



# Central Minnesota Freight Study St. Cloud, Minnesota Draft Final Report November 28, 2011

*Your Destination...Our Priority*



The goal is to provide a framework to:

- Identify industry and region-specific trends as they relate to freight transportation and their solutions;
- Plan for improvements to freight movements specific to the region; and,
- Strengthen freight considerations in public project planning and investment decision-making.





# Freight Transportation and the Economy

The American economy can grow and deliver improved living standards through one of two means, more workers or more productivity

Source: US DOT/FHWA report Freight Transportation Improvements and the Economy





# Industry Perspective: Improvements in Transportation impacts Industry Productivity

- Transportation improvement allow for a efficient management of inventory
- JIT provides a high level of customer service with dramatic reduction in inventory levels and cost

Source: US DOT/FHWA report Freight Transportation Improvements and the Economy





# Freight Dependent Industries

The growth of some total employment in Central Minnesota Economic Planning region is expected to exceed 15 percent within the most current 10 year projection 2006 – 2016 >10% creating 45,519 jobs

Industry	2006 Jobs	2006-2016 % Change	2006 – 2016 # Change
Nonmetallic Minerals	2,353	20 %	477
Construction of Buildings	3,495	17%	605
Merchant Wholesalers, Durable Goods	4,653	23%	1071
Truck Transportation	3,582	16%	574





# Freight Dependent Industries

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Industry	2006 Jobs	2006-2016 % Change	2006 – 2016 # Change
Heavy and Civil Engineering Construction	2,944	8%	243
Printing and Related Support Activity	4,653	8%	252
Merchant Wholesalers, Nondurable Goods	4,598	6%	276
Note *Food Manufacturing	7,068	-3%	-211



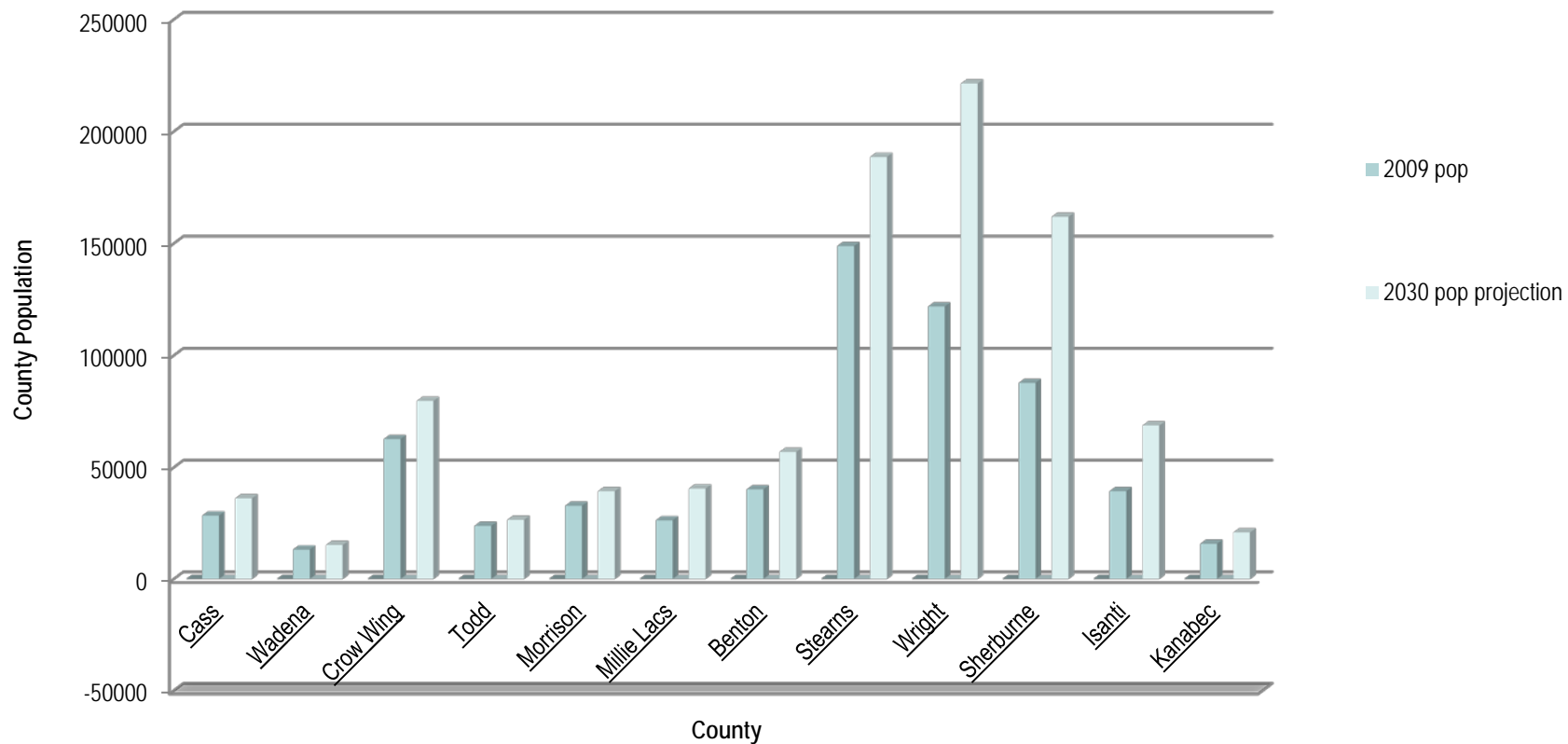


## District 3 Population

<i>County</i>	<i>2000 - 2009 Population Change (Percent)</i>	<i>2009 Population</i>	<i>Population Change 2009-2030 (Percent)</i>	<i>2030 Population Projection</i>
Cass	5.1	28,534	21.2	36,230
Wadena	-3.2	13,269	13.2	15,290
Crow Wing	13.8	62,723	21.3	79,730
Todd	-2.3	23,869	10.3	26,630
Morrison	3.7	32,883	16.6	39,450
Millie Lacs	18.2	26,383	35	40,610
Benton	17.4	40,193	29.4	56,960
Stearns	11.9	148,955	21	188,750
Wright	35.5	121,907	44.9	221,490
Sherburne	36.4	87,832	45.7	161,990
Isanti	26.1	39,442	42.6	68,780
Kanabec	6	15,899	24	20,940
<b>Average % Change</b>	<b>14.65</b>		<b>27.1</b>	
<b>Totals</b>		<b>641,889</b>		<b>956,850</b>

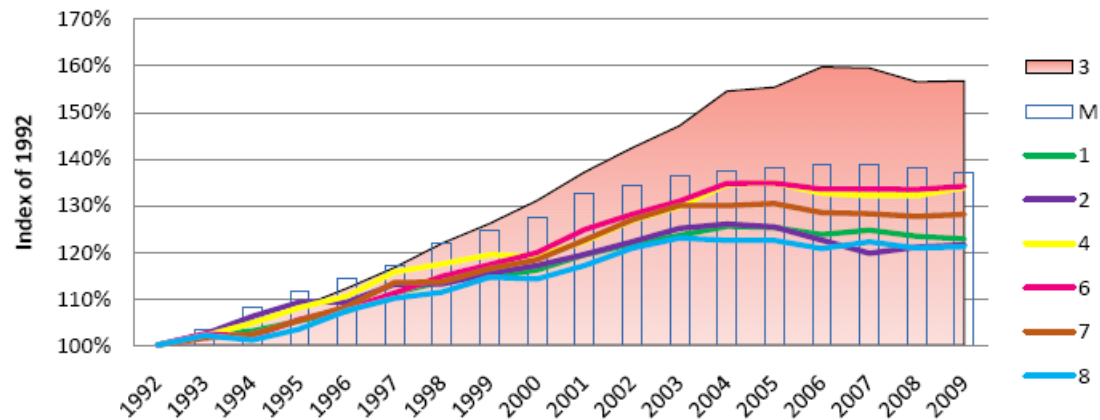


## District 3 Population

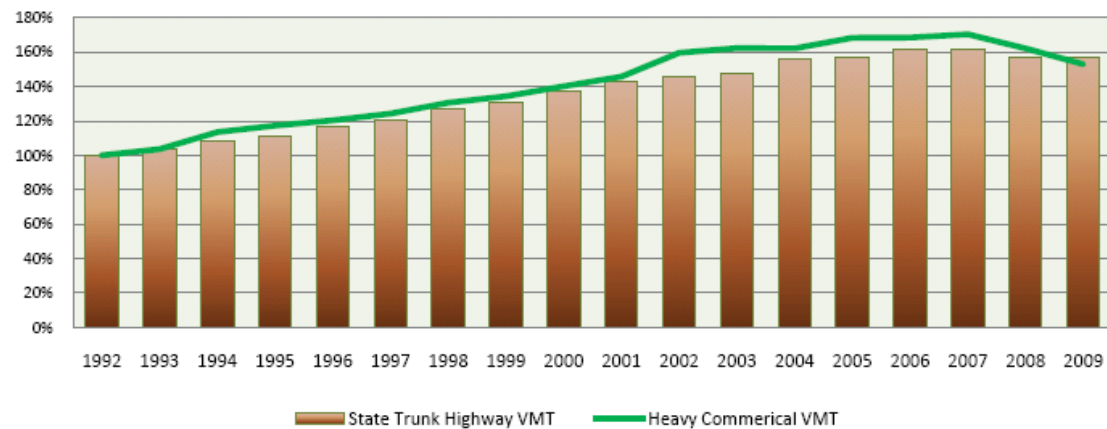




### VTM TREND on all MN Roads from 1992 to 2009 by District



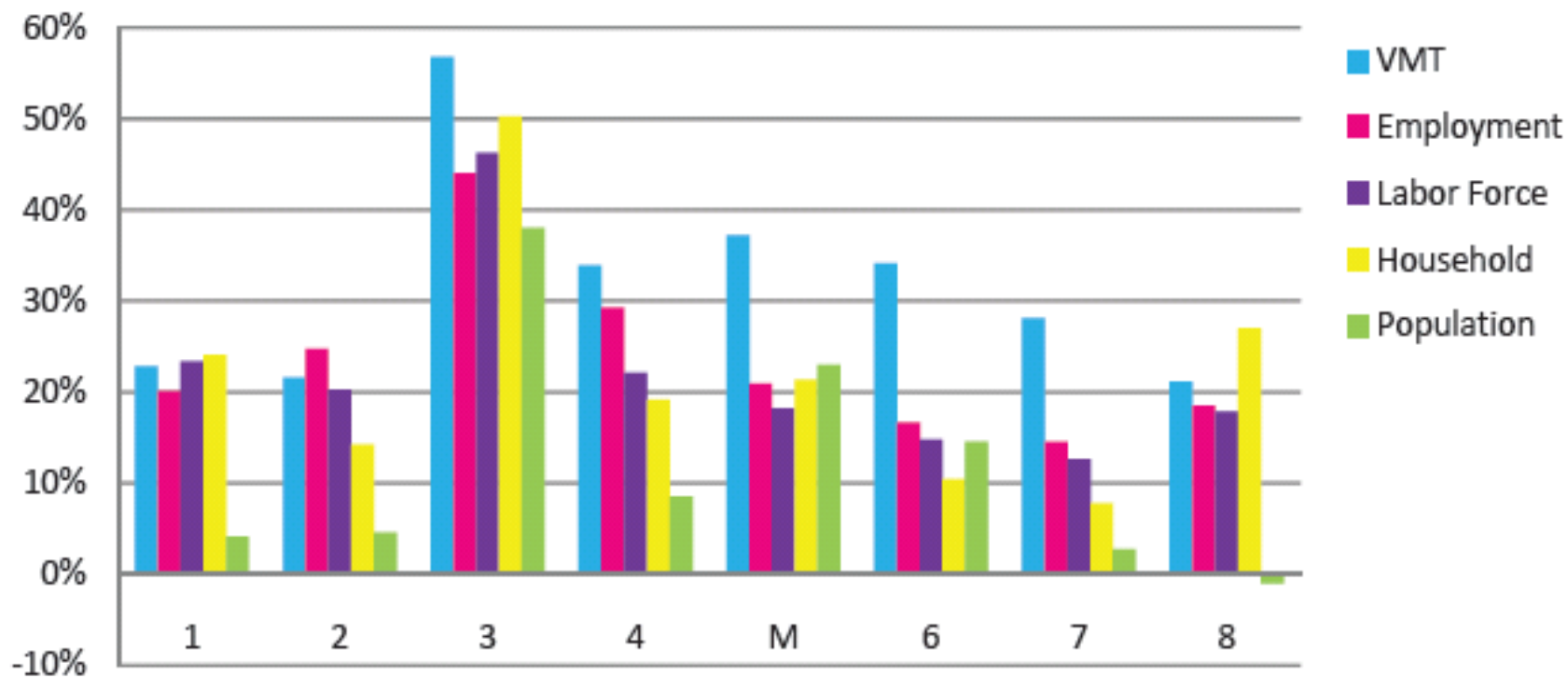
### D3 Annual VMT/HCVMT Growth Trends:1992-2009 Indexed to 1992 Values



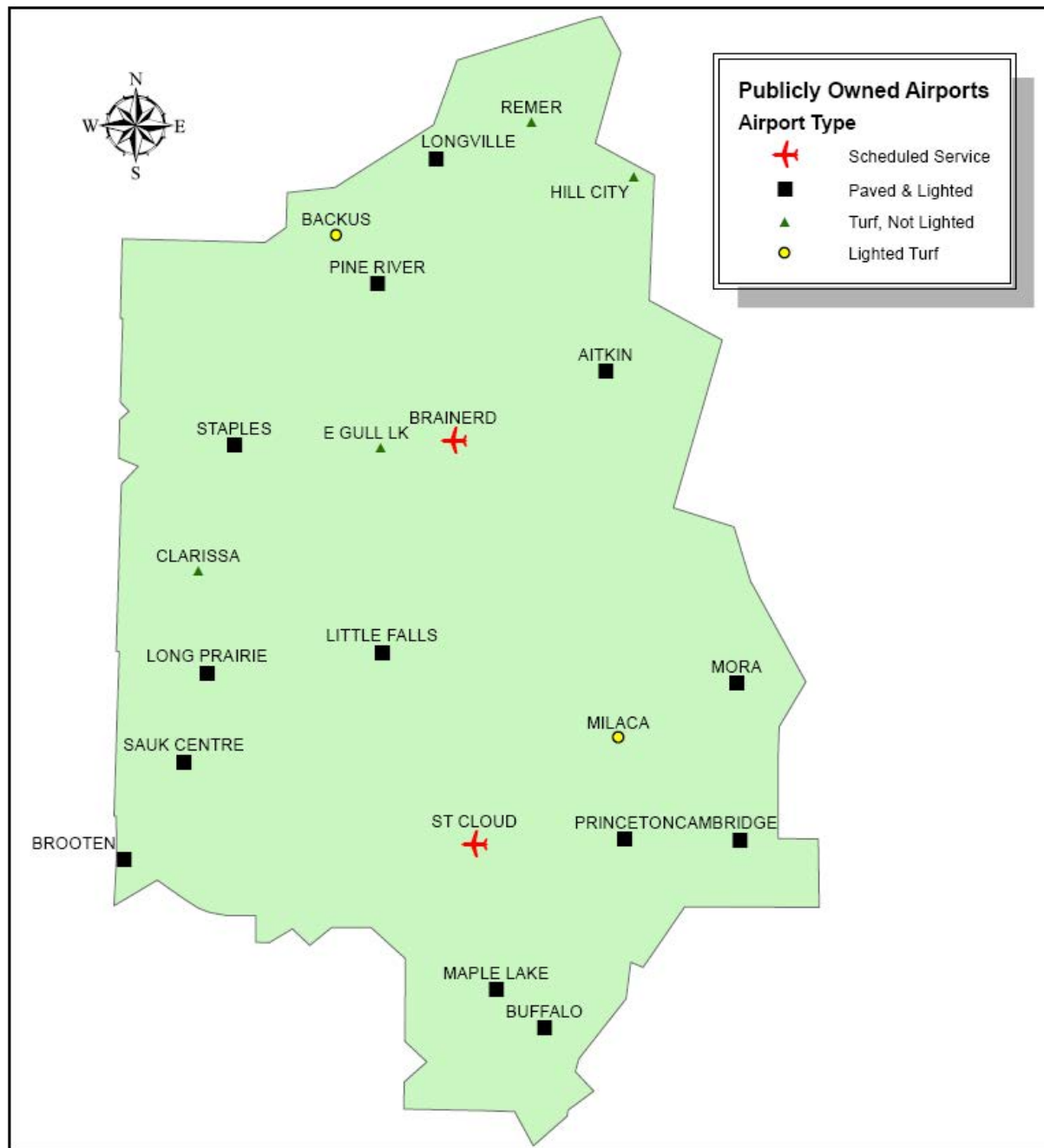


# District 3 lead all categories; VMT, Employment, Labor force, Households, Population

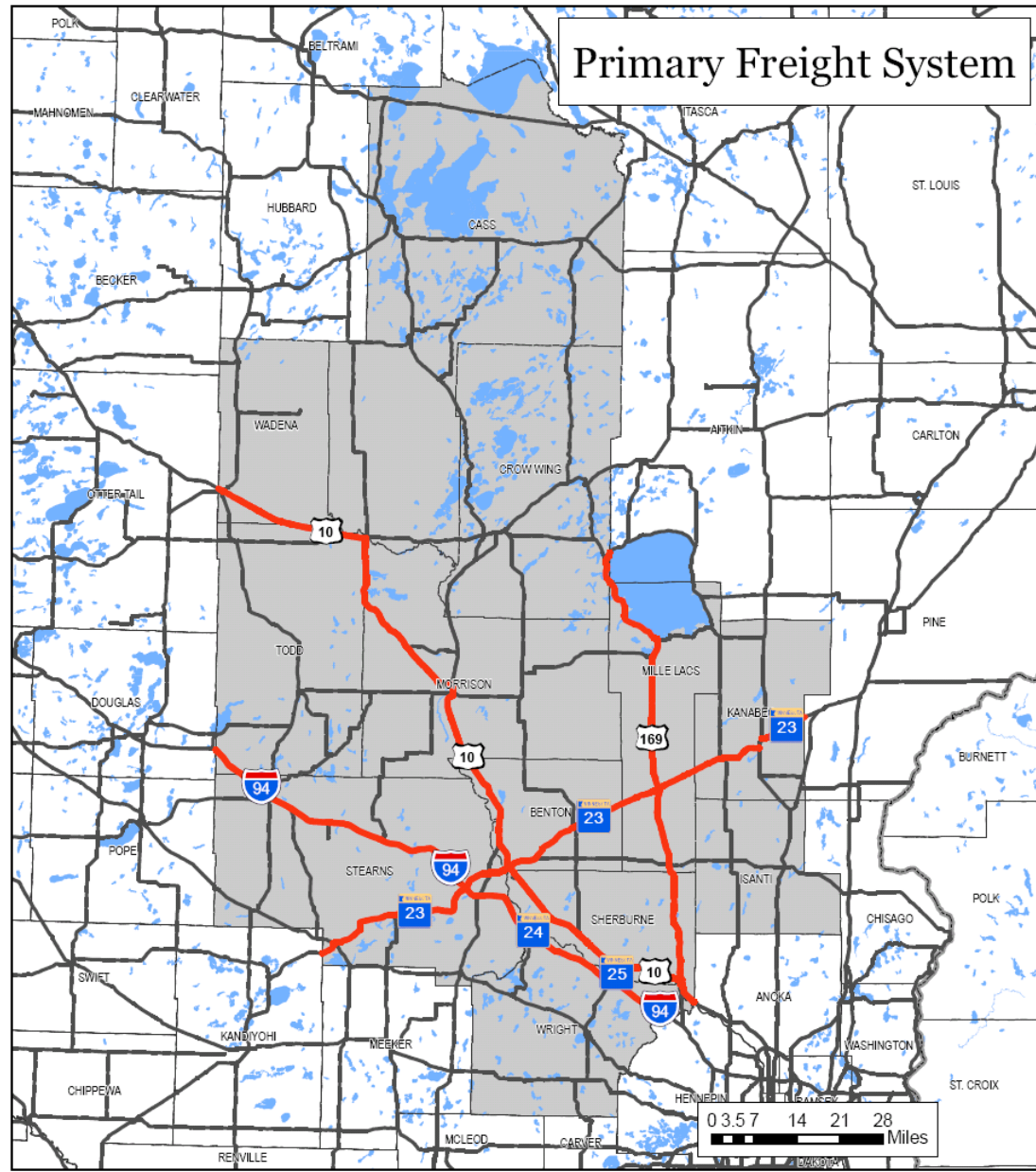
Percent Change from 1992 to 2009 by District



# MN/DOT District 3 Publicly Owned Airports



# Primary Freight System



Map produced by Minnesota Department of Transportation, Office of Freight and Commercial Vehicle Operations

## Legend

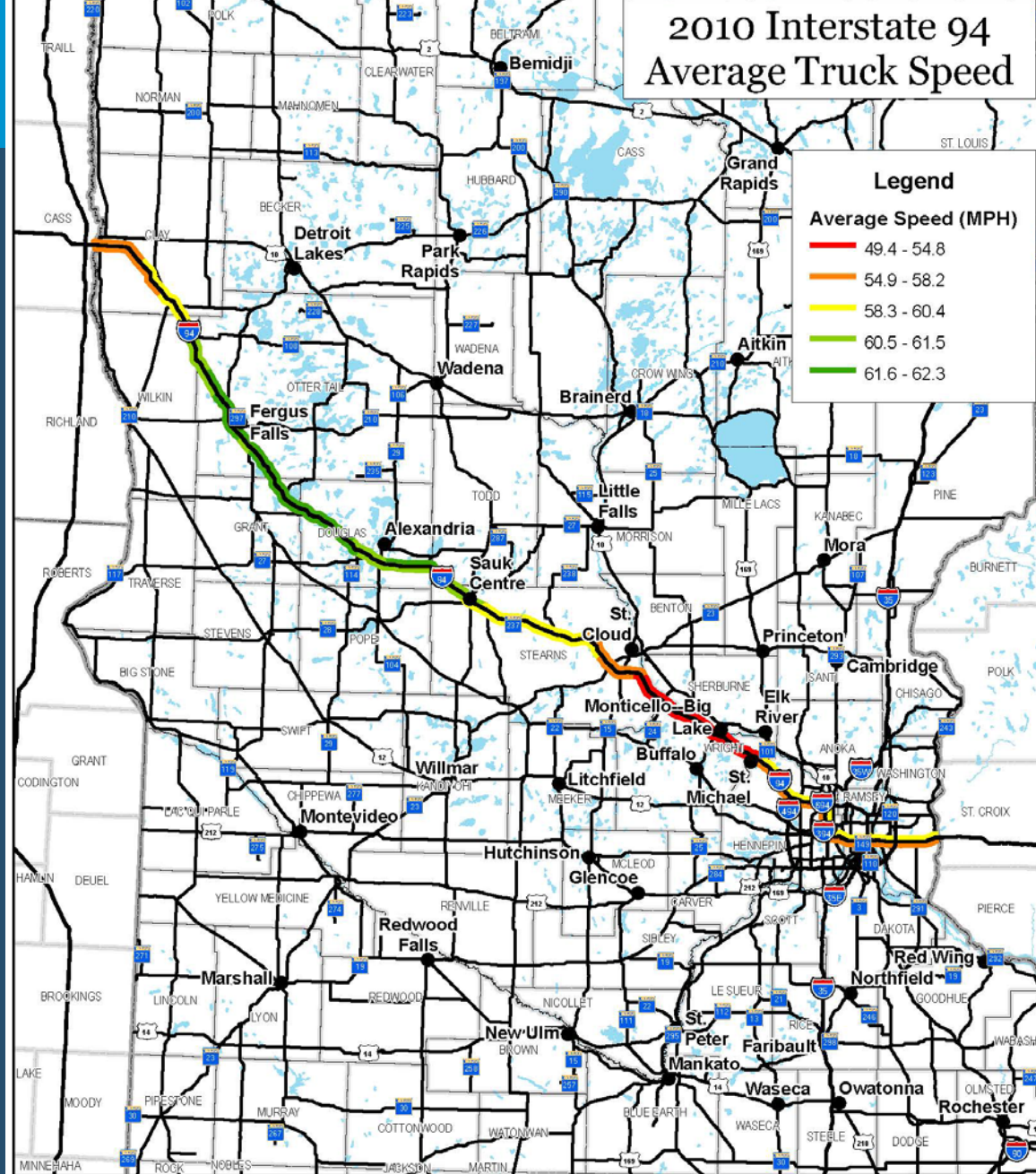
- Primary Freight System
- Other State Highways
- District 3 Study Area



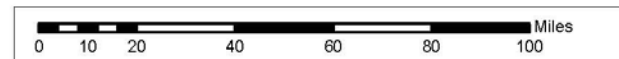
September 2010



# 2010 Interstate 94 Average Truck Speed



Data Source: Freight Performance Measures,  
Federal Highway Administration

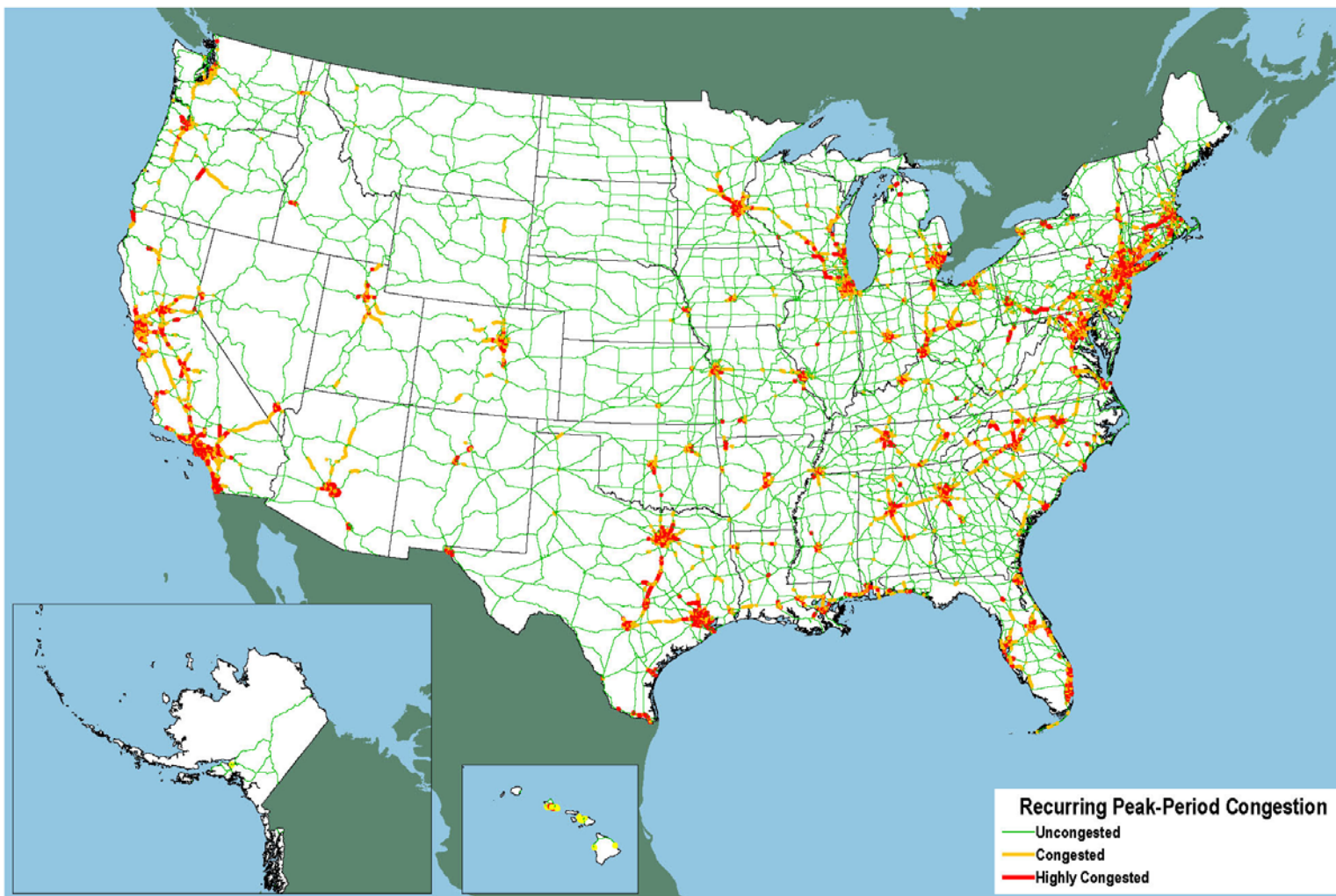




			Hennepin County			
Residence State - County Name	Work State	Work County	Work (C)MSA	Work PMSA	Workplace State - County Name	Count
Benton Co. MN	027	053	5120	9999	Hennepin Co.	423
Cass Co. MN	027	053	5120	9999	Hennepin Co.	196
Crow Wing Co. MN	027	053	5120	9999	Hennepin Co.	338
Isanti Co. MN	027	053	5120	9999	Hennepin Co.	2,404
Mille Lacs Co. MN	027	053	5120	9999	Hennepin Co.	958
Morrison Co. MN	027	053	5120	9999	Hennepin Co.	215
Sherburne Co. MN	027	053	5120	9999	Hennepin Co.	9,548
Stearns Co. MN	027	053	5120	9999	Hennepin Co.	1,893
Wright Co. MN	027	053	5120	9999	Hennepin Co.	19,132
					Subtotal:	35,107

			Ramsey County			
Residence State - County Name	Work State	Work County	Work (C)MSA	Work PMSA	Workplace State - County Name	Count
Benton Co. MN	027	123	5120	9999	Ramsey Co.	101
Cass Co. MN	027	123	5120	9999	Ramsey Co.	34
Crow Wing Co. MN	027	123	5120	9999	Ramsey Co.	110
Isanti Co. MN	027	123	5120	9999	Ramsey Co.	1,155
Mille Lacs Co. MN	027	123	5120	9999	Ramsey Co.	149
Morrison Co. MN	027	123	5120	9999	Ramsey Co.	57
Sherburne Co. MN	027	123	5120	9999	Ramsey Co.	901
Stearns Co. MN	027	123	5120	9999	Ramsey Co.	346
Wright Co. MN	027	123	5120	9999	Ramsey Co.	1,125
					Subtotal:	3,978

## Peak-Period Congestion on the National Highway System: 2007



Note: Highly congested segments are stop-and-go conditions with volume/service flow ratios greater than 0.95. Congested segments have reduced traffic speeds with volume/service flow ratios between 0.75 and 0.95.

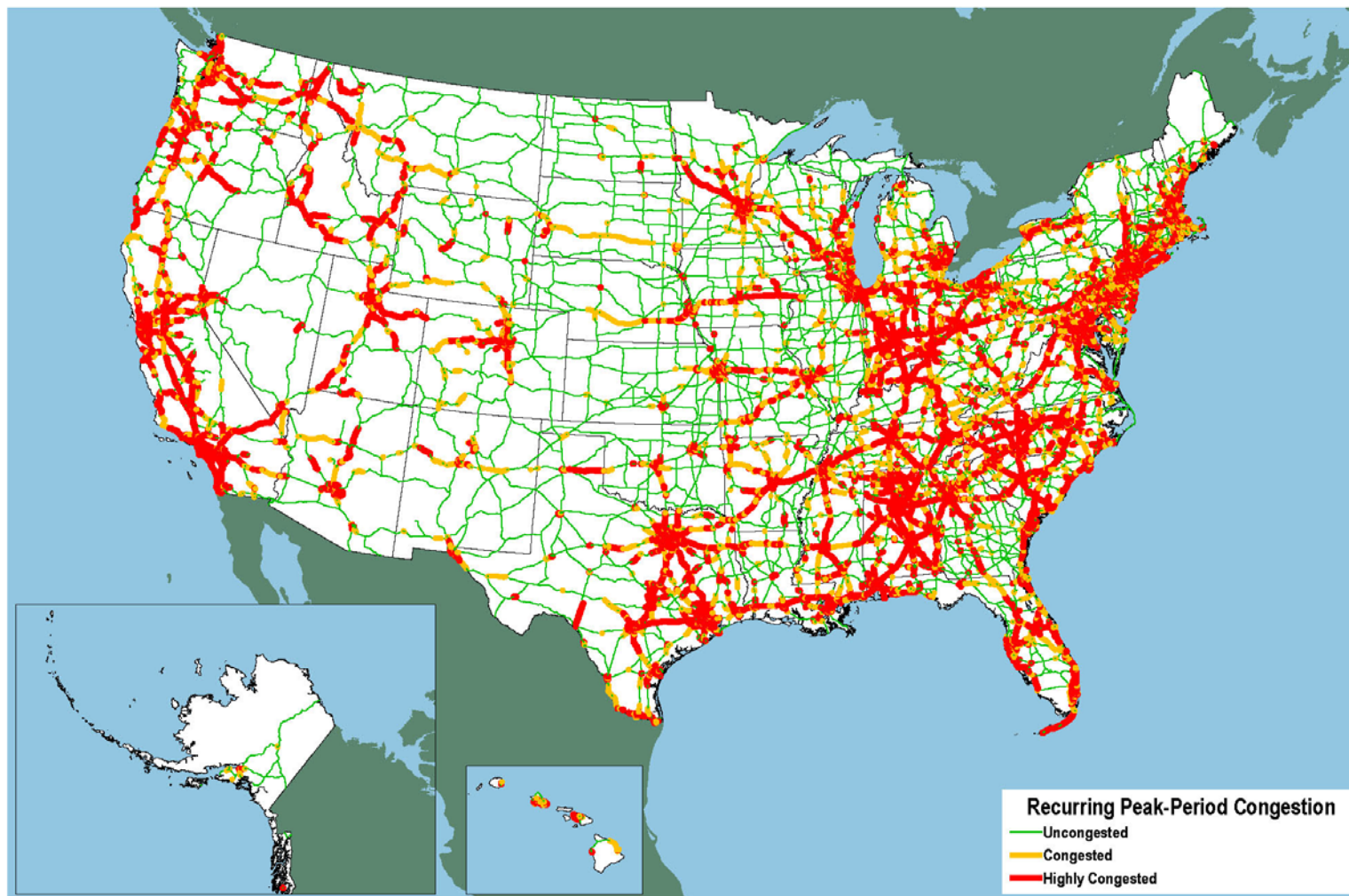
Source: U. S. Department of Transportation, Federal Highway Administration, Office of Highway Policy Information, Highway Performance Monitoring System, and Office of Freight Management and Operations, Freight Analysis Framework, version 3.1, 2010







## Peak-Period Congestion on the National Highway System: 2040



Note: Highly congested segments are stop-and-go conditions with volume/service flow ratios greater than 0.95. Congested segments have reduced traffic speeds with volume/service flow ratios between 0.75 and 0.95. The volume/service flow ratio is estimated using the procedures outlined in the HPMS Field Manual, Appendix N  
Source: U. S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework, version 3.1, 2010



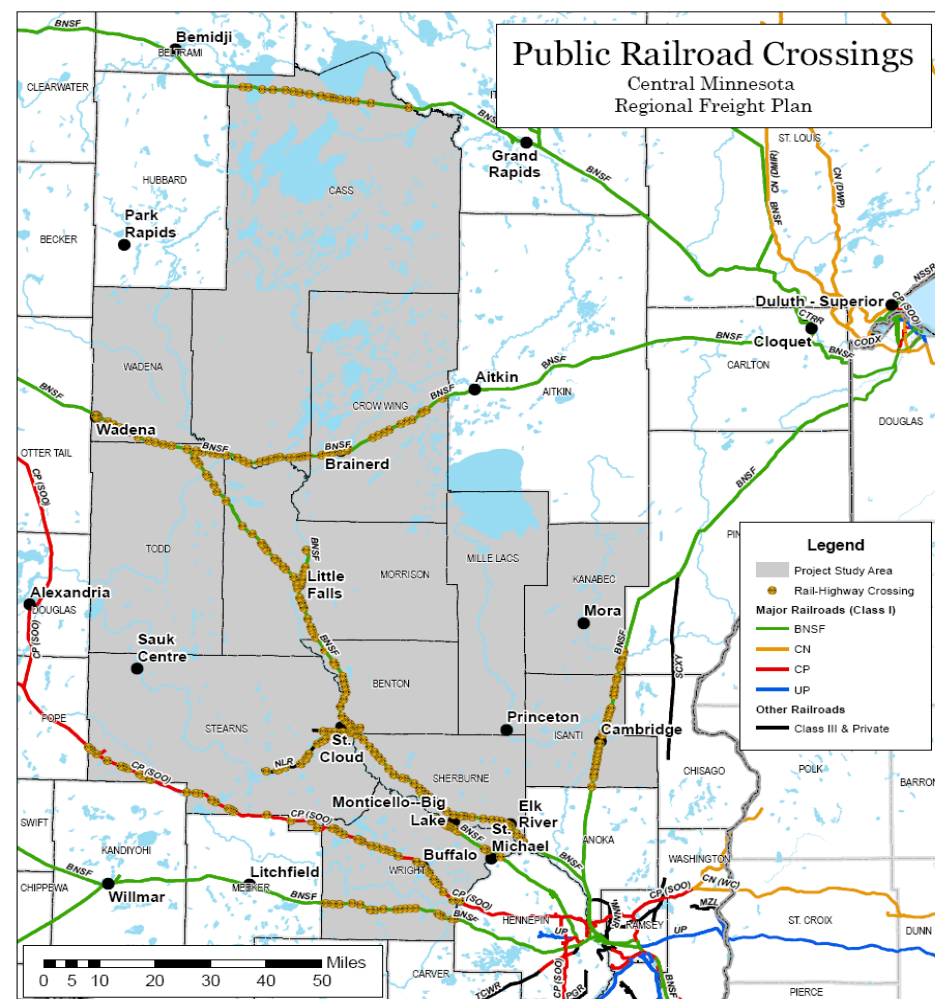




# Public Rail Crossing

## Minnesota Railroad Grade Crossing Safety Improvement Program

344 active public at-grade  
crossing



Data Source: Mn/DOT



Map produced by Minnesota Department of Transportation  
Office of Freight and Commercial Vehicle Operations

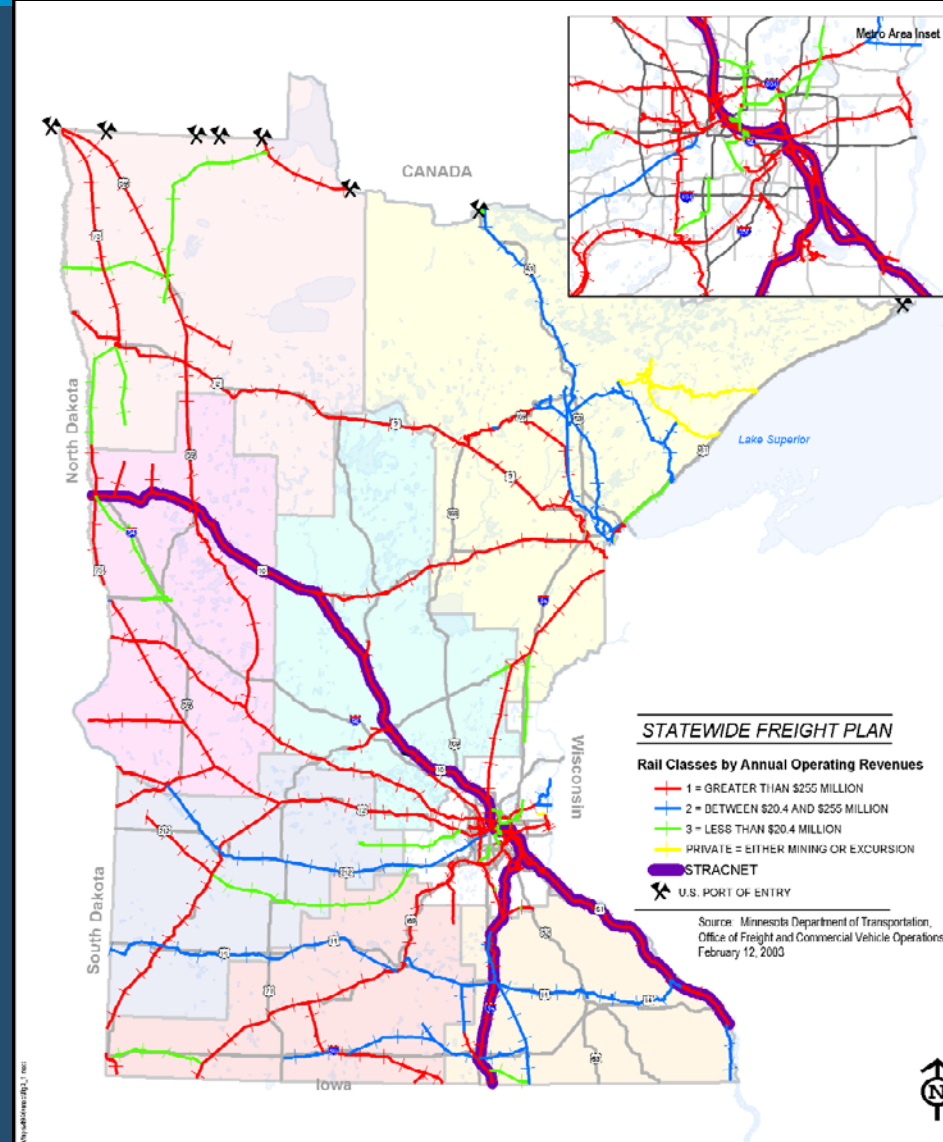


The Central Minnesota Freight Plan includes  
12 counties in Mn/DOT ATP District 3  
April 2010



# Rail Network can't

- STRACNET – rail important to national defense and provide service to 193 defense installations to include Camp Ripley





# Intermodal Terminals

**No intermodal container or water terminal are within study area. Only bulk transfer/transload facilities**

Company Name	Type	Location	Commodities
Becker Warehouse & Reload (UMI, Inc)	Truck/Rail Terminal	Becker	Steel, Lumber, Bulk Plastics
Maier Transport	Truck/Rail Terminal	St. Cloud	Building Products, Food, Paper, Other Manufactured Goods
Waite Park Transload	Truck/Rail Terminal	Waite Park	Lumber, Steel, Stone

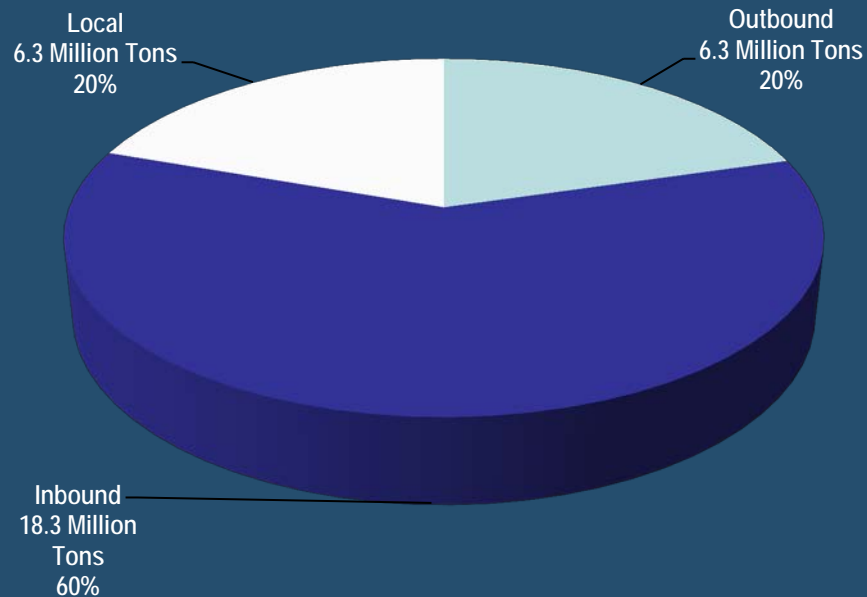




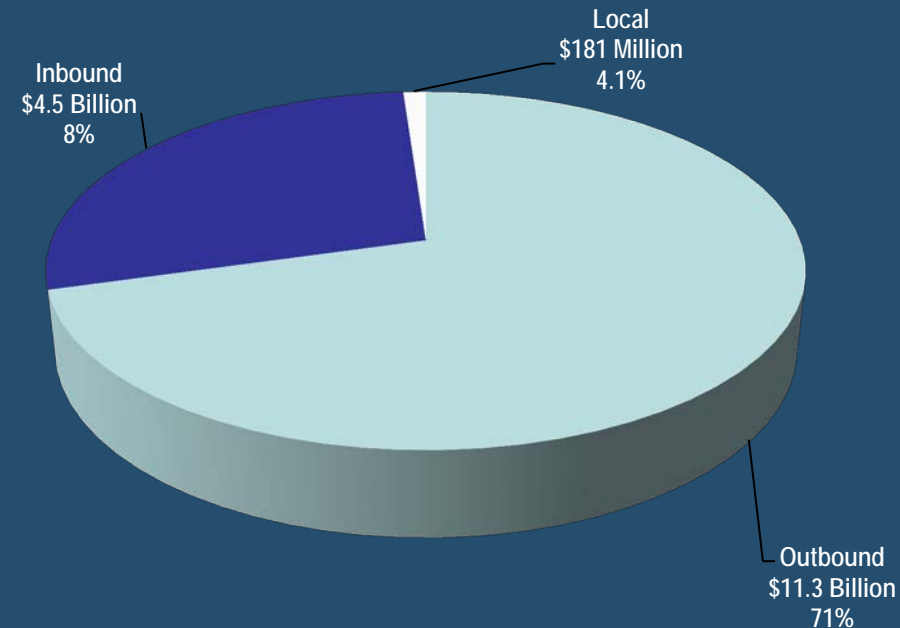
# Commodity Flows

## Central Minnesota

### Tonnage



### Value



Source: TRANSEARCH, 2007



# Modal Split

Mode	Percent of Tonnage	Percent of Value
Truck	97%	92%
Rail	3%	8%
Air	<1%	<1%
Other	<1%	<1%

- Rail's modal share is expected to grow slightly by 2030
- Total inbound and outbound tonnage is projected to grow about 38 percent by 2030





## Rail Traffic Trends – Commodity Flow

BNSF annual volumes mainline between Mpls and Fargo, currently the highest volume line in Minnesota continue to grow.

CP's mainline between Minneapolis and North Dakota is forecast to increase 14 to 18 million tons





# Truck Traffic Trends – Commodity Flow

- The most significant corridors in Central Minnesota are the Interstate 94 corridor, the US 10 Corridor, and the US 169 Corridor.
- Interstate 94 between Clearwater and the Twin Cities carries the most amount of truck traffic in the region, and Interstate 94 from Clearwater to the west and US 10 between St. Cloud and Clear Lake also receiving high truck volumes.





## Survey Results (9) – Shipper/Receiver

5/9 are companies with 100 or more employees. 28% of all companies receive inbound freight from foreign POE is Mpls. Inventory - most companies have 1 to 2 month. Trucking is the dominate mode. Most shipments are received within the state, study area or Metro respectively







## Survey Results (9) – Shipper/Receiver can't

Outbound inventory – 1 to 2 weeks. All outbound shipment are trucked. Top roadways used: I -94, TH -23, US 10 to include TH 24 connector





## Survey Results (7) – Motor Carrier

Majority of the carriers have terminals in Minnesota. 71% have no backhaul opportunities. 75% pull 53' trailers. The dominate commodities hauled are equipment and machinery products. Most used roads are I-94, TH 23, TH 169, US 12, US 71, TH 210.





# Central Minnesota Freight Study Recommendations

- Address freight rail access in the region
- Establish a regional freight advisory committee
- Designate Super Haul corridors
- Support restoring & retaining passenger/air cargo throughout the region
- Designate Truck Network
- Support capacity improvement on the I-94 corridor





# Central Minnesota Freight Study con't Recommendations

- Build TH 24 connection: Clear Lake to I-94  
Clearwater improvements
- Address urban freight mobility in significant  
urban areas, particularly on IRC
- Increase truck parking at Fuller Lake rest  
area





Questions ????

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