
APPENDIX B: FREIGHT PERFORMANCE MEASURES

Minnesota State Freight Plan

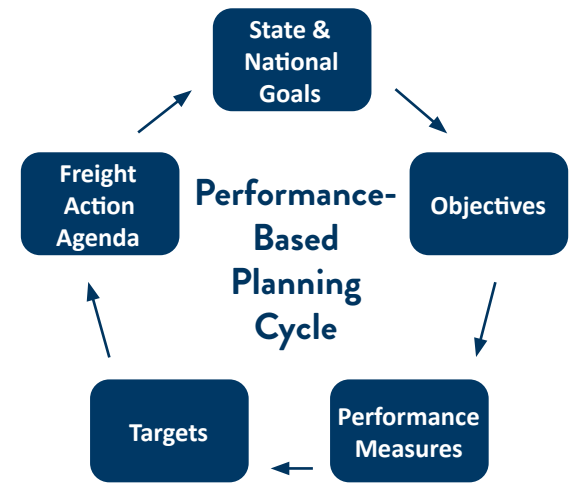
FREIGHT PERFORMANCE MEASURES SUMMARY



The Minnesota State Freight Plan uses a performance-based planning approach. It includes a review of national freight plan guidance, national freight plan goals, and a review of peer state efforts at developing goals and performance measures.

Components of Performance-Based Planning

- **GOALS:** A goal is a broad statement that describes a desired result or end state. Goals are typically supported by specific objectives.
- **OBJECTIVES:** The result to be achieved. Objectives are more specific than goals and there are often multiple objectives for each goal.
- **PERFORMANCE MEASURES:** A way to quantify progress towards goals.



Multimodal Transportation Goals and Objectives

The State Freight Plan supports the goals identified in the Minnesota Statewide Multimodal Transportation Plan (SMTP). The SMTP is Minnesota's highest level policy plan for transportation. It is a 20-year plan based on the [Minnesota GO Vision](#) for a transportation system that maximizes the health of people, the environment, and economy.

State Freight Plan Objectives

Improve Freight System Safety	Reduce Freight's Impact on the Environment	Minimize Disparate Freight Impacts to Underserved or Overburdened Communities
Preserve and Improve Minnesota's Freight Infrastructure	Improve Freight Mobility, Velocity, and Reliability	Consideration of All Freight Modes in Planning and Design
Increase Freight System Resiliency	Strategically Invest in New Freight Infrastructure	Support and Grow Minnesota's Freight Industries

Freight Performance Measurement








The practice of consistently evaluating performance is vital to achieving Minnesota's identified goals. MnDOT staff regularly measure outcomes and results, which generates reliable data on the effectiveness and efficiency of investments, policies, and programs. By doing this, MnDOT staff maintain an effective methodology for quantifying goals and objectives and communicating progress toward their attainment.



How are Freight Performance Measures Used?

- **Description.** Describe the effect of an investment, program, or policy.
- **Evaluation.** Assess progress and determine problems or barriers.
- **Accountability.** Set targets for specific staff or programs and measure performance.
- **Decision-support.** Support the most sustainable outcomes.
- **Communication.** Explain to partners what was achieved.

State Freight Plan Performance Measures

SMTP Objectives/ Focus Areas	State Freight Plan Objectives	Performance Measures	Actors
Safety / Transportation Safety 	Improve Freight System Safety	Combined Freight-Involved Fatalities	MnDOT / NTSB
		Fatal Truck Crashes	MnDOT / NTSB
		Fatal Truck Crash Rate	MnDOT / NTSB
		Serious Truck Injury Crashes	MnDOT / NTSB
		Serious Injury Truck Crash Rate	MnDOT / NTSB
		Severe Crashes Involving Trucks	MnDOT / NTSB
		RR Crossing Fatalities	MnDOT / NTSB / FRA
		RR Crossing Serious Injuries	MnDOT / NTSB / FRA
		Annual Rail Derailments	MnDOT / NTSB / FRA
		RR Trespassing Incidents	MnDOT / Private Sector / FRA / RR's
		Rail Grade Crossing Risk	MnDOT / Private Sector / FRA
Aging Infrastructure / System Stewardship 	Preserve and Improve Minnesota's Freight Infrastructure	NHS Pavement in Good Condition	MnDOT
		Trunk Highway in Good Condition	MnDOT
		NHS Bridge Condition	MnDOT
		Trunk Highway Bridge Condition	MnDOT
		NHS Culvert Condition	MnDOT
		Airport Pavement Condition	MnDOT / Private Sector
		Ports, Locks, Dams Service Life	MnDOT / USACE
	Strategically Invest in New Freight Infrastructure	Funding Allocated to New or Expanded Freight Infrastructure	MnDOT
Climate / Climate Action 	Reduce Freight's Impact on the Environment	Age of Registered MN Trucks	MnDOT/ Private Sector / MN DPS
		Age of MN Truck Fleet	MnDOT/ Private Sector
		Zero Emission Medium/Heavy Duty Vehicles	MnDOT / Private Sector
		HCAADT Vehicle-Mile Proximity to Alternative Fuel Stations	MnDOT
		Wildlife Habitat Loss	MnDOT / Local Municipalities
		Mode Shift	TBD
		Dwell Time	TBD
	Increase Freight System Resiliency	Freight Resiliency to Severe Weather Events	MnDOT
Economy and Employment 	Support and Grow Minnesota's Freight Industries	Freight Employment by Industry	MnDOT / MnDEED / Private Sector
		Freight Tonnage by Mode	MnDOT / FHWA
		Freight Value by Mode	MnDOT / FHWA
		Proximity to Freight Facilities	MnDOT
		Intermodal Container Lifts	MnDOT
		Cost of Transportation	TBD / Private Sector
		Empty/Deadhead Truck Miles	TBD
Critical Connections 	Improve Freight Mobility, Velocity, and Reliability	Truck Travel Time Reliability	MnDOT
		Roadway Truck Bottlenecks	MnDOT
		Hours of Delay	MnDOT
		Truck Speed	MnDOT
		OSOW Barriers Removed	MnDOT
		Truck Ton Miles	MnDOT
Equity / Healthy Equitable Communities 	Minimize Disparate Freight Impacts to Underserved or Overburdened Communities	Population in Designated Food Deserts	MnDOT / State Demographer / MN Federal Reserve
		Workforce Participation Rate	MnDOT / MnDEED
		Freight Investment in Justice40 Areas	MnDOT
		Freight GHG Emissions Impacts	MnDOT / MN GHG Emissions Impact Mitigation Working Group
		Freight Workforce Demographics	MnDOT / MnDEED
Transportation Options 	Consideration of All Freight Modes in Planning and Design	TBD	MnDOT / Local Municipalities