Minnesota Statewide Freight Plan

Executive Summary

■ Introduction

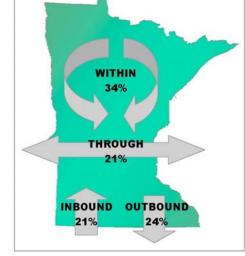
Before the 1990s, state departments of transportation tended to focus on passenger transportation facilities. Freight transportation was traditionally privately owned and operated, subject to varying degrees of government regulatory oversight. Under the impetus of Federal transportation legislation [Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and Transportation Equity Act for the 21st Century (TEA-21)], and with a policy commitment to freight demonstrated in the Minnesota Department of Transportation's (Mn/DOT) Statewide Transportation Plan (2003), Mn/DOT has developed this first-ever *Minnesota Statewide Freight Plan*. The *Minnesota Statewide Freight Plan* is a multimodal plan that identifies significant freight system trends, needs, and issues. The *Plan* presents a framework that includes recommended freight policies, strategies, and performance measures that will guide investment decision-making. The *Plan* will help guide follow-on actions for improving the freight transportation system and suggests appropriate roles for Mn/DOT and stakeholders.

For the purposes of this plan, freight is defined as the transportation of commodities/cargo, raw or finished. This is a long-range plan for statewide freight transportation by trucks on the roadways, by trains on the railways, by ships and barges on the waterways and by airplanes in the skies. Additionally, significant attention has been paid to intermodal movements of freight, where goods move from one mode to another. Pipelines, an important system for carrying petroleum and natural gas in the state, are not included in the Plan because state involvement is focused primarily on safety and security aspects.

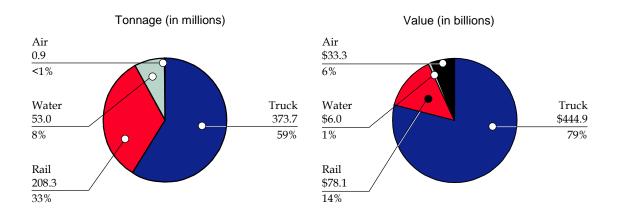
The freight system in Minnesota is diverse, encompassing many modes, commodities and trading partners. The system consists of an integrated network of modal infrastructure and services. It includes highway/trucking, rail, waterways, air cargo and intermodal terminals.

- Efficient freight movement is essential for Minnesota's 9,000 manufacturers, 28,000 retail stores, 15,000 wholesale trade companies and 3,000 agricultural businesses. These industries together employ nearly 50 percent of Minnesota workers.
- In 2001¹, more than 636 million tons of freight moved in and through Minnesota with a value of \$562 billion, an amount equivalent to 129 tons and \$114,000 per resident. This is projected to grow to 1.019 billion tons (60 percent increase) and \$1.171 trillion value (108 percent increase) by 2020.

- An efficient freight system is an essential ingredient for economic development and for enhancing the State's economic competitiveness in the national and global marketplace.
- Relatively equal amounts of freight are intrastate shipments (Minnesota origin and destination), outbound interstate shipments (Minnesota origin and out-of-state destination), inbound interstate shipments (out-of-state origin and Minnesota destination) and through interstate shipments (outof-state origin and destination).



- Bordering Canadian provinces, Midwest States and Plains States represent Minnesota's three largest trading partners both by weight and value. Western and Southern States are also significant, reflecting international shipment through the Pacific Coast and major Gulf ports.
- Although trucks carry the largest share of freight by weight, significant amounts are also carried on waterways and by rail. Air carries only a small share of the total weight, but a larger share of the dollar value of freight.
- By weight, Minnesota's most significant commodities are farm products, nonmetallic minerals, food products, metallic ores and coal.
- By value, Minnesota's most significant commodities are farm products, food products, transportation equipment and electrical equipment.
- Freight movement to and from warehouses is especially significant in the Twin Cities, a major distribution center for the Upper Midwest.



Policy Framework and Recommendations

Challenges to the efficiency and effectiveness of Minnesota's freight transportation system can be addressed through the combined efforts of Mn/DOT and its public and private partners. The public sector's role in constructing, operating and maintaining the roadway system is critical for the truck freight system. The public sector also makes key investments, controls land uses, conducts regulatory activities and initiates other activities that influence the performance of the non-highway freight modes. Public and private (shippers and carriers) sectors can work together to achieve a common vision for freight in Minnesota. This vision is embodied by the following statewide freight policy:

Provide an integrated system of freight transportation in Minnesota – highway, rail, water, air cargo, and intermodal terminals – that offers safe, reliable, and competitive access to statewide, national, and international markets.

This freight policy recognizes the importance of all modes for a balanced freight transportation system, the need for connections between modes and, finally, that efficient access to expanding markets is increasingly significant to Minnesota businesses operating in a global economy. The policy is consistent with and built on the overall policies of the *Minnesota Statewide Transportation Plan*. The *Freight Plan's* freight policy is a more developed expression of Mn/DOT's commitment to improving the freight transportation system. Shown below, this policy is implemented through six policy directions, each of which in turn is supported by a set of more specific recommended strategies.

The freight performance measures and indicators developed through the *Statewide Freight Plan* are grouped by policy direction. These measures and indicators are currently under development and will be used to monitor progress towards the policy directions.

Improve The Condition, Connectivity, And Capacity Of Statewide Freight Infrastructure Improve The Condition. Connectivity, And Capacity **Streamline And Improve** The Effectiveness Of Motor Of National And **Carrier Regulatory** International Freight **PROVIDE AN Activities** Infrastructure Serving INTEGRATED SYSTEM OF FREIGHT Minnesota TRANSPORTATION IN MINNESOTA -HIGHWAY, RAIL, WATER, AIR CARGO, AND INTERMODAL TERMINALS -THAT OFFERS SAFE, RELIABLE, AND COMPETITIVE ACCESS TO STATEWIDE, NATIONAL AND **Enhance The** INTERNATIONAL MARKETS. Strengthen Partnerships Operational Performance To Address Significant And Safety Of Statewide Freight Issues **Freight Systems Enhance Integration Of** Freight Into Regional And State Transportation **Planning And Investment** Decisions

Freight Policy and Policy Directions

Policy Direction 1 – Improve the Condition, Connectivity, and Capacity of Statewide Freight Infrastructure

Improvements are needed to the physical condition of the freight system in Minnesota due to age, wear, and inadequate design. Mn/DOT operates freight programs, such as the Minnesota Rail Service Improvement Program and the Port Development Assistance Program, which were established to preserve and modernize basic freight infrastructure. While these programs have succeeded in improving facility infrastructure, additional understanding of the impacts of these programs on improving freight mobility is needed.

Efficient connections are needed between trade centers, to and from freight generating facilities, and between modes. This includes the "last-mile" roadway connections between these facilities and the major highway systems. These connections must be designed, including weight limits, to accommodate heavy trucks.

Sufficient capacity is required to meet current and future demand for shipping goods. This includes not only the main line highway, railroads and waterways, but also the intermodal terminals, which provide for the transfer of freight between two or more modes and which allow for optimizing freight movements over longer distances. Bulk intermodal terminals allow

for the transfer of high-tonnage, low-value commodities, such as taconite, coal and grain. Intermodal container terminals provide for transfer of manufactured products between truck and rail.

Strategies

1. Support improvements needed on roadways with significant truck volumes, in particular, bridge and pavement deficiencies affecting trucks.

The highway system provides statewide access for freight movements (59 percent of total tonnage and 79 percent of total value are carried by truck). Significant unmet state trunk highway performance needs have been identified through Mn/DOT's long-range planning process. Efforts should be made to preserve, maintain and improve the highway infrastructure critical for freight, in particular bridge clearances and weight deficiencies on the Interregional Corridor system and major TCMA highways.

2. Structure Mn/DOT's freight assistance programs to achieve performance targets and assess benefits and costs.

Mn/DOT operates several programs (e.g., MRSI, Port Development Assistance Program) that provide funding to railroads and water ports for the rehabilitation of infrastructure. There is a need to refine programs based upon changing industry trends and conditions. Changes to project eligibility criteria may be needed, as well as a greater focus on cost/benefit analysis and tracking of impacts over time.

3. Improve the efficiency, condition, and capacity of intermodal terminals (ports, truck-rail terminals).

Intermodal terminals provide for the transfer of freight between modes, including containers and bulk shipments. Many of these terminals have aging infrastructure and are facing capacity constraints. Mn/DOT will work with others to improve these facilities, thereby preserving multimodal options for shippers and improving access to markets. Innovative intermodal or bimodal services using new technologies or new partnerships should also be encouraged.



4. Support efforts to develop a statewide interconnected 10-ton roadway system to serve major freight facilities.

Local and regional roadways provide important connections to freight generators and intermodal facilities. Many of these roadways are not designed for heavy trucks. A statewide interconnected system of roads built to a 10-ton standard would eliminate gaps in the freight network. Mn/DOT will work with the counties to identify roads that should be included in this system.

5. Pursue National Highway System Intermodal Connector designation for significant connectors.

Intermodal Connectors provide roadway access between major intermodal facilities and the NHS. Designation may provide eligibility for federal funding to address roadway deficiencies. Mn/DOT will pursue designation for all qualifying connector roadways.

Evaluate railroad shuttle train trends to determine impacts on shippers and railroads; structure rail assistance and road system strategies to respond, as appropriate.

Class I railroads have developed grain shuttle train service to increase shipping efficiencies. The terminals (i.e., grain elevators) accommodating these shuttles are attracting grain shipments, primarily by truck, from Minnesota and the Plains states. Shuttle trains are also moving coal from Mountain states to and through Minnesota. Mn/DOT will further



evaluate these trends and their impacts on the local and trunk highway system, local grain elevators and Class II and III railroads, and respond appropriately.

Policy Direction 1 Performance Measures and Indicators

Seven new performance measures have been identified for Policy Direction 1 through the *Minnesota Statewide Freight Plan*. These measures will be developed as a follow-on activity to this *Plan*; targets will be set and progress for each measure and its accompanying policy direction will be measured. The seven new performance measures are listed below.

- Benefit of truck weight enforcement on pavement service life.
- Percent of rail track-miles with track speeds >25 mph.
- Percent of rail track-miles with 286,000-pound railcar capacity rating.
- Average delay time at river locks.
- Availability of direct international air cargo freighter service.
- Percent of intermodal facilities whose infrastructure condition is adequate.
- Availability of container-handling capability and/or bulk transfer capability.

Existing measures from the *Minnesota Statewide Transportation Plan* will also be used to measure Policy Direction 1.

Policy Direction 2 – Improve the Condition, Connectivity, and Capacity of National and International Freight Infrastructure Serving Minnesota

Minnesota's freight system includes nationally significant freight corridors that carry freight beyond the state's borders. The ability of Minnesota's industries to connect to national and international markets served by these corridors is critical to the health of the state's economy. To reach markets outside the state's borders, Minnesota's freight travels on infrastructure (i.e., highways, railroads, waterways) within other states. Time-sensitive, premium transportation services will be increasingly critical for trade with more distant markets. Increased time for freight shipments relates to increases in costs for products. The condition, connectivity and capacity of these corridors must be maintained and enhanced. Mn/DOT's role in addressing transportation needs outside its borders is limited but important.

In some cases, the preservation and expansion of existing infrastructure and the elimination of bottlenecks are necessary. In other cases, the introduction of new freight services and infrastructure may be needed.

Strategies

1. Eliminate bottlenecks and improve national trade highways that serve Minnesota.

Minnesota's major trading partners for freight are the Midwest and Plains states, and major growth in trade is expected with Southern and Western states. Important national trade highways (e.g., I-94, I-35) must be maintained/improved through coordination with other states to identify and address current and future needs.

2. Eliminate bottlenecks on national rail corridors serving Minnesota.

Much of the state's rail freight travels through major rail hubs outside of Minnesota, particularly in Chicago. Bottlenecks at these hubs include deficiencies such as inefficient transfers between railroads, aging infrastructure and rail congestion. Mn/DOT will continue to participate in multi-state efforts to address these bottlenecks.

3. Improve intermodal container service to accommodate long haul movements.

The availability of intermodal container rail service is important to the growth of Minnesota industries. In order to provide more accessible, timely and economically competitive intermodal service, Mn/DOT will support the evaluation and development of intermodal terminal facilities located closer to the demand centers for this service in the state. It will encourage and explore incentives for the establishment by railroads of direct intermodal rail service between Minnesota and intermodal ports in southern California and the Pacific Northwest. Much of this service is currently handled through Chicago. Mn/DOT also supports the concept of utilization of river barge transport for container movements between Minnesota ports and the Gulf of Mexico.

4. Establish an international air cargo regional distribution center to support direct international service.

Freight containers in the belly of passenger planes scheduled through Minneapolis-St. Paul International Airport provide 20 percent of Minnesota's air cargo service. There are no dedicated cargo-only direct flights from MSP to international destinations, and as a result, passenger airlines offer the only air cargo service with limited direct international flights. The shipment of Minnesota's high-value, time-sensitive, international bound freight is accomplished by trucking goods to Chicago where international additional flights with cargo capacity are available. Air cargo trucked to Chicago, and from there shipped internationally by air, accounts for 80 percent of Minnesota's air cargo service. Minnesota's economy would benefit from cost and reliability improvements of dedicated freighter flights providing direct international air cargo service from MSP. In order to attract this additional service, an international air cargo regional distribution center is being proposed. Mn/DOT will support these proposal efforts.

5. Support increased capacity at Upper Mississippi River locks and the Great Lakes' Sault Ste. Marie locks.

The waterway system on the Mississippi River and Great Lakes handles sizable tonnages of agricultural and mining freight shipments. The Upper Mississippi River system must be improved to accommodate large barge tows through the locks. Improvements have also been recommended at the Sault Ste. Marie lock. Mn/DOT will support planning efforts to make these capacity improvements.



6. Support a study of the St. Lawrence Seaway and Welland Canal locks for accommodating large international ships.

Much of the growth in international waterborne commerce is expected to be carried in larger ships. These ships are too large to be accommodated by the St. Lawrence Seaway locks, as well as the Welland Canal locks, which connect Lake Erie and Lake Ontario and provide access around Niagara Falls. In order to accommodate larger vessels and provide Minnesota with access to this freight service, Mn/DOT will support the efforts by the U.S. and Canadian governments to study improvements to the Great Lakes/St. Lawrence Seaway system.

Policy Direction 2 Performance Measures and Indicators

Four new performance indicators have been identified for Policy Direction 2 through the *Minnesota Statewide Freight Plan*. These indicators are currently being developed as a follow-on activity to this *Plan*. Due to the national/international nature of this policy direction, it is best tracked by performance indicators rather than measures. The four new performance indicators are listed below.

Shipment rates for selected commodities, modes, and regional and national markets.

- Mode share amount of freight carried by each mode, by major commodity groups.
- Geographic market share tonnage and value of shipments to/from the state, by major commodity groups, to major trading partners.
- Travel time for selected commodities, modes and regional and national markets.

Policy Direction 3 – Enhance the Operational Performance and Safety of Statewide Freight Systems

Congestion, particularly on the highway system, creates significant delays for freight. In Minnesota, congestion on Twin Cities metropolitan area highways represents a major statewide freight bottleneck. Roadway congestion in the Twin Cities results in an estimated two million annual hours of delay to trucks at a cost exceeding \$140 million per year.

In addition to congestion, crashes also create delays for freight and can result in significant damage to freight and personal injury. This includes heavy truck crashes on highways, as well as crashes at highway-rail grade crossings.

Various operational strategies, intelligent transportation technology, as well as infrastructure improvements can help to address traffic congestion and improve safety.

Strategies

1. Address performance (speed and safety) needs on roads with significant truck volumes, particularly in the Twin Cities.

Minnesota's shippers and receivers are increasingly relying on trucks to provide time-sensitive, reliable service. Much of Minnesota's truck freight must travel at some point on Twin Cities metro area roadways, many of which are congested during peak periods. This congestion increases the cost and decreases the reliability of truck freight service. Mn/DOT will continue efforts to address congestion in order to minimize adverse impacts on freight.



2. Continue to improve highway-rail grade crossings through consolidation, installation of gates and signals, and construction of grade separations, where warranted.

Crashes at highway-rail grade crossings have decreased since 1970. However, numerous hazardous locations still exist. Crashes at crossings delay freight carried on rail and highways. Mn/DOT will continue its programs to improve, separate and consolidate highway-rail grade crossings, where warranted.

3. Develop and implement a statewide heavy-truck safety program to reduce truck crashes.

The number of truck crashes in Minnesota is decreasing. However, given the increases in traffic volumes, the frequency of crashes is expected to increase. Mn/DOT is developing a statewide heavy truck safety program that will include vehicle and driver-based strategies along with enforcement to address truck crash rates.

4. Implement intelligent transportation systems and operational strategies to improve the movement of freight.

Technological improvements to the transportation system, often referred to as intelligent transportation systems, have the potential to increase throughput on the transportation system. These technologies have many applications for freight transportation, including freight traffic prioritization strategies, lower cost highway-rail crossing warning devices and improved traveler information for truckers regarding road/weather conditions and directions to destinations. New technologies are also important for speeding border security clearances for truck and rail at international borders. Mn/DOT will continue to pursue and support ITS applications for freight transportation.

5. Assess and improve the availability of parking for commercial vehicles along major highway corridors.

To ensure their safety and the safety of others, long-distance truck drivers are required to take regular rest periods. Mn/DOT provides for short term parking at safety rest areas. Private truck stops provide the primary parking for commercial vehicles. The demand for this parking will change as the regulations governing truck drivers' "hours-of-service" and the volumes of trucking change. Mn/DOT will work with both the public sector and private sector to better understand the supply and demand for truck parking, and to jointly develop innovative solutions.

Policy Direction 3 Performance Measures and Indicators

New performance measures for Policy Direction 3 will be developed as a follow-on activity to this *Plan*; targets for new measures will be set, and progress for this policy direction will be measured. Existing measures from the *Minnesota Statewide Transportation Plan* will also be used to measure Policy Direction 3.

Policy Direction 4 – Enhance Integration of Freight into Regional and State Transportation Planning and Investment Decisions

Freight transportation needs should be explicitly considered in transportation investment decisions. The decision-making processes for project selection frequently do not include specific freight criteria; if included, they normally receive minimal weight.

The ability to monitor the performance of the freight system is an important factor in guiding these investment decisions. Mn/DOT is implementing a recommended set of freight-specific measures, indicators, and targets to assess performance.

Freight planning is needed at the regional and local level to better capture local needs. Industries in specific geographic regions may have unique freight transportation requirements that should be separately identified and evaluated.

Strategies

1. Develop and monitor key freight system performance measures and indicators; set targets, as appropriate.

Mn/DOT has developed performance measures and indicators as part of the *Minnesota Statewide Transportation Plan*. While many of these performance measures are important to freight (e.g., IRC performance), additional performance measures specific to freight are needed. This *Plan* has proposed a number of those measures. Mn/DOT will pursue the development and monitoring of those measures in order to assess the conditions for freight and to guide investment decisions.

2. Strengthen freight consideration in project planning and investment decision-making by planning organizations.

Investment decisions by transportation planning organizations can be improved by better considering freight. Mn/DOT, metropolitan planning organizations, area transportation partnerships, regional development commissions, cities and counties should use more specific freight criteria for planning and project selection. Fully accounting for freight needs may shift the priorities of proposed programs and projects. Mn/DOT will support the efforts to specifically identify and use freight criteria in planning and programming. There is also a need for further evaluation of the costs of congestion for freight, particularly in the TCMA.

3. Provide technical and other assistance to transportation planning organizations to improve freight planning.

Better data collection and analysis is needed to properly understand and address freight needs. Mn/DOT will take a leadership role in collecting and distributing freight data. Additional funding may be necessary to support these freight data initiatives. Mn/DOT will also provide guidance for conducting freight studies and research and developing regional freight plans.

4. Continue coordination with the Federal Highway Administration on strategies for improving freight transportation.

Mn/DOT will respond to the changing federal requirements for freight planning. Federal planning guidelines are being developed to address freight on a national and international level. Mn/DOT will also respond to opportunities for federal funding and partnerships with multistate and national organizations.

5. Maintain an effective program of research to identify industry issues, trends, and innovative solutions to freight problems.

Mn/DOT maintains a comprehensive transportation research program in cooperation with the University of Minnesota and other universities in the Upper Midwest. This research program includes freight transportation, much of which focuses on the needs of shippers and carriers and innovative solutions to industry issues. Mn/DOT will continue this program in consultation with the private sector.

Policy Direction 4 Performance Measures and Indicators

New performance measures for Policy Direction 4 will be developed as a follow-on activity to this *Plan*; targets for new measures will be set, and progress for this policy direction will be measured. Existing measures from the *Minnesota Statewide Transportation Plan* will also be used to measure Policy Direction 4.

Policy Direction 5 – Strengthen Partnerships to Address Significant Freight Issues

A variety of stakeholders, both public and private, are currently involved in the planning, development, and operation of freight transportation in Minnesota. Improved communication and coordination and formalized partnerships offer the potential to more successfully address freight issues. These partnerships can operate on a programmatic level, as on-going dialogues, or to address ad hoc industry needs or to advance individual projects/initiatives. Public/private partnerships are essential for exploring broader economic development, environmental and other issues. Partnerships may include public agencies from the federal, state, regional and local levels, along with a wide range of private-sector organizations.

Strategies

1. Strengthen public sector partnerships to advance freight policies, strategies (e.g., economic development), and tools.

The freight system presents issues for both transportation infrastructure and economic development. Mn/DOT alone cannot address transportation infrastructure issues, and will strengthen partnerships with all appropriate federal, state and local agencies with jurisdiction over transportation. To address the state's economic development needs, Mn/DOT will continue to develop partnerships with economic, employment and industrial development agencies.

2. Promote regional and local collaboration to improve compatibility of freight facilities with adjacent land uses.

Local and regional jurisdictions typically do not seek to accommodate, protect or promote freight uses in their physical planning activities, including land use and transportation plans. Intermodal facilities and freight generators have operational requirements that create noise, traffic and visual issues that are often in conflict with adjacent land uses. To preserve

important existing freight uses and to minimize conflicts, Mn/DOT will promote the exchange of ideas and solutions such as the development of "freight villages." This will encourage the development of facilities in key locations and protect existing facilities from land use conflict. Model ordinances and design guidelines may be effective tools for encouraging integration of freight industrial uses into local development and redevelopment efforts.



3. Continue to participate in carrier and shipper forums, including the Minnesota Freight Advisory Committee, to address industry issues, system needs, and public policies and regulations.

Active communication and exchanges with shippers and carriers is important to properly consider freight needs in Mn/DOT's planning and investment decisions. Mn/DOT will continue to provide a voice to the freight community through shipper forums, including the Minnesota Freight Advisory Committee. MFAC provides an opportunity to share concerns, provide feedback on proposals and educate decision-makers about freight needs.

4. Participate in multistate and U.S. border coalitions to improve border security, while minimizing delays for freight.

International trade, particularly with Canada, is a growing sector of Minnesota freight shipments. In today's security-conscious environment, freight entering through Canadian border crossings must be properly inspected and monitored. Mn/DOT will coordinate with the Minnesota Department of Homeland Security and U.S. Customs and Border Security on security issues as needed and participate in border coalitions that are working to improve security while protecting the flow of commerce.

5. Participate in multistate coalitions to develop regional approaches to freight system improvement.

The majority of freight moving in Minnesota at some point also travels outside of the state's borders. Coalitions have been formed to address individual corridor and/or regional freight needs, in some cases on a multimodal basis. Mn/DOT will continue to work with coalitions to address freight issues outside of the state's borders.

6. Seek public-private partnerships for innovative project financing and implementation.

Much of the freight transportation system is operated and/or owned by the private sector. The private sector is a major investor in and beneficiary of improvements to the freight system. However, resources from the private sector may not be sufficient to implement all of the required freight improvements. Public/private partnerships will be explored to implement and finance appropriate freight transportation projects.

Policy Direction 5 Performance Measures and Indicators

New performance measures for Policy Direction 5 will be developed as a follow-on activity to this *Plan*; targets for new measures will be set, and progress for this policy direction will be measured. Existing measures from the *Minnesota Statewide Transportation Plan* will also be used to measure Policy Direction 5.

Policy Direction 6 – Streamline and Improve the Effectiveness of Motor Carrier Regulatory Activities

Trucks carry the largest share of freight in Minnesota. Owing to their size and weight, commercial vehicles have a significant impact on the physical and operational condition of the transportation roadway infrastructure. Certain motor carrier operations are regulated by Mn/DOT and the Minnesota Department of Public Safety. In order to serve the public interest, Mn/DOT should periodically review its motor carrier regulations, particularly those concerning size and weight limits, to stay current with changing trends and to minimize unnecessary impact to the industry.

Many of the commercial vehicles that travel on Minnesota's highways also travel in other states. While regulation of these vehicles needs to serve Minnesota's interest, the coordination of regulations (such as weight, size and speed limits) with surrounding states will ensure safer and more effective operations. In some instances, federal regulations preempt state requirements.

Technological improvements are making it easier for the state to maintain records of motor carrier operations, and to interact with commercial vehicle operators. These technologies should be fully considered to provide the most efficient and effective business transactions and informational outreach to industry.

Strategies

1. Develop and implement a statewide Strategic Commercial Vehicle Weight Enforcement Program.

The weight of trucks carrying freight significantly impacts the lifespan of roads and bridges in Minnesota. Improving compliance with motor vehicle weight regulations helps protect and preserve investments in infrastructure. A more strategic approach to enforcement will be based on improved knowledge of truck volumes and weights in Minnesota and analytical techniques for estimating the impacts of weight enforcement activity on pavement life and attendant costs.

2. Identify and deploy new technologies and practices that improve operator compliance with commercial vehicle weight laws.

Technological advances allow for more focused and efficient detection of overweight vehicles. Mn/DOT will actively explore the wider application of these technologies.

3. Examine costs and benefits of proposed changes to truck size and weight regulations to facilitate policy decisions.

Truck size and weight regulations are designed to protect Minnesota's roads. The compliance with these size and weight regulations also impacts the cost to motor carriers who serve Minnesota's industries. Mn/DOT will examine the costs and benefits of its regulations to properly consider the tradeoffs between the benefits to the public and the costs to the motor carrier industry.



4. Identify and evaluate differences in truck size and weight laws between Minnesota and surrounding jurisdictions and pursue changes, as warranted.

Commercial vehicles are governed by the size and weight regulations of the jurisdictions (i.e., states, provinces) in which they operate. Mn/DOT will identify the differences that exist in these regulations and consider changes that will protect Minnesota's roads while ensuring consistency with surrounding jurisdictions. Consistencies among jurisdictions ensure more effective and efficient freight transportation.

5. Promote initiatives and technologies that expedite business transactions and educational outreach between motor carriers and regulatory agencies.

Commercial vehicle operators are subject to specific credentialing and permitting requirements. Much of this could be done electronically on-line, which would help reduce costs and increase efficiency. Educational information offered by Mn/DOT to its customers could be provided more effectively by using electronic correspondence. Mn/DOT will maximize the use of innovative technologies in its transactions with customers.

6. Structure motor carrier safety programs to achieve performance targets, assess cost/benefits, and coordinate efficiently among jurisdictions.

Reductions in heavy truck crash rates and heavy truck related fatality rates are recommended in this Plan as performance measures. Motor carrier safety programs are an important component in achieving these reductions. These safety programs should be considered when establishing and meeting performance targets.

Policy Direction 6 Performance Measures and Indicators

New performance measures for Policy Direction 6 will be developed as a follow-on activity to this *Plan*; targets for new measures will be set and progress for this policy direction will be measured. Existing measures from the *Minnesota Statewide Transportation Plan* will also be used to measure Policy Direction 6.

Next Steps

The *Minnesota Statewide Freight Plan* is a multimodal plan that identifies significant freight system trends, needs and issues. The *Plan* presents a framework that includes recommended freight policies, strategies and performance measures that will guide investment decision-making. The *Plan* will help guide follow-on actions for improving the freight transportation system and suggests appropriate roles for Mn/DOT and stakeholders.

Future work will include development of an Action Plan, which includes prioritizing strategies and further developing performance measures and indicators, to provide direction for Mn/DOT's freight planning activities. Work has begun on several Freight Plan strategies, for example, the Statewide Heavy Vehicle Safety Plan, a truck size and weight study, Met Council's Regional Truck Model and identification/development of data sources for freight performance indicators.

Executive Summary

¹Reebie Associates, "2001 TRANSEARCH® Commodity Flow" Data. ("1997 Commodity Flow Survey" data used.)