

Transportation System Performance Report

December 15 ,2024

Prepared by

The Minnesota Department of Transportation
Office of Transportation System Management
395 John Ireland Boulevard
Saint Paul, Minnesota 55155-1899

Phone: 651-296-3000
Toll-Free: 1-800-657-3774

TTY, Voice or ASCII: 1-800-627-3529
dot.state.mn.us

To request this document in an alternative format, call 651-366-4718 or 1-800-657-3774 (Greater Minnesota).
You may also send an email to ADArequest.dot@state.mn.us

April 8, 2024

The Honorable Scott Dibble, Chair
Senate Transportation Committee
3107 Minnesota Senate Building
Saint Paul, Minnesota 55155

The Honorable Jon Koznick, Co-Chair
House Transportation Finance & Policy Committee
2nd Floor Centennial Office Building
Saint Paul, Minnesota 55155

The Honorable John Jasinski, Ranking Minority
Member
Senate Transportation Finance & Policy Committee
2227 Minnesota Senate Building
Saint Paul, Minnesota 55155

The Honorable Erin Koegel, Co-Chair
House Transportation Finance & Policy Committee
5th Floor Centennial Office Building
Saint Paul, Minnesota 55155

Re: 2024 Transportation System Performance Report

Dear Legislators:

The Minnesota Department of Transportation is pleased to present the 2024 Transportation System Performance Report to the Legislature. As required by [Minn. Stat. 174.03, Subd. 12\(d\)](#), the report presents trunk highway and transportation system performance measures, describes performance gaps, and outlines the agency's progress toward achieving the state transportation goals established in section [174.01](#).

Minnesota's transportation system is complex, and to improve performance, MnDOT and its partners regularly assess the system management strategies in place, revisit current performance measures for improvement and evaluate where new performance measures are needed. Although specific performance measures and performance measurement efforts described in the report are in different stages of development – including Transportation Insecurity and those related to the reduction of Green House Gas Emissions and Vehicle Miles Traveled - MnDOT continues to make progress.

MnDOT has observed performance gains in several areas over the last year such as improved travel times on MnDOT-operated roadways and decreasing roadway fatalities. However, as use of the transportation system continues to increase following the decreases observed during the COVID-19 pandemic, roadway safety overall continues to be a challenge with the number of serious injuries on Minnesota roadways continuing to increase year-to-year and at the highest point in last five years. Additionally, while still meeting most infrastructure condition performance targets, the percentage of bridges, culverts, and pavement moving into poor conditions have slightly increased. MnDOT is actively assessing infrastructure maintenance and investment strategies to maintain performance and steward transportation resources well.

Please let me know if you have questions. You can contact me at nancy.daubenberger@state.mn.us or 651 366-4804. With your help, we can maintain and build a transportation system that makes that state transportation goals a reality.

Sincerely,



Nancy Daubenberger, P.E.
Commissioner

Table of Contents

Legislative Request	5
Introduction.....	6
New Performance Measurement Developments and Updates.....	10
Transportation Safety	12
System Stewardship	24
Climate Action	43
Critical Connections.....	51
Healthy and Equitable Communities	68
Next Steps	74
Appendix A: Planning Overview and Asset Management	75
Appendix B: Asset Minnesota GO Vision.....	77
Appendix C: Full Performance Measure List.....	81

Legislative Request

This report is issued to comply with [Minn. Stat. 174.03, subd. 12\(d\)](#).

Subd. 12. Trunk highway performance, resiliency, and sustainability. (a) The commissioner must implement performance measures and targets for the trunk highway system in order to construct resilient infrastructure, enhance the project selection for all transportation modes, improve economic security, and achieve the state transportation goals established in section [174.01](#).

(b) At a minimum, the transportation planning process must include:

(1) an inventory of transportation assets, including but not limited to bridge, pavement, geotechnical, pedestrian, bicycle, and transit asset categories;

(2) establishment of statewide performance measures and targets, reporting of performance measure results, and where possible, performance measure forecasts that are:

(i) statewide and, where data allow, district-specific;

(ii) for assets in each asset category specified in clause (1); and

(iii) identified in collaboration with the public;

(3) gap identification and an explanation of the difference between performance targets and current status; and

(4) life cycle assessment and corridor risk assessment as part of asset management programs in each district of the department.

(c) At a minimum, the ten-year capital highway investment plan in each district of the department must

(1) be based on expected funding during the plan period and, to the extent feasible, maximize long-term benefits;

(2) estimate the funding necessary to make optimal life cycle investments;

(3) identify investments within each of the asset categories specified in paragraph (b), clause (1), that are funded through the trunk highway capital program;

(4) identify specific trunk highway segments programmed to be removed from the trunk highway system; and

(5) deliver annual progress toward achieving the state transportation goals established in section [174.01](#).

Subd. 12(d) Annually by December 15, the commissioner must report trunk highway performance measures and targets and identify gaps, including information detailing the department's progress on achieving the state transportation goals, to the chairs and ranking minority members of the legislative committees having jurisdiction over transportation policy and finance. The report must be signed by the commissioner.

The cost of preparing the report elements required by Minn. Stat. 174.03, Subd. 12(d) is approximately \$20,000.

Introduction

Report Purpose

This report is submitted to the Minnesota Legislature to satisfy [Minn. Stat. 174.03, subd. 12\(d\)](#). It directs the commissioner of the Department of Transportation to annually report on trunk highway performance measures, targets, identify performance gaps, and describe MnDOT's progress toward achieving the state transportation goals (from this point forward referred to as "the goals") established in [Minn. Stat. 174.01](#). These performance measures and targets are to support construction of resilient infrastructure, enhance the project selection for all transportation modes, and improve economic security for all people living in Minnesota.

There are two other components established by the statute:

- 174.03, subd. 12(b): Describes the minimum requirements for the transportation planning process
- 174.03, subd. 12(c): Describes the minimum requirements for the ten-year Capital Highway Investment Plan

Appendix A, starting on page 75, provides an overview of relevant MnDOT strategies and efforts for both the planning process and the 10-year Capital Highway Investment Plan.

Report Organization

Relationship of SMTP Objectives to State Transportation Goals

To describe how the transportation system is performing, the goals and the related performance measures are organized around the Statewide Multimodal Transportation Plan (SMTP) objectives. Based on MnDOT's Minnesota GO Vision and the 16 goals, the SMTP sets the policy direction, priorities, and the framework for MnDOT's Family of Plans (i.e., the modal and system investment plans). The Family of Plans offer mode-specific strategies and guidance and include aviation, bicycle, freight, highway, pedestrian, ports and waterways, rail, and transit.

Performance measures already in the SMTP were automatically assigned to the same objective while other MnDOT performance measures from the Family of Plans were assessed and prioritized by an inter-division MnDOT work group. The resulting prioritization informed which measures are highlighted in this report. Appendix B on page 77 describes the Minnesota GO Vision, the SMTP, and the Family of Plans in more detail.

The SMTP objectives and associated goals are listed in Table 1. There are three goals that do not have primary performance measures associated with them (goals 7, 10, and 13). These goals are described with the correlated measures in their applicable SMTP objective sections. Appendix C on page 81 lists all the measures and their definitions presented in this report.

Additionally, because the report focuses on trunk highway measures, goal 12 (air transportation) is not included. MnDOT's Office of Aeronautics and its partners track and report several measures on air transportation including available seat miles and public airport infrastructure conditions. Learn more about Minnesota public airport performance measures:

- [MnDOT's Office of Aeronautics](#)
- [Minnesota State Aviation System Plan](#)
- [Aeronautics and Aviation Pavement Management Dashboard](#)

Table 1. SMTP objective relationship to the legislative goals

SMTP Objective	Associated Transportation Goals
Transportation Safety	(1) Safety : to minimize fatalities and injuries for transportation users throughout the state
System Stewardship	(7) Technological advancements : to promote accountability through systematic management of system performance and productivity through the utilization of technological advancements (8) Maximizing long-term benefits : to maximize the long-term benefits received for each state transportation investment (9) Infrastructure maintenance : to provide for and prioritize funding of transportation investments that ensures that the state’s transportation infrastructure is maintained in a state of good repair (16) Minimize environmental impacts : to accomplish these goals with minimal impact on the environment
Climate Action	(11) Promote high-occupancy and low-emission vehicles : to promote and increase the use of high-occupancy vehicles and low-emission vehicles (15) Reduce GHG emissions : to reduce greenhouse gas emissions from the state’s transportation sector
Critical Connections	(3) Reasonable travel time : to provide a reasonable travel time for commuters (4) Enhance economic development : to enhance economic development and provide for the economical, efficient, and safe movement of goods to and from markets by rail, highway, and waterway (5) Encourage tourism : to encourage tourism by providing appropriate transportation to Minnesota facilities designed to attract tourists and to enhance the appeal, through transportation investments, of tourist destinations across the state (6) Transit in all counties : to provide transit services to all counties in the state to meet the needs of transit users (13) Transit mode shift : to increase use of transit as a percentage of all trips statewide by giving highest priority to the transportation modes with the greatest people-moving capacity and lowest long-term economic and environmental cost
Healthy Equitable Communities	(2) Multimodal and intermodal access : to provide multimodal and intermodal transportation facilities and services to increase access for all persons and businesses and to ensure economic well-being and quality of life without undue burden placed on any community (10) Environmental and energy consistency : to ensure that the planning and implementation of all modes of transportation are consistent with the environmental and energy goals of the state (14) Bike and walk mode shift : to promote and increase bicycling and walking as a percentage of all trips as energy-efficient, nonpolluting, and healthy forms of transportation

Report Terminology

Performance Measure Timeline

Unless noted otherwise, the performance measures included in the report are summarized by calendar year (CY) and use 2023 as the most recent year available. For measures relying on performance projections from MnDOT's 2025-2034 Capital Highway Investment Plan (CHIP), this report uses data available as of September 2024.

Transportation System Terminology

Several performance measures in the report describe current and historic conditions by roadway system. An important component of Minnesota's transportation system is the state highway system, which consists of the all Interstate highways, US highways, and state highways. These roadway types can also be divided between National Highway System (NHS) roadways and non-NHS roadways.

- **National Highway System (NHS) roadways:** Includes all interstate highways (i.e., NHS – Interstate), principal arterials, and other NHS highways (i.e., NHS – Non-Interstate) that serve statewide and inter-state travel and are the primary connection between large urban areas.
- **Non-NHS roadways:** State highways that provide connections for regional and local travel and generally carry lower traffic volumes.

Performance Measure Terminology

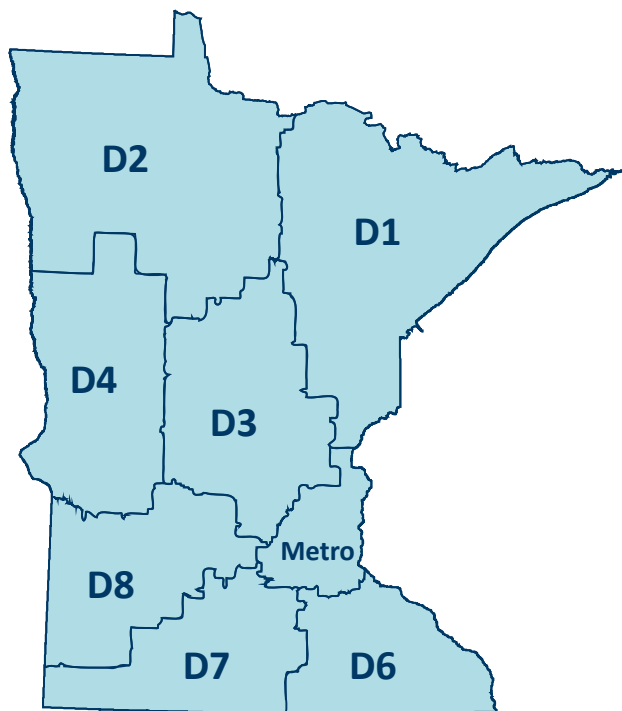
The report uses several performance management terms, which are defined below.

- **Performance measure:** An expression of how much or how well products or services are working towards a goal or desired outcome during a specified time frame.
 - **Primary measure:** A performance measure that is most directly evaluating progress towards a state transportation goal.
 - **Correlated measure:** A performance measure that has multiple connections and dependencies to one or more state transportation goals.
- **Desired outcome:** An end-state condition of well-being for people or the transportation system.
- **Expected outcome (Projection):** An estimate of future performance based on a predictive model or projection. MnDOT seeks to predict outcomes when adequate data is available and reasonable predictions can be made.
- **Current condition (Result):** A quantifiable description of a performance measure historically and up to the current time with respect to circumstances.
- **Indicator:** A measure that provides meaningful information about the condition of the transportation system but is neither managed nor directly used to evaluate the effectiveness of policies, strategies, investments, products, or services.
- **Target:** A specific performance level associated with a goal or desired outcome. MnDOT uses performance targets to calculate needed investment levels, stimulate innovation, and guide decision-making for the modal and system plans. These targets are set through public planning processes that incorporate numerous factors including engineering standards and other technical criteria, historical experience, and assessments of stakeholder expectations.

Reporting Performance Information

Each SMTP objective section in the report presents the associated goals, an analysis of the current and historical performance of the measures (as available), and a description of what MnDOT and its partners are doing to move towards the goals. When applicable, the report identifies and discusses gaps between the historical and current conditions and the statewide targets. Additionally, regional- or district-level performance measure data are included where data and reporting allow. However, because performance measure targets are set at a statewide level, regional- or district-level data should not be compared to state targets or across districts.

Figure 1. MnDOT district map



Additionally, each goal section contains scorecard summary tables providing details for the performance measures. The tables display the performance measure, the statewide target (if applicable), the current condition (i.e., the most recent year available), the desired trend direction, and the observed trend direction. Because the transportation system is operated by MnDOT and many other state and local partner agencies, the scorecards also identify whether MnDOT is the lead agency or a partner agency in terms in contributing to the desired outcome for a measure.

MnDOT’s partners include the Metropolitan Council, other metropolitan and regional planning organizations, city and county governments, tribal governments, the Minnesota Department of Public Safety (DPS), the Metropolitan Airports Commission (MAC), the Federal Aviation Administration (FAA), the US Army Corps of Engineers, and local government airports, port authorities, transit operators, and non-profit partners.

Primary and Correlated Measures

Many of the goals have primary and correlated performance measures associated with them. When applicable, each goal section lists the correlated measures included in the report and the pages where they are found.

New Performance Measurement Development and Updates

MnDOT regularly revisits current performance measures for improvement and evaluates where new performance measures are needed. Although specific performance measures and performance measurement efforts described below are in different stages of development, MnDOT continues to make progress.

Relaunched MnDOT Performance Measure Website

In February 2024, MnDOT relaunched its [performance measure website](#). The goals for the website relaunch are to improve accessibility for all users, simplify navigation, increase performance reporting consistency, and better accommodate new measures identified in the most recent SMTP. The performance measure visuals and the dashboard organization have been refreshed to create a more concise and clear display that still enables people to dynamically engage with the data and dig deeper. Nearly all the performance measures in this report are also on the performance measure dashboard website. When applicable, the report sections provide links to the specific performance measure dashboard webpages.

Measuring Transportation Insecurity

MnDOT tracks public trust and public confidence through a representative public opinion survey, conducted every two years. For the first time, MnDOT's 2024 survey included six questions to measure respondents' transportation insecurity, the Transportation Security Index (TSI). The TSI is a validated tool created by researchers from the University of Michigan's Poverty Solutions initiative. The TSI measures how often people struggle to move from place to place safely and on time, and it's based on people self-reporting their own experiences. Questions in the index tap into the material symptoms of transportation insecurity (rescheduling trips, being stuck at home, arriving late to destinations) and the relational symptoms (feeling bad, relationship effects, worrying about inconveniencing others).¹ While most respondents in MnDOT's 2024 survey are transportation secure, the results indicate that 26% of Minnesotans experience some level of transportation insecurity. MnDOT is continuing to analyze disaggregated data to identify potential areas for insecurity within meaningful groupings of people. For example, preliminary findings show that individuals with moderate or high insecurity are more likely to be younger, non/White, lower income, and less educated.

Transportation System Resilience

As part of the federal Promoting Resilient Operations for Transformative, Efficient, and Cost-Savings Transportation (PROTECT) Formula Program, MnDOT released its [Resilience Improvement Plan \(RIP\)](#) in spring 2024. The RIP helps to:

- Document program priorities and program processes to invest PROTECT funds.
- Support immediate and long-range planning activities and investments and demonstrate a systemic approach to transportation system resilience.
- Establish a risk-based assessment of vulnerabilities to transportation assets and systems for current and future weather events and natural disasters.

¹ More information is available at: <https://poverty.umich.edu/research-funding-opportunities/data-tools/the-transportation-security-index/>

The RIP identified several performance measures to track progress in three categories: adaptation/natural environment, asset condition and vulnerability, and climate/extreme weather impacts. Three of the measures in the plan are also identified in the current SMTP while a few others are tracked in other MnDOT plans and functional offices. When applicable, the performance measure target and the report page where the performance measure is located are noted.

- **Stormwater treatment:** The percentage of a transportation system's stormwater treatment features rated in very poor and failing condition (target = no more than 10%).
- **Trees and shrubs:** The percentage of trees and shrubs that are planted as part of projects surviving after two years, reported separately for rural and urban areas.
- **Native vegetation – seeding:** The percentage of acres planted with native seeds. (Described in this report starting on report page 35)
- **Native vegetation – plantings:** The percentage of acres planted with native plants. (Described in this report starting on report page 35)
- **Highway culvert condition:** The percentage of highway culverts in poor or very poor condition. (Described in this report starting on report page 28)
- **Bridge culvert condition:** The percentage of bridge culverts in poor condition (target = 4% or fewer (NHS); 10% or fewer (non-NHS)).
- **Scour critical bridges:** The number of scour critical bridges on the trunk highway system.
- **Flooding/washouts:** The dollar amount spent on maintenance for flooding/washouts annually.



Transportation Safety

Transportation safety applies to all users of the transportation system regardless of their mode of travel. Comprehensive traveler safety involves an integrated approach that includes the “4Es” of safety – education, enforcement, engineering, and emergency medical and trauma services – and more. Each of these areas is critical to improving overall safety and helping to grow a transportation safety culture in Minnesota.

Goal 1

Seven performance measures in this section help describe how MnDOT and partners are working **to minimize fatalities and injuries for transportation users throughout the state.**

- **Roadway fatalities:** The number of people killed in crashes involving motor vehicles on Minnesota Roadways
- **Roadway serious injuries:** The number of people who were seriously injured resulting from crashes involving a motor vehicle in a 12-month period. The number of serious injuries is classified by first responders at the scene of the crash or accident.
- **Pedestrian fatalities and serious injuries:** The number of people walking along Minnesota roadways who were killed or seriously injured resulting from crashes involving a motor vehicle in a 12-month period. This is a subset of total fatalities and serious injuries.
- **Bicyclist fatalities and serious injuries:** The number of people bicycling on Minnesota roadways who were killed or seriously injured resulting from crashed involving a motor vehicle in a 12-month period. This is a subset of total fatalities and serious injuries.
- **Highway-rail grade fatalities and serious injuries:** The number of people (as pedestrians or in a motor vehicle) who were killed or seriously injured resulting from crashes at highway-rail grade crossings in a 12-month period. This is a subset of total fatalities and serious injuries.
- **Bicycle and pedestrian perception of safety:** MnDOT public opinion survey respondents’ perceptions of safety for bicycling and walking.
- **Snow fences:** The total number of miles of snow fences comprised of structural (e.g., Composite rails snow fences), living (e.g. trees and shrubs), or vegetative (e.g., corn rows or hale bales) fences on Minnesota roadways. Snow fences trap snow by causing it to pile up before it reaches a road, which increases safety.

















Goal 1

Safety

Snapshot of Goal 1 Performance Measures

Table 2 lists each performance measure for Goal 1, statewide target (if applicable), the current condition, and the performance score (if applicable). The transportation safety measures are based on information from the annual Minnesota Motor Vehicle Crash Facts report, which is produced by the Office of Traffic Safety at the Minnesota Department of Public Safety (DPS).

Table 2. Goal 1 performance measures summary

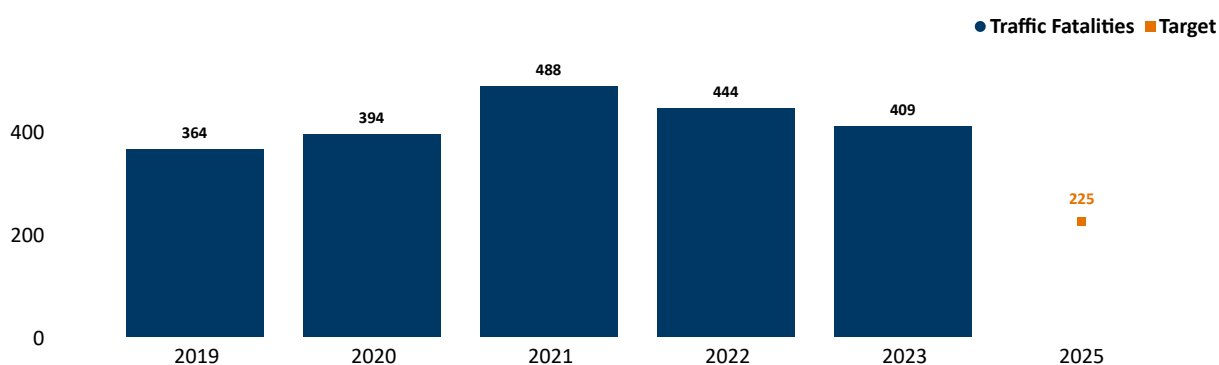
Measure	Role	Statewide Target	Current Condition	Trend Desired	Trend Observed
Roadway fatalities	Partner	≤225 by 2025; decreasing towards 0	409 traffic fatalities (2023)		
Roadway serious injuries	Partner	≤980 by 2025; decreasing towards 0	2,007 serious injuries (2023)		
Pedestrian fatalities/serious injuries (SI)	Partner	Decreasing towards 0	46 fatalities; 157 serious injuries (2023)		Fatalities:  SI: 
Bicyclist fatalities/serious injuries	Partner	Decreasing towards 0	7 fatalities; 76 serious injuries (2023)		Fatalities:  SI: 
Highway-rail grade fatalities/serious injuries	Partner	Decreasing towards 0	4 fatalities; 9 serious injuries (2023)		
Bicycle and Pedestrian Perception of Safety	Partner	≥80%	Walking: 84% Bicycling: 86%		
Snow Fences	Leader	Increase	Short-term: 45 miles Long-term: 132 miles (2023)		

Fatalities

Statewide Summary

- In 2023, 409 people were killed in motor vehicle crashes on Minnesota roads. Minnesota is not on track to meet 2025 target of no more than 225 roadway fatalities.
- In 2023 slightly fewer people died on Minnesota roads than the previous year, but 2023 was still the third highest total deaths in the previous five years.
- Additional performance information is available on MnDOT's performance measure website [for Roadway Fatalities](#).

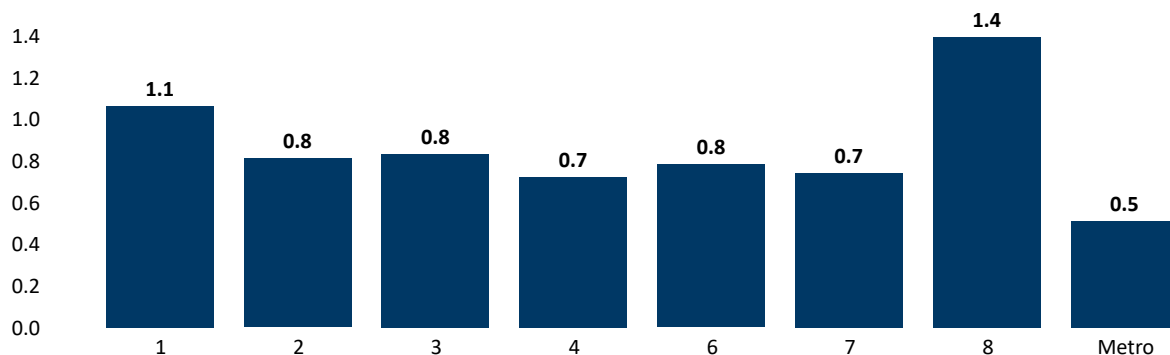
Figure 2. Fatalities on Minnesota roadways, 2019 to 2023



Regional Summary

- With 1.4 fatalities per 100 million vehicle miles traveled (VMT), District 8 in Southwest Minnesota had the highest fatality rate in 2023. The Metro District had the lowest rate with 0.5 fatalities per 100 million VMT.
- These data are tracked by Minnesota's eight Area Transportation Partnerships (ATP). For the purpose of this section, however, the data are summarized by district. While ATP boundaries mostly align with district boundaries, there are some differences because ATP boundaries follow county lines. As such, there will be some variation as to where the fatalities and serious injuries are reported.
- Because performance measure targets are set at a statewide level, district-level data should not be compared to those targets or across districts.

Figure 3. Fatality rate on Minnesota roadways by MnDOT district (per 100 million VMT), 2023

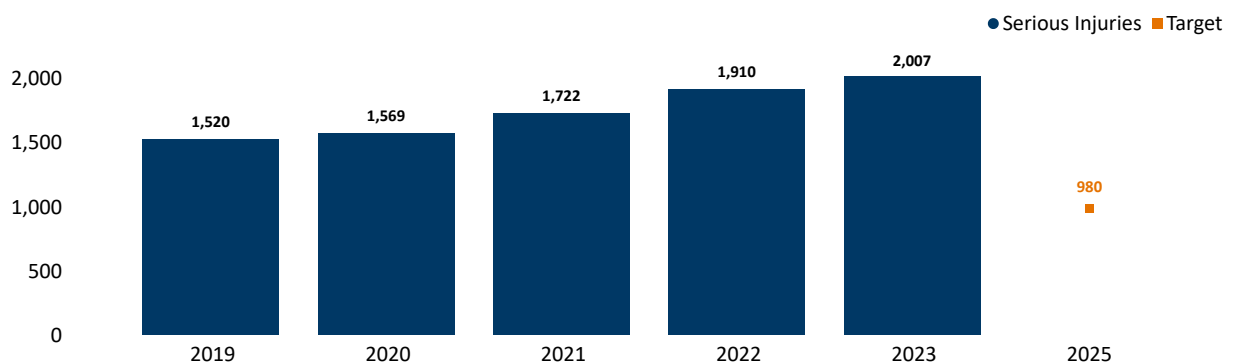


Serious Injuries

Statewide Summary

- In 2023, 2,007 people were seriously injured on Minnesota roadways. Minnesota is not on track to meet 2025 target of no more than 980 serious injuries by 2025 (Figure 4).
- 2023 had the highest number of injuries on Minnesota roads among the past five years.
- Additional performance information is available on MnDOT's performance measure website [for Serious Injuries](#).

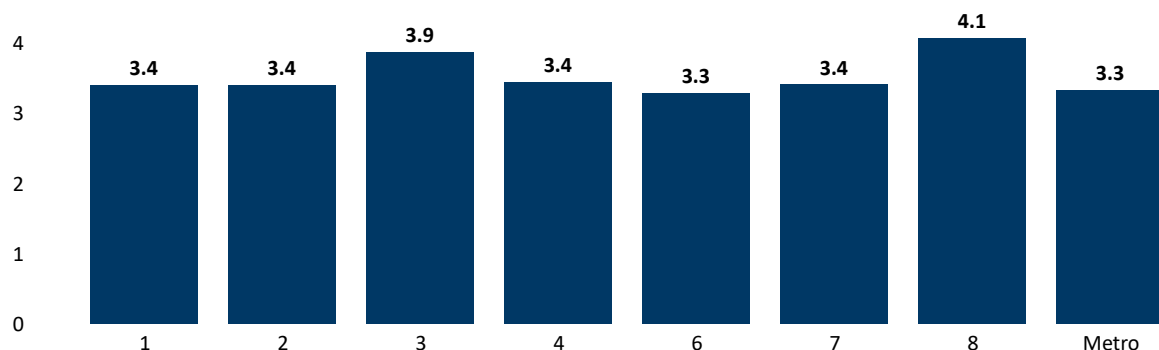
Figure 4. Serious injuries on Minnesota Roadways, 2019 to 2023



Regional Summary

- District 8 and District 3 experienced the most serious injuries per vehicle miles traveled in 2023 with 4.1 and 3.9, respectively (Figure 5).
- For the purpose of this section, the data points are described as the MnDOT districts. However, these data are tracked by Minnesota's eight Area Transportation Partnerships (ATP). While ATP boundaries mostly align with MnDOT district boundaries, there are some differences because they follow county lines. As such, there will be some variation as to where the fatalities and serious injuries are reported.
- Because performance measure targets are set at a statewide level, district-level data should not be compared to those targets or across districts

Figure 5. Serious injury rate on Minnesota roadways by MnDOT district (per 100 million VMT), 2023

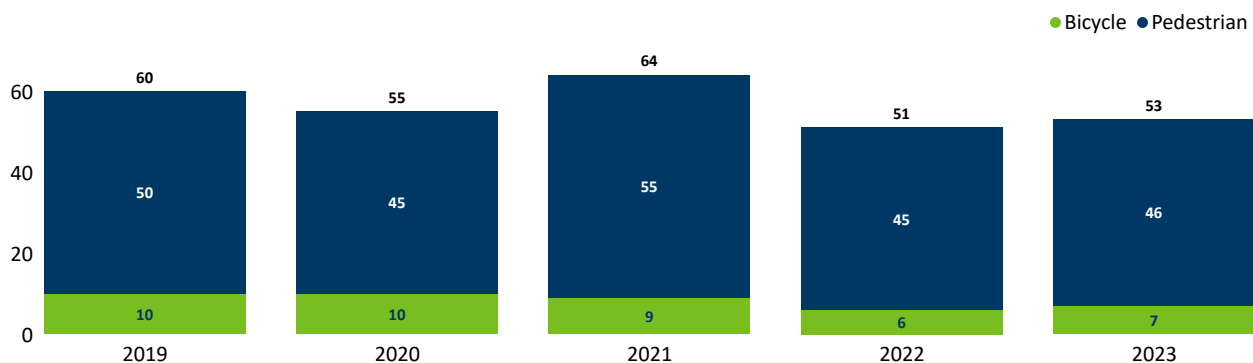


Pedestrians and Bicyclists

Fatalities Summary

- In 2023, 46 pedestrians and seven bicyclists were killed in crashes with motor vehicles. Fatalities have decreased overall since 2019 (Figure 6).
- Additional performance information is available on MnDOT's performance measure website [for Non-Motorized Fatalities](#).

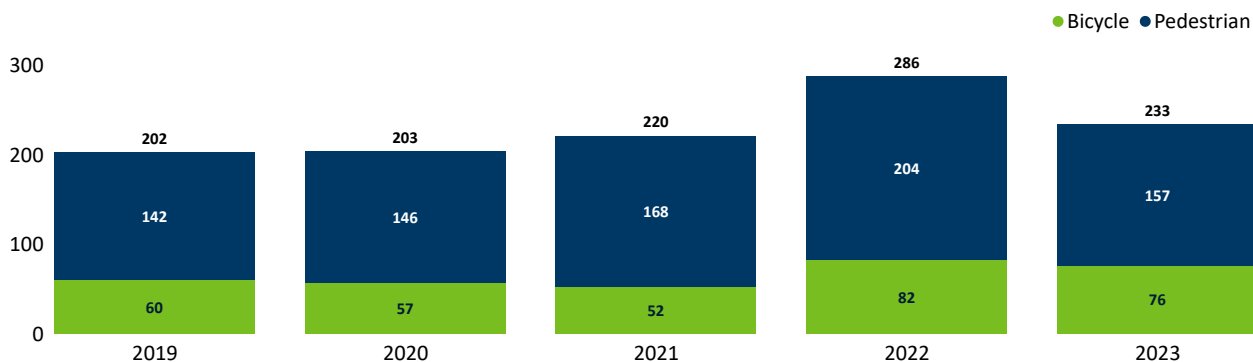
Figure 6. Fatalities by pedestrian and bicyclist, 2019 to 2023



Serious Injuries Summary

- In 2023, 157 pedestrians and 76 bicyclists were seriously injured in crashes with motor vehicles.
- While the total serious injuries were the second highest in the last five-year period, 2023 saw a significant decrease from 2022 (Figure 7).
- Additional performance information is available on MnDOT's performance measure website [for Non-Motorized Serious Injuries](#).

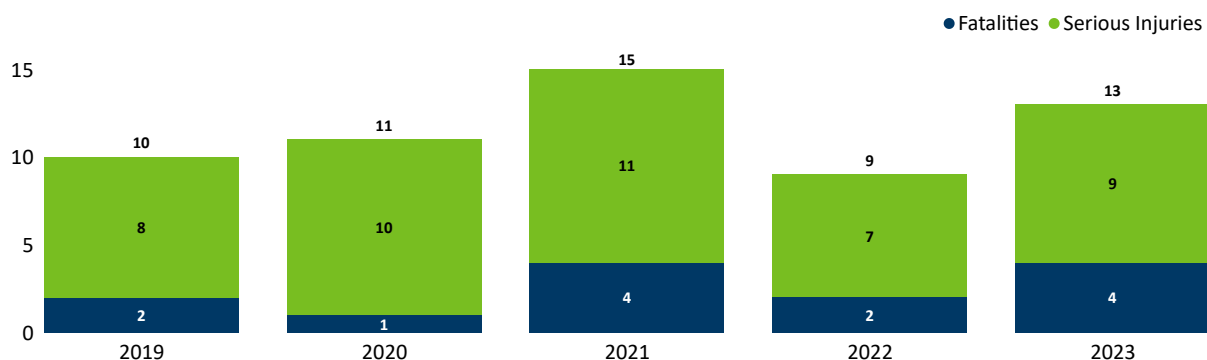
Figure 7. Serious injuries by pedestrian and bicyclist, 2019 to 2023



Highway Rail Crossings

- In 2023, four people were killed at highway rail grade crossings and nine were seriously injured. More people died or were seriously injured at highway rail grade crossings in 2023 than 2022 (Figure 8).
- Additional performance information is available on MnDOT's performance measure website [for Rail Fatalities and Serious Injuries](#).

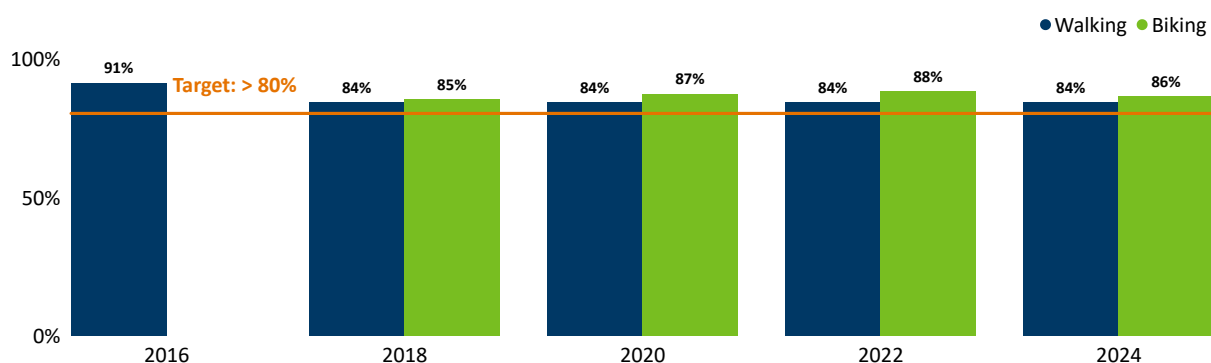
Figure 8. Annual highway rail crossings fatalities and serious injuries, 2019 to 2023



Perception of Safety

- Based on MnDOT's 2024 public opinion survey results, the percentage of Minnesotans who perceive environments for biking as safe decreased to 86% (Figure 9).
- The percentage of Minnesotans who perceive environments for walking as safe has remained steady at 84% over the past four-year period, following a significant drop in 2016.
- Both biking and walking safety perceptions have consistently surpassed MnDOT's statewide target of 80% of survey respondents perceiving safe environments.
- Additional performance information is available on MnDOT's performance measure website [for Bicycle and Pedestrian Perception of Safety](#).

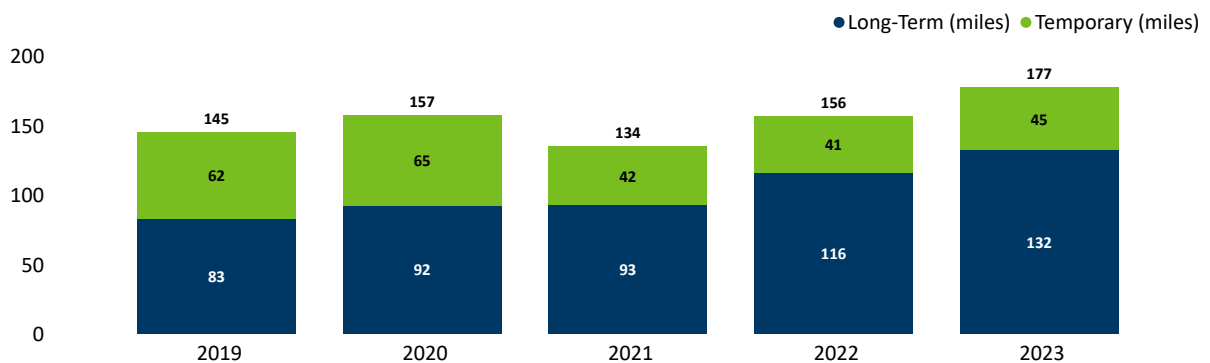
Figure 9. Percentage of Minnesotans Perceiving Safe Environments for Walking and Biking, 2016 to 2024



Snow Fences

- In 2023, there were 132 miles of long-term snow fences (i.e., combination of structural and living snow fencing) and 45 miles of temporary snow fences (i.e., standing corn rows, stacked hay bales, or four-foot-tall seasonal snow fencing) across Minnesota (Figure 10).
- The miles of structural snow fences has increased each year since 2018, while the mileage of temporary snow fence has fluctuated year-to-year.
- Snow fences play a key role in winter maintenance productivity and roadway safety by helping to limit blowing snow across Minnesota roads. For maintenance, this is helpful where high winds make chloride use ineffective. For roadway safety, the snow fences improve driver visibility, reduce icy roads, and serve as visual clues.
- Additional performance information is available on MnDOT's performance measure website [for Snow Fences](#).

Figure 10. Miles of structural and temporary snow fences on Minnesota roadways, 2019 to 2023



What is MnDOT Doing to Move Towards Goal 1?

MnDOT seeks to eliminate fatalities and injuries for transportation users on Minnesota roadways through several strategies. The [Minnesota Strategic Highway Safety Plan](#) sets overall direction for future safety strategies and presents a framework for selecting strategies. Through the State Aid program and Highway Safety Improvement Program, MnDOT partners with local government units (e.g., cities and counties) to fund and develop [road safety initiatives and plans](#). For roadway design, MnDOT incorporates a [Safe System Approach](#) that builds multiple layers of protection to prevent crashes from happening and minimize harm to people involved in crashes when they occur. Additionally, MnDOT provides traffic engineering training courses to county, city, and private professionals on a variety of road safety topics including lighting design, pavement markings, and work zone traffic engineering.

[Minnesota Towards Zero Deaths \(TZD\)](#) is a key traffic safety program that uses an interdisciplinary approach to reducing roadway deaths and serious injuries. The program works with various agencies to improve the safety of high crash risk locations, enforce traffic laws, educate drivers about dangerous behaviors, and improving emergency and medical response times.

Goal 1 • Safety

Minnesota's Highway Grade Crossing Safety Improvement Program funds the installation of updated highway-rail grade crossing signal systems and warning devices to prevent train-motor vehicle collisions at crossings. This program also supports crossing consolidations, closures, and sign changes to enhance safety and reduce the risk of fatalities, injuries, and derailments.

For more information, visit the [MnDOT Traffic Engineering](#) and [Minnesota Toward Zero Deaths](#) websites.

Other Measures Correlated to Goal 1

There are no correlated measures identified.



System Stewardship

A key priority for MnDOT and local partners is maintaining the existing transportation system. System stewardship addresses three concepts: asset management, system management, and system resiliency. Targets are set during the planning process, with input from stakeholders and the public, at levels that prioritize higher volume roads and bridges.

Goal 8


One performance measure in this section helps describe how MnDOT and partners are working **to maximize the long-term benefits received for each state transportation investment.**

- **Bridge inspection:** The percent of routine bridge inspections completed within 30 days of the calendar due date in a 12-month period.

Snapshot of Goal 8 Performance Measures

The table below lists each performance measure for Goal 8, statewide target (if applicable), the current condition, and the performance score.

Table 3. Goal 8 performance measure summary

Measure	Role	Statewide Target	Current Condition	Trend Desired	Trend Observed
Bridge Inspection	Leader	100% on time	99.8% (2023)		

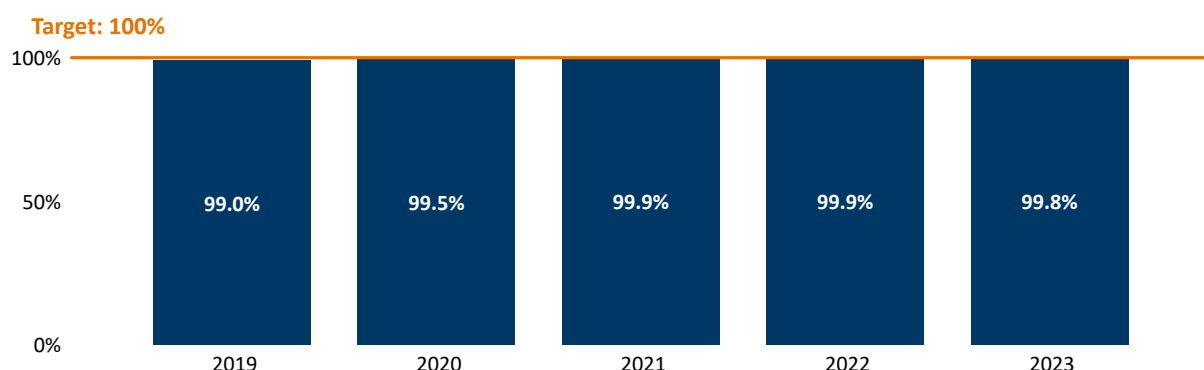
Goal 8

Maximizing Long-term Benefits

Bridge Inspections

- In 2023, nearly all (99.8%) inspections of MnDOT owned bridges were completed on-time, which has been consistent over the last five-year period (Figure 11).
- Since 2013, MnDOT has completed bridge inspections on time 99% of the time.
- A bridge inspection is considered on-time if it is completed within 30 days of its calendar due date. All bridges receive their required safety inspections, but sometimes a small number are delayed past their due date because of weather or a scheduling issue.
- Additional performance information is available on MnDOT's performance measure website [for Bridge Inspection](#).

Figure 11. Percentage of routine bridge inspections completed on time, 2019 to 2023



MnDOT continuously monitors the condition of bridges under the [Transportation Asset Management Plan \(TAMP\)](#) to strategically build, manage, maintain, operate, and adapt the transportation system for future conditions. In general, bridge inspections typically occur on two-year cycles. Some structures are on shorter or longer inspection cycles, depending on current condition, type of design and materials used in construction. To extend the life of a bridge, MnDOT proactively performs preventative maintenance. MnDOT strives to achieve 100% of on-time bridge inspections. However, delays can occur due to weather, conflicting construction activities, or high priority reactive maintenance activities. Providing accurate data from these inspections allows MnDOT and its transportation partners to better plan for bridge improvements, maintenance, and operations throughout the state. All of Minnesota's MnDOT-owned bridges receive scheduled safety inspections as required by state and federal rules and regulations.

For more information, visit the [MnDOT Bridge Office](#) and the [MnDOT Asset Management Project Office](#).

Other Measures Correlated to Goal 8

In addition to the primary performance measures presented this section, there are five other measures that correlate to Goal 8. They are listed in Table 4 along with their primary legislative goal and the page number where more information is available.

Table 4. Other measures correlated to Goal 8

Performance Measure	Primary Goal	Report Page Number
Snow fences	1	18
Bridge condition	8	24
Culvert condition	16	27
Pavement condition	9	27
Native seedings and plantings	16	34

Goal 9

Infrastructure Maintenance

Goal 9











Four performance measures in this section help describe how MnDOT and partners are working **to provide for and prioritize funding of transportation investments that ensures the state's transportation infrastructure is maintained in a state of good repair.**

- **Bridge condition:** The annual percentage of total state bridges rated as being in good and poor condition based on evaluations of the bridge deck, substructure, and superstructure.
- **Culvert condition:** The annual percentage of total culverts under state highway lanes rated as being in poor or severe condition.
- **Pavement condition:** The annual percentage of total interstate, other NHS, and non-NHS roadways rated as having poor ride quality.
- **ADA compliance:** The percentage of total state-owned sidewalks, signals, curbs, and driveways substantially compliant with Americans with Disabilities Act (ADA) standards.

Snapshot of Goal 9 Performance Measures

The table below lists each performance measure for Goal 9, statewide target (if applicable), the current condition, and the performance score.

Table 5. Goal 9 performance measures summary²

Measure	Role	Statewide target	Current Condition	Trend Desired	Trend Observed
Bridge Condition	Leader	NHS Poor: ≤5% Non-NHS Poor: ≤8%	NHS Poor: 6.7% Non-NHS Poor: 3.4 (2023)		NHS:  Non-NHS: 
Culvert Condition	Leader	Poor or Severe: ≤10%	21% (2023)		
Pavement Condition	Leader	Interstate Poor: ≤2% NHS Poor: ≤4% Non-NHS Poor: ≤8%	Interstate: 0.3% NHS: 0.8% Non-NHS: 2% (2023)		Interstate:  NHS:  Non-NHS: 
ADA Compliance	Leader	100% by 2037	Curb Ramp: 42% Sidewalk: 54% Signals: 78% (2023)		*

*Refer to footnote.

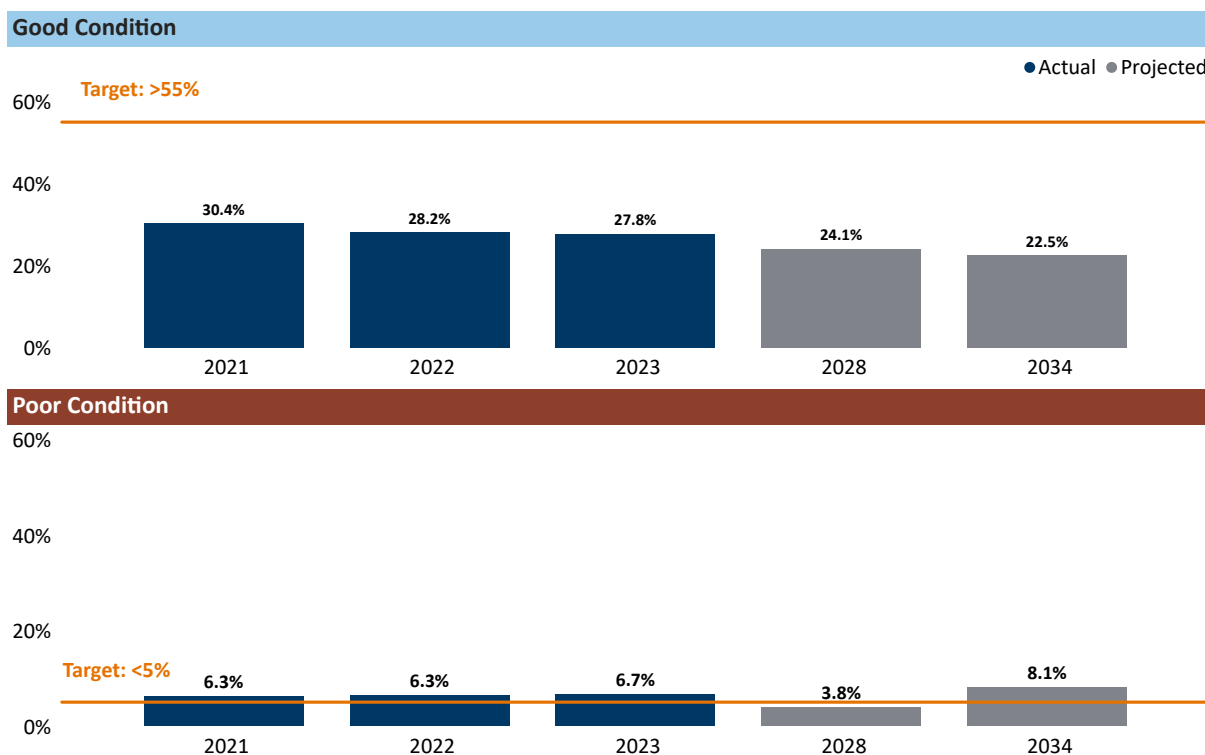
² From 2020-2022 MnDOT updated the inventory of sidewalks, curb ramps, and signals and identified additional assets not previously included. As a result, the percentage of sidewalks, curb ramps, and signals meeting ADA compliance standards went down even as MnDOT increased the number of assets meeting ADA standards.

Bridge Condition

Statewide NHS Summary

- In 2023, 6.7% of NHS bridges were rated as being in poor condition, which exceeded the 5% statewide target (Figure 12).
- The percentage of NHS bridges in good condition declined to 27.8% in 2023, which was below the 55% statewide target. MnDOT expects the percent in good condition to remain in the mid-20% range. These numbers reflect an increase in the accuracy of bridge data which is providing a more realistic picture of the bridge inventory in the state.
- Over the most recent three-year period, the percentage of NHS bridges in poor condition has increased, while the percentage of NHS bridges in good condition has decreased.
- The percentage of NHS bridges in poor condition is projected to decline to 3.8% in 2028, and then rise to 8.1% in 2034.
- Additional performance information is available on MnDOT's performance measure website [for Bridges](#).
- NOTE: The Blatnik Bridge, which is Minnesota's second longest bridge and connects Duluth to Superior, WI, is scheduled to undergo a major multi-year replacement effort. Accordingly, it has been removed from the projected bridge condition data.

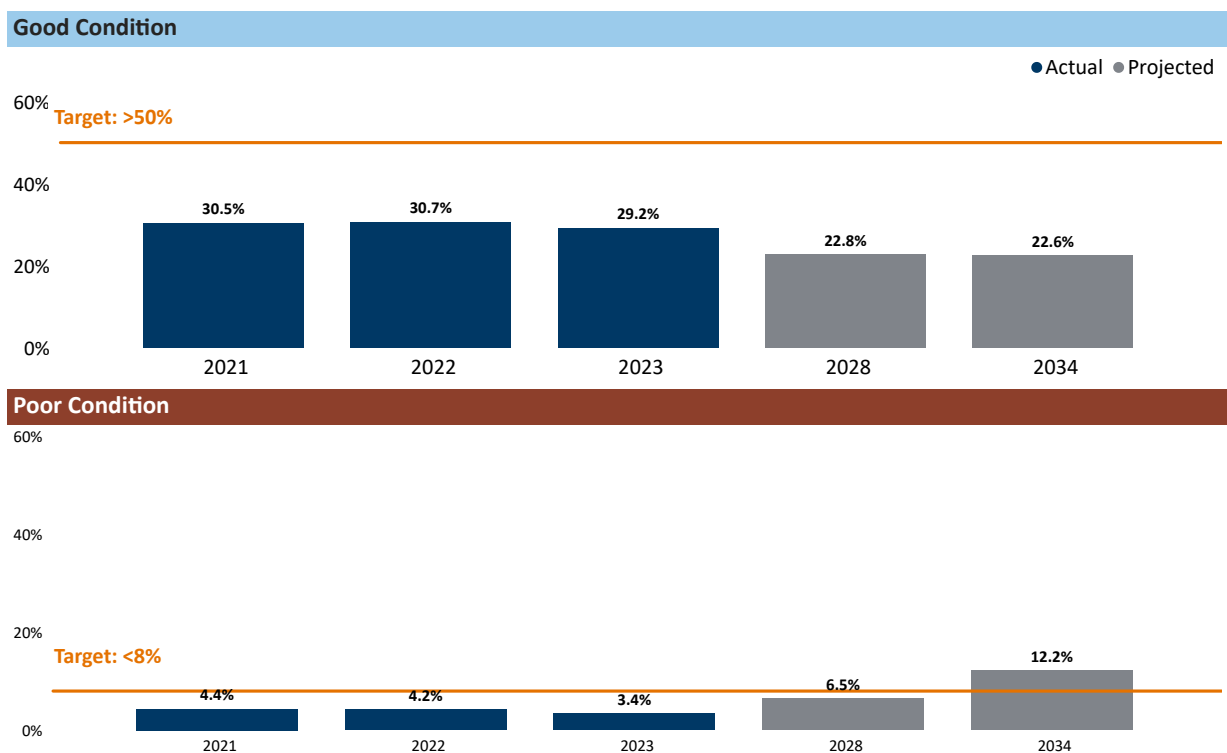
Figure 12. NHS bridges in good and poor condition, 2021 to 2034 (projected)



Statewide Non-NHS Summary

- In 2023, 3.4% of non-NHS bridges were rated as being in poor condition, which is under the 8% statewide target (Figure 13).
- Over the most recent three-year period, the percentage of non-NHS bridges in poor condition has decreased.
- The percentage of non-NHS bridges in poor condition is projected to increase to 6.5% in 2028 and in the to 12.2% in 2034.
- Additional performance information is available on MnDOT’s performance measure website [for Bridges](#).

Figure 13. Non-NHS bridges in good and poor condition, 2021 to 2034 (projected)



Regional Summary

The figures in this section display state bridge data available at the MnDOT district level. Infrastructure conditions vary across districts due to differences in climate conditions, the age and number of bridges and culverts in a district, and the frequency of use. Because performance measure targets are set and managed at a statewide level, district-level data should not be compared to those targets or across districts.

- The number of bridges and the total square feet of bridge deck varies by district so a change in the condition of one bridge in one district can affect the percentage in poor condition more than in another district. Table 6 lists the 2023 number of NHS and non-NHS bridges as well as the total bridge deck area by district (in thousands of square feet). The Metro District has the most NHS and non-NHS bridges and most square feet of bridge deck area. While District 6 has the second highest bridge counts, District 1 has the second most square feet of NHS bridge deck.

Table 6. Number of bridges and bridge deck areas by district 2023 ³

District	Number of NHS Bridges	NHS Bridge Deck Area*	Number of Non-NHS Bridges	Non-NHS Bridge Deck Area*
1	179	4,208	148	1,745
2	41	738	75	814
3	147	2,003	89	1,080
4	76	814	73	683
6	201	2,631	236	2,697
7	131	1,777	112	1,314
8	67	703	63	370
Metro	521	14,239	663	12,312

*Units: square feet (in thousands)

- In 2023, the percentage of NHS bridges in poor condition varied by district from 0% in District 8 to nearly 20% in District 1. The relatively high percentage in District 1 is due to the Blatnik Bridge falling into poor condition in 2021. As noted previously, the Blatnik Bridge is scheduled to undergo a major multi-year replacement effort (Figure 14).
- Non-NHS bridges in poor condition in 2023 ranged from 0% in District 3 to about 10% in District 4 (Figure 15).

Figure 14. NHS bridges in good and poor condition by MnDOT district, 2023

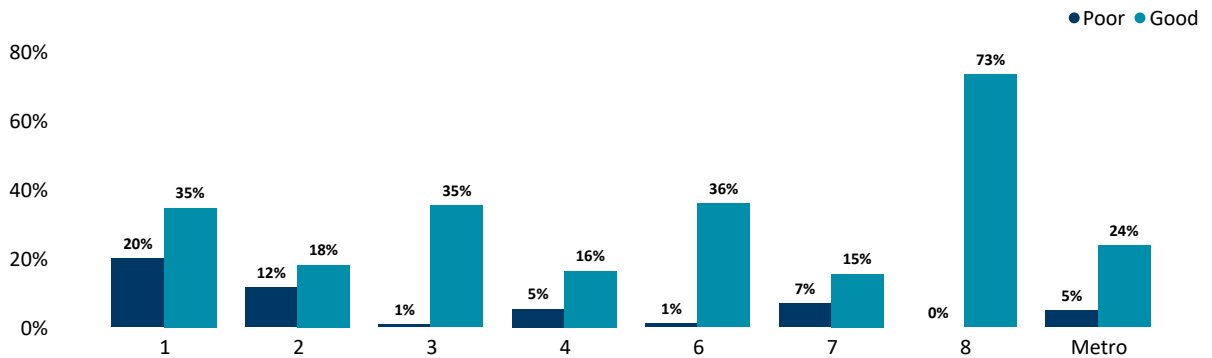
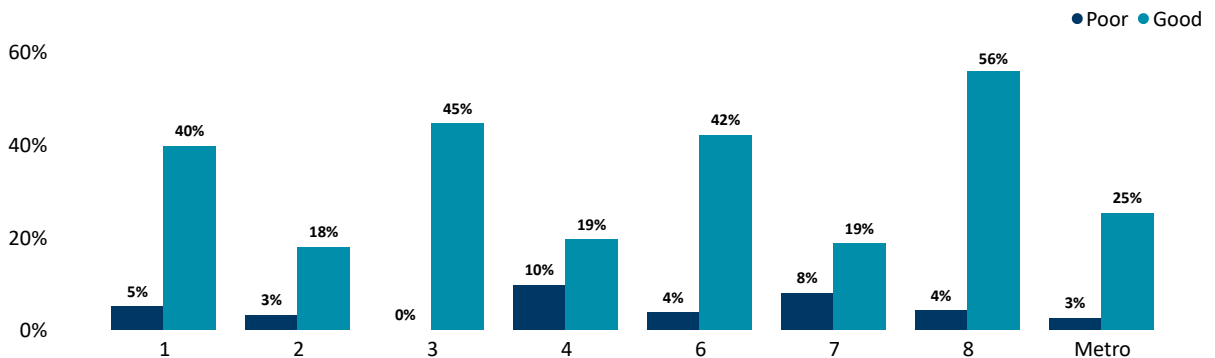


Figure 15. Non-NHS bridges in good and poor condition by MnDOT district, 2023

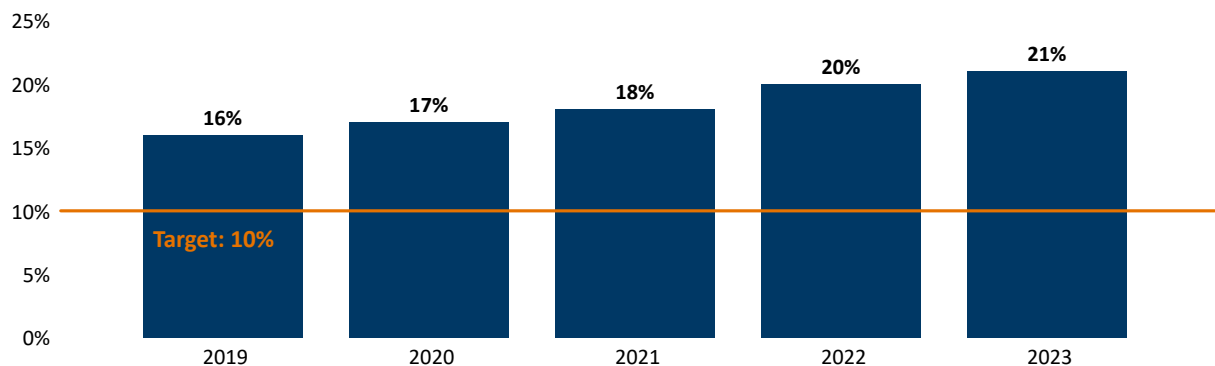


³ Bridge conditions are tracked and reported by Area Transportation Partnership (ATP).

Culvert Conditions

- Highway culverts include culverts smaller than a 10-foot span that are under state highway traffic lanes and function to move surface water through a roadway embankment and away from the highway.
- In 2023, 21% of culverts were in poor or very poor condition (Figure 16).
- MnDOT's statewide target for reducing the number of culverts in poor or very poor condition has not been met for over the past five years, with conditions continuing to decline.
- Additional performance information is available on MnDOT's performance measure website [for Culverts](#).

Figure 16. Culverts in poor and very poor condition, 2019 to 2023



Pavement Condition

- In 2023, over 70 percent of roadways across all three systems had good ride quality. NHS Interstate had the highest percentage (96.1%) followed by NHS non-Interstate (78.9%) and then non-NHS (72.2%) (Figure 17).
- Less than 1% of NHS Interstate and NHS non-interstate roadways had poor ride quality in 2023 (Figure 18). For non-NHS state highways, 2% had poor ride quality. Based on Capital Highway Investment Plan (CHIP) estimates, the share of roadways with poor ride quality will increase, and NHS non-interstate and non-NHS state highways will exceed statewide targets by 2034 (Figure 19).
- The statewide targets for poor ride quality in the travel lane is less than or equal to 2% for the Interstate system; 4% for other NHS roadways; and 8% for the non-NHS. Pavement rated poor can still be driven on, but the ride is sufficiently rough that most people would find it uncomfortable and may reduce their speed. Rough pavement can also negatively impact freight movement by increasing the risk of damaging cargo.
- Additional performance information is available on MnDOT's performance measure website [for Pavement Condition](#).

Figure 17. NHS Interstate system with good and poor ride quality in the travel lane, 2021 to 2034 (projected)

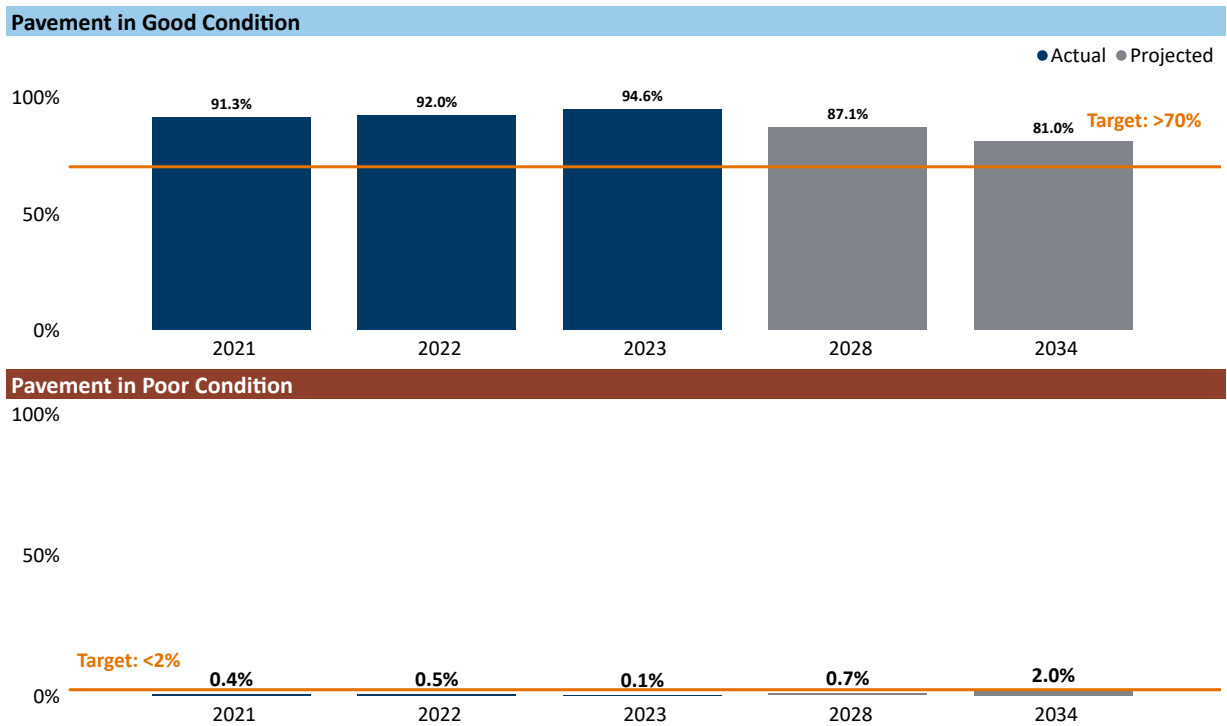
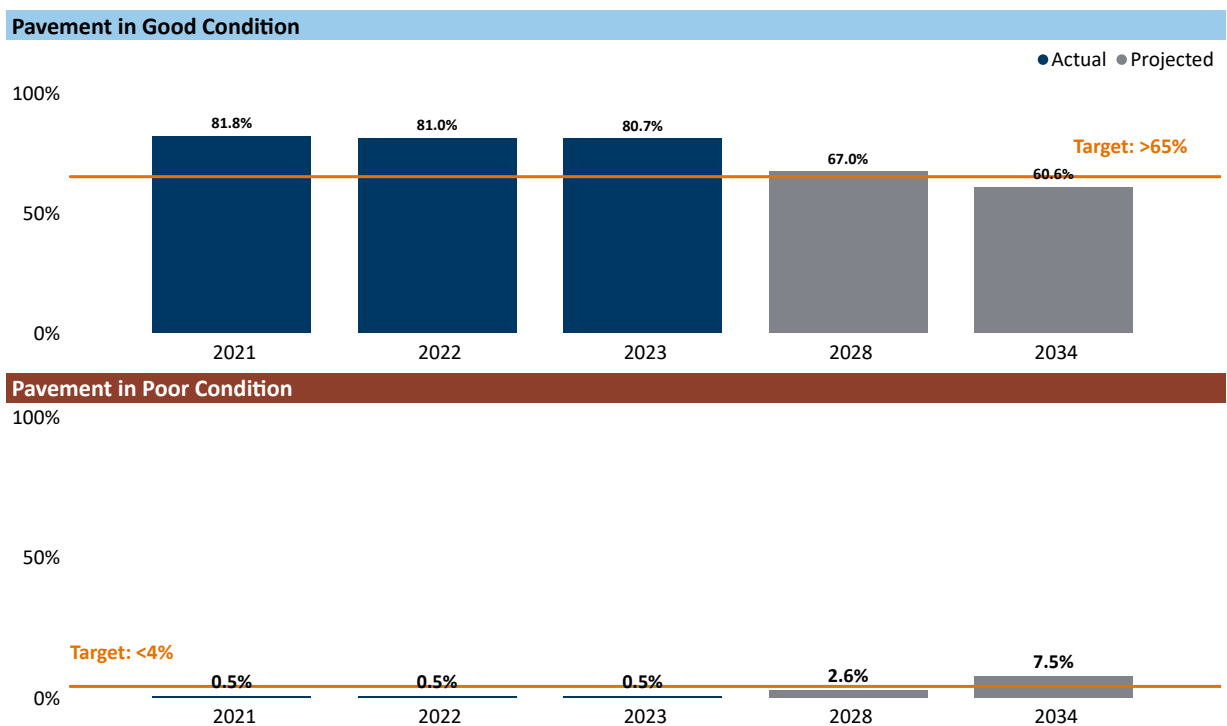
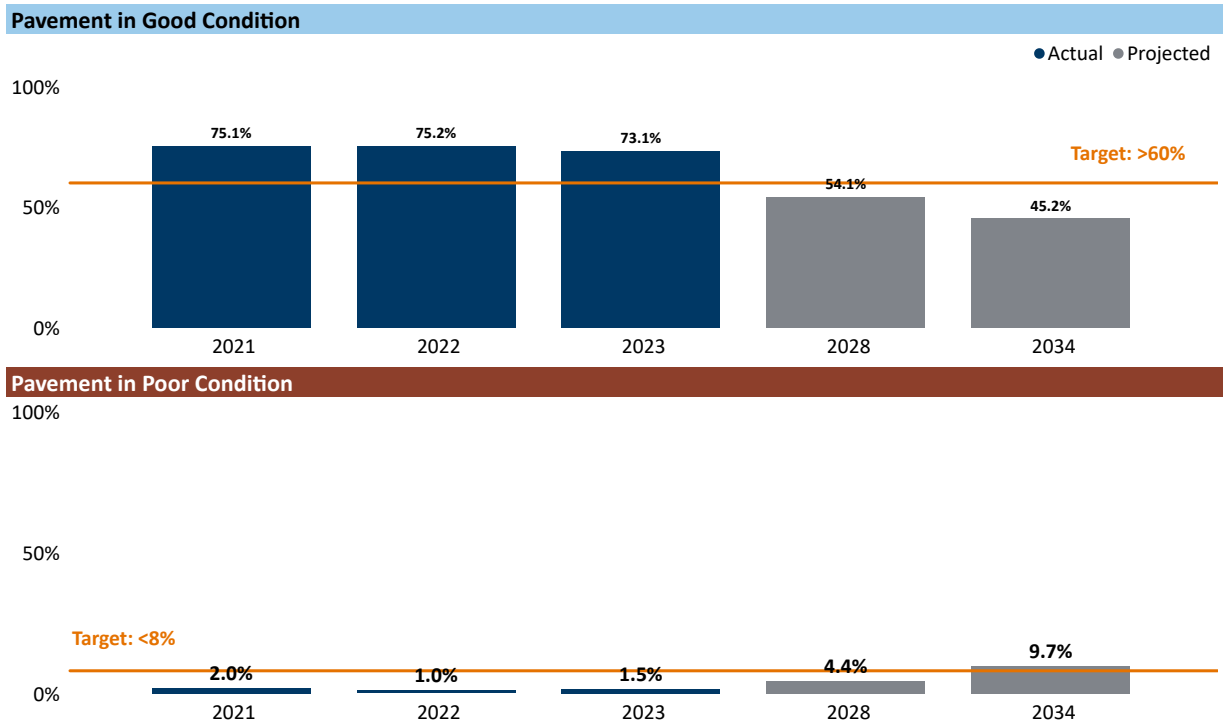


Figure 18. NHS non-interstate system with good and poor ride quality in the travel lane, 2021 to 2034 (projected)



GOAL 9 • Infrastructure Maintenance

Figure 19. Non-NHS state highways with good and poor ride quality in the travel lane, 2021 to 2034 (projected)



Through the [Transportation Asset Management Plan \(TAMP\)](#), MnDOT also sets targets for the condition of other assets including deep stormwater tunnels, intelligent transportation systems (ITS), noise walls, overhead signs, and high-mast light towers. Table 7 contains examples from [Chapter 4 of the 2022 TAMP](#) outlining the percent poor by current condition, the projected condition in 10 years, and the statewide target for each asset.

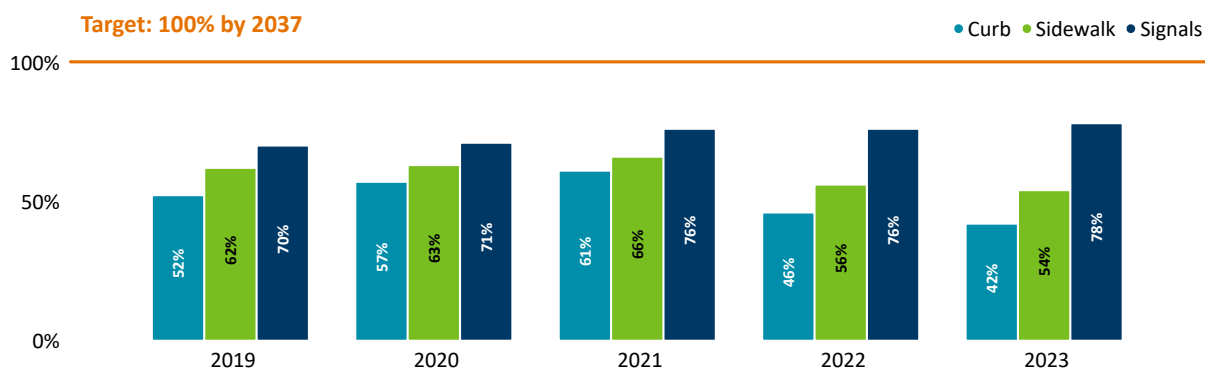
Table 7. Transportation asset performance measures examples from 2022 TAMP

Asset Type	Current Poor Condition	Projected Poor Condition	Target Poor Condition
Deep stormwater tunnel	0% (2020)	23% (2032)	10%
Noise walls	6% (2021)	6.7% (2032)	8%
Overhead signs	34% (2021)	12% (2032)	6%
High-mast light towers	8% (2021)	8% (2032)	6%

ADA Compliance

- MnDOT's goal is for 100% of sidewalk-miles, curbs, signals, and driveways along state highways to be substantially compliant with American with Disability Act (ADA) standards by 2037.
- In 2023, MnDOT identified 54% of sidewalk-miles, 42% of curbs, and 78% of signals along state highways as ADA compliant, which are below the statewide target.
- NOTE: From 2020-2022 MnDOT updated the inventory of sidewalks, curb ramps, and signals meeting ADA compliance standards and identified additional assets not previously included. As a result, the percentage of sidewalks, curb ramps, and signals meeting ADA compliance standards went down even as MnDOT increased the number of assets meeting ADA standards.
- Additional performance information is available on MnDOT's performance measure website [for ADA Compliance](#).

Figure 20. ADA Compliance — Sidewalks, curbs, and signals, 2019 to 2023



What is MnDOT Doing to Move Towards Goal 9?

MnDOT continuously monitors the condition of bridges, culverts, and roadways under the [Transportation Asset Management Plan \(TAMP\)](#) to strategically build, manage, maintain, operate, and adapt the transportation system. Bridges are inspected thoroughly every two years. To extend the life of a bridge, MnDOT proactively performs preventive maintenance. Bridges rated as poor are still safe to drive on, but they are near the point where significant investment in repair or replacement is necessary.

Measuring pavement and culvert quality on roadways also helps the agency plan for areas that need the most improvement. For example, pavement quality on the NHS and non-NHS roadways is measured every year using a van with specialized equipment. The roadways are given a ride quality score based on those measurements. As with bridges, MnDOT also proactively performs preventive pavement maintenance activities including patching and crack filling. More information about infrastructure investment planning is available in the TAMP and the [Minnesota State Highway Investment Plan](#).

MnDOT's [Americans with Disabilities Act Transition Plan](#) details how the department ensures that its facilities, services, programs, and activities are accessible to all individuals. As part of this regularly updated plan, MnDOT adopted the national [Public Right-of-Way Accessibility Guidelines](#) as a basis for updates to facility design standards and policies. MnDOT also dedicated additional staff to evaluate the accessibility of construction projects, respond to complaints, and manage an ADA investment program. In 2021, MnDOT adopted its first [Statewide Pedestrian System Plan](#). This plan directs MnDOT's efforts to increase the safety and mobility of

GOAL 9 • Infrastructure Maintenance

people walking along the state highway network. It also establishes performance measures that track progress toward pedestrian-related goals, including ADA compliance.

For more information, visit the [MnDOT Bridge Office](#), [MnDOT Asset Management Project Office](#), and the [MnDOT Active Transportation Program](#) websites.

Other Measures Correlated to Goal 9

One other measure is correlated to Goal 9. Table 8 lists the measure along with their primary legislative goal and the page number where more information is available.

Table 8. Other measures correlated to legislative Goal 16

Performance Measure	Primary Goal	Report Page Number
Rest area building condition	5	53

Goal 16

Minimize Environmental Impacts

Goal 16





Two performance measures in this section help describe how MnDOT and partners are working **to accomplish all goals with minimal impact to the environment**.

- **Road salt chloride use:** The ratio of liquid to solid de-icing chemicals applied annually to reduce overall chlorides used on the roadway for snow and ice control in a winter season.
- **Native seedings and plantings:** The percent of acres planted with native seeds and native plants as part of large projects in a 12-month period.

Snapshot of Goal 16 Performance Measures

The table below lists each performance measure for Goal 16, statewide target (if applicable), the current condition, and the performance score.

Table 9. Goal 16 performance measure summary

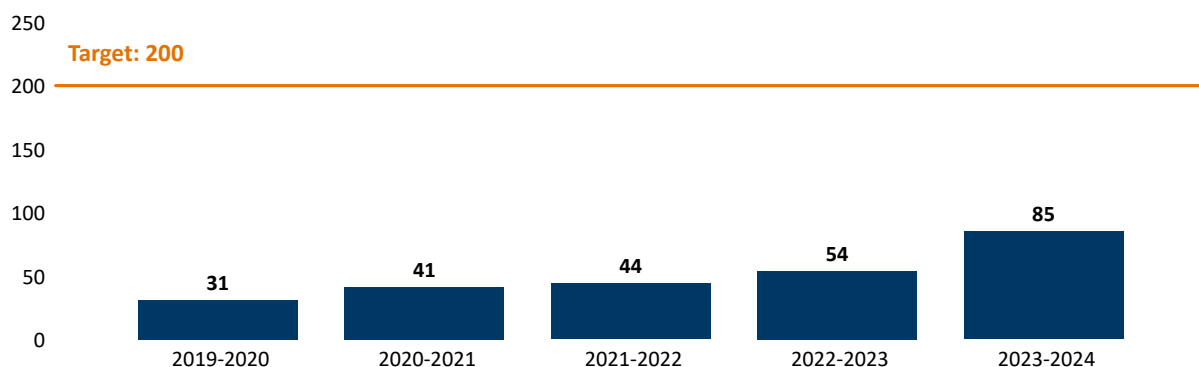
Measure	Role	Statewide Target	Current Condition	Trend Desired	Trend Observed
Road Salt Chloride Use	Leader	200 gallons of liquid per ton of solid by 2027	85 gallons of liquid per ton of salt (2023-2024)		
Native Seedings and Plantings	Leader	Native Seedings: 75% of large project acres by 2025; Native Plantings: 80% of urban projects; 90% of rural projects by 2037	48% of acres planted with native seeds; 54% of urban projects and 100% of rural projects planted with native plantings (2023)		

De-Icing Roadways

Statewide Summary

- In the 2023-24 winter season, 85 gallons of liquid de-icing chemicals were used for every ton of solid chlorides, which continued the trend of increasing the use of liquids to de-ice roads (Figure 21).
- MnDOT's target is to increase the frequency of using liquids to de-ice roads to 200 gallons per ton of solid by 2027.
- Increasing the use of liquid chlorides during snow and ice operations is a MnDOT strategy to better manage pollutants.
- Additional performance information is available on MnDOT's performance measure website [for Snow and Ice Removal](#).

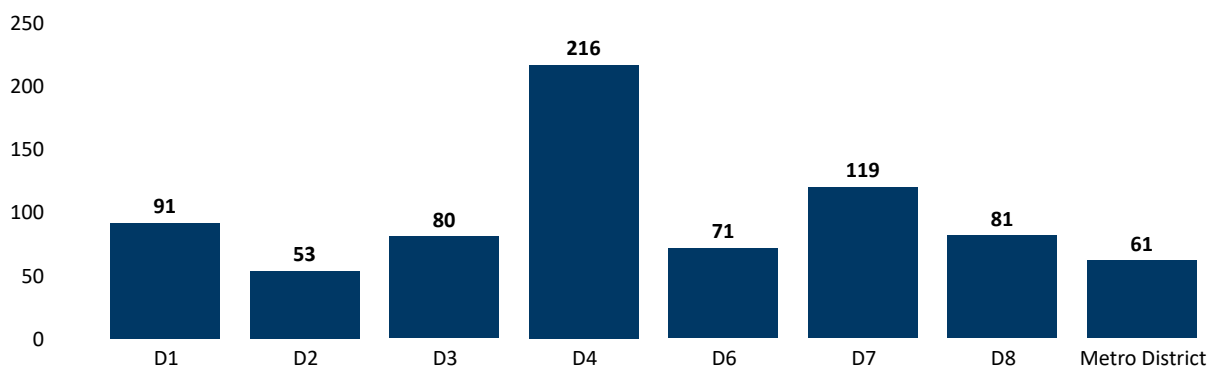
Figure 21. Gallons of liquid chloride used per ton of solid, 2019 –2020 to 2023 –2024



Regional Summary

- During the 2023-2024 winter season, the ratio of liquid to solid de-icing chemicals applied seasonally to roadways ranged from 53 gallons in District 2 to 216 gallons in District 4 (Figure 22).
- The transition from solid chlorides to liquid chlorides requires multiple investment areas, including equipment and staff education. As a result, utilization varies across districts.
- Performance measure targets are set at a statewide level and district-level data should not be compared to those targets or across districts

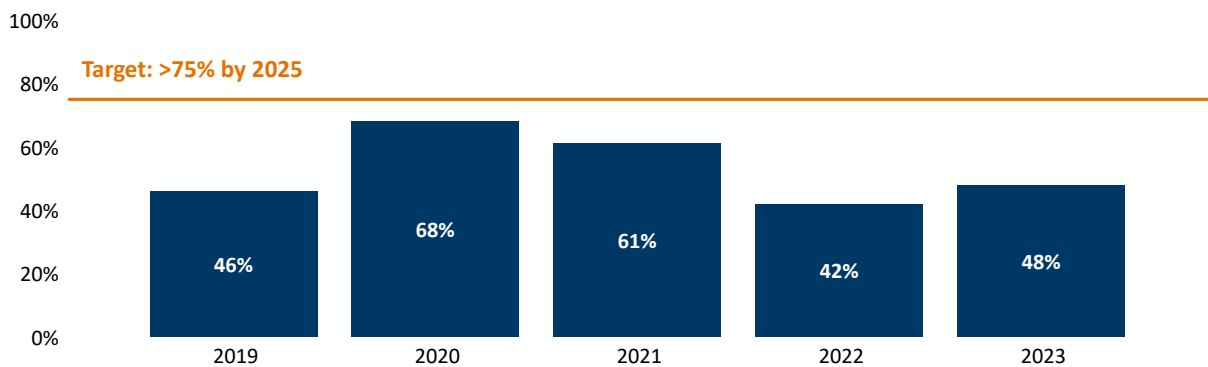
Figure 22. Gallons of liquid chloride used per ton of solid by district, 2023 – 2024 winter season



Sustainable Practices

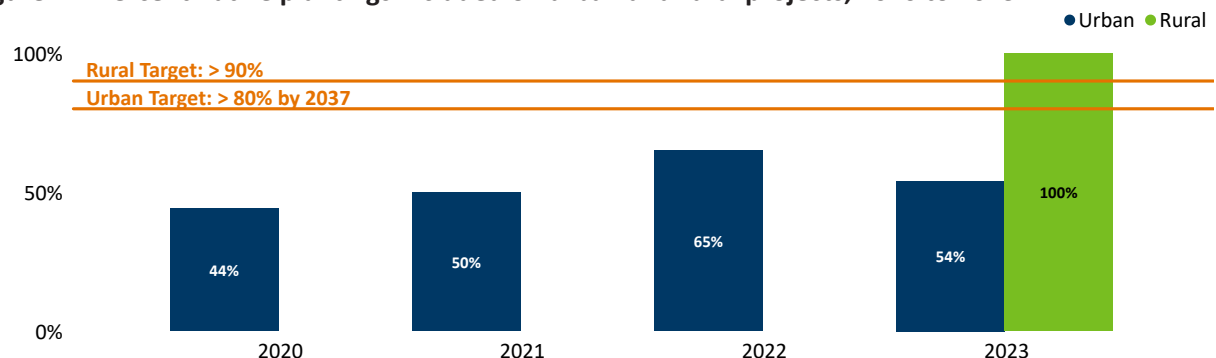
- In 2023, 48% of project acres were planted with native seeds as part of large MnDOT projects (Figure 23).
- MnDOT's statewide target is for 75% of large project acres to be planted annually with native seeds by 2025.
- The proportion of project acres planted with native seeds annually has fluctuated over the past five-year period.
- Additional performance information is available on MnDOT's performance measure website [for Native Seedings and Plantings](#).

Figure 23. Percent of project areas with native seedings, 2019 to 2023



- In 2023, 11 urban projects cumulatively included 54% native plantings, and one rural project included 100% native plants (Figure 24).
- MnDOT's statewide target is for 80% of projects in urban areas and 90% of projects in rural areas to be planted with native plantings. These targets are new and data tracking prior to 2022 was done at a statewide level.
- MnDOT does not aim for 100% of plantings to be native because non-invasive, nonnative species and cultivars are also used where they are needed to withstand site specific functions. Please note the results represent plants specified by MnDOT Environmental Planning and Design Unit in the Office of Environmental Stewardship for contract, partnership, and maintenance projects. The results do not include State Aid or consultant designs, nor MnDOT site development or snow control designs.
- Additional performance information is available on MnDOT's performance measure website [for Native Seedings and Plantings](#).

Figure 24. Percent native plantings included on urban and rural projects, 2020 to 2023



What is MnDOT Doing to Move Towards Goal 16?

To help minimize environmental impacts, MnDOT pilots and deploys sustainable practices in its maintenance and project operations. Salt chlorides play a key role in keeping roads safe during winter months by lowering the freezing point of water. MnDOT is working to better manage pollutants by increasing the use of liquid chlorides compared to dry during snow and ice operations. MnDOT research has shown that at rates at least greater than 100 gallons per ton a 25% reduction in total chlorides can be realized.

[MnDOT’s roadside vegetation management](#) serves many critical functions in operating the transportation system including safety, drainage, erosion control, storm water treatment, and invasive species control. MnDOT projects using native seedings decreases construction impacts to the surrounding environment by providing structure to the soil which minimizes erosion and impacts of harsh seasonal weather. Using native vegetation on roadsides can also provide several additional benefits such as improved aesthetics, wildlife habitat, carbon sequestration, and biodiversity protection by reintroducing native species. In 2023, MnDOT published a new seeding manual, which clarifies standards for which seed mixes get used in different areas of the roadside. The goal is to improve the adoption of using native seed mixes through increased information. Additionally, in 2024, MnDOT published information identifying seed mixes that work best on construction project sites.

For more information, visit [MnDOT’s Environmental Stewardship Office](#) website.

Other Measures Correlated to Goal 16

In addition to the primary performance measure presented in this section, there are two other measures that correlate to goal 16. Table 10 lists the measures along with their primary legislative goal and the page number where more information is available.

Table 10. Other measures correlated to legislative Goal 16

Performance Measure	Primary Goal	Report Page Number
Culvert condition	9	27
Transportation sector greenhouse gas emissions	15	41

Goal 7

Utilize Technical Advancements

Goal 7

MnDOT does not track performance measures specifically related to goal **to promote accountability through systematic management of system performance and productivity through the utilization of technological advancements**. However, through the [Transportation Systems Management and Operations \(TSMO\) strategic plan](#), MnDOT describes how it is working towards achieving Goal 7 and several other goals. Building from the 2019 TSMO Program Plan, the 2024 strategic plan set a 10-year direction and defines TSMO in Minnesota, explains how it aligns with the MnDOT Family of Plans, sets TSMO goals and objectives, and establishes a set of [TSMO tactical plans](#). TSMO is a broad set of strategies that aim to optimize the safe, efficient, and reliable use of transportation infrastructure for all travelers. Additionally, TSMO strategies target all elements of the multimodal transportation system, range widely in complexity, and may be characterized as a tool, service, activity, or infrastructure.

The initial TSMO tactical plans typically include prioritized services and activities, implementation policies, and guidelines, multi-year investment plans, and performance measures and assessment. Examples of the tactical plans include:

- Traffic Management Systems
- Signal Operations
- Traveler information
- Road Weather Management
- Traffic Incident Management
- Work Zone Management
- Connected and Automated Vehicles

While programs, practices, and supporting activities are led by MnDOT's TSMO Office, multiple areas of the agency coordinate to apply TSMO. For example, MnDOT's [Transportation Asset Management System \(TAMS\)](#) is the primary work management system for signals, lighting activities, traffic barriers, signs, drainage, and pavement markings. Additionally, MnDOT's [Transportation Asset Management Plan \(TAMP\)](#) helps manage transportation assets by mitigating risks and optimizing return on investment.

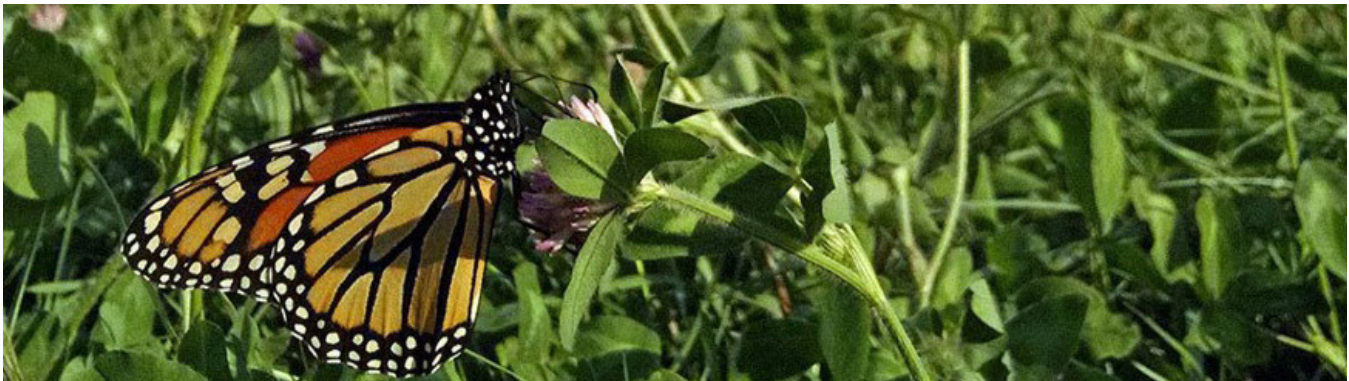
For more information, visit the [TSMO home page](#) and [Asset Management Project Office home page](#).

Other Measures Correlated to Goal 7

There are three measures in the report that correlate to Goal 7. They are listed in Table 11 along with their primary goal and the report page number where more information is available.

Table 11. Other measures correlated to Goal 7

Performance Measure	Primary Goal	Report Page Number
Snow fences	1	18
Bridge inspection	8	21
Road salt chloride use	16	33



Climate Action

Climate change impacts the way transportation infrastructure is used, built, operated, and maintained. Innovative solutions are needed to ensure the transportation system can be more resilient and adaptable to effects of climate change and extreme weather. A more resilient system can reduce adverse health impacts and minimize disruptions to the movement of people and goods. Key commitments include reducing emissions, coordinating with communities, and building resiliency to enhance transportation options and provide a variety of choices for people to access goods, services, and destinations.

Goal 11

Two performance measures in this section help describe how MnDOT and partners are working to achieve the goal **to promote and increase the use of high occupancy vehicles and low emission vehicles**.

- Electric vehicles registered:** Total percentage of light duty electric vehicles (including plug-in hybrid and battery electric vehicles) registered in Minnesota.
- Electric vehicles sold:** Total percentage of original most recent year light duty models electric vehicles (including plug in hybrid and battery electric vehicles) registered in Minnesota. MnDOT uses original registrations as an estimate for the annual light duty EV sales as a share of overall vehicle sales.

Performance measures describing the use of high occupancy vehicles such as public transit and strategies focused on increasing ridership are included in the Goal 6 report section on page 61.

Snapshot of Goal 11 Performance Measures

The table below lists each performance measure for Goal 11, the statewide target, the current condition and performance score.

Table 12. Goal 11 performance measure summary

Measure	Role	Statewide Target	Current Condition	Trend Desired	Trend Observed
Electric Vehicles Registered	Partner	5% by 2025 65% by 2040	1% (2023) Plug-in Hybrid: 16.1K Battery EV: 37.1K	↗	↗
Electric Vehicles Sold	Partner	60% by 2030 100% by 2035	6.2% (2023)	↗	↗

Goal 11

Promote High-occupancy and Low-emission Vehicles

Electric Vehicles

- MnDOT's goal for light-duty electric vehicles (EV) registered in Minnesota is 5% by 2025 and 65% by 2040.
- The number of EVs registered in Minnesota has increased each year from 2019 to 2023, with growth in battery electric vehicles outpacing plugin hybrid electric vehicles. However, comprising 1% of all light duty registered vehicles in 2023 (53,200 total EVs), Minnesota is not on track to meet the 2025 statewide goal (Figure 25).
- For current year model EV sales, 6.2% of light duty vehicles sold in Minnesota in 2023 were EVs. Minnesota is not currently on track to meet the 2030 or 2035 statewide goals (Figure 26).
- Additional performance information is available on MnDOT's performance measure website [for Electric Vehicles](#).

Figure 25. Light duty electric vehicles registered in Minnesota, 2019 to 2023

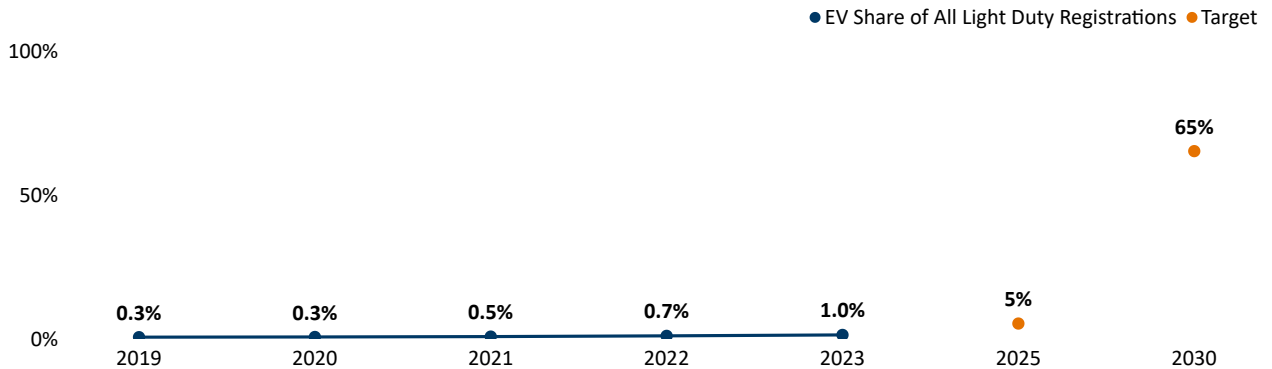
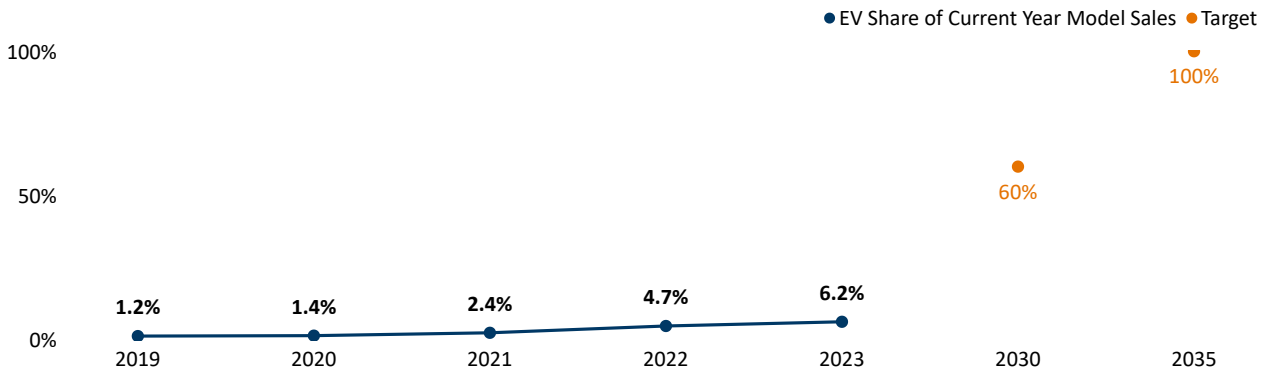


Figure 26. Percent of current year model light duty electric vehicles sold in Minnesota, 2019 to 2023



What is MnDOT Doing to Move Towards Goal 11?

Light-duty vehicles with internal combustion engines are the largest contributors to transportation greenhouse gas emissions in the state. While federal fuel economy standards will lower emissions in the future, electrifying and having light duty electric vehicles are important strategies to meet the state's climate goal. While not yet on track to meet the statewide targets, EVs registrations continue to increase in Minnesota. EVs include electric vehicles, hydrogen fuel cell powered vehicles and other non-carbon-based fueled vehicles. More detailed information is available on the [EvaluateMN dashboard](#). MnDOT also analyzed EV market trends and strategies for increasing the number of EVs on the road in its [2021 Minnesota EV Assessment](#). At the federal government level, the National Electric Vehicle Infrastructure (NEVI) Formula Program was created to provide funds to states to install fast chargers for elective vehicles. As described in the [2023 Statewide Electric Vehicle Infrastructure Plan](#), MnDOT expects to invest about \$68 million in NEVI funds over five years (along with a 20% non-federal match). The focus in 2022 was light duty EV charging needs for the state's existing Alternative Fuel Corridors (AFCs) along Interstate 94 and Interstate 35. The next focus will be on medium and heavy-duty EV charging needs. Following a 2023 plan update, MnDOT will also begin developing proposed program evaluation metrics for tracking progress toward the state's EV goals such as statewide system miles covered by EV charging stations and the percent of the state population within 15 and 50 miles of a station.

In addition to the strategies described in the Goal 6 report section on page 52, MnDOT promotes the use of high occupancy vehicles by partnering with transit providers around the state to provide riders with local public transit information, van pooling, and ride sharing resources. MnDOT also administers several transit programs such as [transit grants for Greater Minnesota](#), which include the Greater Minnesota Public Transit Operating grant, the Public Transit New Service Grant, the Replacement Bus Grant and the Public Transit Facilities and Public Transit Large Capital Grant. MnDOT also administers the Rural Transit Assistance Program, which works with transit agencies to provide customer service-focused training and knowledge transfer opportunities.

For more information, visit [MnDOT's Office of Sustainability and Public Health – Electric Vehicle Planning](#) and the [Transit in Greater Minnesota](#) website.

Other Measures Correlated to Goal 11

In addition to the primary performance measure presented in this section, there are three other measures that correlate to goal 11. Table 13 lists the measures along with their primary legislative goal and the page number where more information is available.

Table 13. Other measures correlated to Goal 11

Performance Measure	Primary Goal	Report Page Number
Transportation sector greenhouse gas emissions	15	41
Public transit ridership	6	56
Vehicle miles traveled per capita	15	42

Goal 15

Reduce GHG Emissions

Goal 15







Three performance measures in this section help to describe how MnDOT and partners are working to achieve the goal **to reduce greenhouse gas emissions from the state transportation sector**.

- **Tailpipe greenhouse gas emissions:** Amount of greenhouse gas (GHG) emissions, measured in metric tons of carbon dioxide equivalent (CO₂e), from tailpipe emissions in a 12-month period. Tail pipe emissions include motor vehicles (cars and trucks) on the road.
- **Fuel use:** Total gallons of fuel sold for transportation purposes, including gasoline and special fuel sold for both highway and aviation. It is reported by the Minnesota Department of Revenue monthly and listed in their Petroleum Tax Report.
- **Vehicle miles traveled per capita:** The total annual vehicle miles traveled divided by the population. In simple terms, it is the number of vehicle miles that a typical person in Minnesota travels per year.

Snapshot of Goal 15 Performance Measures

The table below lists each performance measure for Goal 15, the statewide target, the current condition and the performance score.

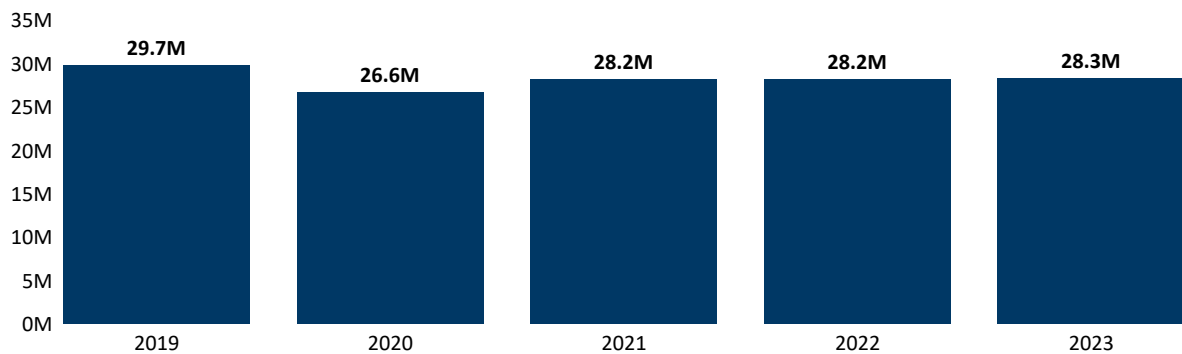
Table 14. Goal 15 performance measure summary

Measure	Role	Statewide Target	Current Condition	Trend Desired	Trend Observed
Tailpipe GHG emissions	Leader	29.5 million metric tons CO ₂ e (30% reduction) by 2025; 8.0 million metric tons CO ₂ e (80% reduction) by 2040	28.3 million metric tons of CO ₂ (2023 Tailpipe CO ₂)		
Fuel Use	Partner	60% by 2030 100% by 2035	Aviation: 0.3bn Vehicle: 3.1bn (2023)		
VMT per Capita	Partner	10,263 by 2025 9,195 by 2040	10,149 (2023)		

Emissions Reductions

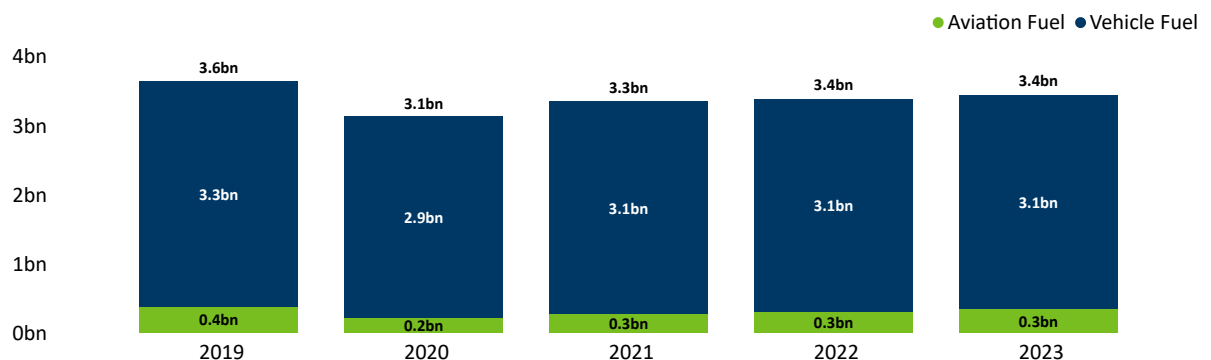
- In 2023, tailpipe emissions totaled 28.3 million metric tons of CO₂e, which was a slight increase from 2021 and 2022 (Figure 27).
- There are several potential explanations for the flattening of tailpipe emissions, including the increase of electric vehicles on Minnesota's roadways, increased vehicle fuel efficiency, and the continuing shift to hybrid work resulting in less congestion than pre-pandemic years.
- For future years of this report, MnDOT is aiming to return to using MPCA data for CO₂e emissions from the transportation section rather than internally calculated tailpipe emissions data. This data is in the process of being recalculated using a new system and current data is not yet available.
- Additional performance information is available on MnDOT's performance measure website [for Greenhouse Gas Emissions](#).

Figure 27. Tailpipe emissions (CO₂ equivalent metric tons), 2019 to 2023



- Prior to 2019, fuel use was gradually increasing. In 2020, the COVID-19 pandemic dramatically impacted travel in the state, which reduced total fuel usage to the lowest point in the 20-year period. Since 2020, fuel use gradually increased again back toward pre-pandemic levels and was at 3.4 billion gallons.

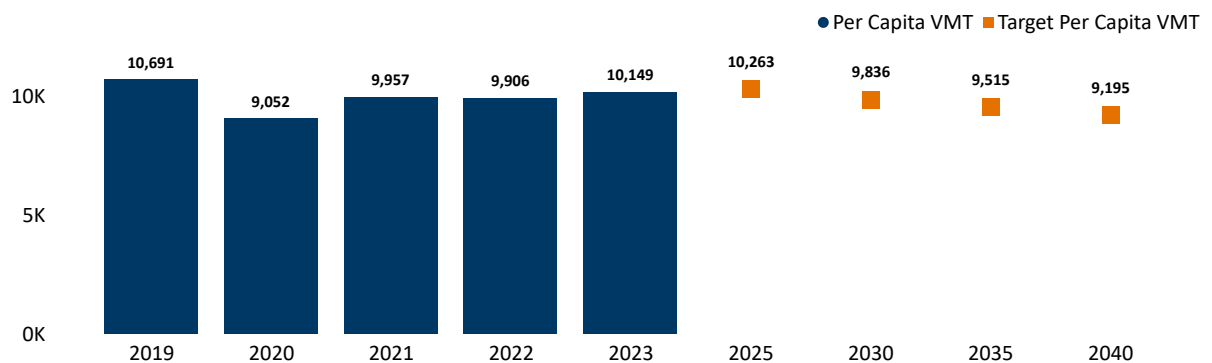
Figure 28. Vehicle and aviation fuel use (billions of gallons), 2019 to 2023



Vehicle Miles Traveled Per Capita

- VMT per capita was 10,149 in 2023. MnDOT has a target to reduce vehicle miles traveled per capita to 9,195 by 2040 (Figure 29).
- While this is still below pre-pandemic numbers, there has been an overall increase since 2020. There are several possible reasons for this occurring, including a return to pre-pandemic commuting patterns.
- Additional performance information is available on MnDOT's performance measure website [on Vehicles Miles Traveled per Capita](#).

Figure 29. Vehicle miles traveled per capita in Minnesota, 2019 to 2023



What is MnDOT Doing to Move Towards Goal 15?

The state GHG emission reduction goals for the transportation sector were first established in the 2007 Next Generation Energy Act, which set reduction targets for the entire economy. From there, the 2023 Minnesota Legislature adopted into statute the emissions reductions targets from the [Minnesota Climate Action Framework](#). The targets are to reduce emissions 50% by 2030 and achieve net-zero emissions by 2050. In 2023, state legislation also established a new standard for 100% carbon-free electricity by 2040. Utilities are directed to supply Minnesota customers with electricity generated or procured from carbon-free resources, beginning at an amount equal to 80% of retail sales for public utility customers in Minnesota in 2030 and increasing every 5 years to reach 100% for all electric utilities by 2040. The bill also requires that, by 2035, an amount equal to at least 55% of an electric utility's total retail electric sales to customers in Minnesota must be generated or procured from eligible energy technologies.

The federal Infrastructure Investment and Jobs Act (IIJA) established the [Carbon Reduction Program \(CRP\)](#), which provides funding to states, local units of government, and transit agencies to incorporate GHG reduction strategies and techniques into local projects. As a requirement of the CRP, MnDOT developed a Carbon Reduction Strategy (CRS), which was published in November 2023. Building on existing strategies and policies, Minnesota's CRS identifies a set of priority categories, key transportation strategies, and supportive project types for investment and implementation to reduce carbon emissions from surface transportation in Minnesota.

Goal 15 • Reduce GHG Emissions

In 2023, the Minnesota Legislature created the [Transportation Greenhouse Gas Emissions Mitigation Working Group](#) to assist MnDOT's commissioner with implementing a process for assessing and mitigating the GHG emissions and VMT impacts of increasing capacity on Minnesota's trunk highway system. In February 2024, the work group shared its [recommendations](#) for enhancing a GHG emissions impact assessment for capacity expansion projects on state highways.

In addition to reducing the number of vehicles that burn fossil fuels, shifting to new technologies to power cars by electric powered batteries, advanced biofuels, and hybrid vehicles offer ways to reduce fossil fuel consumption. Electrifying and increasing the use of light duty electric vehicles (EVs) are important strategies to meet the state's climate goals. Reducing the initial costs of EVs to consumers and increasing access to fast chargers will enable more people to purchase those vehicles. The 2023 Minnesota Legislature approved a new EV rebate up to \$2,500 (in addition to the existing \$7,500 in federal tax credits), and MnDOT's statutory authority to implement [Minnesota's National Electric Vehicle Infrastructure \(NEVI\) Formula Program](#). The NEVI program provides funds to states to build a convenient, affordable, reliable, and equitable fast charging network for EVs. Minnesota expects to receive and invest about \$68 million from the NEVI Formula Program. Round 1 conditional grants were announced in July 2024.

VMT is a key measure to understand travel behavior and impacts on the environment at a state level, and whether MnDOT strategic changes are impacting behavior year over year. Lower VMT signals fewer transportation related emissions. VMT per capita helps understand how much the average Minnesotan travels in a year. Reducing VMT per capita is beneficial to Minnesota because, among other things, it represents increased use of multimodal options, decreased congestion on roadways, and decreased emissions from the transportation sector.

To learn more, visit the [MnDOT's Office of Sustainability and Public Health – Reducing carbon pollution from transportation](#) and the [Transportation Greenhouse Gas Emissions Impact Mitigation Working Group](#) websites.

Other Measures Correlated to Goal 15

In addition to the primary performance measure presented in this section, there are five other measures that correlate to Goal 15. Table 15 lists the measures along with their primary legislative goal and the page number where more information is available.

Table 15. Other measures correlated to Goal 15

Performance Measure	Primary Goal	Report Page Number
Physical activity	14	64
Public transit ridership	6	56
Transit on-time performance	6	57
Zero emission vehicles registered	11	38
Zero emission vehicles sold	11	38



Critical Connections

The transportation system is a vital part of keeping Minnesotans connected to jobs, family, shopping, health care, school, places of worship, recreation, and entertainment. Individuals and businesses identify different connections as critical based on their location and specific needs. MnDOT is committed to maintain and improve multimodal transportation connections essential for Minnesotans' prosperity and quality of life and will strategically consider new connections that help meet performance targets and maximize social, economic, and environmental benefits.

Goal 3

Five key performance measures in this section describe the variety of ways MnDOT contributes **to providing reasonable travel time for commuters.**

- **NHS travel time reliability:** The percent of NHS (combining NHS Interstate and NHS Non-Interstate) person-miles traveled that are considered reliable in travel times (also known as travel time reliability), as measured from day-to-day or across different times of the day.
- **Job accessibility by car:** The average number of jobs accessible within a 30-minute drive by personal motor vehicle.
- **Job accessibility by bicycle and transit:** The average number of jobs accessible within a 30-minute ride by bicycle or transit.
- **Twin Cities freeway congestion:** The percent of Twin Cities metropolitan-area freeway miles with an average traffic speed less than 45 miles per hour during morning and afternoon peak times.
- **Twin Cities traveler delay:** The average delay in minutes per weekday per person in the Twin Cities metropolitan area.

Goal 3

Reasonable Travel Time

Snapshot of Goal 3 Performance Measures

The table below lists each performance measure for Goal 3, the statewide target (if applicable), the current condition, and the performance score.

Table 16. Goal 3 performance measure summary

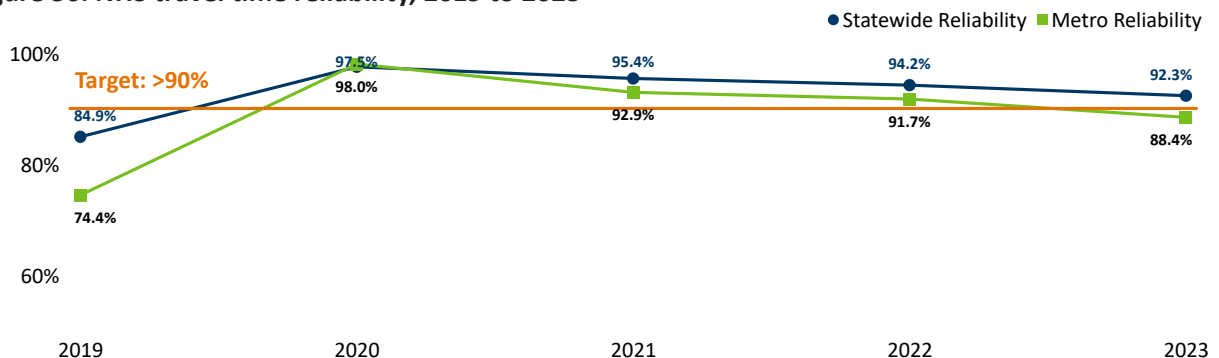
Measure	Role	Statewide Target	Current Condition	Trend Desired	Trend Observed
NHS Travel Time Reliability	Leader	≥90%	92.3% (2023)	↗	↗
Job Accessibility by Car	Leader	NA	762.3K (2022)	↗	↗
Job Accessibility by Bicycle or Transit	Leader	NA	By bicycle: 28.6K By transit: 11.3K (2022)	↗	↘
Twin Cities Freeway Congestion	Leader	NA	22.1% (2023)	↘	↘
Twin Cities Traveler Delay	Leader	≤9 minutes per weekday	9.2 minutes (2022)	↘	↘

Travel Time Reliability

Statewide Summary

- In 2023, statewide travel time reliability on the NHS was 92.3%, which was a relatively small decrease from 2022's 94.2% (Figure 30).
- Travel time reliability measures the proportion of travel on the NHS that occurs under conditions meeting a threshold level of variation in observed travel times. The statewide target for the percent of person-miles traveled that are considered reliable (i.e., travel time reliability) is greater than or equal to 90%. The reliability of travel is an important consideration for individuals and freight. Lower levels of reliability mean increased delays and inconsistent travel times for people and goods.
- Additional performance information is available on MnDOT's performance measure website [for Reliability](#).

Figure 30. NHS travel time reliability, 2019 to 2023



Regional Summary

- Table 17 displays NHS travel time reliability at the MnDOT district level for 2023. Travel time reliability differs across districts reflecting different travel experiences that could be caused by congestion, construction-related delays, traffic signal operations, rail grade crossings, or other impediments. Because performance measure targets are set at a statewide level, district-level data should not be compared to targets or across districts.
- For six of the eight districts, travel time reliability for NHS roadways was higher than 90% (i.e., Districts 1, 3, 4, 6, 7, and 8). District 2's lower reliability is likely due to several short-term construction projects within the district, which impact reliability in lower populated areas at a higher rate.
- Travel time reliability of the Metro District was also lower than 90%. This is likely due to a rebound of pre-pandemic commuting patterns, leading to more congestion during peak times.

Table 17. NHS travel time reliability by district, 2023

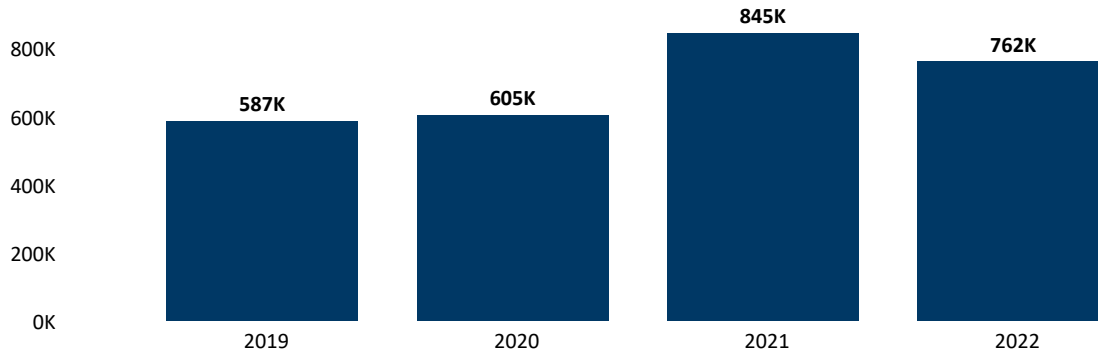
District	Percent of NHS that is Reliable
1	96.8%
2	84.0%
3	95.4%
4	97.8%
Metro	88.4%
6	99.7%
7	96.8%
8	96.8%

Job Access

Statewide Summary

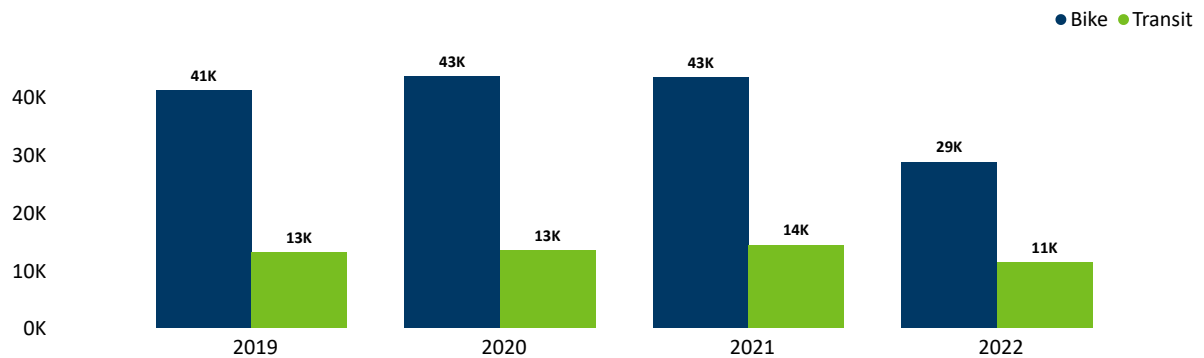
- Job accessibility can be an important consideration for people when choosing where to live and their mode or route of travel. Multimodal accessibility evaluates how easily people can reach destinations by car, transit, and bicycle (Figure 31).
- In 2022, access decreased from 885 thousand jobs in 2021 to 762 thousand jobs. However, between 2018 and 2021, the average number of jobs accessible for Minnesotans within 30-minute drive by personal motor vehicle consistently increased. A lower access number is likely due to this measure using 2020 US Census data, which includes impacts from the COVID-19 pandemic on economic activity. Many areas had fewer jobs in the year 2020 than in the previous year.
- Additional performance information is available on MnDOT's performance measure website.
 - [Job Accessibility by Car](#)
 - [Job Accessibility by Bicycle](#)
 - [Job Accessibility by Transit](#)

Figure 31. Job accessibility by car within 30 minutes (in thousands), 2019 to 2022



- The average number of jobs accessible by bicycle (low and medium stress routes) decreased slightly from 43 thousand in 2021 to 29 thousand in 2022. This measure also used 2020 US Census data for job numbers. This includes impacts that the COVID-19 pandemic had on economic activity, leading to decreased numbers in jobs generally throughout the region. It does not necessarily mean there is a lack of access due to infrastructure condition or a gap in the bicycle system (Figure 32).
- According to the [MnDOT Bicycle Facility Design Manual](#), fewer lanes, lower speeds, and bicycle facilities that are separated from the vehicle lanes are examples of what would make a route low stress and comfortable for bicyclists of all confidences.
- The average number of jobs accessible within 30-minutes by a transit ride decreased from 14 thousand in 2021 to 11 thousand in 2022. As was previously mentioned, because 2020 Census job data was used, the figure likely also decreased due to a decrease in transit service and frequency in 2022, with several lines offering reduced trips or even cutting service altogether, especially for suburban commuter lines

Figure 32. Job accessibility by bicycle and transit within 30 minutes (in thousands), 2019 to 2022



Regional Summary

- The average number of jobs accessible within a 30-minutes by car, transit, or by bicycle on low and medium stress routes differs across the state when comparing by Metropolitan Planning Organizations (MPOs). In 2022, for example, the Metropolitan Council, which covers the Twin Cities metropolitan area, had the largest number of jobs accessible by automobile within 30 minutes but has a smaller lead on jobs accessible by walking (Table 18).
- The differences in job access across MPOs reflects differences in land use, population density, travel impedances, job opportunities, economic activity, and multimodal transportation options.

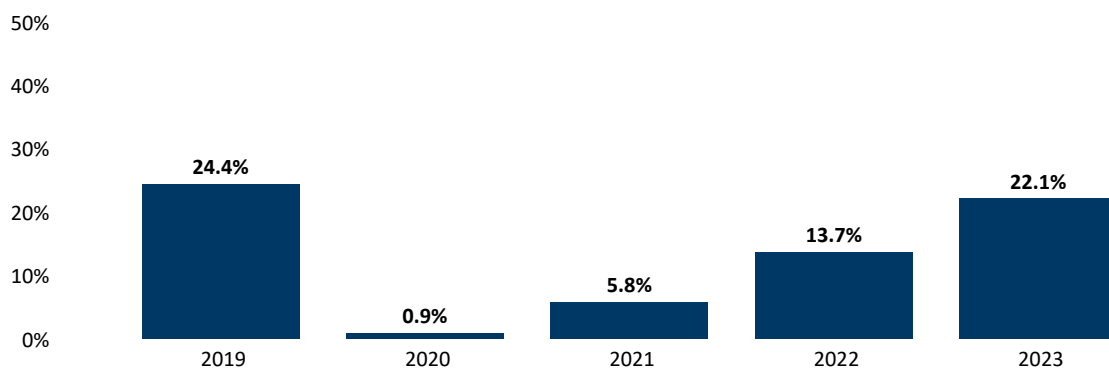
Table 18. Job Accessibility (number of jobs reached) in 30 minutes by Metropolitan Planning Organization, Car, Transit, Bicycle (low and medium stress) and walking, 2022

Metropolitan Planning Organization	Access by Car	Access by Transit	Access by Biking	Access by Walking
Duluth-Superior Metropolitan Interstate Council	90,931	10,634	16,038	3,069
Fargo-Moorhead Metropolitan COG	132,002	7,974	32,217	3,489
Grand Forks-East Grand Forks MPO	41,878	5,561	19,321	2,880
La Crosse Area Planning Committee	83,139	4,265	15,063	2,988
Mankato /North Mankato Area Planning Organization	58,484	3,122	18,152	2,394
Metropolitan Council	1,275,418	18,365	44,538	4,364
Rochester-Olmsted COG	104,516	4,271	29,103	3,625
St. Cloud Area Planning Organization	95,800	2,160	17,338	2,160

Twin Cities Freeway Congestion

- Freeway congestion in 2023 increased to 22.1%, which suggests that travel patterns are shifting as more people return to in person work part-time or full-time. This is a significant shift from 2022's 13.7% and is approximately 2 percentage points lower than pre-pandemic levels (Figure 33).
- The COVID-19 pandemic significantly impacted traffic levels in the Twin Cities metropolitan freeway system. However, congestion appears to be increasing to its pre-pandemic levels.
- Additional performance information is available on MnDOT's performance measure website [for Congestion](#).

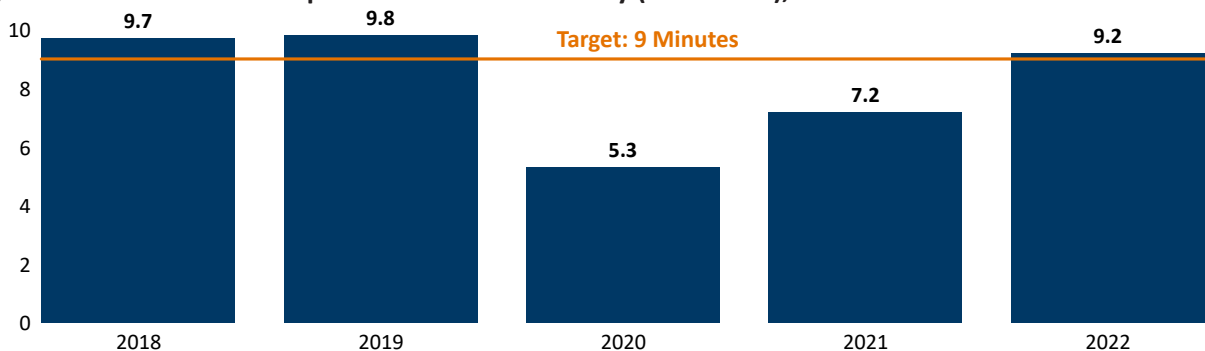
Figure 33. Twin Cities metropolitan area freeway congestion, 2019 to 2023



Twin Cities Traveler Delay

- Traveler delay increased by 2 minutes from 2021 to 2022, averaging 9.2 minutes per weekday in 2022 (the most recent year available) (Figure 34).
- The 2022 average traveler delay of 9.2 minutes per weekday is nearly back to pre-pandemic levels after dropping significantly in 2020 and 2021.
- While congestion is a sign of a healthy economy, excessive amounts of delay can dampen economic competitiveness and reduce quality of life. Measuring traveler delay helps track the amount of delay people experience with the goal of keeping it to reasonable levels.
- Additional performance information is available on MnDOT's performance measure website [for Traveler Delay](#).

Figure 34. Twin Cities metropolitan area traveler delay (in minutes), 2018 to 2022



What is MnDOT Doing to Move Towards Goal 3?

Job accessibility is a key measure to understand the multimodal transportation network in Minnesota and changes due to a variety of factors including land use, job location, transportation networks, and scheduling. Access to other key destinations such as grocery stores, hospitals, and schools can also be used to understand the multimodal network impacts. MnDOT is currently developing and implementing multimodal accessibility analysis to better understand how the transportation network impacts access to key destinations.

Highway mobility investments focus on improving the vehicular movements of people and freight. Through these investments, MnDOT aims to increase mobility throughout the state, increase job accessibility, improve trip reliable, and enhance travel options. In the Twin Cities Metro area, mobility projects include managing delay by providing cleaner, convenient and reliability alternatives in congested corridors. MnDOT currently uses several strategies including active traffic management (e.g., an advanced system of cameras, loop detectors, and ramp meters); low-cost spot mobility improvements that provide safety benefits and reduce delays; and managed lanes and E-Z Pass lanes to provide a predictable, congestion-free travel option.

To learn more, visit the [Statewide Multimodal Transportation Plan](#), the [MnDOT Office of Traffic Engineering](#), and the [Minnesota State Highway Investment Plan](#) websites.

Other Measures Correlated to Goal 3

In addition to the primary performance measures presented in this section, there is another measure that correlates to Goal 3. Table 19 lists the correlated measure along with its primary legislative goal and the page number where more information is available.

Table 19. Other measures correlated to Goal 3

Performance Measure	Primary Goal	Report Page Number
Truck Travel Time Reliability (TTTR) Index	4	51

Goal 4

Enhanced Economic Development

Goal 4

One performance measure in this section helps describe how MnDOT and its partners are working **to enhance economic development and provide for the economical, efficient, and safe movement of goods to and from markets by rail, highway, and waterway.**

- **Truck Travel Time Reliability (TTTR) Index:** An index measuring the consistency of commercial truck travel times on the Interstate system in a 12-month period. An index value of 1.0 is the lowest possible score and means truck travel speeds are perfectly uniform. In reality, observed index values below 1.03 are unlikely.

Snapshot of Goal 4 Performance Measures

Table 20 lists the performance measure for Goal 4, statewide target, current condition, and performance score.

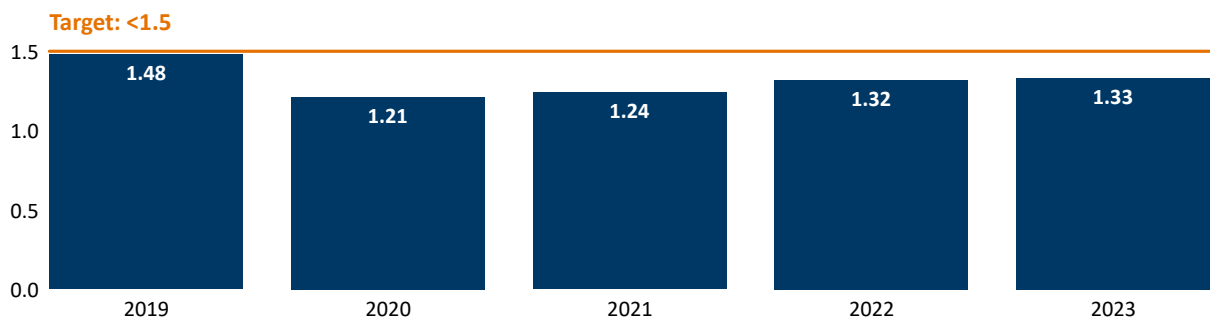
Table 20. Goal 4 performance measure summary

Measure	Role	Statewide Target	Current Condition	Trend Desired	Trend Observed
Truck Travel Time Reliability (TTTR) Index	Leader	≤1.5	1.33 (2023)	↓	↑

Truck Travel Time Reliability

- TTTR Index measures the consistency of commercial truck (e.g., freight trucks, semi-trucks, or tractor trailers) travel times on the Interstate system. The index fluctuates by season but has historically settled between 1.4 and 1.5 during the years prior to the pandemic. The statewide TTTR Index target is less than or equal to 1.5 (Figure 35).
- From 2022 to 2023, there was nearly no change in the index. The index increased slightly in 2021 to 1.24 and again to 1.32 in 2022 in part caused by increasing passenger car traffic. Overall, reliability is decreasing, but still meeting the target.
- In 2019, the index increased to 1.48 which continued the slight upward trend from 2017 to 2018. However, due to the COVID-19 pandemic and fewer vehicles on roadways, the index decreased to 1.21, meaning the consistency of commercial truck travel times improved.
- Additional performance information is available on MnDOT's performance measure website [for Reliability](#).

Figure 35. Truck Travel Time Reliability Index, 2019 to 2023



What is MnDOT Doing to Move Towards Goal 4?

Consistent and reliable movement of goods is essential to Minnesotans and the Minnesota economy. Tracking and understanding truck travel time reliability is vital to enhance economic development and movement of goods throughout Minnesota. MnDOT uses National Highway Freight Program federal funds to address truck freight mobility on locations selected on a competitive basis through the [Minnesota Highway Freight Program](#).

MnDOT is currently working to balance freight movement needs with environmental sustainability efforts including a per capita VMT reduction target. Examples of strategies that benefit all vehicles, including commercial vehicles, include an advanced system of cameras, loop detectors, ramp meters, low-cost spot mobility improvements to improve traffic flow, E-Z Pass lanes, and strategic capacity enhancements such as bus-only shoulders. MnDOT also maintains and updates a [State Rail Plan](#) and a [Statewide Ports and Waterways Plan](#) to advance railway, waterway, and multimodal planning and integration. For railways, MnDOT convenes the [Minnesota Freight Advisory Committee \(MFAC\)](#), which is a partnership between MnDOT and businesses designed to exchange ideas and recommend policies and actions. One strategy to upgrade waterways facilities and infrastructure is the [Port Development Assistance Program \(PDAP\)](#). In 2023, the Minnesota Legislature appropriated \$18.1 million to program.

To learn more, visit the [MnDOT Office of Freight and Commercial Vehicle Operations](#) website and the [MnDOT Office of Traffic Engineering](#) website.

Other Measures Related to Goal 4

In addition to the primary performance measure presented in this section, there are seven other measures that correlate to Goal 4. They are listed in Table 21 along with their primary legislative goal and the page number where more information is available.

Table 21. Other measures correlated to Goal 4

Performance Measure	Primary Goal	Report Page Number
Bridge condition	9	24
Highway rail grade fatalities and serious injuries	1	17
Job accessibility by bicycle and transit	3	47
Job accessibility by car	3	48
NHS travel time reliability	3	45
Pavement condition	9	27
Rest area building condition	5	53
Twin Cities freeway congestion	3	49
Twin Cities traveler delay	3	49

Goal 5

Encourage Tourism

Goal 5



One performance measure in this section helps describe how MnDOT and its partners are working **to encourage tourism by providing appropriate transportation to Minnesota facilities designed to attract tourists and to enhance the appeal, through transportation investments, of tourist destinations across the state.**

- **Rest area buildings condition:** The percent of MnDOT-owned rest area buildings that were rated as being in poor condition based on an assessment of the infrastructure.

Snapshot of Goal 5 Performance Measures

Table 22 lists the performance measure for Goal 5, the statewide target, the current condition, and the performance score.

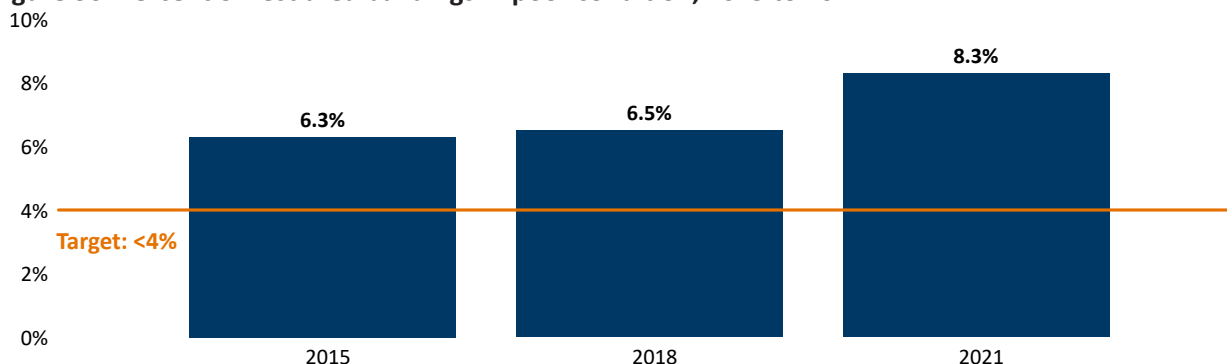
Table 22. Goal 5 performance measure summary

Measure	Role	Statewide Target	Current Condition	Trend Desired	Trend Observed
Rest Area Building Condition	Leader	<4% poor	8.3% (2021)		

Rest Area Condition

- In 2021 (the most recent year available), 8.3% of the 58 MnDOT-owned rest area buildings were in poor condition, which was a slight increase from the previous years with complete data.⁴ A building is in poor condition when the total value of deferred maintenance on all the systems in the building is between one quarter up to half of the replacement value of the building.
- Rest area facilities conditions are assessed on a three-year cycle in which about one-third of buildings are assessed each year. MnDOT is currently in the third year of a three-year cycle and is assessing 15 rest area facilities.
- MnDOT's goal is to have less than 4% of rest area buildings in poor condition.

Figure 36. Percent of rest area buildings in poor condition, 2015 to 2021



⁴ There are three rest areas where more than half of the property is owned by the Minnesota Department of Natural Resources (DNR). These three are excluded from the MnDOT assessments because they are assessed separately by the DNR.

What is MnDOT Doing to Move Towards Goal 5?

Rest areas support the economy by facilitating tourism. Rest areas also promote the safety of the system by providing safe stops, supplying information to travelers, and reducing driver fatigue. MnDOT's rest area building assessments includes detailed components such as walls, doors, HVAC systems, and pavement. MnDOT uses a scoring criteria matrix and customer feedback to help identify specific areas in need of the most improvement and target project investments accordingly. A new performance measure is being implemented to track the overall condition of MnDOT-owned rest are sites.

To learn more, visit [MnDOT's safety rest areas and waysides website](#).

Other Measures Correlated to Goal 5

There are no correlated measures identified.

Goal 6

Transit in all Communities

Goal 6







Three key performance measures in this section help describe how MnDOT is working to **provide transit services to all counties in the state to meet the needs of transit users.**

- **Public transit ridership:** The total number of boardings in a 12-month period recorded by Metro Transit and transit providers in Greater Minnesota.
- **Transit on-time performance:** Percent of annual public transit trips with Metro Transit and the Greater Minnesota transit system considered on-time annually.
- **Rural transit vehicle condition:** Percent of rural transit vehicle fleet exceeding useful life benchmark.

Snapshot of Goal 6 Performance Measures

Table 23 lists each performance measure for Goal 6, the statewide target (if applicable), the current condition, and the performance score (if applicable).

Table 23. Goal 6 performance measure summary

Measure	Role	Statewide Target	Current Condition	Trend Desired	Trend Observed
Public Transit Ridership	Partner	Increasing transit ridership	MSP: 48.7.9 million Greater MN: 7.2 million (2023)		
Transit on-time Performance	Partner	Metro Transit: ≥90% Greater MN: ≥90%	Metro Transit: 81.3% Greater MN: 90% (2023)		
Rural Transit Vehicle Condition	Partner	≤10% meeting or exceeding Useful Life Benchmark	19.6% (2023)		

Public Transit

- In 2023, public transit ridership was 48.7 million in the Twin Cities area and 7.4 million in Greater Minnesota (Figure 37 and Figure 38). MnDOT's public transit ridership targets for the Twin Cities metropolitan area and Greater Minnesota are to increase public transit ridership throughout the state.
- Transit ridership rapidly declined due to the COVID-19 pandemic in 2020. Changes in travel behavior and the continuing pandemic contributed to a slow rebound in ridership. Ridership increased again in 2023, which was the highest ridership since 2020.
- Additional performance information is available on MnDOT's performance measure website [for Transit Ridership](#).

Figure 37. Twin Cities metro area public transit ridership (in millions), 2019 to 2023

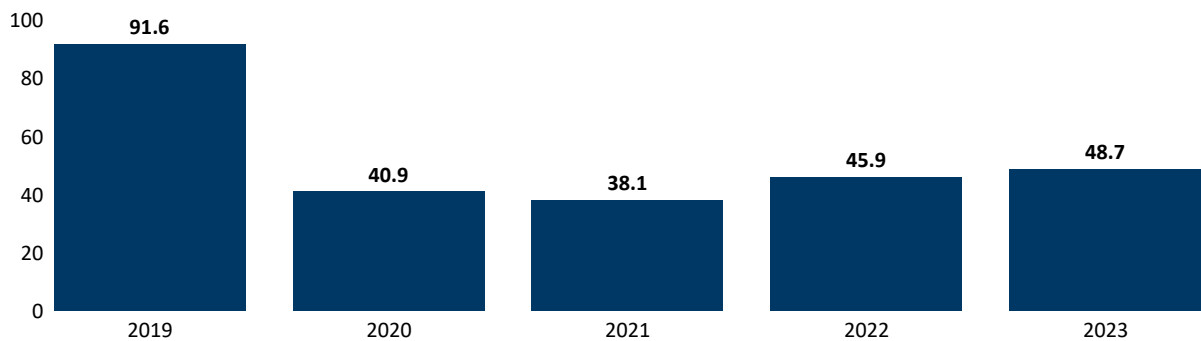
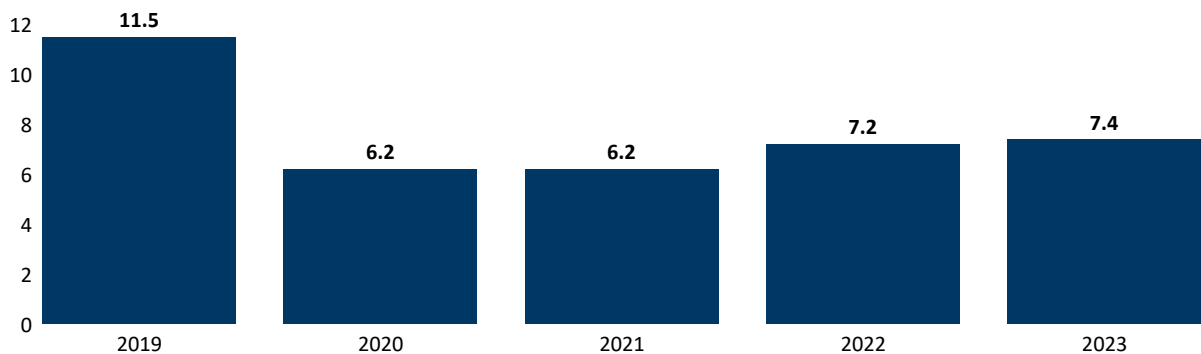


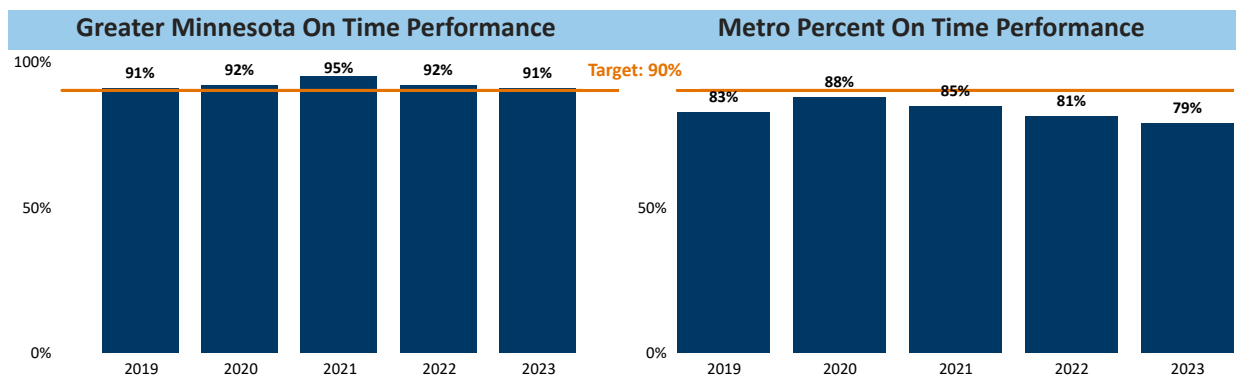
Figure 38. Greater Minnesota public transit ridership (in millions), 2019 to 2023



Transit On-Time

- Metro Transit's and MnDOT's on-time performance target is for 90% of trips to be within one minute early to four minutes late of scheduled times. MnDOT's on-time performance target for Greater Minnesota's transit systems is 90% to be within 45-minutes of scheduled times.
- In 2023, 78.8% of Metro Transit's trips were considered on-time. For the Greater Minnesota transit system, 91% of trips were on time in 2023 (Figure 39).
- Note: In Greater Minnesota, information on on-time performance was not collected for 2019 as a transition to a new reporting methodology was completed.
- Additional performance information is available on MnDOT's performance measure website [for Transit On-time Performance](#).

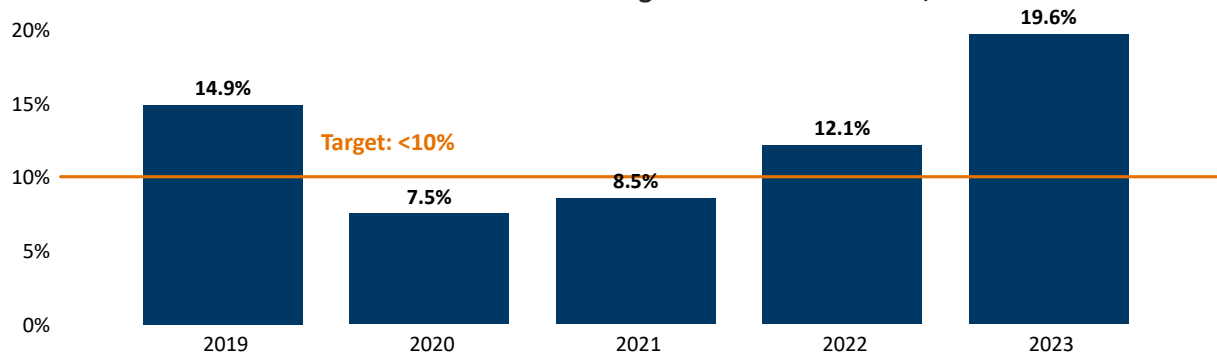
Figure 39. Metro Transit and Greater Minnesota transit on-time performance, 2019 to 2023



Rural Transit Vehicle Condition

- In 2023, 18.7% of the statewide transit fleet met or exceeded the Useful Life Benchmark (ULB). This is far from the target that no more than 10% meet or exceed their ULB (Figure 40).
- The dramatic increase of rural transit vehicles meeting or exceeding its useful life benchmark after X is explained by the manufacturing delays resulting from the Covid-19 pandemic.
- Although MnDOT continued to fund and order buses throughout 2020, 2021, and 2022, buses ordered in 2020 still have not been manufactured or delivered to the public transit systems as of October 2023. As a result, transit providers are continuing to use older buses in their fleets while awaiting delivery of ordered buses.

Figure 40. Percent of rural transit vehicle fleet exceeding useful life benchmark, 2019 to 2023



What is MnDOT Doing to Move Towards Goal 6?

Through public transit providers, MnDOT is committed to providing multimodal transportation options. Access to safe and timely transit is a key piece of the multimodal transportation network. [The Metropolitan Council](#), which operates Metro Transit and works with other metropolitan transit providers, expects additional growth in 2023. Some routes and services, like [Metro Mobility](#), Metro Transit’s on-demand ride service for those with disabilities or health concerns, are operating at 80 percent of their pre-pandemic capacity. Changes in travel patterns continue to affect transit ridership – peak travel times moved from typical commute patterns to 3 p.m., ridership is lower Monday through Friday, and ridership is less predictable.

In 2022, the Greater Minnesota transit ridership began to rebound. An increase in staffing of licensed transit drivers allowed the addition of transit routes and return in transit services cut during the pandemic. There was also an increase in people returning to in-person work and school. Several universities returned to an in-person learning environment, increasing transit ridership, particularly in small urban systems. As the threat of COVID decreased, people were more willing to take transit as an option. Overall, the small urban systems saw the biggest increase in ridership, though ridership increased across all systems.

Future transit services across Minnesota will continue to adapt to ridership needs as providers navigate the post-pandemic landscape.

To learn more, visit [MnDOT’s transit and in Greater Minnesota](#) website and the [Metropolitan Council’s transportation services](#) website.

Other Measures Correlated to Goal 6

In addition to the primary performance measure presented in this section, there is one other measure that correlates to Goal 6. It is listed in Table 24 along with its primary legislative goal and the page number where more information is available.

Table 24. Other measures correlated to Goal 6

Performance Measure	Primary Goal	Report Page Number
Job accessibility by bicycle and transit	3	48

Goal 13

Transit Mode Shift

Goal 13

MnDOT tracks performance measures related to the goal **to increase use of transit as a percentage of all trips statewide by giving highest priority to the transportation modes with the greatest people-moving capacity and lowest long-term economic and environmental cost.**

There are three measures that correlate, which include job accessibility by bicycle and transit, transit on-time performance, and public transit ridership. Job accessibility by bicycle and transit tracks the average annual number of jobs accessible within a 30-minute ride by bicycle or transit. Transit on-time performance is important for measuring the reliability of the transit system. Public transit ridership measures how many Minnesotans are using transit as a mode of transportation.

Other Measures Correlated to Goal 13

Table 25 lists the performance measures, their primary goal, and the pages where they are discussed in detail.

Table 25. Other measures correlated to Goal 13

Performance Measure	Primary Goal	Report Page Number
Job accessibility by bicycle and transit	3	48
Public transit ridership	6	56
Transit on-time performance	6	57
Vehicle miles traveled per capita	15	42



Healthy and Equitable Communities

Healthy equitable communities provide opportunities for everyone to reach their fullest potential. They connect people to employment, education, recreation, goods, services, and more. The places people live, work, and play have considerable impact on health and wellbeing. Investments preserve and promote community identity and should be considered a part of the community. Not all places are the same and there is no one-size-fits all transportation solution. Advancing the health of people and communities means expanding opportunities, access, and mobility choices for people. Transportation can be a barrier, especially for underserved communities. Tailoring solutions to specific places lead to projects that respect and complement people, the environment, and our economy. This also helps ensure that Minnesota is advancing equitable access to opportunities, preserving the natural and cultural heritage for future generations, and maintaining an environmentally and economically viable transportation system for all to use in the future.

Goal 2



One key performance measure in this section helps assess how MnDOT is working to **provide multimodal and intermodal transportation facilities and services to increase access for all persons and businesses and to ensure economic well-being and quality of life without undue burden placed on any community.**

- **Transportation and Housing costs:** The percent of median household income spent on housing and transportation in Minnesota.

Snapshot of Goal 2 Performance Measures

Table 26 lists the performance measure for Goal 2, the current condition, and the performance score.

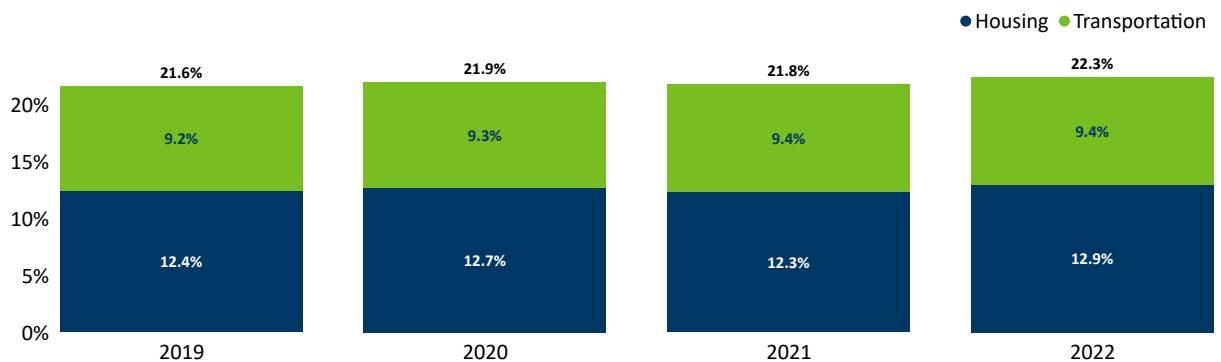
Table 26. Goal 2 performance measure summary

Measure	Role	Statewide Target	Current Condition	Trend Desired	Trend Observed
Transportation and Housing costs	Partner	NA	22.3% (2022)		

Transportation and Housing Costs

- Using Minnesota Department of Employment and Economic Development (DEED) Cost of Living data and American Community Survey (ACS) data on median household income in Minnesota, MnDOT can calculate percentage of median household income necessary to meet basic housing and transportation needs.
- For this measure, a typical family in Minnesota is comprised of 3 people – 2 adults, 1 child, and 1.5 workers. While MnDOT has not yet adopted a target for this measure, its goal is to understand the proportion of a Minnesotan's income that is needed to be spent on the necessities of housing and transportation.
- In 2022, the typical Minnesotan household needed 22.3% of their income for basic transportation and housing needs (Figure 41). This is a slight increase from 2021's numbers and the highest cost as a percentage of income observed between the years 2017 and 2022. The 2023 ACS Five-Year Estimates data will not be available until at least December 2024.
- Additional performance information is available on MnDOT's performance measure website [for Cost of Transportation and Housing](#).

Figure 41. Annual percent of household income for transportation and housing costs, 2019 to 2022



What is MnDOT Doing to Move Towards Goal 2?

Through the proposed [SMTP work plan](#), MnDOT will continue to explore measures related to healthy equitable communities. In 2024, MnDOT added questions to the public opinion Omnibus Survey to better understand transportation insecurity in Minnesota. These questions came from the Transportation Security Index (TSI), a validated tool created by researchers from the University of Michigan's Poverty Solutions initiative. The TSI measures how often people struggle to move from place to place in a safe and timely manner. MnDOT will continue to collect this data every two years through the Omnibus Survey. The data collected in 2024 will serve as a baseline for improvement in the coming years and will help guide interventions to improve transportation security.

Multimodal accessibility is the study of the travel between origins and destinations. MnDOT is currently developing a multimodal accessibility performance measure that will help inform how well the transportation network provides multimodal options. As public engagement on performance measurement continues, multimodal accessibility will be an area of focus to aid in developing the measure.

Other Measures Correlated to Goal 2

In addition to the primary performance measure presented in this section, there are five other measures that correlate to Goal 2. They are listed in Table 27 along with their primary legislative goal and the page number where more information is available.

Table 27. Other measures correlated to Goal 2

Performance Measure	Primary Goal	Report Page Number
ADA compliance	8	30
Highway rail grade fatalities and serious injuries	1	17
Job accessibility by bicycle and transit	3	48
Transit on-time performance	6	57
Vehicle miles traveled per capita	15	42

Goal 10

Environmental and Energy Consistency

Goal 10

MnDOT tracks performance measures and is implementing strategies across several areas related to the goal **to ensure that the planning and implementation of all modes of transportation are consistent with the environmental and energy goals of the state.**

The Climate Action section starting on report page 40 highlights performance measures on electric vehicles, GHG emissions, fuel use, and vehicle miles traveled, and provides details on the planning strategies MnDOT and its partners are using to work towards the state's environmental and energy goals.

Other Measures Correlated to Goal 10

There are also three measures that correlate to goal 10. Table 28 lists the correlated measures, their primary goal, and the pages where they are discussed in detail. Sustainability strategies such as native seedings and plantings help minimize environmental impacts. Snow fences play a key role in winter maintenance productivity by helping to limit blowing snow across Minnesota roads.

Table 28. Other measures correlated to Goal 10

Performance Measure	Primary Goal	Report Page Number
Native seedings and plantings	16	34
Road salt chloride use	16	33
Snow fences	7	18

Goal 14

Bike and Walk Mode Shift

Goal 14



One key performance measure in this section helps describe how MnDOT is working **to promote and increase bicycling and walking as a percentage of all trips as energy-efficient, nonpolluting, and healthy forms of transportation.**

- **Physical Activity:** The percent of Minnesotans who say they bicycle or walk at least weekly.

Snapshot of Goal 2 Performance Measures

Table 29 lists the performance measure for Goal 1, the statewide target, the current condition, and the observed trend.

Table 29. Goal 14 performance measure summary

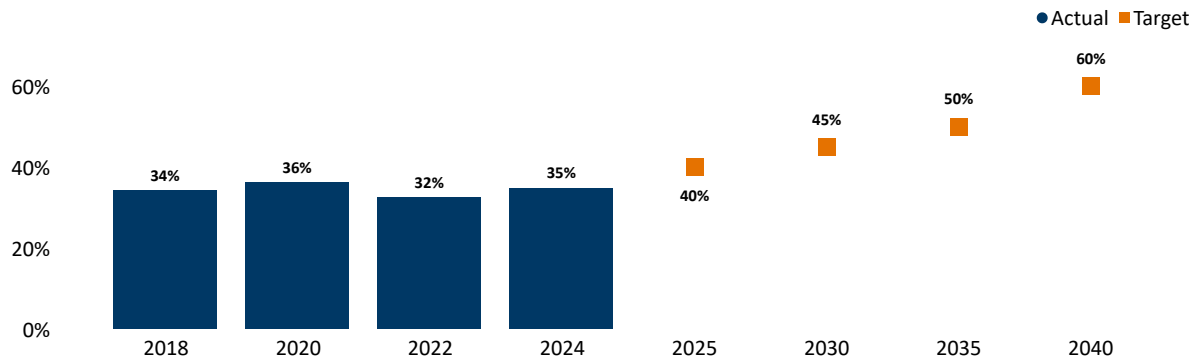
Measure	Role	Statewide Target	Current Condition	Trend Desired	Trend Observed
Physical Activity	Partner	40% by 2025 60% by 2040	34% of Minnesotans bike or walk at least weekly (2024)		

Physical Activity

- MnDOT’s statewide target is to increase the percent of people who say they bike or walk at least weekly to 40% by 2025, and then increase it by 5 percentage points every five years following up to 60% by 2040.
- In 2024, 35% of Minnesotan’s reported that they walked or bicycled at least weekly, which is a slight increase from 2022 (Figure 42).
- The percentage of Minnesotans who reported that they walked or bicycled at least weekly has fluctuated around 34.2% for the past four-year report period.
- MnDOT calculates the measure by using results from the public opinion survey question: “How frequently did you use the following modes of transportation for traveling to and from places (for example, to work, school, the grocery store, other places you travel for errands and entertainment as well as vacation?”
- Additional performance information is available on MnDOT’s performance measure website [for Physical Activity](#).

Goal 14• Bike and Walk Mode Shift

Figure 42. The percent of Minnesotans who say they bicycle and walk at least weekly, 2018 to 2024



What is MnDOT Doing to Move Towards Goal 14?

MnDOT is using the work plan in recently adopted 2022-2041 [SMTP](#), the [Statewide Pedestrian System Plan](#) and the [Statewide Bicycle System Plan](#) to help increase the percent of people walking, bicycling, or both by creating walking and bicycling access and opportunities. The plans represent MnDOT’s vision for pedestrians and guide state investments helping to prioritize and create spaces that are safe and convenient for people to access and move along state highways (the [Centers for Disease Control](#) recommends that adults get 150 minutes of moderate-intensity physical activity weekly). Additionally, MnDOT administers the Active Transportation Program to provide grants to increase the number of people walking and biking to destinations. The [Safe Routes to School Program’s](#) vision is to enable youth to safely, confidently, and conveniently walk, bike, and roll to school and in daily life.

To learn more, visit [MnDOT’s Active Transportation Program](#) website.

Other Measures Correlated to Goal 14

In addition to the primary performance measure presented in this section, there are five other measures that correlate to goal 14. They are listed in Table 30 along with their primary legislative goal and the page number where more information is available.

Table 30. Other measures correlated to Goal 14

Performance Measure	Primary Goal	Report Page Number
Pedestrian fatalities and serious injuries	1	16
Bicycle fatalities and serious injuries	1	16
ADA compliance	8	30
Vehicle miles traveled per capita	15	42
Job accessibility by bicycle and transit	3	48
Perception of safe bicycling and walking	1	17

Next Steps

Priority Areas for Ongoing Performance Management

MnDOT regularly revisits current performance measures, their future targets, and performance management best practices for improvements. Over the next year, the areas where MnDOT sees a need for continued efforts include – building out the MnDOT performance dashboard website by gathering stakeholder feedback on content and the user experience and stakeholder engagement on target setting for transportation asset management. Although these efforts are in different stages of development, MnDOT will continue to make progress in each area.

Updating the MnDOT Performance Dashboard Website

Building on the findings from preliminary stakeholder surveys, performance analysis staff from MnDOT will be revising its communication strategies as well as be planning targeted stakeholder focus groups. MnDOT will identify and recruit people from specific stakeholder groups to participate in focus group conversations on the website content and its usefulness as a publicly available tool. The feedback shared by focus group participants will help MnDOT better understand how to accurately illustrate MnDOT's progress toward achieving the statutory transportation goals and the SMTP objectives.

Asset Management Performance Measures and Targets

During the Transportation Asset Management Plan (TAMP) update process, MnDOT performance analysis staff plan to review and gather public stakeholder feedback on asset targets including ride quality, condition rating, and remaining service life. Based on the feedback, MnDOT will evaluate its asset condition targets and consider revising them.

Appendix A: Planning Overview and Asset Management

Capital Highway Investment Plan

The [10-year Capital Highway Investment Plan](#) (CHIP) details capital highway investments for the next ten years on the state highway network. The CHIP is updated yearly to remove projects that are currently being constructed, adjust timing for planned projects, and add new planned projects. The primary purpose of the document is to communicate programmed and planned capital highway projects over the next 10 years. The document also serves as a check to ensure that MnDOT is meeting the investment levels and performance outcomes identified in MnDOT's [20-year State Highway Investment Plan](#) (MnSHIP) and explains any change in strategy or outcomes from the investment direction.

The first four years of the CHIP represent state highway projects in the State Transportation Improvement Program (STIP), which is MnDOT's committed construction project program. The CHIP also identifies projects in the six years after the current STIP, which are the agency's planned investments. While projects are not commitments until they reach the STIP stage, listing potential projects five to ten years into the future allows for advanced coordination and ultimately better projects for all those served.

To learn more, visit:

- [10-Year Capital Highway Investment Plan 2024 to 2033](#)
- [10-year District Capital Highway Investment Plans](#)

Asset Management at MnDOT

Transportation Asset Management Plan

Minnesota's transportation infrastructure is constantly experiencing physical and chemical processes of deterioration, damaging impacts of floods and other hazards, and wear from normal use. MnDOT and its partners work to offset these effects and keep the state's valuable assets in service for as long as possible at minimum costs. MnDOT's [Transportation Asset Management Plan](#) (TAMP) helps achieve the department's vision for effective asset management by mitigating risks, optimizing return on investment, and using the best available tools and data to minimize the costs of managing assets over their life spans.

MnDOT uses the TAMP to further evaluate risks, develop mitigation strategies, analyze life cycle planning, establish asset condition performance measures and targets, maintain an asset inventory, and develop risk management and investment strategies. The TAMP contains twelve MnDOT-owned asset classes: pavements, bridges, culverts, deep storm water tunnels, overhead sign structures, high-mast light tower structures, noise walls, signals, lighting, pedestrian infrastructure, buildings, and intelligent transportation systems.

To learn more, visit the [Asset Management Project Office](#).

Life Cycle Planning

Life Cycle Planning (LCP), as defined by the Federal Highway Administration, is “a process to estimate the cost of managing an asset class, or asset sub-group, over its whole life with consideration for minimizing cost while preserving or improving the condition.”² As part of the TAMP, LCP is used to compare alternate strategies that fulfill the same performance requirements but differ with respect to construction, maintenance, and operational costs. These can be compared in terms of the total costs over the entire life cycle of the asset.⁵

TAMS

The Transportation Asset Management System (TAMS) is MnDOT’s primary work management system for signals and lighting activities, traffic barriers, signs, drainage infrastructure (e.g., pipes, structures, ponds, tunnels), pavement markings, intelligent transportation assets (e.g., dynamic message signs, traffic monitoring cameras, Road Weather Information Systems), and other assets. By collecting data and better understanding the costs associated with work activities, specifically particularly maintenance and operations, MnDOT can better budget for and plan work. The types of preventative maintenance and operations performance measure TAMS tracks include:

- Pavement: patching and crack filling
- Drainage: repairs and inspections
- Traffic barriers: repairs and defects
- Noise walls: inspections
- Vegetation management: mowing

TAMS also tracks counts for and conditions of ITS assets. The types of ITS asset information available through TAMS data include:

- ITS inventory: counts by ITS sub-asset type
- ITS condition: percent of sub-assets approaching or beyond useful service life
- ITS asset valuation: replacement value by sub-asset type.

⁵ Code of Federal Regulations, Title 23, Chapter 1, subchapter F, part 515.5: <https://www.ecfr.gov/current/title-23/chapter-I/subchapter-F/part-515>.

Appendix B: Minnesota GO Vision

The transportation system is built to move people and goods, ensure a high quality of life for Minnesotans, and support our economy. In 2011, MnDOT created the [50-year Minnesota GO Vision](#). The vision begins with the following statement of desired outcome, “Minnesota’s multimodal transportation system maximizes the health of people, the environment and our economy.” Furthermore, the vision helps answer the question, “What are we trying to achieve with transportation over the next 50 years?”

Based on the Minnesota GO vision and the 16 legislative goals for the transportation, the 20-year Statewide Multimodal Transportation Plan sets the policy direction, priorities, and the framework for MnDOT’s modal and system investment plans (i.e., Family of Plans). The Family of Plans offer mode-specific strategies and guidance and include aviation, bicycle, freight, highway, pedestrian, ports and waterways, rail, and transit. Together, the Family of Plans direct investments, maintenance, operations, modal programs, and services for all types of transportation throughout the state. Other plans such as for safety, accessibility, operations, and technology can also inform strategic decision but are not required to follow the SMTP’s policy direction.

Figure 43. Family of plans hierarchy



The state requires the SMTP to be updated every five years. The SMTP and the other plans in the Family of Plans combine to meet state and federal transportation planning requirements. These plans must support national, state, and local goals. The objectives and their associated strategies for MnDOT and transportation partners support the Minnesota GO Vision and the 16 legislative goals for the transportation.

Public Collaboration

Public outreach is a critical component of planning activities. Federal and state legislation, guidance, and executive orders describe specific public outreach requirements and expectations. A detailed explanation of public engagement and collaboration requirements for all of MnDOT's publicly developed plans is outlined in the [Plan Development Guidance](#). Similarly, MnDOT has specific public engagement expectations. Through the department's [public engagement policy](#), MnDOT has pledged on-going engagement and relationship building with the public to earn trust and mutual understanding.

The Statewide Multimodal Transportation Plan incorporates a series of strategies to improve collaboration including focus groups and a representative public survey of Minnesotans that sought to identify strategic priorities and performance outcomes. MnDOT will incorporate these approaches for future updates of the performance measure report.

Open Decision Making

Accountability, transparency, and communication are essential to open decision making. Transportation decision-makers are stewards of the transportation system and have the responsibility to make informed choices and be open about how and why decisions are made.

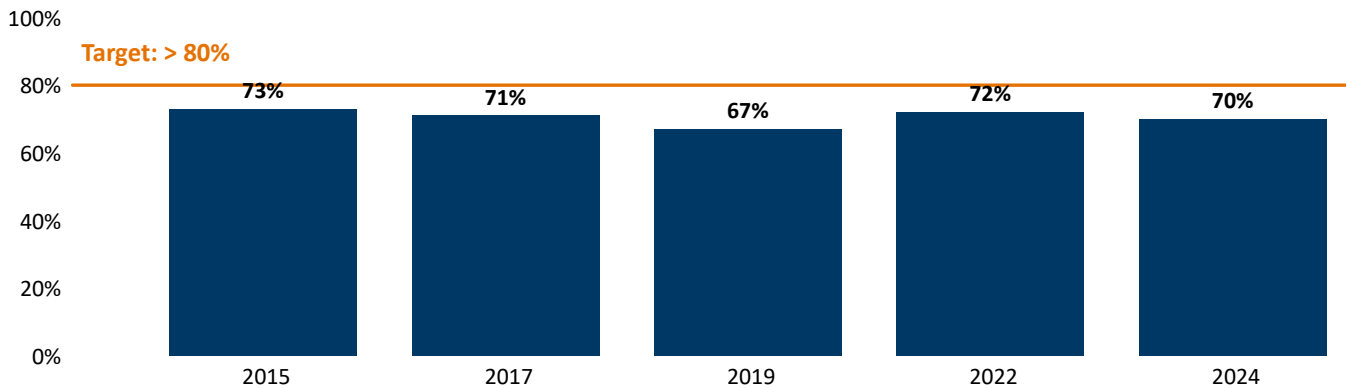
Open decision-making performance measures do not align directly with the state transportation goals. However, the measures provide an important opportunity to understand how the public feels towards MnDOT in two key areas: public trust and public confidence. Public trust and public confidence data come from a public opinion survey of a representative sample of Minnesota's population conducted every two years. MnDOT's performance dashboard website has more detailed public perception information about MnDOT [understanding customer needs](#), [acting in a fiscally responsible manner](#), and [providing accurate communication](#). It is important to note that in 2020 MnDOT completed a survey to assess the effects of the COVID-19 pandemic on transportation in Minnesota. The 2020 survey results are not included in this report, but more information about the 2020 survey results is available on MnDOT's [2020](#) and [2021](#) performance scorecards. Additionally, MnDOT moved collection to even-numbered years in 2022. The trend analysis in the report is based on the ongoing the surveys from 2015, 2016, 2017, 2018, 2019, 2020, 2022, and 2024.

- **Public Trust:** The percentage of survey respondents who agree with the following statement – MnDOT understands my needs (and the needs of others like me) and has developed a transportation system that works well for me. o MnDOT acts in a fiscally responsible manner.
- **Public Confidence:** The percentage of survey respondents indicating they are confident in MnDOT – Communicating accurate information to Minnesota residents about their transportation plans and projects.

Public Trust

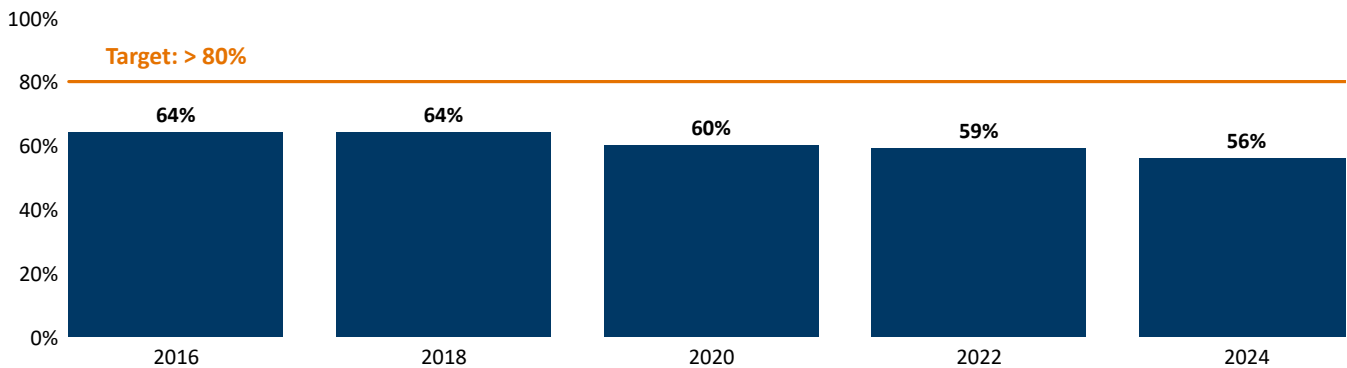
The public trust performance target is greater than or equal to 80% overall. In 2024, 70 percent of respondents agreed that MnDOT understands their needs, which is in line with the trend through the previous survey years (Figure 44). The survey changed the wording of this question in 2022.

Figure 44. Public trust – Percent of Minnesotans who agree that MnDOT understands their needs, 2015 to 2024



The percent of respondents who agreed MnDOT acts in fiscally responsible manner was 56% in 2024 (Figure 45). The result is the lowest point among the most recent survey years.

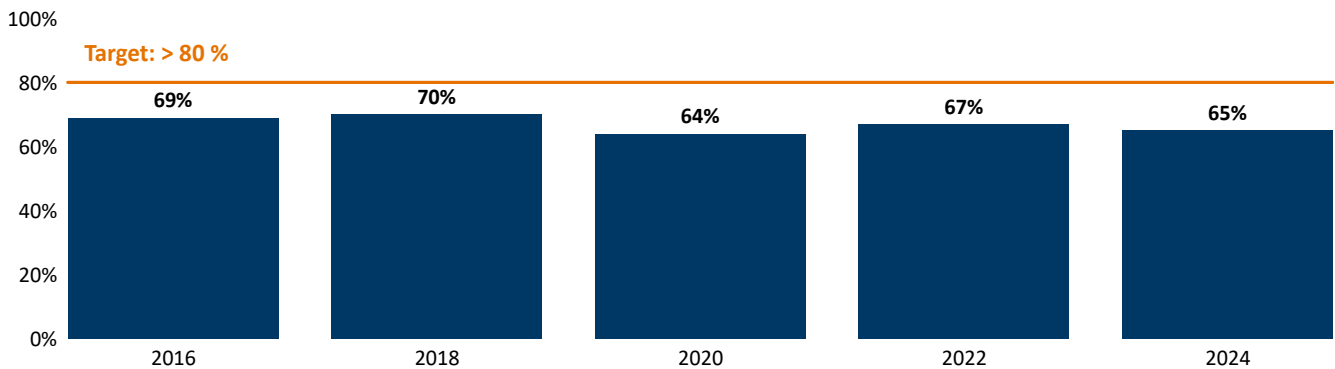
Figure 45. Figure 45. Public trust – Percent of Minnesotans who agree that MnDOT acts in a financially responsible manner, 2016 to 2024



Public Confidence

The public confidence performance target is greater than or equal to 80% overall. In 2024, 65% of respondents agreed they have confidence in MnDOT’s ability to communicate accurate information about transportation plans and projects (Figure 46).

Figure 46. Public Confidence– Communicating accurate information about MnDOT transportation plans and projects, 2016 to 2024



Appendix C: Full Performance Measure List

The table lists all the performance measures analyzed for the report, their definition, the related legislative goal, and the associated SMTP objective.

Table 31. Full performance measure list

Name	Definition	Leg. Goal	SMTP Objective	MnDOT Role
Roadway fatalities	The number of people killed in crashes involving motor vehicles on Minnesota roadways in a 12-month period.	1	Transportation safety	Partner
Roadway serious injuries	The number of people who were seriously injured resulting from crashes involving a motor vehicle in a 12-month period. The number of serious injuries is classified by first responders at the scene of the accident.	1	Transportation Safety	Partner
Pedestrian fatalities and serious injuries	The number of people walking along Minnesota roadways who were killed or seriously injured resulting from crashes involving a motor vehicle in a 12-month period.	1	Transportation Safety	Partner
Bicyclist fatalities and serious injuries	The number of people bicycling on Minnesota roadways who were killed or seriously injured resulting from crashes involving a motor vehicle in a 12-month period.	1	Transportation Safety	Partner
Highway-rail grade fatalities and serious injuries	The number of people who were killed or seriously injured resulting from crashes at highway-rail grade crossings involving a motor vehicle in a 12-month period.	1	Transportation Safety	Partner
Bicycling and pedestrian perception of safety	MnDOT public opinion survey respondents' perceptions of safety for bicycling and walking.	1	Transportation Safety	Partner
Snow fences	The total number of miles of snow fences comprised of structural (e.g., composite rails snow fences), living (e.g., trees and shrubs), or vegetative (e.g., corn rows or hale bales) fences on Minnesota roadways.	1	Transportation Safety	Lead
Bridge inspection	The percent of routine bridge inspections completed within 30 days of the calendar due date in a 12-month period.	8	System Stewardship	Lead

Name	Definition	Leg. Goal	SMTP Objective	MnDOT Role
Bridge condition	The annual percentage of state bridges in good and poor condition as a percent of total bridge deck area.	9	System Stewardship	Lead
Culvert condition	The annual percentage of total culverts under state highway lanes rated as being in poor or severe condition.	9	System Stewardship	Lead
Pavement condition	The annual percentage of state highways with good and poor ride quality	9	System Stewardship	Lead
ADA compliance	Total percentage of state-owned sidewalks, signals, curbs, and driveways substantially compliant with ADA standards compliance.	9	System Stewardship	Lead
Road salt chloride use	Rate of liquid to solid de-icing chemicals applied to reduce overall chlorides used on the roadway for snow and ice control.	16	System Stewardship	Lead
Native seedings and plantings	The percent of acres planted with native seeds and native plants as part of large projects in a 12-month period.	16	System Stewardship	Lead
Electric vehicles registered in Minnesota	Total percentage of light duty electric vehicles (including plug-in hybrid and battery electric vehicles) registered in Minnesota.	11	Climate Action	Partner
Electric vehicles sold in Minnesota	Total percentage of original most recent year light duty models electric vehicles (including plug in hybrid and battery electric vehicles) registered in Minnesota. MnDOT uses original registrations as an estimate for the annual light duty EV sales as a share of overall vehicle sales.	11	Climate Action	Partner
Tailpipe greenhouse gas emissions	Amount of greenhouse gas (GHG) emissions, measured in metric tons of carbon dioxide equivalent (CO ₂ e), from tailpipe emissions in a 12-month period. Tail pipe emissions include motor vehicles (cars and trucks) on the road.	15	Climate Action	Partner
Fuel use	Total gallons of fuel sold for transportation purposes, including gasoline and special fuel sold for both highway and aviation. It is reported by the Minnesota Department of Revenue monthly and listed in their Petroleum Tax Report.	15	Climate Action	Partner
Vehicle miles traveled (VMT) per capita	Total number of vehicle miles that the average person in Minnesota travels per year.	15	Climate Action	Partner

Name	Definition	Leg. Goal	SMTP Objective	MnDOT Role
NHS travel time reliability	The percent of NHS (combining NHS Interstate and NHS Non-Interstate) person-miles traveled that are considered reliable in travel times, as measured from day-to-day or across different times of the day.	3	Critical Connections	Lead
Job accessibility by car	The average number of jobs accessible within a 30-minute drive by personal motor vehicle.	3	Critical Connections	Partner
Job accessibility by bicycle and transit	The average number of jobs accessible within a 30-minute ride by bicycle or transit.	3	Critical Connections	Partner
Twin Cities freeway congestion	The percent of Twin Cities metropolitan-area freeway miles with an average traffic speed less than 45 miles per hour during morning and afternoon peak times.	3	Critical Connections	Lead
Twin Cities traveler delay	The average delay in minutes per weekday per person in the Twin Cities metropolitan area.	3	Critical Connections	Lead
Truck Travel Time Reliability (TTTR) Index	An index measuring the consistency of commercial truck travel times on the Interstate system in a 12-month period. An index value of 1.0 is the lowest possible score and means truck travel speeds are perfectly uniform.	4	Critical Connections	Lead
Rest area buildings condition	The percent of MnDOT-owned rest area buildings that were rated as being in poor condition based on an assessment of the infrastructure.	5	Critical Connections	Lead
Public transit ridership	The total number of boardings in a 12-month period recorded by Metro Transit and transit providers in Greater Minnesota.	6	Critical Connections	Partner
Transit on-time performance	The total number of boardings in a 12-month period recorded by Metro Transit and transit providers in Greater Minnesota.	6	Critical Connections	Partner
Rural transit vehicle condition	Percent of annual public transit trips with Metro Transit and the Greater Minnesota transit system considered on-time annually.	6	Critical Connections	Partner
Rural transit vehicle condition	Percent of rural transit vehicle fleet exceeding useful life benchmark	6	Critical Connections	Partner
Transportation and Housing costs	The percent of median household income spent on housing and transportation in Minnesota.	2	Healthy and Equitable Communities	Partner
Physical Activity	The percent of Minnesotans who say they bicycle or walk at least weekly.	2	Healthy and Equitable Communities	Partner