corridor in rapidly growing area north of Northtown Yd. ~ 40 Trains per day including passenger service. AADT 5450 | Unknown | Reduced likelihood of train-vehicle collisions | Unknown |
| **Anoka** | BNSF | BNSF | Grade Separation of: DOT# 061577C Bunker Lake Blvd (CSAH 116) DOT# 061578J Andover Blvd (CSAH 16) DOT# 061580K Crosstown Blvd (CR 18) - Rapid growth area north of Northtown Yd. Grade seps contribute to sealed corridor on proposed NLX passenger corridor | Unknown | Reduced likelihood of train-vehicle collisions | Unknown |
| **Unknown** | BNSF | BNSF | Grade Separation of DOT# 067927M 14th St S (HWY 12) - #1 location on MNDOT Energy Corridor Index, 7300 AADT, 10 TPD, study completed in 2015. Grade separation could allow closure of adjacent 13th and/or 12th St | Unknown | Reduced likelihood of train-vehicle collisions | Unknown |
| **Unknown** | BNSF | BNSF | Grade Separation of: DOT# 082946E Proctor Ave DOT# 082943J Main St. - Rapid growth in area, QZ, Northstar Transit route, Amtrak, Energy route. Main St. in Curve. Both locations identified for OP as the long-term solution in the MNDOT Energy Corridor Index. | Unknown | Reduced likelihood of train-vehicle collisions | Unknown |
| **Wright** | City of Monticello | BNSF | City of Monticello: Railroad Crossing Upgrades - Upgrade 9 crossings within the city | Unknown | Reduced likelihood of train-vehicle collisions | $1,188,000 |
| **Dakota** | Dakota County Regional Rail Authority | UP RR | Replace two narrow bridges over state and local roads | Unknown | Less restricted passage under bridges | $800,000 |
| **Redwood** | Minnesota Valley Regional Railroad Authority | MPLI | MVRRA Fairfax Siding and Road Crossing Project | Unknown | Reduced likelihood of train-vehicle collisions | Unknown |
| **St. Louis** | St. Louis County | CN (WCL) | Closure of Hermantown Road (CR 846) grade crossing 260087J in Solway Township. | Unknown | Reduced likelihood of train-vehicle collisions | Unknown |

| County | Project Sponsor | Serving RR | Project Description | Likely Timing | Anticipated Benefits of the Project | Project Cost (Year of $ if available) |
|---|---|---|---|---|---|---|
| **St. Louis** | St. Louis County | CN (WCL) | Closure of Woodland Road (CR 382) grade crossing 260122V in Clinton Township. | Unknown | Reduced likelihood of train-vehicle collisions | Unknown |
| **St. Louis** | St. Louis County | CN (WCL) | Grade separation of Main Street (CSAH 100) grade crossing 252305T in City of Aurora | Unknown | Reduced likelihood of train-vehicle collisions | Unknown |
| **St. Louis** | St. Louis County | CN (WCL) | Combination Closure-Separation. Grade Separation of North Cloquet Rd (CSAH 45), and Midway Road (CSAH 13), and closure of Stark Road (CR 894) in Midway Township | Unknown | Reduced likelihood of train-vehicle collisions | Unknown |
| **St. Louis** | St. Louis County | CN (WCL) | Closure of Admiral Road (CSAH 62) grade crossing 252013W in Clinton Township | Unknown | Reduced likelihood of train-vehicle collisions | Unknown |
| **St. Louis** | St. Louis County | CN (WCL) | Closure of Allavus Road (CR 592) grade crossing 252016S, and grade -separation of Spirit Lake Road (CSAH 137) grade crossing 252015K. | Unknown | Reduced likelihood of train-vehicle collisions | Unknown |
| **St. Louis** | St. Louis County | CN (WCL) | Closure of Fermoy Road (CR 311) grade crossing 251952A and Grade Separation of Highway 7 grade crossing 251953G | Unknown | Reduced likelihood of train-vehicle collisions | Unknown |
| **St. Louis** | St. Louis County | CN (WCL) | Grade separation of Southern Dr. (CR 657) grade crossing 260128L, closure of Old Hwy 169 grade crossing 260149E, signage and marking improvements to Unity Drive grade crossing 260146J | Unknown | Reduced likelihood of train-vehicle collisions | Unknown |
| **St. Louis** | St. Louis County | CN (WCL) | Grade separation of Canosia Road (CSAH 98) grade crossing 251909U in Solway Township. | Unknown | Reduced likelihood of train-vehicle collisions | Unknown |
| **St. Louis** | St. Louis County | CN (WCL) | Grade separation of Hwy 7 grade crossing 252070K in Mountain Iron | Unknown | Reduced likelihood of train-vehicle collisions | Unknown |

## TABLE D-7: UNFUNDED STATE OF GOOD REPAIR/MODERNIZATION PROJECTS

| County | Project Sponsor | Serving RR | Project Description | Likely Timing | Anticipated Benefits of the Project | Project Cost (Year of $ if available) |
|---|---|---|---|---|---|---|
| **Nobles and Rock** | Ellis & Eastern Railroad | EE RR | Rail, bridge, ties and surfacing program | Unknown | Bring rail lines to state of good repair, modern standards | $25,533,751 |
| **Multiple** | Minnesota Valley Regional Railroad Authority | MPLI | Bring MPLI to state of good repair and modern standards | Unknown | Improved performance of MPLI | $78,000,000 |
| **Multiple** | Minnesota Northern Railroad Company/St. Croix Valley Railroad | MNRR, SCXY | Rail, bridge, ties and surfacing program | Unknown | Bring rail lines to state of good repair | $4,852,000 |
| **St. Louis** | Unknown | BNSF | Modernization of Grassy Point bridge | Unknown | Modernization of Grassy Point bridge to increase speeds, reduce potential for congestion. | Unknown |

# APPENDIX E. POTENTIAL PASSENGER RAIL INVESTMENTS

Consultation with the public and stakeholders, and evaluation of current initiatives resulted in identification of many possible investments to advance passenger rail in Minnesota. These proposed investments are in various stages of planning, so they are categorized to reflect their status, potential next step, and to allow for prioritization where appropriate. Priority levels as assigned in this table are based on the scores in Table E-6. Through the planning process, many origins and destinations were proposed. Because it is not possible to define a specific route until certain processes are complete, each origin and destination is referenced as a potential 'corridor' in the tables.

Current or Advanced Program Development includes passenger rail projects at an advanced level of readiness. The projects are typically almost ready to proceed to preliminary or final design, pending funding availability. The projects in this category have been evaluated through both technical and environmental processes and have been part of meaningful community engagement that has resulted in completion of process steps that are anticipated to lead to service delivery within a five-to-ten-year timeframe.

Capital investment in the Twin Cities – Milwaukee – Chicago (TCMC) corridor needed for the Borealis, and which will also benefit the Empire Builder, is an advanced project that is both funded and in final design as of early 2025. These capital investments will also benefit the proposed "TCMC Service Expansion via La Crosse," which will study potential additional frequencies.

**TABLE E-1: CURRENT OR ADVANCED PROGRAM DEVELOPMENT**

| Proposal Name | Source | Project Category | Related Corridor or Route | Priority Level |
|---|---|---|---|---|
| **Twin Cities – Duluth/Superior** | 2015 State Rail Plan (AP Phase I Corridor) Corridor ID (MnDOT) | New Intercity Corridor | None | 1 |
| **TCMC Service Expansion via La Crosse (Added Chicago - Twin Cities round-trip and possible extension to Minneapolis)** | Corridor ID (WisDOT with MnDOT support) | Expanded Intercity Corridor | Empire Builder | 1 |

Corridors in the category of Potential Future Corridors (Table E-2) include projects that are in mid-stage planning. This includes corridors where state or federal funding has been provided to advance planning to the concept level. At that stage, proposals may consider alternatives and evaluate potential options for future capital or operations funding investment. Three of the described projects are located outside the State of Minnesota and are supported through the FRA's Corridor Identification program. Proposals located more than 80% outside the state were not ranked in Table E-2, but due to their status in the Corridor ID program, are included as a Priority Level 2 proposal.

**TABLE E-2: CORRIDORS IN PLANNING**

| Proposal Name | Source | Project Category | Related Corridor | Priority Level |
|---|---|---|---|---|
| **Twin Cities - Fargo/Moorhead** | 2015 State Rail Plan (Phase I Corridor) | Expanded Intercity Corridor | Empire Builder<br>North Coast Hiawatha | 2 |
| **Chicago – Seattle (North Coast Hiawatha corridor)** | Corridor ID (Big Sky Passenger Rail Authority) | Expanded Intercity Corridor | Empire Builder | 2 |
| **Twin Cities - Eau Claire** | Corridor ID (Chippewa-St. Croix Rail Commission)<br>2015 State Rail Plan (Phase I Corridor) | New Intercity Corridor | None | 2 |
| **Twin Cities - Eau Claire - Madison – Milwaukee** | Corridor ID (WisDOT) | New Intercity Corridor | Empire Builder<br>Borealis | 2 |

The category of Potential Future Corridors (Table E-3) includes potential origins and destinations presented by the public and stakeholders during the study process. The proposals include a variety of station pairs and potential corridors across the state and region. Many, though not all, of the potential corridors have some level of track infrastructure in place. Next steps for any Potential Future Corridor would most likely include establishing partnerships through a federal or multi-state effort, beginning with concept level analysis and consideration of potential alternatives related to mode choice, route, and access to intermediate destinations. Many of the Potential Future Corridors overlap with one another and may be combined together during planning and analysis when advanced for further study.

**TABLE E-3: POTENTIAL FUTURE CORRIDORS**

| Proposal Name | Source | Project Category | Related Corridor | Priority Level |
|---|---|---|---|---|
| Empire Builder Frequency & Service Expansion | All Aboard MN Interview | Expanded Intercity Corridor | Corridor ID (Big Sky Passenger Rail Authority) | 3 |
| Twin Cities – Mankato | 2015 State Rail Plan (Phase I Corridor) | New Intercity Corridor | Twin Cities - Sioux Falls (FRA) | 3 |
| Twin Cities - Albert Lea | 2015 State Rail Plan (Phase I Corridor) | New Intercity Corridor | Twin Cities - San Antonio (FRA) | 3 |
| Twin Cities - Rochester | 2015 State Rail Plan (Phase I Corridor) | New Intercity Corridor | None | 3 |
| Twin Cities - Willmar - Morris | All Aboard MN Interview | New Intercity Corridor | Twin Cities - Sioux Falls (FRA) | 3 |
| Winona - Rochester - New Ulm | Statewide stakeholder input | New Intercity Corridor | None | 3 |
| Twin Cities - Sioux City, Iowa | 2015 State Rail Plan (Phase II Corridor) | New Intercity Corridor | Twin Cities - Sioux Falls (FRA) | 3 |
| Twin Cities – Des Moines, Iowa | Survey #2 | New Intercity Corridor | Twin Cities – San Antonio (FRA) | 3 |
| Twin Cities – Kansas City, Missouri | Survey #2 | New Intercity Corridor | Twin Cities – San Antonio (FRA) | 3 |
| Twin Cities – St. Louis, Missouri | Survey #2 | New Intercity Corridor | Twin Cities – San Antonio (FRA) | 3 |
| Twin Cities – Omaha, Nebraska | All Aboard MN Interview | New Intercity Corridor | Twin Cities – Phoenix (FRA) | 3 |

| Proposal Name | Source | Project Category | Related Corridor | Priority Level |
|---|---|---|---|---|
| Twin Cities - Sioux Falls, South Dakota | 2015 State Rail Plan (Phase II Corridor) | New Intercity Corridor | Twin Cities - Sioux Falls (FRA) | 3 |
| Twin Cities – Winnipeg, Manitoba | 2015 State Rail Plan (Phase II Corridor) | New Intercity Corridor | Twin Cities - Fargo Moorhead | 3 |
| Twin Cities – Denver, Colorado | Survey #2 | New Intercity Corridor | Twin Cities – Denver – (FRA) | 3 |
| Extend Northstar Commuter Rail to St Paul Union Depot | Public Comment | Commuter Rail | Multiple routes | 3 |
| Extend Northstar Commuter Rail to St. Cloud | 2015 State Rail Plan (Phase I Corridor) | Commuter Rail | Twin Cities – Fargo Moorhead | 3 |

During the public input process, potential capital improvements were identified as described in the Table E-4. It is recognized that there may be other potential capital improvements that may support Minnesota's passenger rail system. As such, a future process to conduct a specific evaluation of capital needs across the state is anticipated. The process could evaluate how to advance passenger rail capital improvements to support existing services and enhance ridership, as well as evaluate how investments could support both future passenger rail corridors and prioritized freight investments.

### TABLE E-4: POTENTIAL CAPITAL IMPROVEMENTS

| Proposal Name | Source | Project Category |
|---|---|---|
| Expand Storage Capacity at St Paul Union Depot | Ramsey County Interview | Capital Improvement |
| Connect St Paul Union Depot's Eastern Stub End Track | Ramsey County Interview | Capital Improvement |
| Extended Access Track Thorough St Paul Union Depot | Ramsey County Interview | Capital Improvement |

The route concepts provided through the process that may be appropriate for analysis someday in the future are included in Table E-5. These routes are located 80% or more outside Minnesota, may be under jurisdictions other than the state, or are destinations without existing rail service (Grand Marais, Minnesota).

### TABLE E-5: ROUTE CONCEPTS

| Proposal Name | Source | Project Category | Related Corridor or Route | Priority Level |
|---|---|---|---|---|
| Expand the Twin Cities Commuter Rail Network | Public Comment | Commuter Rail | Metropolitan Council routes | Unranked |
| Add Commuter Trains on the Northshore Scenic Railroad | NLX Alliance Interview | Commuter Rail | North Shore Scenic Railroad routes | Unranked |
| Twin Cities - Marquette, MI | Public Comment | New Intercity Corridor | None | Unranked |
| Twin Cities - Sault Ste Marie, MI | Public Comment | New Intercity Corridor | None | Unranked |
| Twin Cities - Grand Marais, MN | Public Comment | New Intercity Corridor | Northern Lights Express | Unranked |
| Twin Cities - Appleton, WI | Public Comment | New Intercity Corridor | None | Unranked |
| Twin Cities - Green Bay, WI | Public Comment | New Intercity Corridor | None | Unranked |

Table E-6 identifies popular city origin/destination pairs that were identified through public engagement for the Rail Plan. Many of these city pairs overlap and could be part of one or multiple corridors. Future studies, whether through a state or federal process, may result in combination of the city pairs to evaluate the best options for achieving connections between the highest scoring city pairs.

**TABLE E-6: SCORING RESULTS MATRIX**

| Priority Level | Desired City Pairs and Corridors for future study | Level of planning/ preparedness | Connections to MPO / rural | Connection to FRA or existing routes | Support to underserved or disadvantaged communities | Total |
|---|---|---|---|---|---|---|
| 1 | Twin Cities – Duluth | 10 | 4 | 3 | 3 | 20 |
| | Twin Cities – Chicago (Borealis) Service Expansion via La Crosse | 10 | 4 | 3 | 3 | 20 |
| 2 | Twin Cities - Fargo/Moorhead | 5 | 4 | 3 | 3 | 15 |
| | Chicago – Seattle (North Coast Hiawatha) | These projects are > 80% located outside the state of Minnesota and are led by other states or agencies. Because they are not led by MnDOT or a Minnesota-based agency or unit of government, they are not scored. However, they are accepted into the federal Corridor ID program, and the routes relate to and affect Minnesota. | | | | |
| | Twin Cities - Eau Claire | | | | | |
| | Twin Cities - Eau Claire - Madison - Milwaukee | | | | | |
| 3 | Empire Builder Frequency & Service Expansion | 3 | 4 | 3 | 3 | 13 |
| | Twin Cities - Mankato | 1 | 4 | 2 | 3 | 10 |
| | Twin Cities - Albert Lea | 1 | 3 | 1 | 3 | 8 |
| | Twin Cities - Rochester | 3 | 4 | 1 | 3 | 11 |
| | Twin Cities - Willmar - Morris | 1 | 3 | 1 | 3 | 8 |
| | Winona - Rochester - New Ulm | 0 | 2 | 2 | 3 | 7 |
| | Twin Cities - Sioux City, Iowa | 0 | 4 | 3 | 3 | 10 |
| | Twin Cities – Des Moines, Iowa | 0 | 3 | 3 | 3 | 9 |
| | Twin Cities – Kansas City, Missouri | 0 | 3 | 3 | 3 | 9 |
| | Twin Cities – St. Louis, Missouri | 0 | 3 | 3 | 3 | 9 |

| Priority Level | Desired City Pairs and Corridors for future study | Level of planning/ preparedness | Connections to MPO / rural | Connection to FRA or existing routes | Support to underserved or disadvantaged communities | Total |
|---|---|---|---|---|---|---|
| | Twin Cities – Omaha, Nebraska | 0 | 3 | 3 | 3 | 9 |
| | Twin Cities - Sioux Falls, South Dakota | 0 | 4 | 3 | 3 | 10 |
| | Twin Cities – Winnipeg, Manitoba | 0 | 4 | 3 | 3 | 10 |
| | Twin Cities – Denver, Colorado | 0 | 3 | 3 | 3 | 9 |
| | Access using intercity, Northstar or both between the downtown Minneapolis and downtown St. Paul | 3 | 2 | 3 | 3 | 11 |
| | Access using intercity, Northstar, or both between the Twin Cities and St. Cloud | 5 | 3 | 3 | 3 | 14 |

# APPENDIX F. MULTIMODAL FACILITIES

### TABLE F-1: MULTIMODAL FACILITIES IN MINNESOTA

| Facility Name | Railroad | City | Products Served | Car Capacity | Category |
|---|---|---|---|---|---|
| A Yard | MNNR | St. Paul | General freight | Not Reported | Transload |
| Agate Terminal | E&E | Worthington | Dry bulk | 30 | Transload |
| Alter River Terminal | UP | St. Paul | Aggregate, metal, lumber, dry bulk, break-bulk | 65 | Water Served |
| Americold Logistics | BNSF | Newport | Foods | Not Reported | Transload |
| Andersons Inc. | CPKC | Winona | Fertilizer | 6 | Water Served |
| Becker Warehouse & Reload (UMI, Inc) | BNSF | Becker | Steel, lumber, plastics | Not Reported | Transload |
| Cannon Falls Transload Center | PGR | Cannon Falls | General freight | Not Reported | Transload |
| CHS Winona River Rail | CPKC | Winona | Fertilizer, agricultural products | 20 | Water Served |
| Citi Cargo and Storage | CPKC, PGR | Eagan | Paper | 2 | Transload |
| Citi Cargo and Storage | CPKC, PGR | Eagan | Paper | 2 | Transload |
| Commercial Transload of Minnesota | MNNR | Fridley | Steel, pipe, structural | 5 | Transload |
| Cottage Grove Automotive Compound | CPKC | Cottage Grove | Vehicles | Not Reported | Transload |
| D Yard | MNNR | Minneapolis | General freight | Not Reported | Transload |
| Dayton's Bluff Vehicle Facility | BNSF | St. Paul | Vehicles | Not Reported | Transload |
| Dilworth Vehicle Facility | BNSF | Dilworth | Vehicles | Not Reported | Transload |
| Distribution Centers of Minnesota Inc | CPKC | Minneapolis | Paper products | 8 | Transload |
| Duluth Harbor Industrial Park | BNSF, CN, CPKC, UP | Duluth | Agricultural products, coal, dry bulk | Not Reported | Transload |

| Facility Name | Railroad | City | Products Served | Car Capacity | Category |
|---|---|---|---|---|---|
| Duluth Intermodal Terminal, Clure Terminal | CN | Duluth | Intermodal | Not Reported | Intermodal |
| Duluth Ore Dock | CN | Duluth | Iron ore, limestone | Not Reported | Water Served |
| Feed Energy | E&E | Luverne | Liquid bulk | 10 | Transload |
| Forest Specialties | CPKC | Minneapolis | Lumber | Not Reported | Transload |
| Gavilon Grain | CPKC | St. Paul | Forest products, steel | 115 | Transload |
| General Transport Inc Not Reported Transload | CPKC, PGR | Lakeville | Plastics | 30 | Transload |
| Green Isle Team Track | MPLI | Green Isle | General freight | Not Reported | Transload |
| Hallett Railroad and Storage Services | BNSF | Duluth | Agricultural products, coal, dry bulk | Not Reported | Water Served |
| Hugo Team Track | MNNR | Hugo | General freight | Not Reported | Transload |
| Lake Superior Warehousing Co | BNSF, CN, CPKC, UP | Duluth | Steel, forest products | 40 | Water Served |
| Maiers Transport and Warehousing | BNSF | St. Cloud | Vehicles, forest products | Not Reported | Transload |
| Minneapolis Intermodal Terminal | CPKC | Minneapolis | Intermodal containers, trailers | Not Reported | Intermodal |
| Minneapolis Reload | TCWR | Eden Prairie | Dry bulk, break-bulk | 7 | Transload |
| Minnesota Freezer Warehouse Company | UP | Albert Lea | Foods | Not Reported | Transload |
| Modern Transport Terminal | CPKC | Winona | Steel, grain | 16 | Transload |
| Montevideo Transload | TCWR | Montevideo | General freight | Not Reported | Transload |
| Moorhead Industrial Park | OTVR | Moorhead | Wholesale | Not Reported | Transload |
| Murphy Warehouse | BNSF | Minneapolis | General freight | Not Reported | Transload |
| Murphy Warehouse Company | CPKC, PGR | Eagan | Forest products, paper, food products | 3 | Transload |
| NLR Yard Transload Track | NLR | St. Cloud | Grain, lumber, paper, chemicals, cement | Not Reported | Transload |
| Origination / O2D Co. | CPKC | Rosemount | Agricultural products, fertilizer | 70 | Transload |
| Pallet Service Corporation | MNNR | Little Canada | Forest products, steel | 7 | Transload |

| Facility Name | Railroad | City | Products Served | Car Capacity | Category |
|---|---|---|---|---|---|
| Progressive Rail Inc. | PGR | Minneapolis | Forest products | 10 | Transload |
| Progressive Rail Inc. | PGR | Lakeville | Steel, forest products, chemicals, food | 50 | Transload |
| Rail to Road Transloading | BNSF | St. Joseph | General freight | Not Reported | Transload |
| Randolph Transload | PGR | Randolph | General freight | Not Reported | Transload |
| Roemer Construction | CPKC | Wabasha | Sand, agricultural products | 35 | Transload |
| RRVW Crossdock | RRVW | Breckenridge | General freight | Not Reported | Transload |
| Seven Rivers Terminals | CPKC | Winona | Forest products, plastics, sand | 95 | Transload |
| St. Paul Intermodal Facility | BNSF | St. Paul | Intermodal containers | Not Reported | Intermodal |
| Stone Arch Commodities and Ag Transfer | CPKC | Minneapolis | Lumber, bulk chemicals, petroleum | 0 | Transload |
| Twin Cities and Western Railroad | TCWR | Glencoe | Steel, machinery, agricultural products | 25 | Transload |
| Twin Cities Intermodal | UP | Minneapolis | Intermodal containers | Not Reported | Intermodal |
| Twin City Reload | MNNR | Roseville | Forest products | 1 | Transload |
| Two Harbors Ore Dock | CN | Two Harbors | Iron ore | Not Reported | Water Served |
| UP Auto Reload | UP | St. Paul | Vehicles | Not Reported | Transload |
| Vogelsberg Trucking | PGR | Faribault | Aggregate, food, lumber, general freight | 30 | Transload |
| Waite Park Transload | NLR | Waite Park | Lumber, steel, stone | Not Reported | Transload |

# APPENDIX G. ENGAGEMENT SUMMARIES AND PUBLIC COMMENT

**TABLE F-2: ENGAGEMENT EVENT SUMMARY TABLE**

| Public Meetings | | |
|---|---|---|
| **Date** | **City** | **Summary** |
| April 16, 2024 | St. Cloud | 20240416_Rail Plan_Public Meeting_St. Cloud_v1.docx |
| April 17, 2024 | Duluth | 20240417_State Rail_Public Meeting_Duluth_Summary_v1.docx |
| April 24, 2024 | St. Paul | 20240424_State Rail_Public Meeting_St. Paul_Summary_v1.docx |
| April 25, 2024 | Mankato | 20240425_State Rail_Public Meeting_Mankato_Summary_v1.docx |
| December 3, 2025 | Duluth | 20241203_State Rail_Public Meeting_Duluth_Summary_v1.docx |
| December 5, 2025 | Rochester | 20241205_State Rail_Public Meeting_Rochester_Summary_v1.docx |
| December 17, 2025 | Moorhead | 20241217_State Rail_Public Meeting_Moorhead_Summary_v1.docx |
| December 18, 2025 | St. Paul | 20241218_State Rail_Public Meeting_St. Paul_Summary_v1.docx |
| **Pop-up Tables** | | |
| **Date** | **Name** | **Summary** |
| May 3, 2024 | Canadian Pacific Kansas City Final Spike Anniversary Steam Tour | 20240503_State Rail_CPKC_Pop-Up_Summary_v1.docx |
| May 15, 2024 | Mobility Mingle | 20240515_State Rail_Mobility Mingle_Pop-Up_Summary_v1.docx |
| May 21, 2024 | Amtrak Borealis Opening Celebration | 20240521_State Rail_Borealis_Pop-Up_Summary_v1.docx |

| Public Meetings | | |
|---|---|---|
| June 1, 2024 | WaterFest | 20240601_State Rail_Waterfest_Pop-Up_Summary_v1.docx |
| June 2, 2024 | Train Days | 20240602_State Rail_Train Days_Pop-Up_Summary_v1.docx |
| August 10, 2024 | The Black Market | 20240810_The Black Market_Pop-Up_Summary_v1.docx |
| September 14, 2024 | Hispanic Heritage Festival | 20240914_Hispanic Heritage Festival_PopUp_Summary_v1.docx |
| September 21, 2024 | Mankato Pow Wow | 20240921_Mahkato Pow Wow_PopUp_Summary_v1.docx |
| **Surveys and interactive map** | | |
| Survey 1 and interactive map | | 20240606_SRP_Survey 1 and interactive map Summary_v1.docx |
| Survey 2 | | 20240916_Survey 2 Summary.docx |
| **ZEST – Equity Workshop** | | |
| ZEST Table | | 20230817_MN State Rail_equity_ZEST table.docx |
| ZEST Meeting Notes | | 20230817_State Rail ZEST Meeting Notes_v2.docx |
| ZEST Meeting Jamboard | | MN State Rail Plan Equity Workshop Jamboard.pdf |

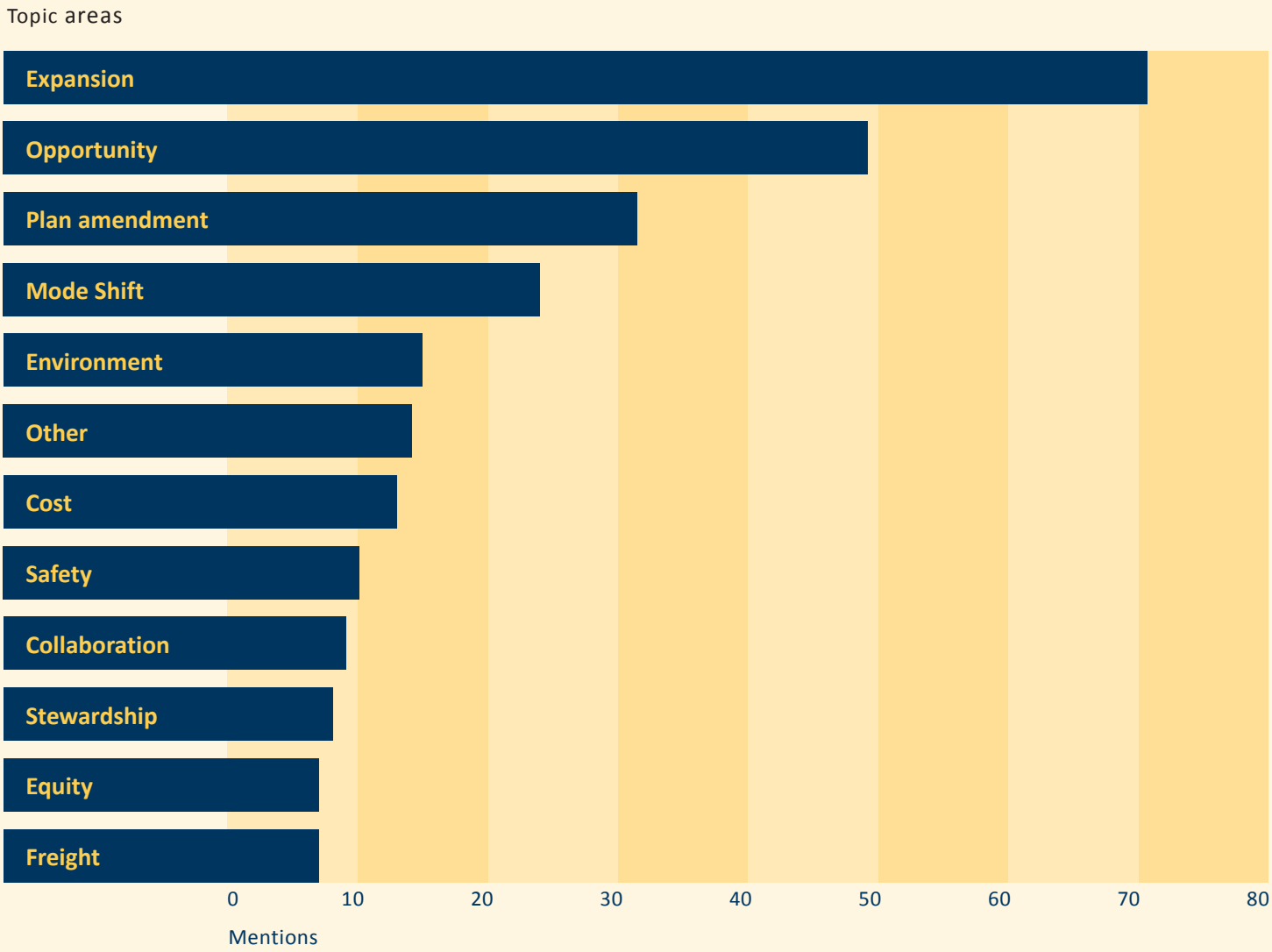
# Minnesota State Rail Plan Public Comment Summary

*December 2025*

## Overview

The State Rail Plan is a mode-specific plan that provides direction for the role Minnesota's freight and passenger railroads will play in achieving MnDOT's 50-year vision. A draft of the plan was released for public review and comment on October 17, 2025 and remained available through November 17, 2025. MnDOT received 176 comments over the 30-day comment period. Public feedback comments covered topics such as passenger rail expansion, safety, cost, the environment and others listed below.

## Minnesota State Rail Plan: Public comment topics



# What we heard

The following are key themes of feedback received during the public comment period, and descriptions of the comments within those theme areas.

## Expansion

Comments express support for passenger rail expansion and propose future passenger rail destinations.

- Support for new passenger rail connections to Duluth, Rochester, Mankato, St. Cloud, Omaha, and regional hubs
- Support for the Northern Lights Express connection to Duluth
- Support for passenger rail service operation at higher than conventional speeds
- Desire for an Amtrak Borealis service extension to Minneapolis/Target Field Station

## Opportunity

Comments emphasize the opportunities within the rail system to create jobs, economic growth, and possible innovation resulting from rail investment.

- Passenger rail projects impact on job creation, tourism growth
- Freight and rail investments bolster business development and competitive freight transport service
- Request to include forest biomass as a commodity category for freight planning
- Support for freight technology investments
- Support for passenger rail electrification

## Plan amendments

Comments include technical corrections and requests for content additions.

- Include Amtrak investments and procurements into the plan
- Data integrity: Becker County trespasser fatalities (page 46 vs. Figure 2-23)
- Include the Minnesota Valley Regional Rail Authority (appendix table C-1)

## Mode shift

Comments express support for passenger rail ridership instead of vehicle travel.

- Utilizing more freight transport instead of trucking to reduce emissions
- Support for passenger rail as an alternative to winter driving in Minnesota
- Support for any opportunities for Minnesotans to replace automobile trips with rail travel to multiple destinations

## Environment

Comments emphasize the importance of climate action and cite emissions reduction as a critical benefit of rail use.

- Emphasis on utilizing freight as a means to reduce reliance upon carbon-based fuels and greenhouse gas emissions
- Support for electrification of rail

## Cost

Comments express mixed perspectives on funding, balancing taxpayer concerns with support for public investment.

- Concern over high costs for passenger rail projects, emphasis on reducing spending on passenger rail
- Support for passenger rail investments as a public good
- Desire for more affordable passenger rail travel to destinations outside of Minnesota.

## Safety

Comments express concerns regarding safety regulations and enforcement in the freight industry.

- Concern for hazardous materials transport through populated areas
- Trespasser fatalities and crew law enforcement concerns
- Emphasis on derailment risks

## Other key takeaways:

- Collaboration: comments express support for increased partnership between MnDOT, Amtrak, Federal Railroad Administration and neighboring states on rail projects.
- Governance: comments express concerns over the stewardship of state funding, and question over the efficiency and utility of rail investments.
- Freight improvements: comments emphasize the importance of investment in freight infrastructure.

# APPENDIX H. CROSSWALK BETWEEN FRA STATE RAIL PLAN GUIDANCE AND THE MINNESOTA STATE RAIL PLAN

| FRA Guidance Section | FRA Guidance Section Description | Minnesota State Rail Plan Document | Minnesota State Rail Plan Document Section |
|---|---|---|---|
| **1** | Role of Rail | | |
| **1.1** | Multimodal transportation goals | Rail Plan, Tech Memo 3 | Rail Plan, Section 6; Tech Memo 3, Section 2 |
| **1.2** | Conceptual analysis of rail's role | Tech Memo 1 | Tech Memo 1, Rail and Minnesota Goods, People Movement section |
| **1.3** | Institutional governance structure | Rail Plan, Tech Memo 1 | Rail Plan, Section 3; Tech Memo 1, Organization, Policy, and Funding to Support Rail section |
| **1.4** | State's authority | Tech Memo 1 | Tech Memo 1, Organization, Policy, and Funding to Support Rail section |
| **1.5** | Summary of services, initiatives and plans | Tech Memo 1, Tech Memo 3 | Rail Plan, Sections 2.3, Section 7.7 and Appendix E; Tech Memo 3, Sections 3, 4 |
| **2** | Existing Rail System | | |
| **2.1** | Description and Inventory | | |
| **2.1.1** | Existing system | Rail Plan, Tech Memo 1 | Rail Plan, Section 2.1, Appendix B, C; Tech Memo 1, Existing Rail Infrastructure and Services section |
| **2.1.2** | Freight and passenger terminals | Rail Plan, Tech Memo 1 | Rail Plan, Sections 2.1.2, 2.3, Appendix F; Tech Memo 1, Existing Rail Infrastructure and Services section |
| **2.1.3** | Passenger rail objectives | Rail Plan, Tech Memo 3 | Rail Plan, Section 7.7; Tech Memo 3, Vision, Objectives, Strategies, Actions section |
| **2.1.4** | Performance of passenger rail | Rail Plan, Tech Memo 1 | Rail Plan, Section 2.3, Existing Rail Infrastructure and Services section |
| **2.1.5** | Public financing | Rail Plan, Tech Memo 1 | Rail Plan, Section 3; Tech Memo 1, Organization, Policy, and Funding to Support Rail section |
| **2.1.6** | Safety projects | Rail Plan, Tech Memo 1 | Rail Plan, Sections 2.4, 3; Tech Memo 1, Organization, Policy, and Funding to Support Rail, Safety Trends sections |

| FRA Guidance Section | FRA Guidance Section Description | Minnesota State Rail Plan Document | Minnesota State Rail Plan Document Section |
|---|---|---|---|
| **2.1.7** | Rail's economic and environmental impacts | Rail Plan, Tech Memo 1 | Rail Plan, Sections 2.2.5, 2.3.2; Tech Memo 1, Rail's Impacts on Minnesota section |
| **2.2** | Trends and forecasts | Rail Plan, Tech Memo 1 | Rail Plan, Section 4; Tech Memo 1, Trends that Will Impact Rail in Minnesota section |
| **2.2.1** | Demographic and economic trends | Rail Plan, Tech Memo 1 | Rail Plan, Section 4.1; Tech Memo 1, Trends that Will Impact Rail in Minnesota section |
| **2.2.2** | Freight demand and trends | Rail Plan, Tech Memo 1 | Rail Plan, Section 4.2; Tech Memo 1, Trends that Will Impact Rail in Minnesota section |
| **2.2.3** | Passenger demand and trends | Rail Plan, Tech Memo 1 | Rail Plan, Section 4.5; Tech Memo 1, Trends that Will Impact Rail in Minnesota section |
| **2.2.4** | Fuel cost trends | Tech Memo 1 | Tech Memo 1, Trends that Will Impact Rail in Minnesota section |
| **2.2.5** | Rail congestion trends | Tech Memo 1 | Tech Memo 1, Trends that Will Impact Rail in Minnesota section |
| **2.2.6** | Highway and airport congestion trends | Tech Memo 1 | Tech Memo 1, Trends that Will Impact Rail in Minnesota section |
| **2.2.7** | Land use trends | Rail Plan, Tech Memo 1 | Rail Plan, Section 4.4, Tech Memo 1, Trends that Will Impact Rail in Minnesota section |
| **2.3** | Rail Service Needs and Opportunities | Rail Plan, Tech Memo 2 | Rail Plan, Section 7, Tech Memo 2 – Whole Document |
| **3** | Proposed Passenger Rail Improvements and Investments | Rail Plan, Tech Memo 3 | Rail Plan, Section 8.2, Appendix E; Tech Memo 3, Section 4 |
| **4** | Proposed Freight Rail Improvements and Investments | Rail Plan, Tech Memo 3 | Rail Plan, Section 8.1, Appendix D; Tech Memo 3, Section 3 |
| **5** | Rail Service and Investment Program | | |
| **5.1** | Vision | Rail Plan, Tech Memo 3 | Rail Plan, Section 6; Tech Memo 3, Section 2 |
| **5.2** | Program Coordination | Rail Plan, Tech Memo 3 | Rail Plan, Section 6; Tech Memo 3, Section 2 |
| **5.3** | Rail Agencies | Rail Plan | Rail Plan, Section 7 |
| **5.4** | Program Effects | Rail Plan | Rail Plan, Section 9.3, Appendix D, Appendix E |
| **5.5** | Passenger Element | Rail Plan, Tech Memo 3 | Rail Plan, Section 8, Appendix D; Tech Memo 3, Section 4 |
| **5.6** | Freight Element | Rail Plan, Tech Memo 3 | Rail Plan, Section 8, Appendix E: Tech Memo 3, Section 3 |
| **5.7** | Rail Studies and Reports | Rail Plan, Tech Memo 3 | Rail Plan, Section 7; Tech Memo 3, Section 2 |
| **5.8** | Passenger and Freight Rail Capital Program | Rail Plan, Tech Memo 3 | Rail Plan, Section 8, Appendix D, Appendix E |

| FRA Guidance Section | FRA Guidance Section Description | Minnesota State Rail Plan Document | Minnesota State Rail Plan Document Section |
|---|---|---|---|
| **6** | Coordination and Review | | |
| **6.1** | Approach to agency and public participation | Rail Plan, Appendix G | Rail Plan, Section 5, Appendix G |
| **6.2** | How coordinated with neighboring states | Rail Plan | Rail Plan, Section 5 |
| **6.3** | How interested parties involved with rail plan | Rail Plan | Rail Plan, Section 5 |
| **6.4** | How recommendations were considered | Rail Plan | Rail Plan, Section 5 |
| **6.5** | Issues raised and how addressed | Rail Plan, Appendix G | Rail Plan, Section 5, Appendix G |
| **6.6** | How coordinated with planning at state and MPO level | Rail Plan, Tech Memo 3 | Rail Plan, Sections 5, 6; Tech Memo 3, Section 2 |