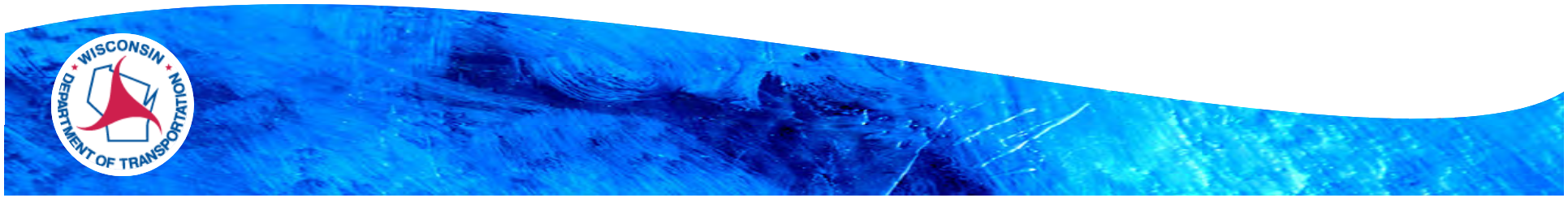
Wisconsin State Freight Plan

BPED Director Donna Brown-Martin



Overview of Today's Presentation

- Why the State Freight Plan is Important to You
- Vision, Goals, Purpose
- State Freight Plan Strategy
- Importance of Input
- Freight Modes
- Multimodal Freight Factor Scoring Overview and Map
- Plan Overview
- Overview Selected State Freight Plan Policies
- Questions and Comments

State Freight Plan

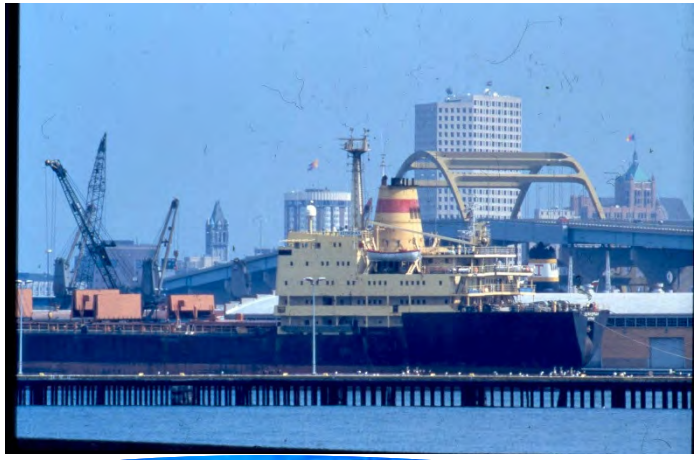
- Why is this Important to You?
  - Freight Transportation Assets are an Important Economic Driver
  - Freight Movement is Forecasted to Increase by 2040
  - Public Involvement Helps Shape the State Freight Plan
  - WisDOT Strives to be Good Stewards of the State Transportation System
  - Trends
  - Multimodal

State Freight Plan Vision

- WisDOT Envisions a Multimodal Freight Transportation System That Enhances the State's Economic Productivity, Competitiveness, and Quality of Life Through the Movement of Goods Safely, Reliably, and Efficiently, While Minimizing Impacts to the Natural Environment

State Freight Plan Goals

- Enhance Safety, Security, and Resiliency
- Ensure System Preservation and Enhancement
- Enhance System Mobility, Operations, Reliability, Efficiency, and Connectivity



Purpose

- The State Freight Plan Links Freight-Specific Transportation Policy to Planning and Investment Decisions
- The Plan Also Provides a Framework to Guide Freight-Focused Improvements Aimed at Supporting the Condition and Performance of the State's Multimodal Transportation System

State Freight Plan Strategy

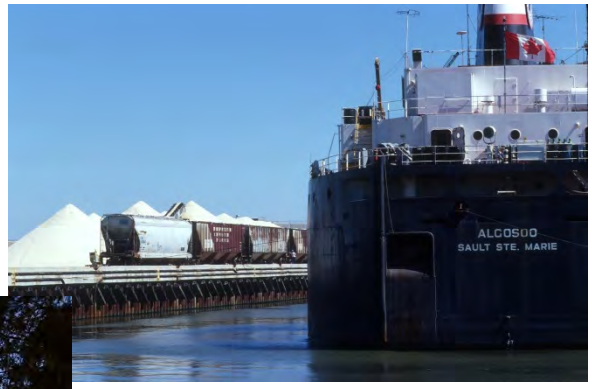
- In Support of the Goals, WisDOT Developed the Following Strategic Approaches to Guide Policy Development:
  - Position WisDOT to Facilitate the Safe and Efficient Movement of Freight
  - Integrate Freight Data and Information Into WisDOT Investment Decisions
  - Integrate Freight Data and Stakeholder Input Into WisDOT's Planning, Policies, Programming, and Operational Decisions

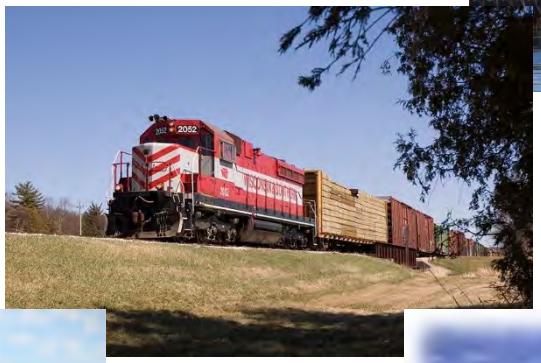
Importance of Input

- Establishing Policies That Advance Statewide Direction and Meet WisDOT's Mission
- Fully Understand the Challenges Faced Throughout the State
- Make Recommendations Resulting in Positive Benefits and Alignment With WisDOT Priorities

Freight Modes

- Road
- Rail
- Airport
- Water
- Pipeline





Multimodal Freight Factor Scoring Overview

- The Multimodal Freight Factors Were Developed to Prioritize Freight Assets

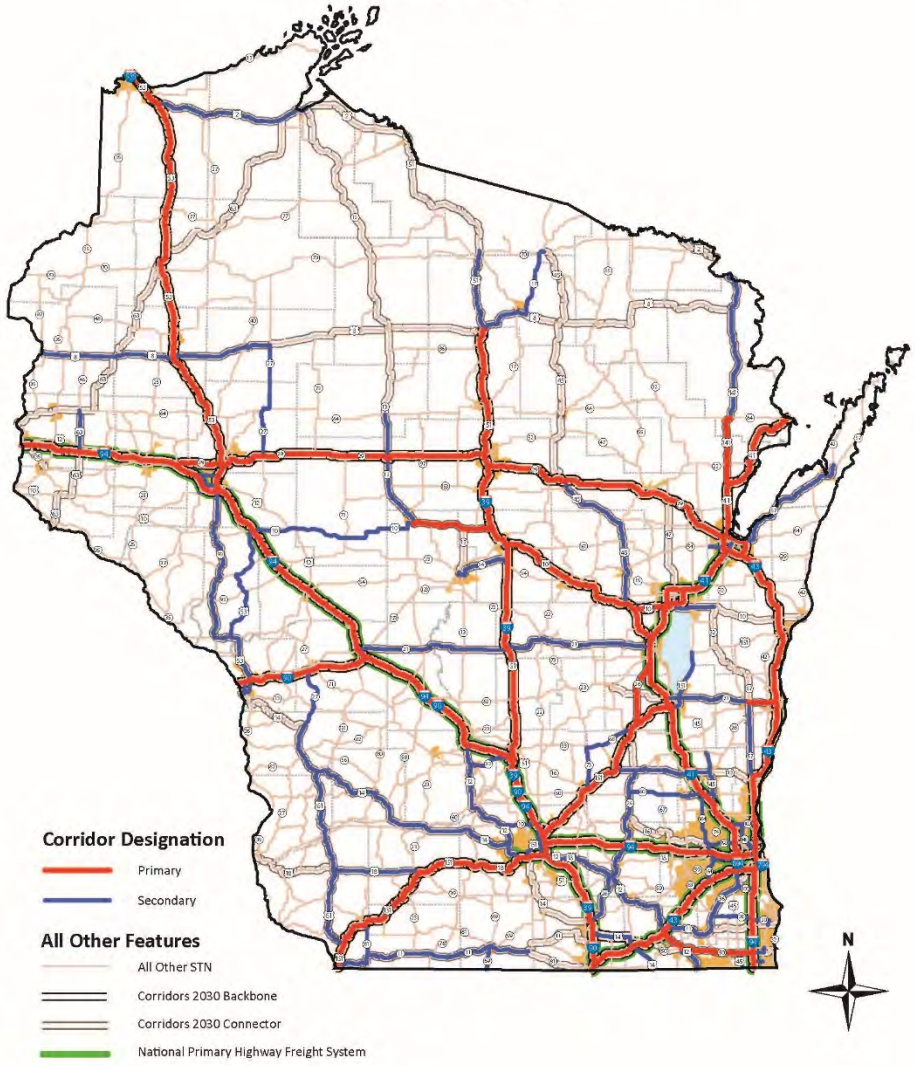
- Considered Value, Tonnage, and Connection Between Modes for Local Roads, State Highway, Railroads, Ports, and Airports

Highway Scoring Methodology

Criteria	Source	Weighting
Truck ADT per Lane (HPMS)	WisDOT HPMS Submission – 2015	35%
Truck Percentage	WisDOT HPMS Submission - 2015	25%
Truck Commodity Tons	WisDOT Statewide Freight Model - 2016	10%
Truck Commodity Value	WisDOT Statewide Freight Model - 2016	10%
OSOW Permits	WisDOT Motor Carrier Data- (2011-2015 Single Use)	10%
OSOW Route	WisDOT Motor Carrier Data	5%
NHS Intermodal Connectors (Freight Airports and Ports)	FHWA	5%

STN Primary/Secondary Freight Corridors

Draft September 2016



WISCONSIN DEPARTMENT OF TRANSPORTATION

Local Roads Weighting Methodology

Criteria	Source	Weighting
Daily Trucks	WisDOT Statewide Freight Model - 2016	30%
Truck Percentage	WisDOT Statewide Freight Model - 2016	20%
Truck Commodity Tons	WisDOT Statewide Freight Model - 2016	10%
Truck Commodity Value	WisDOT Statewide Freight Model - 2016	10%
Connection to a Major Freight Generator	WisDOT analysis of 2015 IHS Freight Finder data and WisDOT business inventories	15%
Connection to an intermodal or transload facility	WisDOT GIS data	5%
Connection to Port	WisDOT GIS data	5%
Connection to Airport	WisDOT GIS data	5%

Local Area Freight Factor Map

Local Road Connectors

- Many Businesses Have Freight Access and are Located on Roads With No Freight Model Data
- Tier 1 Connectors
  - Any Road That Connects a Port, Airport, Intermodal Facility, Warehouse, or Major Freight Generator to a Freight Model Road
  - Any Road That Connects 5 or More Businesses to a Freight Model Road, per Network Analyst
- Tier 2 Connectors
  - Any Road That Connects 3 or More Businesses to a Freight Model Road, per Network Analyst

Railroad Scoring Methodology

Criteria	Source	Weighting
Outbound Commodity Tons	2014 STB Waybill Sample	10%
Outbound Commodity Value	2014 STB Waybill Sample	10%
Inbound Commodity Tons	2014 STB Waybill Sample	10%
Inbound Commodity Value	2014 STB Waybill Sample	10%
Internal Commodity Tons	2014 STB Waybill Sample	10%
Internal Commodity Value	2014 STB Waybill Sample	10%
Total Commodity Tons	2014 STB Waybill Sample	10%
Total Commodity Value	2014 STB Waybill Sample	10%
Connection to a port or intermodal container facility	WisDOT GIS data	10%
Connection or proximity to a rail yard	WisDOT GIS data	7%
Connection or proximity to a transload facility	WisDOT GIS data	3%

Wisconsin In Service State-owned Rail Lines

Primary Freight Corridor
Secondary Freight Corridor
Other State-owned lines
Private Rail Lines

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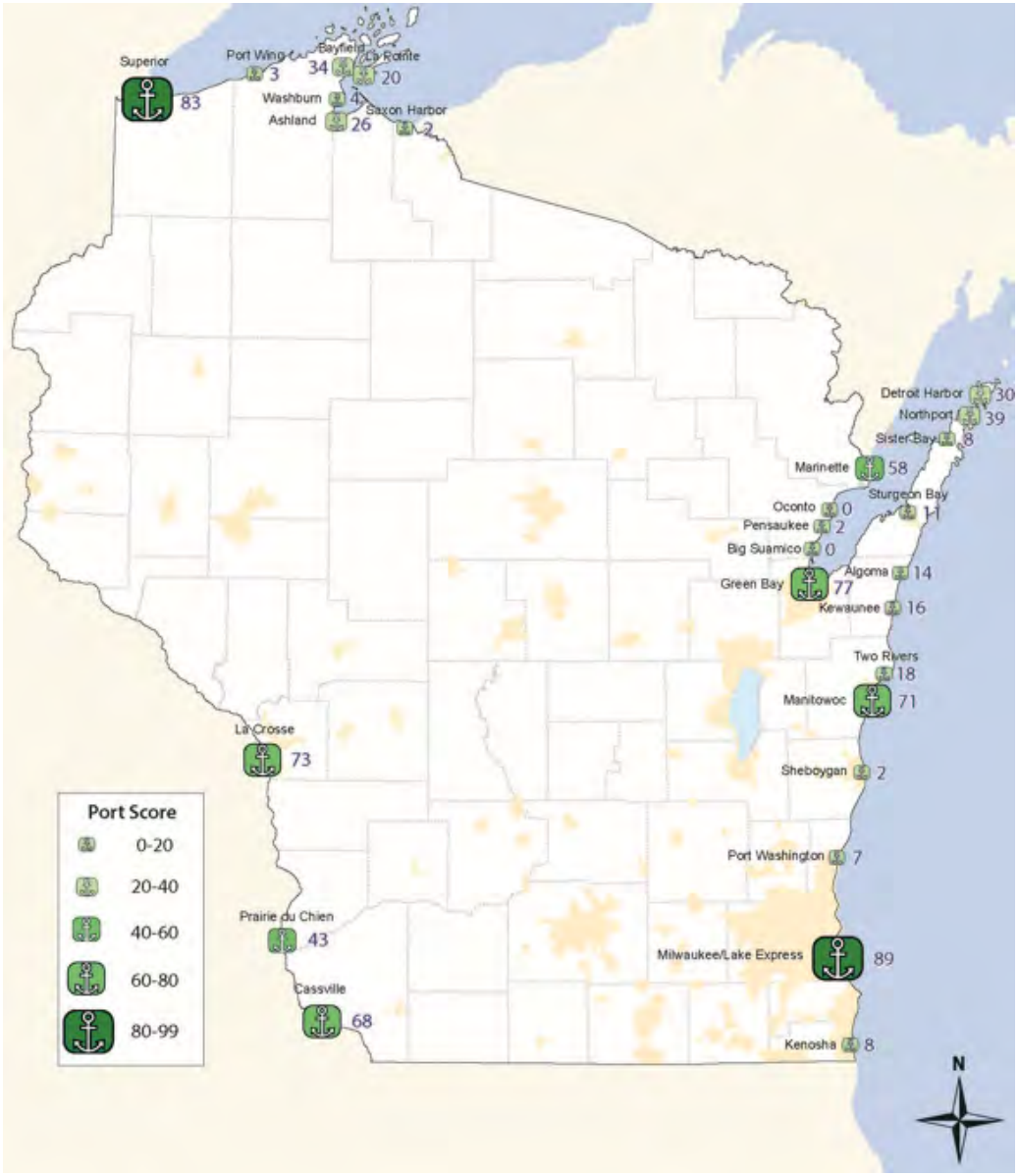
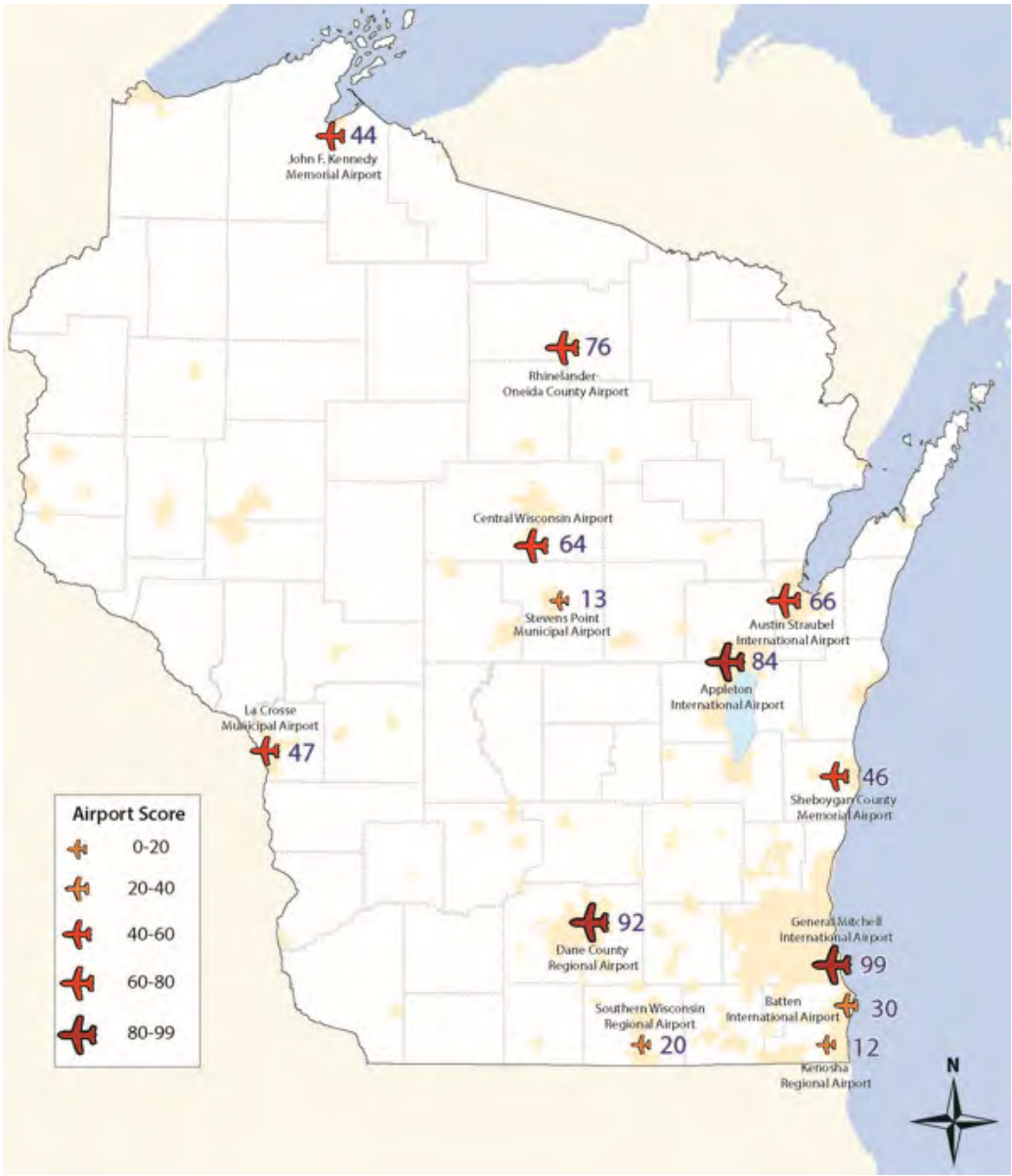
Port Scoring Methodology

Criteria	Source	Weighting
Total Commodity Tons	2014 Transearch	30%
Total Commodity Value	2014 Transearch	30%
Connection to a railroad, or potential connection to rail	WisDOT GIS data	20%
Ferry Service	WisDOT GIS data	10%
Distance to/from STN	WisDOT GIS data	10%


Superior
83
Port Wing
3
Bayfield
34
Ch. Rapids
20
Washburn
4
Ashland
26
Saxon Harbor
2
Detroit Harbor
30
Northport
39
Sister Bay
8
Marinette
58
Sturgeon Bay
11
Oconto
0
Pensaukee
2
Big Suamico
0
Algoma
14
Green Bay
77
Kewaunee
16
Two Rivers
18
Manitowoc
71
La Crosse
73
Sheboygan
2
Port Washington
7
Prairie du Chien
43
Milwaukee/Lake Express
89
Cassville
68
Kenosha
8
Port Score
0-20
20-40
40-60
60-80
80-99
N

Airport Scoring Methodology

Criteria	Source	Weighting
Total Commodity Value	2014 Transearch	60%
Total Commodity Tons	2014 Transearch	40%


44
John F. Kennedy Memorial Airport
76
Rhinelander-Oneida County Airport
Central Wisconsin Airport
64
13
Stevens Point Municipal Airport
66
Austin Straubel International Airport
84
Appleton International Airport
La Crosse Municipal Airport
47
46
Sheboygan County Memorial Airport
92
Dane County Regional Airport
General Mitchell International Airport
99
Batten International Airport
30
Southern Wisconsin Regional Airport
20
12
Kenosha Regional Airport
Airport Score
0-20
20-40
40-60
60-80
80-99
N

Performance Measurement

Freight related metrics already measured by WisDOT

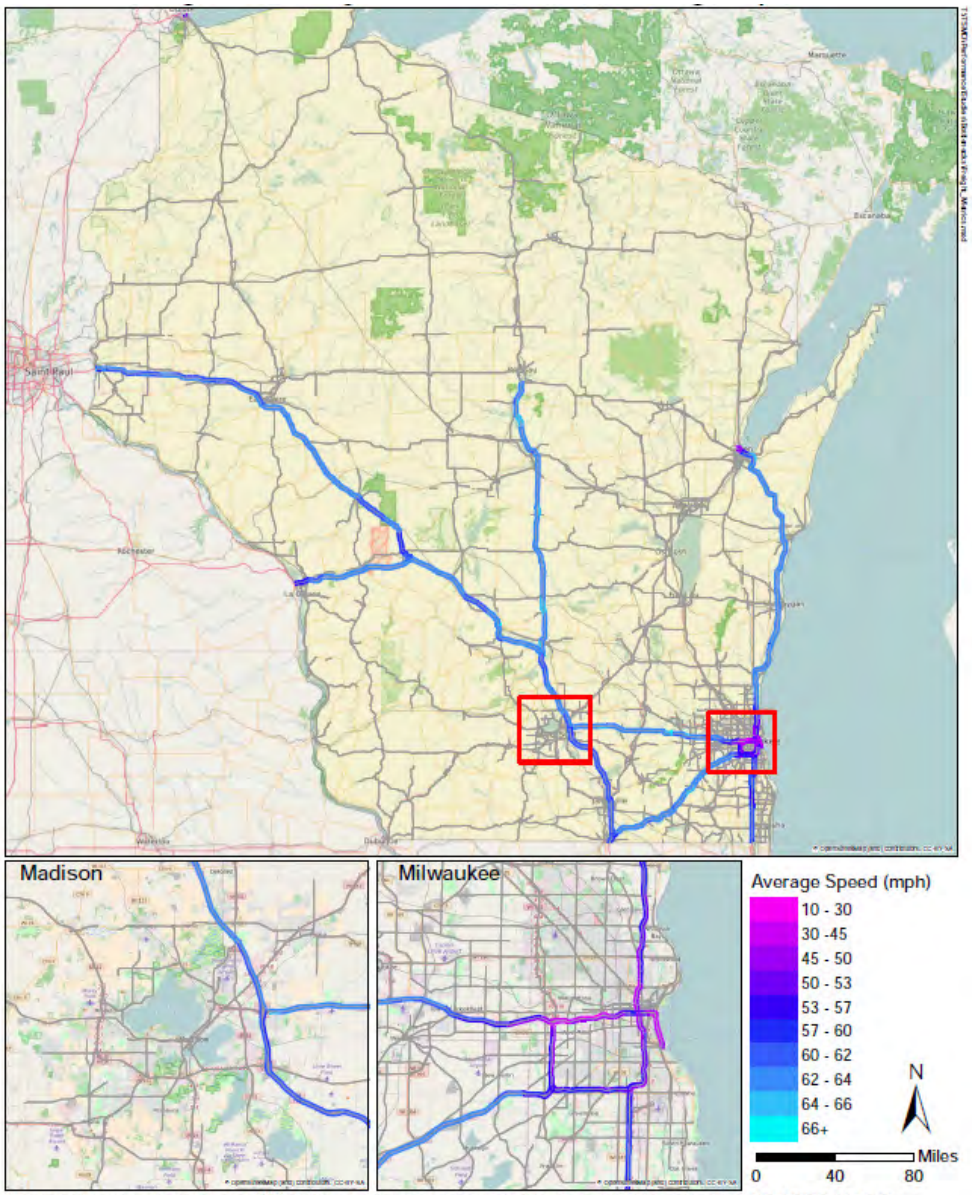
Mobility	Accountability	Preservation	Safety
• **Delay** • **Incident response** • **Winter response**	• TEA Grants • On-time Performance	• State highway pavement condition (backbone and non-backbone) • State bridge condition • State-owned rail line condition • Airport pavement condition • State highway maintenance	• Fatalities • Injuries • Crashes • Safety belt use

Federal Performance Measures

- "Freight Movement on the Interstate System"
  - MAP-21 Required FHWA to Propose 2 Specific Performance Measures:
    - Percent of the Interstate System Mileage Providing for Reliable Truck Travel Time
    - Percent of the Interstate System Mileage Uncongested

Average Truck Speed:

- Average Speed Observed Over the Entire Year

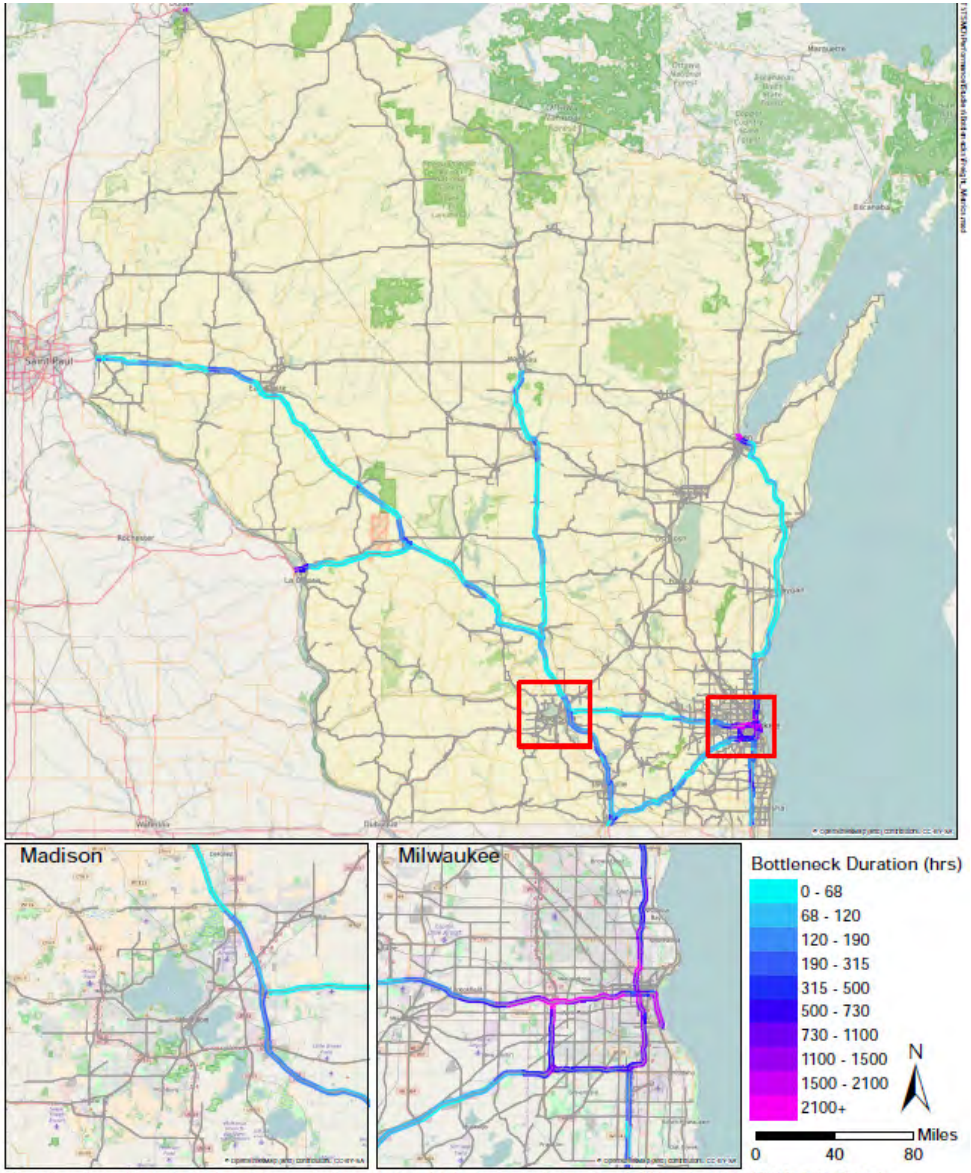


Average truck speed is calculated per the MAP-21 System performance proposed rule. This applies only to Interstates and is the average speed observed over the entire year. The proposed rule uses 50 mph as the threshold for reporting mileage as congested or not.

NPMRDS 2015 Data

Bottleneck Duration:

- Total Number of Hours (Annually) That Truck Speed is Below 50 mph

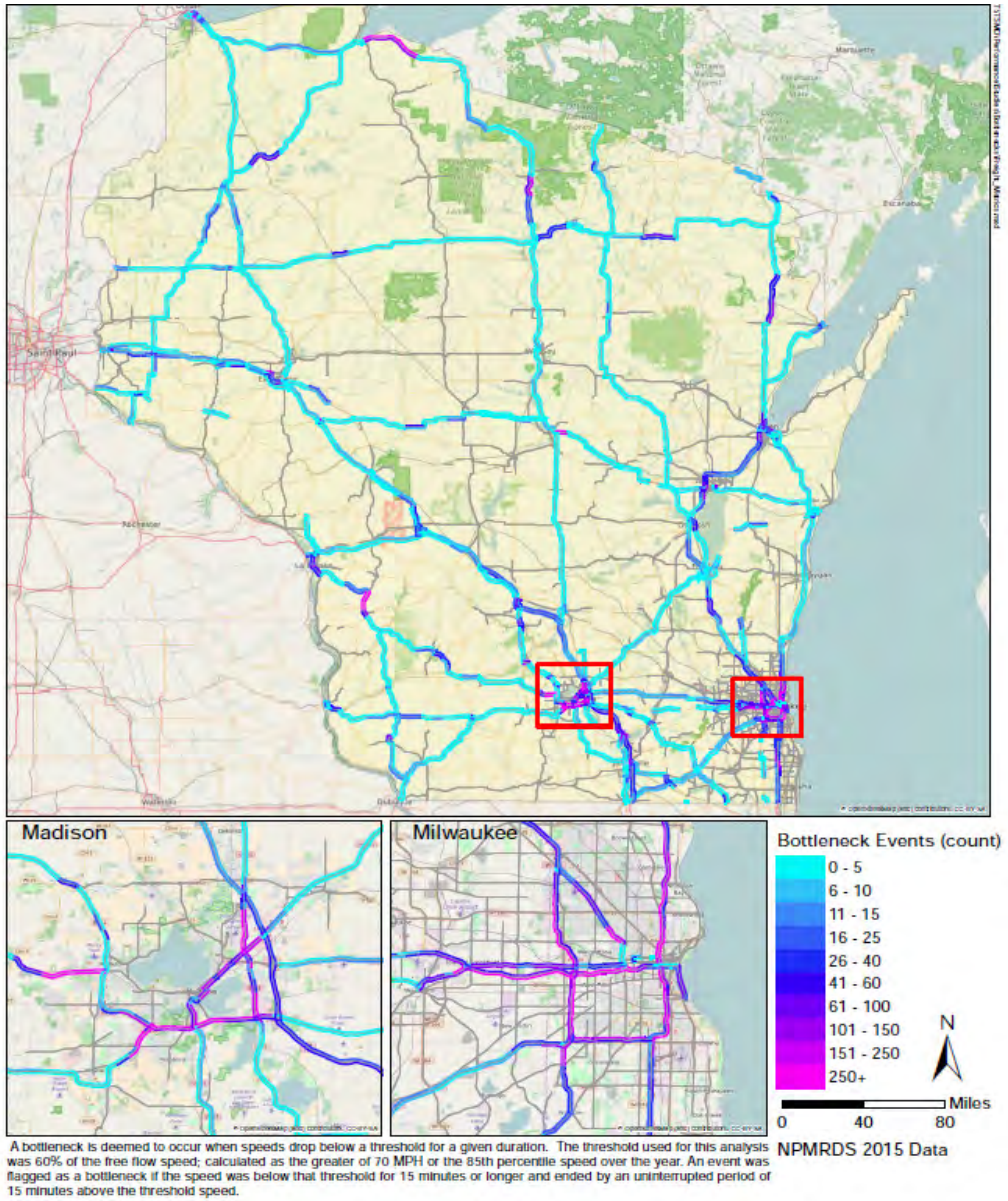


The bottleneck duration is the total of all hours over the year where the truck speed is below 50 mph. This is limited to interstates and is related to the MAP-21 proposed rule for reporting average truck speed.

NPMRDS 2015 Data

Bottleneck Counts:

- Anytime Speeds Drop Below 60% of Free Flow Traffic
- Counted if Speeds Remain Below Threshold for >15 minutes
- Ends When Speeds Remain Above Threshold for >15 Minutes

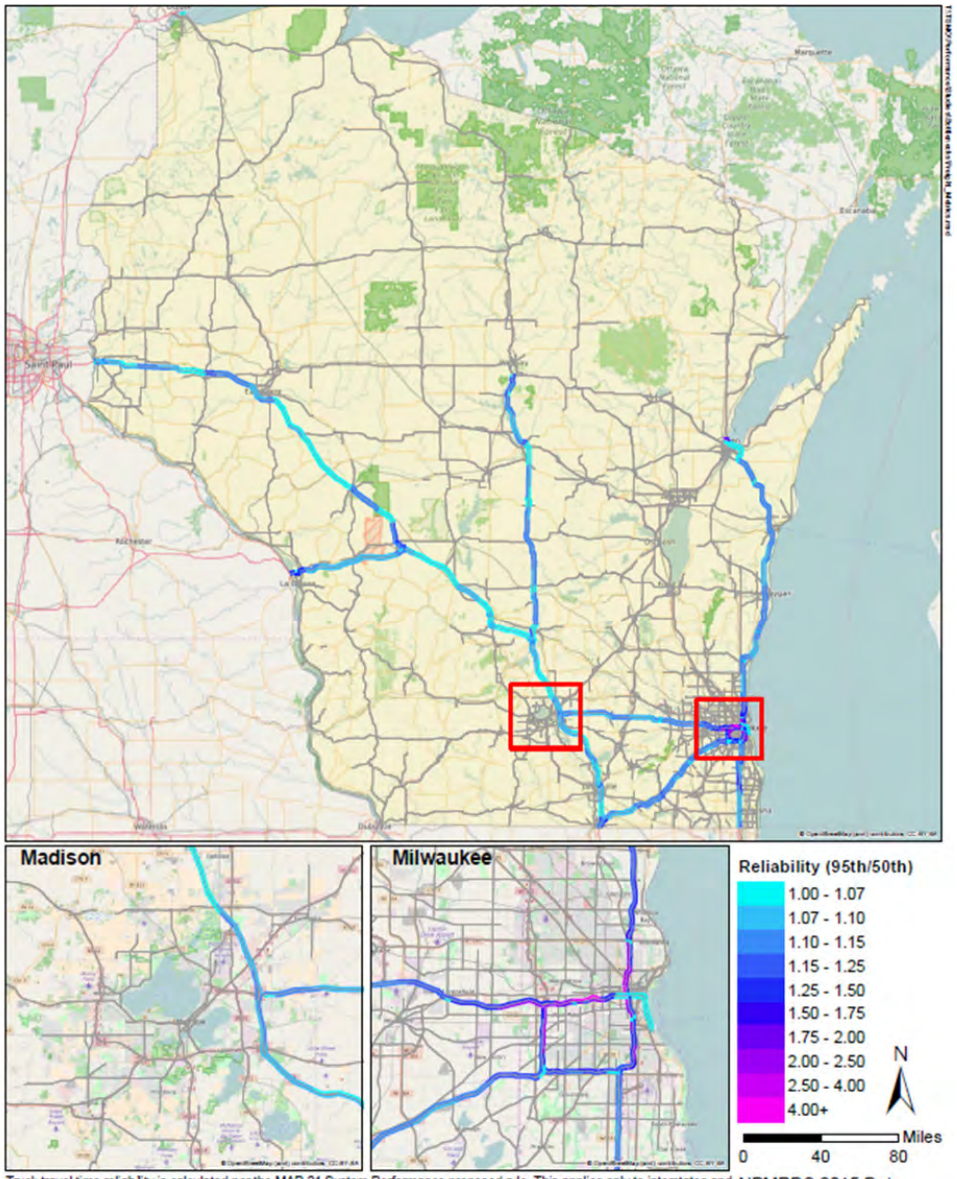


A bottleneck is deemed to occur when speeds drop below a threshold for a given duration. The threshold used for this analysis was 60% of the free flow speed; calculated as the greater of 70 MPH or the 85th percentile speed over the year. An event was flagged as a bottleneck if the speed was below that threshold for 15 minutes or longer and ended by an uninterrupted period of 15 minutes above the threshold speed.

NPMRDS 2015 Data

Interstate Reliability:

- 95th Percentile / 50th Percentile – Travel Time Over the Entire Year
- Calculated (Z-score) From:
  - Average Speed (mph)
  - Bottleneck Duration (Hours)
  - Bottleneck Frequency (Count)



Truck travel time reliability is calculated per the MAP-21 System Performance proposed rule. This applies only to interstates and is the ratio of the 95th percentile over the 50th percentile (median) travel time over the entire year. The minimum value is 1. If no value is provided it was not calculated for that segment. The proposed rule uses 1.5 as the threshold for reporting mileage as reliable or not.

NPMRDS 2015 Data

Plan Overview

- Chapter 1: Introduction
  - Describes the Vision, Goals, and Strategies for the Wisconsin State Freight Plan
  - Articulates the Links to the National Freight Strategic Goals Identified in Federal Legislation
- Chapter 2: Transportation Stakeholders and Institutions
  - Overview of the Roles and Responsibilities for Government and Private Sectors in the Management and Operation of the State's Freight Transportation System

Plan Overview

- Chapter 3: Public Involvement
  - Summarizes the Stakeholder and Public Outreach Efforts Conducted in Support of the Wisconsin State Freight Plan
  - Also Describes Several Key Inputs Into the State's Decision-Making Process for Making Freight Investments
- Chapter 4: Economic Context of Freight on Wisconsin's Transportation System
  - Explores how Freight Movement in Wisconsin Creates Jobs and Supports Economic Development
  - Identifies Wisconsin's Relationship to the Midwest, Connections to the Global Economy, and the Required Transportation Assets Needed to Support Regional and Global Trade

Plan Overview

- Chapter 5: Wisconsin's Transportation Assets
  - Provides an Inventory of Wisconsin's Freight-Related Transportation Assets
- Chapter 6: Transportation System Condition and Performance
  - Includes Safety, Condition, Bottleneck Inventory
  - Performance - This Chapter Also Considers Significant Congestion or Delay Caused by Freight Movements
- Chapter 7: Freight Trends, Issues and Forecasts
  - Provides an Overview of Global, National and Wisconsin-Specific Freight Trends and Issues that Helped to Shape the Wisconsin State Freight Plan

Plan Overview

- Chapter 8: Freight Policies and Strategies
  - Presents Multimodal Policies and Strategies to Address Freight Transportation Trends and Issues
  - Examines Data Tools Used to Identify the High-Priority Freight Corridors and Facilities Within Wisconsin
  - Summarizes the Factors Influencing the Development of Freight Policies and Strategies
- Chapter 9: Investment Plan
  - Builds Upon the Policy Direction (see Chapter 8, Freight Policies and Strategies) by Guiding Investments in Wisconsin's Efficient, Reliable, and Safe Transportation System, Which Supports Freight Movement
  - Identifies Current Funding Sources at Both the Federal and State Level for Freight Transportation Projects, as Well as Potential Future Funding Sources

Plan Overview

- Chapter 10: Environmental Justice
  - Analyzes Potential Benefits and Burdens on Minority and Low-Income Populations, as Well as Youth, Seniors (Aged 65 and Over), Persons With Disabilities, and Households Without Immediate Access to Vehicles
  - Includes a “Buffer” Analysis to Analyze Potential Impacts Within One-Quarter Mile of the Freight System
- Chapter 11: System-Plan Environmental Evaluation
  - Qualitative Assessment of Environmental Topics Such as Air Quality, Communities, Sensitive Land, and Water Resources
  - Describes Avoidance, Minimization, and Mitigation Strategies

Selected State Freight Plan Policies

- Highway
  - Continue Using a Performance-Based Approach to Identify State Trunk Highway System Preservation Needs, Including Development of a Bridge Asset Management System
  - Identify and Preserve a Sub-System of Wisconsin's State Highways That Accommodate Over-Height Loads (up to 20 Feet), Over-Weight and Over-Size Loads
  - Support Greater Use of Technologies to Improve the Safety and Efficiency of Operations Along Corridors With High Freight Movement Frequencies
- Local Roads
  - Assist in Providing Asset Management Strategies and Tools for Local Governments to Ensure That Selected System Preservation Improvements Provide Cost-Effective Service Life Extension

Selected State Freight Plan Policies

- Rail
  - Maintain State-Owned Rail Lines to Allow Service Levels to Continue Uninterrupted, and Without Additional Restrictions
- Ports and Waterways
  - Continue State Assistance Programs for Harbor Improvements
- Airports
  - Use the Airport Improvement Program to Help Wisconsin Airports Accommodate Business Planes
- Pipelines
  - Strategic Approach Includes Limiting the Negative Impacts of Crude Oil Movements on Other Transportation Users

Send us your input

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Public comment period ends on November 14th