

CHAPTER 7: Foster Wisconsin's Economic Growth

WisDOT's vision for transportation and economic growth is to partner with communities and industry to maintain and improve the state's transportation system so it is responsive to global and regional economic needs and changing conditions.

A growing economy requires a strong multi-modal transportation system that connects people to jobs and permits the safe and efficient movement of goods and people across the state. Nearly half of Wisconsin's gross product is derived from three major industries – manufacturing, agriculture and tourism. These industries, along with the growing service sector, rely heavily on efficient transportation to succeed and grow.

During the past 20 years, three business practices have changed the way the transportation system is used: just-in-time delivery, the strategic siting of retail distribution centers, and e-commerce.

Just-in-time delivery. In the past, manufacturers maintained large inventories in warehouses. Today, goods are produced based on consumer demand and delivered just in time for the next phase of production or consumption. Eliminating warehousing costs and reducing inventory costs have increased efficiency and productivity gains.

As a result, trucks, railcars and ship containers, as well as the state's transportation system, have become the new warehouses. The just-in-time shipping practices have created a greater reliance on a transportation system that provides predictable travel times.

E-commerce. Advances in communication and Internet based retail operations have fine-tuned

► **POLICIES IN THIS CHAPTER FOR FOSTERING WISCONSIN'S ECONOMIC GROWTH:**

- › *Partner with stakeholders to ensure that freight movements are safe and reliable and provide positive environmental and community impacts*
- › *Improve airport facilities and infrastructure to create more business airplane-capable airports*
- › *Maintain and improve waterways critical to Wisconsin's transportation system*
- › *Ensure that freight rail remains a viable transportation mode for Wisconsin shippers*
- › *Provide grant and loan assistance to Wisconsin businesses and communities*
- › *Continue and improve the performance of the Major Highway Development Program*
- › *Preserve the local road and bridge system*
- › *Promote Wisconsin tourism through transportation system maintenance and improvements*
- › *Partner with consumers and businesses to increase transportation sustainability*
- › *Promote a diverse workforce in Wisconsin's transportation industry by building alliances and business opportunities through civil rights initiatives*

A GROWING ECONOMY REQUIRES A STRONG MULTI-MODAL TRANSPORTATION SYSTEM *that connects people to jobs and permits the safe and efficient movement of goods and people across the state.*



the supply chain. Suppliers, producers, shippers and businesses use innovative approaches and regularly adopt new technologies to communicate and collaborate on the faster movement of products to their destinations. Disruptions in the system impact everyone along the supply chain, from the shippers, producers and manufacturers to the consumers. As a result, a transportation system that flows from mode to mode without disruptions or congestion increases profits for businesses and lowers product costs for consumers.

Retail distribution centers. Wisconsin's major retail distribution centers (Map 7-1) are strategically located adjacent to major transportation facilities so products can be delivered quickly. In conjunction with just-in-time shipping practices, these retail distribution centers rely on an efficient and predictable transportation system.

Challenges

Wisconsin freight is moved by truck, rail, water and air. Each of these modes faces a number of challenges at the regional, national and international levels:

- » Significant increases in truck and rail freight traffic and limited infrastructure capabilities
- » Limitations in water and air freight capacity
- » Inadequate infrastructure and funding for maintenance of key segments of local roads and bridges that serve freight traffic
- » Wisconsin's location between Chicago and Minneapolis/St. Paul
- » A changing global economy

In 2007, truck traffic accounted for 6.4 billion vehicle miles traveled. By 2030, truck traffic is forecast to account for 10.5 billion miles, an increase of 64 percent. In addition to traffic volume increases, truck size and weights are also expected to increase. In some areas of the state, Wisconsin's roadways

are not designed to handle the current number of trucks using them. Future increases will further strain the system and potentially result in accelerated infrastructure deterioration, as well as expanded maintenance and preservation requirements.

Similar to trucks, freight rail shipping is forecast to grow 60 percent by 2030. In addition, rail car loads are expected to get heavier for shippers and rail lines to remain competitive. To accommodate these increases, several miles of rail line will need to be upgraded to accommodate modern rail cars designed to carry heavier loads. In addition to infrastructure concerns, some non-mainline rail corridors may be at risk for abandonment. Freight shipments by water also face several challenges including seasonal water limitations such as freezing, antiquated lock systems, lack of dredging, and low water levels on the Great Lakes.

While air freight represents a small share of the state's freight movements, lack of direct air freight service into Wisconsin, limited air freight movement in Minnesota and congestion problems at Chicago's airports, will continue to impact Wisconsin's transportation system. (Eighty percent of airborne goods manufactured in Minnesota that are destined for international markets are trucked to Chicago to be placed on planes there because there is not enough cargo capacity in the Minneapolis airport.)

Inadequate funding and infrastructure necessary to support freight movements on the state and local system remains a challenge. As more and heavier loads are carried on the transportation system – both state and local – greater investments will be required. Ensuring that adequate funding is in place to maximize existing investments and position the state to handle anticipated increased freight movements is critical.

Of immediate concern are efforts to identify maintenance and preservation needs of key state and local system components, including highway and bridge needs, rail corridors, the links between ports and the state system. With budgets and staff resources strained at all levels, efforts will need to consider how best to leverage available resources and identify



▲ Map 7-1: Wisconsin's major retail distribution centers are strategically located adjacent to major transportation facilities. Major distribution centers are described as historically large facilities of 40,000 square feet or more, with 100-plus employees. Backbone routes are multi-lane divided highways interconnecting all regions and major state economic centers, with links to the national system. Connector routes are predominantly two-lane highways connecting all other significant economic and tourism centers to the backbone system (see Chapter 5, Preserve and Maintain Wisconsin's Transportation System).





Transportation and economic growth

A quality transportation network benefits the state's continued economic growth by:

- › Encouraging business and industry to locate here
- › Supporting existing businesses
- › Supporting and enhancing the state's strong tourism industry
- › Attracting new residents

opportunities to meet the heightened demands on the system. In addition, efforts to maximize use of the system and shift freight movements across modes, especially trucking to other modes, will require that the limitations of air, rail and water be addressed.

In addition to funding and infrastructure concerns, other issues need to be addressed at the federal and state levels to ensure that community and environmental impacts are minimal. These include invasive species controls, rail crossing safety, and minimizing increased rail traffic and noise impacts on communities. Individually, each freight mode faces challenges. However, when freight movements can use multiple modes, efficiencies are gained. Wisconsin's intermodal connections are limited. Intermodal connections exist at the ports of Milwaukee

and Duluth/Superior. At these ports, freight is moved from ships to rail or truck. Beyond these connections however, Wisconsin intermodal shipping relies on the significant infrastructure of neighboring Minnesota and Illinois facilities.

Because Wisconsin is located between two major freight generating metropolitan cities – Chicago and Minneapolis/St. Paul – more freight passes through Wisconsin than originates in, or is destined for, the state. In addition, the close proximity of intermodal facilities in Illinois and Minnesota make siting a rail/truck intermodal facility in Wisconsin less attractive economically. For these reasons, shippers truck goods to the Chicago area, contributing to congestion and potential pavement deterioration on Wisconsin's highways. Over time, these factors may change. Rising fuel prices and new technology may result in intermodal moves becoming economically feasible for distances of less than 500 miles.

The changing and expanding global network will also dramatically affect Wisconsin's transportation system and economic growth. Around the world, developing countries such as China and India are investing in transportation infrastructure. By improving their systems, these countries have effectively streamlined their transportation costs. As a result, even with modest population growth increases, China is forecast to become the world's manufacturing center. The U.S. will import a large percentage of its goods by the year 2030.

In addition, infrastructure limitations like bottlenecks at traditional U.S. points of entry (ports or airports) will force the freight industry to look at other ways of moving freight. In some instances, they are already using roads not designed for heavy freight use. Ports of entry that have adopted modern technologies and expanded to accommodate larger planes or ships have the advantage. Wisconsin's ability to prepare for and respond to these market changes, as well as the expected increase in freight traffic and corresponding demands on the transportation system, is critical. Wisconsin's infrastructure must be maintained, and where possible, improved to meet these dramatic increases.

Opportunities: Wisconsin's role in fostering economic growth

To meet the challenges associated with transportation and economic growth, Wisconsin must continue to develop and implement transportation policies that link Wisconsin's communities to the global market. This means focusing investments on the parts of the system that are most heavily used, focusing business practices on projects that facilitate and maximize goods movement across modes, examining the department's role with regard to freight, and developing local and regional solutions to address this multi-jurisdictional issue. Besides productivity gains at the state or regional level, investments in the state's transportation system will also provide benefits, such as:

- » Safer roads and less congestion
- » Local highway access that provides economic development and tourism opportunities for communities
- » Jobs created from project construction and the multiplier effect

The following *Connections 2030* policies are developed to help address Wisconsin's economic growth initiatives and transportation needs:

- » Partner with stakeholders to ensure that freight movements are safe and reliable and provide positive environmental and community impacts
- » Improve airport facilities and infrastructure to create more business airplane-capable airports

The multiplier effect

The multiplier effect is a measure of the economic consequences of a change in one sector upon other sectors. It incorporates the direct effects (project construction jobs), plus those supported through project purchases of goods and services (indirect jobs), plus the effects on the rest of the economy due to household spending (induced jobs).

- » Maintain and improve waterways critical to Wisconsin's transportation system
- » Ensure that freight rail remains a viable transportation mode for Wisconsin shippers
- » Promote Wisconsin tourism through transportation system maintenance and improvements
- » Provide loan assistance to Wisconsin businesses and communities
- » Continue and improve the performance of the Major Highway Development Program
- » Preserve the local road and bridge system
- » Partner with consumers and businesses to increase transportation sustainability

Port of Prince Rupert, British Columbia, Canada

Recent investments in the the Port of Prince Rupert in British Columbia will enable faster intermodal shipping between China (and other Asian markets) and the Midwest. Intermodal shipments traveling between Asian markets and the Midwest will utilize Canadian National's rail mainline that passes through Superior, Central Wisconsin, the Fox Valley and Southeastern Wisconsin.



HIGHWAY PRESERVATION WILL CONTINUE TO STIMULATE ECONOMIC ACTIVITIES,

with emphasis placed on maximizing investments and providing high quality system connections between Wisconsin's communities, regionally and nationally.

- » Promote a diverse workforce in Wisconsin's transportation industry by building alliances and business opportunities through civil rights initiatives

While this chapter is focused primarily on freight transportation and business development, economic growth is also stimulated by a number of other transportation initiatives and policies outlined in the plan and summarized below.

Preserve and Maintain Wisconsin's Transportation System (Chapter 5)

Highway preservation will continue to stimulate economic activities, with emphasis placed on maximizing investments and providing high quality system connections between Wisconsin's communities, regionally and nationally.

Promote Transportation Safety (Chapter 6) and Promote Transportation Security (Chapter 11)

Providing a safe and secure system also contributes to economic growth. By ensuring that Wisconsin's transportation infrastructure is safe and able to respond effectively to incidents, as well as providing system redundancy, businesses and individuals are able to continue their day-to-day activities without major disruptions or delays.

Provide Mobility and Transportation Choice (Chapter 8)

Passenger transportation plays a significant role in supporting Wisconsin's economy. Further development of passenger modes can have positive economic

impacts. Results from a 2006 transit benefit-cost analysis indicate that investing in transit produces a return of more than \$3 of socio-economic benefits for every \$1 invested.¹ Fixed guideway transit has played a significant role in economic growth in urban areas throughout the United States, and has the potential to do the same in Wisconsin's largest urban areas. Fixed-guideway transit can spur development around stations, increase property values, increase the attractiveness of a region for potential employers, and help attract highly skilled professionals to a region. In fact, the business community is one of the strongest supporters of fixed-guideway transit in southeast Wisconsin. Intercity passenger rail has similar economic benefits. In addition to attracting employers and highly skilled professionals, and encouraging development around station areas, intercity passenger rail can spur tourism, and it can allow business travelers to travel more cost effectively.

Promote Transportation Efficiencies (Chapter 9)

Enhancing transportation system efficiencies and seeking to improve the overall operation and function of the system and address capacity needs further stimulates economic growth. Businesses and individuals will continue to see Wisconsin as an attractive state to locate and expand their business opportunities.

Preserve Wisconsin's Quality of Life (Chapter 10)

Supporting Wisconsin's natural and cultural resources through environmental considerations in transportation decision-making also contributes to the state's continued economic vitality. Wisconsin's natural resources support the state's tourism industry.

¹ Wisconsin Department of Transportation. *The Socio-Economic Benefits of Transit in Wisconsin. Phase II: Benefit Cost Analysis.* May 2006.

► **POLICY:**

Partner with stakeholders to ensure that freight movements are safe and reliable and provide positive environmental and community impacts

Current projections indicate that overall, Wisconsin's freight traffic will double by the year 2030; in certain corridors and by certain modes it is expected to occur sooner. This increase in freight traffic will place significant demands on the state's transportation network. To meet this need and keep Wisconsin competitive WisDOT will:

- » Establish a freight focus within WisDOT
- » Facilitate and advocate for freight between public and private interests
- » Collect and analyze data to support freight planning and programming decisions
- » Conduct an all-mode freight study

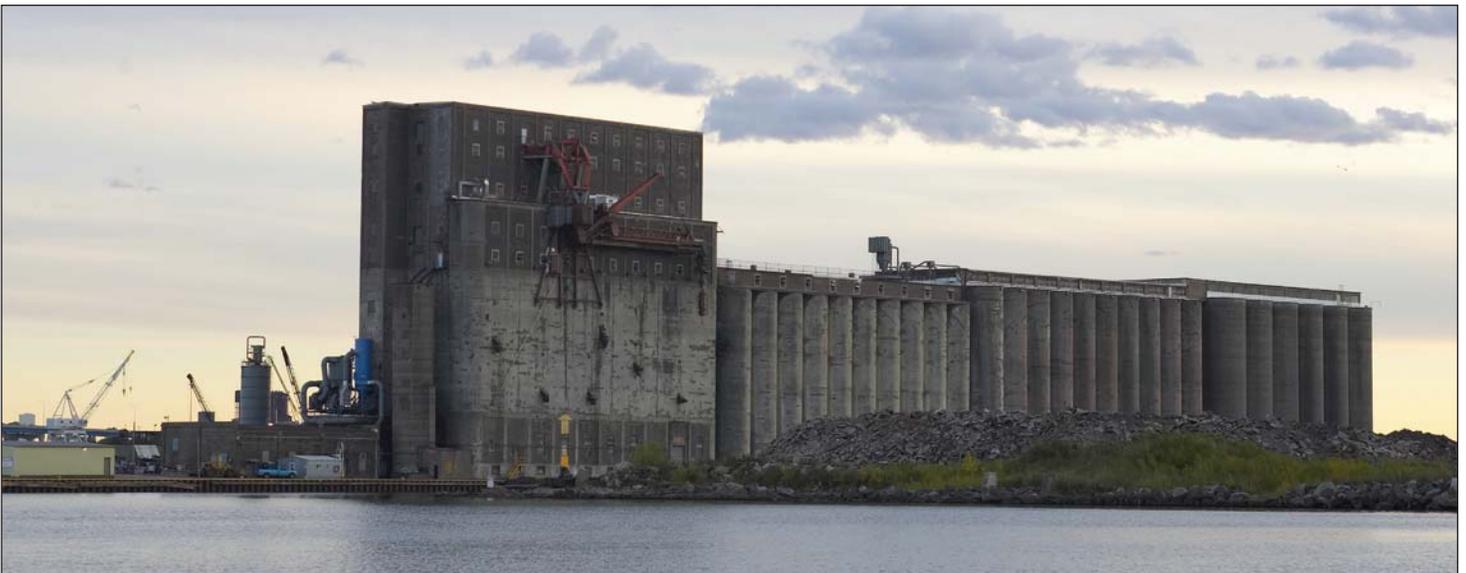
Background

In addition to significant increases, the expanding economies of Chicago and Minneapolis-St. Paul will also contribute to future growth and development in Wisconsin. These changes will place enormous pressures on Wisconsin's transportation network. A coordinated response that enables WisDOT to prioritize investments and target improvements to meet infrastructure needs while supporting economic growth is critical.

Initial efforts must focus department resources on building and maintaining relationships with the freight industry to better understand freight needs, markets and issues, and developing a forum where issues and concerns can be addressed and prioritized.

Establish a freight focus within WisDOT

WisDOT will establish a freight focus first by dedicating staff to reviewing the department's role in freight transportation. Then, staff will develop strategies to improve WisDOT's understanding of freight needs. Finally, staff will integrate freight



▲ *Figure 7-1: A coordinated response that enables WisDOT to prioritize investments and target improvements to meet infrastructure needs while supporting economic growth is critical. Initial efforts must focus department resources on building and maintaining relationships with the freight industry to better understand freight needs, markets and issues, and developing a forum where issues and concerns can be addressed and prioritized.*



Freight stakeholders

Private sector interests:

- › Highway builders
- › Trucking industry
- › Railroads
- › International shipping companies
- › Private terminal operators
- › Third party logistics firms
- › Ports
- › Shippers
- › Organized labor
- › Private financial community

Public sector interests:

- › Metropolitan planning organizations
- › Impacted communities
- › Environmental interests
- › Emergency management

transportation policies into department planning and investment decision-making processes.

Implementing a freight focus within the department will support the state's effort to maintain and enhance its competitive role within regional, national and global markets, and strategically place the state at a competitive advantage to apply for federal funding for freight projects that address congestion. To qualify for federal funds, projects must be innovative. States must possess significant knowledge of commodity flows, have committed private sector participation, track freight performance measures, and produce cost-benefit analyses. States with advanced freight planning efforts will be positioned to compete for this funding.²

Specifically, freight focus staff will:

- » Measure the economic impact that all freight modes have on the transportation network
- » Analyze and work to understand the state's freight markets and freight's regional, national and international role in the global economy
- » Spearhead change within WisDOT to incorporate freight in all transportation functions: planning, program administration and project selection and delivery
- » Participate in the development of national freight policy
- » Assess and understand the impacts that Wisconsin's policies have on the competitive economics of freight modes
- » Provide outreach to educate decision-makers and the public on freight issues
- » Assess impacts of freight on highway maintenance costs

² Federal freight programs include Corridors of National and Regional Significance and Corridors of the Future.

- » Seek innovative ways to maintain an all-mode freight network, improve efficiencies among the modes, and facilitate goods movement

In addition, WisDOT will continue to participate in collaborative regional freight research efforts with other Midwest states through the Mississippi Valley Freight Coalition and other forums.

Assume the role of facilitator and advocate for freight between public and private interests

No forum exists within WisDOT to support the exchange of ideas and discuss freight issues between the public and private sectors. In response, WisDOT will engage in freight advocacy by facilitating a dialogue to resolve issues between stakeholders when industry decisions impact a community's economic viability.

As a first step, WisDOT will investigate opportunities to work with freight stakeholders to improve its understanding of the relationship between business logistics and the transportation system, and identify opportunities for improvement. Options may include partnering with existing agencies locally, regionally and nationally, holding focus groups, and hosting meetings. These discussions will focus on efforts to address challenges and opportunities on a statewide and a regional basis. These challenges could include: congestion in the Fox Valley; lack of shipping alternatives in northern Wisconsin; and truck driver shortages.

In addition, WisDOT will explore the potential for establishing advisory groups that include freight stakeholders. Issues that could be addressed by an organized stakeholder group may include:

- » Performance of the transportation network
- » Regulation and taxation of the various modes
- » Labor availability
- » The impact of national and international trade policies



▲ *Figure 7-2: WisDOT projects freight traffic will double by the year 2030. This increase in freight traffic will place significant demands on the state's transportation network.*

- » Labor regulation and contractual provisions
- » Business consolidations

Collect and analyze data to support freight planning

The department will also continue to collect and analyze data necessary to support its new freight planning efforts. WisDOT already has access to some of this data. However, WisDOT will need to collect additional data to develop a comprehensive view of Wisconsin's freight transportation system. In the future, WisDOT may be able to collect real-time data from Chicago or Minneapolis, particularly if the data shows potential impacts in Wisconsin.

Over the next 25 years, it is expected that data collection from the private sector will be in real-time and freight data will be standardized to support national freight policy.

Conduct an all-mode freight study

WisDOT already has a good understanding of how commodities are generally shipped to, from and within the state. The department also has a good



understanding of the general origins and destinations of Wisconsin's freight shipments.

To develop a more complete picture of freight, WisDOT will conduct an all-mode freight study. This study will include a review of transportation infrastructure in surrounding states that impact freight movement within Wisconsin.

For example, rail congestion in Chicago usually adds a day in travel time for Fox Valley shippers, resulting in many companies deciding to move their shipments by truck to make the Chicago rail connection. The freight study will also provide the structure needed to engage the private sector, incorporate regional bottlenecks into transportation modeling and help the state prioritize future freight actions.

► **SUMMARY OF POLICY ACTION ITEMS:**

Partner with stakeholders to ensure that freight movements are safe and reliable and provide positive environmental and community impacts

Short-term (2008 – 2013)

- Consider the implications of additional freight on all transportation modes, and the impacts to WisDOT programs.
 - Provide outreach to educate decision-makers and the public on freight issues.
 - Investigate opportunities for outreach with freight stakeholders (for example, private sector representing truckers, shippers, other public sector agencies and local governments, etc.).
 - Assess the impacts of freight on highway maintenance costs.
 - Participate in the development of national freight policy.
 - Investigate new policies and new financing strategies for projects that improve freight service.
 - Conduct an all-mode freight study.
 - Assess and understand the impacts that Wisconsin's policies have on the competitive economics of freight modes.
 - Measure the economic impact that all freight modes have on the transportation network.
-

Entire planning period (2008 – 2030)

- Integrate freight data and freight considerations into WisDOT's planning and investment decision-making processes.
 - Collect and analyze data and work to understand the freight markets in Wisconsin, and freight's regional, national and international role in the global economy.
 - Prioritize investments and target improvements to meet infrastructure needs while supporting economic growth.
 - Seek innovative ways to maintain an all-mode freight network to improve efficiencies among the modes and facilitate goods movement.
 - Continue collaborative regional freight research efforts with other states in the Midwest through various forums such as the Mississippi Valley Freight Coalition.
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NOTE: Intermediate and long-term actions will be identified by WisDOT as the policy evolves.

► **POLICY:**
Improve airport facilities and infrastructure to create more business airplane-capable airports

Airports and aviation are integral parts of local, state and regional economic development. An airport's ability to accommodate the needs of existing and prospective businesses is vital. To help improve the environment for business growth and retention, WisDOT will improve airport facilities and infrastructure by increasing the number of airports able to handle business airplanes.

To accomplish this policy, WisDOT will:

- » Use the Airport Improvement Program to help Wisconsin airports accommodate business planes
- » Support the needed airport system infrastructure, including inclement weather capability, to enable and sustain jet aircraft and related activity
- » Determine how the Wisconsin Airport System can best accommodate potential increased use of very light jets

Background

In 2000, WisDOT conducted a survey of Wisconsin businesses and their airport needs. Corporate flight departments, corporate pilots and airport owners consistently stated a runway length that will accommodate larger airplanes is a key factor in determining whether corporations will fly to a particular airport for business purposes.

As a result of the survey, WisDOT evaluated 72 state system airports to determine whether they were able to accommodate longer runways and business jets. The analysis found 20 airports were not capable of accommodating a longer runway due to site constraints. Of the remaining 52 airports, 32 met the criteria for runway extensions. Since 2000, 13 have been improved. Fifteen additional airports will likely be improved during the next decade. The remaining



Six factors are taken into consideration when evaluating a runway extension:

- › Potential environmental impacts
- › Site constraints
- › Economic feasibility
- › Community support
- › Current and forecast business/corporate activity
- › Economic development impact

airports do not have a short-term need to accommodate jets, but may need to by 2030.

Use the Airport Improvement Program to help Wisconsin airports accommodate business airplanes

WisDOT will continue to use the Airport Improvement Program to assist with infrastructure improvements at Wisconsin airports. The Airport Improvement Program uses a combination of federal, state and local funds. Airport infrastructure improvement projects that clearly support an immediate need by an existing business user, or that can be directly linked to job retention, job increases, income and retaining a





▲ Map 7-2: In a WisDOT survey, conducted in 2000, corporate flight departments, corporate pilots and airport owners consistently stated a runway length that can accommodate larger airplanes is a key factor in determining whether corporations will fly to a particular airport for business purposes. Airport improvements must be tested against existing eligibility criteria and environmental impacts to see if federal or state funds may be available to assist in paying for that improvement under the facts and circumstances of that particular airport.

AIRPORTS AND AVIATION are integral parts of local, state and regional economic development. An airport's ability to accommodate businesses is vital. WisDOT will improve airport facilities and infrastructure by increasing the number of airports able to handle business jet airplanes.



▲ *Figure 7-3: To help improve the environment for business growth and retention, WisDOT will improve airport facilities and infrastructure by increasing the number of airports able to handle business airplanes.*

company located in the community, are given priority over projects intended solely to attract new business.

An update to the *State Airport System Plan 2020* is in progress and should be completed in 2011. The update will project needs based on a new set of forecasts through the year 2030. A key issue in the update effort will be the establishment of thresholds for airport classifications, which will in turn drive the Airport Improvement Program.

In 2002, a state airport system needs analysis estimated that over \$1.3 billion was needed through 2020 for preservation and improvement projects, or about \$72.6

million annually (2002 dollars). Based on historic funding levels, this indicates a shortfall of \$18.4 million each year (combined federal, state and local money). Increases in state funding of roughly \$3 million a year are needed to meet both the preservation and improvement needs of the state airport system.

Support the needed airport system infrastructure, including inclement weather capability, to enable and sustain jet aircraft and related activity

In addition to helping airports improve runways, the Airport Improvement Program also funds other improvements typically needed by jet airports:

- » Instrument approach systems
- » Runway lighting
- » Visual landing aids
- » Expansion of taxiways and aprons
- » Fuel storage
- » Hanger space
- » On-site weather information
- » Terminal buildings
- » Waiting areas
- » Ground transportation
- » Security



Analyze how the Wisconsin Airport System can best accommodate potential increased use of very light jets

A newer aviation innovation is a small jet engine powered airplane called a very light jet. Very light jets are relatively inexpensive and can land on runways as short as 3,000 feet. WisDOT will further analyze the growth of the very light jet market to determine its impact on the State Airport System.

While very light jets may reduce the need for runway extensions at some airports, other types of improvements such as instrument approach systems and hangers may be required. Although these small jets will fill a niche for businesses needing to move people or cargo quickly, they will not replace the use of larger jets at most airports.

Very Light Jets

- > Also called light jets, microjets or mini-jets
- > Single-pilot jets that weigh 10,000 pounds or less, with two engines, five to six passenger seats, and automated cockpits
- > May cost only half as much as today's least expensive business jets
- > Cost less to operate
- > Able to land on runways as short as 3,000 feet

► SUMMARY OF POLICY ACTION ITEMS:

Improve airport facilities and infrastructure to create more business airplane-capable airports

Short-term (2008 - 2013)

- Update the State Airport System Plan to determine airport improvement needs through 2030.
- Establish thresholds for airport classifications.
- Seek additional state funding for airport preservation and improvement projects.
- Study the needs of very light jets to determine their impact on the State Airport System.
- Construct runway extensions potentially in West Bend, Baraboo and Platteville.

Mid-term to Long-term (2014 - 2030)

- Construct runway extensions potentially in Watertown, Burlington, Ladysmith, East Troy, Hartford, New Lisbon, Amery, Clintonville, New Holstein, Sparta and Black River Falls.
- Program additional airport runway extension projects if the need to accommodate jets arises.

Entire planning period (2008 - 2030)

- Continue to use the Airport Improvement Program to assist with infrastructure improvements at Wisconsin airports.

► **POLICY:**
Maintain and improve waterways critical to Wisconsin's transportation system

To promote increased freight transportation and commerce along the Great Lakes and the Mississippi River, WisDOT will maintain and improve waterways critical to Wisconsin's transportation system.

Specifically, WisDOT will:

- » Advocate for federal funding of navigation and environmental improvements for the Upper Mississippi River-Illinois River Waterway and improvements to the Soo Lock System
- » Continue state assistance programs for harbor improvements

- » Encourage comprehensive harbor and waterfront land use planning
- » Examine roadway issues at ports

Background

The waterways that surround Wisconsin, the Mississippi River and the Great Lakes are underutilized as a means to move freight. Recent estimates indicate that the Great Lakes System is operating at about half its potential capacity.

Reasons for this underutilization have to do with the type of commodities traditionally transported by water and the lack of intermodal connections. Bulk commodities (grain, fertilizer, iron ore) have different service requirements than goods shipped by trucks or air, which typically need to be shipped faster. While Wisconsin's waterways are connected



▲ *Figure 7-4: The locks and dams on the Mississippi and Illinois rivers allow barge transportation along Wisconsin's western boundary, as well as from Milwaukee to the Gulf of Mexico.*

Harbor Maintenance Tax

The Harbor Maintenance Tax was enacted by Congress in 1986 to recover a portion of the cost of maintaining, not improving, the nation's deep-draft navigation channels. The amount of tax paid by the shipper, who owns the cargo, was based on the value of the goods being shipped. In March 1998, the U.S. Supreme Court issued a short, unanimous decision finding the Harbor Maintenance Tax unconstitutional as applied to exports. The decision states that the Harbor Maintenance Tax is a tax, not a user fee, because the ad valorem tax is not a fair approximation of services, facilities or benefits furnished to the exporter. Exports are protected from taxation in the Constitution because of their importance to the health of the nation.

~ www.aapa-ports.org/Issues/content.cfm?ItemNumber=1006

Merchant Marine Act of 1920 (Jones Act)

The Merchant Marine Act of 1920 (commonly known as the Jones Act) is federal statute that requires U.S.-flagged vessels to be built in the United States, owned by U.S. citizens, and documented under the laws of the United States. Documented means "registered, enrolled, or licensed under the laws of the United States." In addition, all officers and 75 percent of the crew must be U.S. citizens. Vessels that satisfy these requirements comprise the "Jones Act fleet." The Jones Act also restricts the carriage of goods between United States ports to United States flagged vessels. Critics of the Jones Act point out that the legislation results in higher costs for moving cargo between U.S. ports than if such restrictions did not apply. Another consequence is that the U.S. shipbuilding industry has suffered. Ship operators are given incentives to maintain veteran U.S.-built vessels rather than replace them with new tonnage; U.S. shipyards have adapted to building only ships that are needed by Jones Act operators, with price tags that reflect their all-American workforces.

~ www.nationmaster.com/encyclopedia/Merchant-Marine-Act-of-1920

to an extensive waterway network, that network is not necessarily well integrated into the road and rail systems.

In addition, a number of barriers exist to increasing commerce, including:

- » An antiquated regulatory environment that does not reflect economic realities (for example, the Harbor Maintenance Tax and the Jones Act)
- » Environmental issues such as invasive species
- » Lower water levels in the Great Lakes
- » Border crossing inefficiencies and lack of coordination between U.S. and Canada customs

- » Infrastructure improvement needs – antiquated locks and port facilities
- » Siting requirements for new landfills to store contaminated dredged materials
- » Increased residential waterfront development

Trends that may catalyze a shift from the road and rail networks to the waterways over the next 25 years include:

- » Continued growth in international trade, regional population and economic activity
- » Shortage of truck drivers
- » Higher fuel prices

- » Highway and rail congestion in the Great Lakes basin and St. Lawrence River region
- » More efficient shipping strategies due to the use of containers
- » Increased rail traffic from the Port of Prince Rupert, British Columbia, Canada
- » Congestion at U.S. West Coast ports

The Great Lakes St. Lawrence Seaway Study, completed in 2007, investigated the future role and necessary improvements that the Great Lakes system may require for waterborne shipping.³

The study concluded that the Great Lakes system could serve a dual purpose: continue to provide an essential service to North America's resource, manufacturing and service sectors; and play a growing role in carrying the new container traffic moving into and through the region.

To accomplish this, the waterborne mode must be as flexible and reliable as other modes. New vessels, short sea shipping and expanded container shipping would help make this shift possible, as well as intense collaboration by stakeholders to carefully balance economic considerations with environmental concerns and infrastructure maintenance.

WisDOT's freight study (identified in the policy in chapter called, "Partner with stakeholders to ensure that freight movements are reliable and safe and provide positive environmental and community impacts") will build on the Great Lakes St. Lawrence Seaway study.

WisDOT will analyze waterborne freight, review and develop forecasts, and identify opportunities to strengthen this mode as part of Wisconsin's transportation system. In addition, Wisconsin will cooperate with private and public sector entities to study and identify ways to improve Wisconsin's waterway system.

³ For more information, see www.gsls-study.com/English%20Site/home.html.

Waterborne freight and the environment

Transportation by water is significantly more fuel-efficient than other modes and consequently could reduce the emission of greenhouse gases and other pollutants. Moreover, increased use of waterborne transportation could help to alleviate traffic congestion on roads, which may ultimately result in the reduction of road maintenance and repair costs.



International shipping on the Great Lakes and Mississippi River waterways has contributed to the introduction of non-native invasive species such as the zebra mussel, the quagga mussel and the round goby. WisDOT will work with the Wisconsin Department of Natural Resources and others to identify solutions to this problem. Improved shipping practices and new shipbuilding and ballast water treatment technologies may help address this issue in the future.



Advocate for federal funding of navigation and environmental improvements for the Upper Mississippi River-Illinois River Waterway System and for the construction of a new lock in Sault Ste. Marie

Upper Mississippi River-Illinois River Waterway System

The system of locks and dams on the Mississippi and Illinois rivers allow barge transportation along Wisconsin's western boundary, as well as from Milwaukee to the Gulf of Mexico. The majority of commodities transported out of Wisconsin ports via river barges are agricultural-related items.

The U.S. Army Corps of Engineers completed a comprehensive study of navigation improvements and environmental actions on the Upper Mississippi River-Illinois River Waterway System.⁴ The study recommends implementing \$2.6 billion in navigation efficiency improvements and \$5.7 billion in ecosystem restoration activities along the Mississippi River and Illinois River waterways in Wisconsin, Minnesota, Iowa, Illinois and Missouri. The improvements will be federally funded. The recommended navigation efficiency improvements

⁴For more information, see www2.mvr.usace.army.mil/UMRS/NESP/.

include seven new locks and five lock extensions, mooring facilities and switchboats. The state of Wisconsin, including WisDOT and the Wisconsin DNR, participated in this effort and endorse the study recommendations.

In 2007, Congress passed the Water Resources Development Act which authorizes funding for a variety of projects along the Upper Mississippi River, including:

- » Switchboats at certain locks
- » Development of an appointment scheduling system
- » Several new 1,200-foot locks
- » Small-scale or non-structural improvements including mooring facilities at various locks
- » An estimated 225 projects designed to improve the ecological health of the river system

Congress has not yet provided funding for the act. WisDOT will continue to advocate that Congress fully fund the Water Resources Development Act.

Soo Lock System

The Soo Lock System is located along the St. Mary's River in Sault Ste. Marie, Michigan. It provides the only



A number of passenger ferries provide service in Wisconsin:

- > Three provide service to islands (Madeline Island, Washington Island, and Rock Island ferries)
- > Two provide access across rivers (Cassville and Merrimac ferries)
- > Two provide service across Lake Michigan (Lake Michigan Carferry and Lake Express)

Harbor Assistance Program funds can be used to help maintain or improve Wisconsin's ferry service.

Through the "Facilitate intermodal passenger connections" policy, Wisconsin's ferry services will become available to more travelers.



▲ *Figure 7-5: Wisconsin's ports annually handle 40 million tons of cargo with a value greater than \$7 billion. This represents approximately 11 percent of the state's total freight traffic.*

water connection between Lake Superior and the rest of the Great Lakes system. About 86 million tons of freight pass through the lock system each year, of which iron ore, coal and grain are the primary commodities. These commodities account for approximately 90 percent of the total freight transported into and out of the Port of Duluth-Superior.

The Soo Lock system is operated by the U.S. Army Corps of Engineers. The system consists of four locks. Currently, the Poe lock is the only Soo lock capable of handling the largest vessels in the Great Lakes fleet. Failure of this lock would prevent these large vessels from traveling between Lake Superior's ports and other Great Lakes ports. For this reason, the U.S. Army Corps of Engineers recommends constructing a new lock. The new lock will provide needed capacity and redundancy to ensure reliable service to Lake Superior's ports in the future. While the Water Resources Development Act of 2007 approved construction of the Soo Lock in Sault Ste. Marie, Michigan, full funding for the construction of this lock was not included in the Army Corps of Engineer's Fiscal Year 2009 budget.

Continue state assistance programs for harbor improvements

Created in 1979, the Harbor Assistance Program assists port communities along the Great Lakes and Mississippi River in maintaining and improving waterborne commerce. Port projects typically include dock reconstruction, mooring structure replacement,

dredging, and the construction of facilities to hold dredged material.

Since 1980, WisDOT has contributed over \$57.5 million in matching funds for 59 port projects. Recent state budgets have funded the Harbor Assistance Program at a level of \$5 million per two-year budget cycle. The 2007-2009 budget increased funding to \$12.7 million for a total of \$53.4 million in bonding authority. The Transportation Economic Assistance program is another WisDOT funding source available for port access infrastructure improvement projects that meet the program's criteria. Refer to the "Provide grants and loans to Wisconsin businesses" policy in this chapter for more information.

WisDOT will continue to help communities and businesses make land- and water-side harbor improvements through the Harbor Assistance Program and the Transportation Economic Assistance Program.

Encourage comprehensive harbor and waterfront land use planning

Wisconsin port communities are faced with competing land uses for existing waterfront properties. With increasing demand for waterfront property, local officials must address the challenges of zoning conflicts between competing interests at the ports, such as recreation/tourism, housing developments, and commercial and industrial needs. Some of these competing interests could



impact future freight activities at Wisconsin's ports. Regional planning commissions, metropolitan planning organizations and local governments typically handle local shoreline planning and development issues. Historically, WisDOT has had limited involvement with local shoreline planning and development issues. However, WisDOT will monitor and, if appropriate, participate in discussions to encourage communities to include comprehensive waterfront development analyses as part of their planned growth. WisDOT will also provide technical assistance to community planning efforts. WisDOT's goal is to encourage waterfront development that balances commercial, environmental, recreation and housing interests.

Examine and address roadway issues at ports

The road network that connects to the state's ports is a critical, but sometimes-overlooked, part of Wisconsin's transportation system. Typically, these are local roads owned and operated by local jurisdictions. Even though they are local roads, many are part of

the National Highway System because they provide access to intermodal facilities. In some instances, these roads suffer from a lack of maintenance because they typically do not serve high volumes of passenger traffic.

In addition, the road network sometimes does not adequately serve oversized or overweight trucks traveling to and from the ports. This can result in trucks traveling farther distances to avoid bridges with weight limits, areas with reduced clearances or roadways with insufficient turning radii.

Since many of these local roads are part of the National Highway System, the state and local governments typically share responsibility for maintaining them. As part of WisDOT's freight planning and local roads coordination efforts, the department will work with local governments and Wisconsin's ports to identify solutions that address roadway issues for port areas (see also the policy in this chapter called, "Preserve the local road and bridge system").

► **SUMMARY OF POLICY ACTION ITEMS:**

Maintain and improve waterways critical to Wisconsin's transportation system

Short-term (2008 – 2013)

- Continue to help communities and businesses make land- and water-side harbor improvements through the Harbor Assistance Program and the Transportation Economic Assistance Program.
- Advocate for continued federal funding to implement the recommendations resulting from the U.S. Army Corps of Engineers' Upper Mississippi/Illinois River Waterway Study.
- Continue to work with other Great Lakes states in promoting the construction of a new lock in the Soo Lock System.
- Work with local governments and ports to identify solutions to address roadway issues for port areas.
- Cooperate with private and public entities to study and identify ways of improving the infrastructure of Wisconsin's waterway system.

Entire planning period (2008 – 2030)

- Analyze waterborne freight, review and develop forecasts, and identify opportunities to strengthen this mode as part of Wisconsin's transportation system.
- Continue to advocate that Congress fully fund the Water Resources Development Act.
- Work with the Wisconsin Department of Natural Resources and others to identify solutions to the problem of non-native invasive species introduced to the Great Lakes and Mississippi River waterways.
- Encourage communities to include comprehensive waterfront development plans as part of their planned growth, and provide technical assistance as needed.

► **POLICY:**
Ensure that freight rail remains a viable transportation mode for Wisconsin shippers

WisDOT recognizes the increasing challenges Wisconsin shippers face. WisDOT will work to ensure that freight rail remains a viable mode of transportation for Wisconsin shippers. The action steps identified under this policy are in response to service issues raised by shippers and communities that rely on local freight rail service – specifically their need for adequate connections to the regional and national transportation system.

To accomplish this policy, WisDOT will:

- » Continue to preserve rail corridors for future transportation use
- » Work with railroads to ensure that appropriate rail service will be provided to all shippers statewide
- » Acquire rail lines into public ownership, when appropriate, to preserve essential railroad service
- » Fund track upgrades for publicly owned rail lines to meet changing industry standards

Background

The Staggers Act of 1980 marks the beginning of the modern U.S. rail industry. This legislation deregulated the rail industry, allowing railroads to shed unprofitable and duplicative lines. Many lines in Wisconsin were abandoned. In response, the state partnered with a number of counties to purchase rail lines to maintain freight rail service to local communities. This policy is still in place today.

Wisconsin's rail system has gone from having a large Class I⁵ presence in the 1980s, to being a primarily shortline and regional rail system in the 1990s, to once

again being operated by the large Class I railroads since 2001. Generally, the Class I business model is focused on providing high volume, long-haul service instead of local rail service. The change back to Class I dominance in Wisconsin has impacted local economies.

Decisions by Class I railroads to potentially reduce or cease service over low volume routes, especially in northern Wisconsin, has led WisDOT to identify the following shortcomings in its current policies:

- » Lack of detailed and readily available state-level freight data
- » No clear liaison function between WisDOT and the railroads
- » No advocacy role or outreach function for WisDOT relative to rail service for Wisconsin (rail-dependent) businesses

This policy's actions, in conjunction with the freight focus policy, will begin to address these shortcomings.

Staggers Rail Act of 1980

Before 1980, economic regulation prevented railroads from any flexibility in pricing needed to meet both intra and intermodal competition. Regulation also prohibited carriers from restructuring their systems, including abandoning redundant and light density lines, a necessity for controlling cost.

With the passage of the Staggers Rail Act of 1980, many regulatory restraints on the railroad industry were removed, providing increased flexibility to adjust rates and tailor services to meet shipper needs and their own revenue requirements. The Staggers Act also legalized railroad-shipper contracts. These contracts represent privately negotiated agreements between railroads and shippers over rates, service levels and equipment, minimum annual volume of traffic, and other items.

~ www.fra.dot.gov/downloads/policy/staggers_rail_act_impact.pdf

⁵Class I railroad classification is based on a threshold of annual operating revenues. In 2008 the threshold was 2007 operating revenues of \$359.6 million.





▲ Figure 7-6: Heavier rail car loadings not only impact the rail infrastructure, they also impact more than 260 railroad bridges and structures located on the publicly owned system.

Rail transit commissions

Rail transit commissions were formed as a mechanism to purchase rail lines and manage rail service. They generally provide matching funds for the purchase and rehabilitation of rail corridors.

Regional transit commissions continue to be valuable partners in efforts to preserve freight rail service even though they were created before a change to the Wisconsin Constitution allowed the state to make direct investments in rail infrastructure.

Work with railroads to ensure that appropriate rail service is provided to all shippers statewide

WisDOT will work with railroads to maintain, improve and increase service in Wisconsin. To better serve areas in northern Wisconsin that have lower freight rail traffic volumes, WisDOT

will promote the development of one or more rail transit commissions. The new rail transit commissions would provide the organizational structure needed to move forward on an agenda for rail service preservation and outreach to both Class I and regional railroads operating in Wisconsin.

By monitoring railroad activity and creating partnerships among businesses and railroads to increase the use of rail, it is hoped there will be fewer service reductions and, as a result, fewer abandonments and fewer rail line acquisitions.

Acquire lines into public ownership, when appropriate, to preserve essential railroad service

WisDOT will continue efforts to preserve rail freight service when the service is judged essential, cost effective and financially viable based on transportation efficiency cost-benefit analyses.

The state is committed to maintaining essential freight rail service for Wisconsin communities. WisDOT will also continue to work with communities and shippers to acquire railroad lines if essential service

is compromised. The state, along with rail transit commissions representing local governments, has acquired approximately 637 miles of track since 1977. Currently, the state owns about 472 miles of track and provides funds to improve this system.

WisDOT's Freight Rail Preservation Program funds rail line acquisitions. The program is also the primary funding source used to improve the infrastructure of state-owned lines. The rail transit commissions have contracted with the Wisconsin and Southern Railroad to operate the majority of this network for a period of 40 years. A number of smaller railroads operate over other rail lines.

Fund track and bridge upgrades for publicly owned rail corridors

A critical business need for the Wisconsin shortline system (serving local business freight needs), is the ability to accommodate heavier car loadings that are becoming prevalent on Class I railroads. Two types of infrastructure improvements that will meet this need require additional funding to ensure that the state-owned system is economically competitive, safe and efficient. They are:

- » Track upgrades to industry standards
- » Bridge upgrades to handle heavier car weights

The state-owned system was rehabilitated to Federal Railroad Administration Class 2 Track Safety Standards after it was acquired in the 1980s. Market standards have since changed. To improve their financial performance, railroads are increasingly hauling heavier loads in each rail car – moving from 263,000-pound cars to 286,000-pound cars. If shippers continue to use the lighter cars, they will ultimately pay a higher premium to ship their goods.

Heavier cars require more robust track infrastructure. In many areas, Wisconsin's current publicly owned track cannot effectively handle these heavier cars. In 2002, Wisconsin and Southern Railroad (WSOR) outlined a plan through 2010 for upgrading rail lines under its operation to accommodate the heavier

railcars and increasing volume of traffic. At that time, Wisconsin and Southern Railroad estimated 175 miles of the publicly owned lines needed improvements.

In 2008, that number was updated to include nearly all of the approximately 500 miles of line in the WSOR-operated, publicly owned system. This was done due to increased use of 268,000 rail cars and the occurrence of several derailments caused by the combination of heavier cars and aging rail. Some of these line upgrades have been completed and more are being scheduled as funds become available. The Wisconsin and Southern Railroad based the proposed upgrades on both the condition of the existing track and the projected service needs on the corridors.

Heavier rail car loadings not only impact the rail infrastructure, they also impact more than 260 railroad bridges and structures located on the publicly owned system. In 2006, WisDOT studied a sample of state-owned railroad bridges.⁶ The study concluded that steel and concrete bridges would accommodate heavier cars, but timber bridges would have less than five years of life expectancy at sustained weights of 286,000 pounds.

Based on the limited sample of bridges, the study estimated that nearly \$24 million of maintenance and capital construction would be needed for existing timber bridges. Due to the limited sample size, a similar estimate was not produced for the steel and concrete structures.

Governor Doyle's 2007-2009 state budget increased the Freight Rail Preservation Program budget to \$22 million per year to accelerate track and bridge upgrades. However, this acceleration will not keep pace with projects proposed by Wisconsin and Southern Railroad and other program applicants over the next several years. Future projects could include:

- » Increasing capacity of existing state-owned rail infrastructure to accommodate growth

⁶ *Impact of Railcar Weight Change on Bridges of the State of Wisconsin Owned Railroad System, August 2006.*



State Trails Network Plan

The Wisconsin Department of Natural Resources' State Trails Network Plan identifies a majority of the state's rail network as proposed recreational trails. The plan is an amendment to the Wisconsin State Trail Strategic Plan, and provides authorization for the Department of Natural Resources to pursue acquisition of any abandoned rail grade or other corridor identified in the plan. This plan allows the state to respond quickly to abandonment proceedings. Over 90 percent of rail corridor preservation comes from Department of Natural Resources funding.

- » Purchase of key corridors that would otherwise be abandoned, like the Kiel-Saukville corridor purchased in 2005
- » Upgrading rail infrastructure and bridges to accommodate new, heavier car standards
- » Returning Rails-to-Trails corridors to active freight rail service, as warranted

Key corridor acquisitions, such as the purchase of the Kiel-Saukville corridor segment in 2005, as well as other pending and potential line acquisitions, will impact the level of funding available for track rehabilitation. To date, Wisconsin has provided this funding as a local assistance program. The state may need to re-evaluate its role given the large financial commitment needed to keep the system competitive for forecast traffic.

WisDOT will continue to work with rail transit commissions, Wisconsin and Southern Railroad, other operators, and stakeholders to study the economic impacts of the publicly owned rail system and the opportunity costs of this policy. WisDOT will communicate the results of these activities to decision-makers.

Continue to preserve corridors for future transportation use

When preservation of rail service is not possible and a railroad abandons a rail line, the department shifts to a rail corridor preservation approach. Rail corridor preservation ensures that rights of way can be used in the future for transportation purposes.



▲ *Map 7-3: The state, along with rail transit commissions representing local governments, has acquired approximately 600 miles of track since 1977. The map above shows the extent of publicly owned rail lines as of 2006.*

In the interim, the corridors can be developed as recreational trails commonly known as Rails-to-Trails. The popular trails add to the state's tourism appeal and enhance the quality of life for Wisconsin residents. In many communities, these trails provide

important links for both pedestrians and bicyclists. In a few instances, they offer an alternative to the private automobile for work and school trips. If there is interest in preserving a rail corridor by either the Wisconsin Department of Natural Resources or a local community, WisDOT, serving as the state's Rails-to-Trails clearinghouse, will invoke the National Trails System Act prior to an abandonment decision by the Surface Transportation Board. A certificate for interim trail use, granted to the applicant, allows the corridor to be used as a trail in the interim. Map 7-4 shows corridors currently operating as Rails-to-Trails or rail/land banks that could revert to rail service.

Another option for corridor preservation is to rail bank or land bank a corridor. WisDOT, alone or with local partners, may purchase track and land (rail bank) or land only (land bank). In this case, the corridor is not used as a trail in the interim. Rail banking is an option when local partners have plans to restore rail service in the near term. If attempts

to generate business fail, it is then possible for the corridor to be used as a trail under the National Trails System Act. In cases where there is no interest by either the state or local communities to preserve a rail corridor, the rail corridor is allowed to be abandoned, and the property is returned to the owners. Funding for most land acquisitions for Rails-to-Trails will continue to come from the Wisconsin Department of Natural Resources through sources such as the Knowles-Nelson Stewardship program.

Rail service in some communities could be restored during the life of this plan. Decisions to restore service may be based on economic feasibility, creating system redundancy or other considerations. A redundant transportation system can provide "backup" or alternative routing for other freight modes, and provide relief from congestion that may occur on national rail corridors. Creating redundancy will also support homeland security efforts and provide alternate routing in case of a disaster.

► **SUMMARY OF POLICY ACTION ITEMS:**

Ensure that freight rail remains a viable transportation mode for Wisconsin shippers

Short-term (2008 – 2013)

- Develop outreach and foster relationships with all Wisconsin railroad operators to keep abreast of market demands and railroad interests.
- Facilitate relationships to reduce the number of abandonments and strengthen the market for rail.
- Promote the creation of rail transit commissions with the charge to create an agenda for rail service preservation in northern Wisconsin.
- Work with the rail transit commissions, Wisconsin and Southern Railroad, and other operators to study the economic impacts of the publicly owned rail system, and the opportunity costs of this policy, and communicate the results of these activities to decision-makers.

Entire planning period (2008 – 2030)

- Support increased investment in freight rail infrastructure in response to shipper needs and market demands, including continued growth in traffic volume and industry-wide changes in car loading weights.
- Continue efforts to preserve rail freight service when the service is judged essential, cost effective and financially viable based on transportation efficiency cost-benefit analysis.
- Continue to act as clearinghouse for Wisconsin Rails-to-Trails initiatives.
- Continue to work with local partners to preserve rail corridors via the rail bank or land bank process.
- Restore rail service where economically feasible.
- Continue to monitor the level of Wisconsin Department of Natural Resources stewardship funding.

► **POLICY:**
Provide loan assistance to Wisconsin businesses and communities

WisDOT will continue to administer grant and loan programs aimed at enhancing transportation infrastructure for highways, rails, harbors and airports. Currently these programs include:

- » Transportation Economic Assistance program
- » Freight Rail Infrastructure Improvement Program
- » Freight Rail Preservation Program
- » Harbor Assistance Program
- » Airport Improvement Program

Background

WisDOT's grant and loan programs help preserve or increase a community's tax base and provide funding to build projects that could not have been financed in their entirety by the private sector.

All applications for assistance undergo a benefit/cost analysis to demonstrate the public benefit of each project. WisDOT will periodically review the assistance programs to ensure that they reflect market needs.

The following grant and loan programs are discussed in more detail within other policies:

- » Harbor Assistance Program: "Maintain and improve waterways critical to Wisconsin's transportation system"
- » Airport Improvement Program: "Preserve the airport system infrastructure"
- » Freight Rail Preservation Program: "Ensure that freight rail remains a viable transportation mode for Wisconsin shippers"

The Transportation Economic Assistance and Freight Rail Infrastructure Improvement Programs are discussed in detail below.

Transportation Economic Assistance program

The Transportation Economic Assistance program provides grants to governing bodies for road, rail, harbor and airport projects that help attract employers to Wisconsin, or encourage business and industry to remain and expand in the state.

Grants of up to \$1 million are available for transportation improvements essential to an economic development project. The project must begin within three years of the approved application, have the local government's endorsement and benefit the public through job creation or retention. The program is designed to implement an improvement

Transportation Economic Assistance program

The Transportation Economic Assistance (TEA) program provides 50% state grants to governing bodies, private businesses, and consortiums for road, rail, harbor and airport projects that help attract employers to Wisconsin, or encourage business and industry to remain and expand in the state. The goal of the TEA program is to attract and retain business firms in Wisconsin and thus create or retain jobs. Since the program began in September 1987, over 66,000 jobs have been directly and indirectly created through the \$74 million invested in grants awarded to 305 businesses in 179 communities across the state.

~ www.dot.wisconsin.gov/localgov/aid/tea.htm





The department's freight focus effort will include outreach to all modes and will provide the framework for studies that identify new rail markets, and opportunities for improved intermodal shipping. Existing studies have shown a need for examining distribution centers as catalysts for improving rail service in Wisconsin, as well as developing a marketing plan aimed at the plastics and agricultural sectors.

more quickly than normal state programming processes allow. Transportation Economic Assistance grants require a 50 percent local match, which can come from any combination of private, local or federal funds, as well as in-kind services.

Since its beginning in 1987, the Transportation Economic Assistance Program has invested \$74 million in 305 businesses in 179 communities across

the state. This investment has directly and indirectly created more than 66,000 jobs.

One hallmark of the Transportation Economic Assistance program is that transportation facilities can be approved and built quickly in response to rapidly changing business needs. However, programs like Transportation Economic Assistance may produce changes that could conflict with a community's long-range vision. WisDOT will study the impact that programs like Transportation Economic Assistance have on the local planning process and make adjustments in communication and coordination, as appropriate.

In addition, WisDOT will evaluate opportunities to coordinate the Transportation Economic Assistance and Harbor Assistance programs to better market the Freight Rail Infrastructure Improvement Program to improve intermodal connections.

Freight Rail Infrastructure Improvement Program

WisDOT began the Freight Rail Infrastructure Improvement Program in 1993 after a constitutional amendment allowed the state to make rail-related infrastructure improvements. Under this program, WisDOT offers low- or no-interest loans to local units of government, railroads and businesses. Loans received under this program must be repaid within 10 years. Freight Rail Infrastructure Improvement Program loans can be used for rail projects meeting one or more of the following goals:

- » Connect an industry to the national railroad system
- » Make improvements to enhance transportation efficiency, safety, and intermodal freight movement

WisDOT WILL STUDY THE IMPACT *that programs like Transportation Economic Assistance have on the local planning process and make adjustments in communication and coordination, as appropriate.*



▶ *Figure 7-8: WisDOT's Freight Rail Infrastructure Improvement Program offers loans to be used for rail programs meeting goals such as making improvements to enhance transportation efficiency, safety, and intermodal freight movement.*

- » Conduct rail line rehabilitation
- » Assist business and industrial expansion

Since its inception in 1993, WisDOT has provided approximately 79 Freight Rail Infrastructure Improvement Program loans totaling \$93 million.

Originally, the program's funding came from segregated transportation fund revenues and loan repayments. Currently, program funding is provided entirely through the repayment of loans. The funding level is \$8.5 million for the 2007-2009 state budget. Many of the action items for this program revolve around its marketability and catering to meet new market needs, such as addressing the aging of rolling



▲ *Figure 7-9: WisDOT will evaluate opportunities to coordinate the Transportation Economic Assistance and Harbor Assistance programs to better market the Freight Rail Infrastructure Improvement Program to improve intermodal connections.*

stock. A clear understanding of the current rail environment is required to continue this program's flexibility in meeting future market needs.



As discussed in the policy “Partner with stakeholders to ensure that freight movements in Wisconsin are safe and reliable and provide positive environmental and community impacts,” the freight focus will include outreach to all modes. It will provide the framework for studies that identify

new rail markets, as well as opportunities for improved intermodal shipping. Existing studies have shown a need for examining distribution centers as catalysts for improving rail service in Wisconsin, as well as developing a marketing plan aimed at the plastics and agricultural sectors.

► **SUMMARY OF POLICY ACTION ITEMS:**

Provide loan assistance to Wisconsin businesses and communities

Short-term (2008 – 2013)

- Coordinate Transportation Economic Assistance and Harbor Assistance programs to better market the Freight Rail Infrastructure Improvement Program as a means to improve intermodal connections.
 - Assess the impacts of programs like Transportation Economic Assistance on the local planning process.
 - Identify opportunities for improved intermodal shipping in Wisconsin.
 - Examine distribution centers as catalysts for improving rail service in Wisconsin.
-

Mid-term (2014 – 2019)

- Work with local and regional economic development agencies and rail transit commissions to identify new markets for rail.
 - Cater to market needs and revise the Freight Rail Infrastructure Improvement Program as necessary.
 - Develop a rail marketing plan aimed at agricultural and plastics sectors.
-

Entire planning period (2008 – 2030)

- Continue to administer grant and loan programs aimed at expanding transportation infrastructure for highways, rails, harbors and airports.
 - Periodically review the assistance programs to ensure that they reflect market needs.
 - Continually assess the Freight Rail Infrastructure Improvement Program to meet new market needs, such as addressing the aging of rolling stock.
-

► **POLICY:**
Continue and improve the performance of the Major Highway Development Program

WisDOT will continue and improve the performance of the Major Highway Development Program.

Specifically, WisDOT will:

- » Complete the currently enumerated Major Highway Development projects and study approved corridors
- » On the approved corridors for study, follow interim environmental study objectives and when the study points to a project, request enumeration⁷ for construction
- » Propose additional Major Highway Development projects and studies to maintain or improve the functioning of the highway system (the rate at which projects are studied, enumerated and constructed will depend on funding)
- » Review and update Wisconsin Administrative Code and statute governing the Major Highway Development Program, as needed

Background

Major Highway Development projects, or “Majors,” are generally the most complex, costly and potentially controversial studies and projects initiated by WisDOT. They are long-term solutions to the most serious deficiencies on highly traveled segments of the highway system.

WisDOT thoroughly analyzes all potential improvement projects through a corridor management approach. Currently, statutory language defines a Major Highway Development project candidate.

⁷ Official designation in state statutes by the legislature

Major Highway Development Program project candidates

Major Highway Development project candidates are those with costs greater than \$5 million. They must also include at least one of the following:

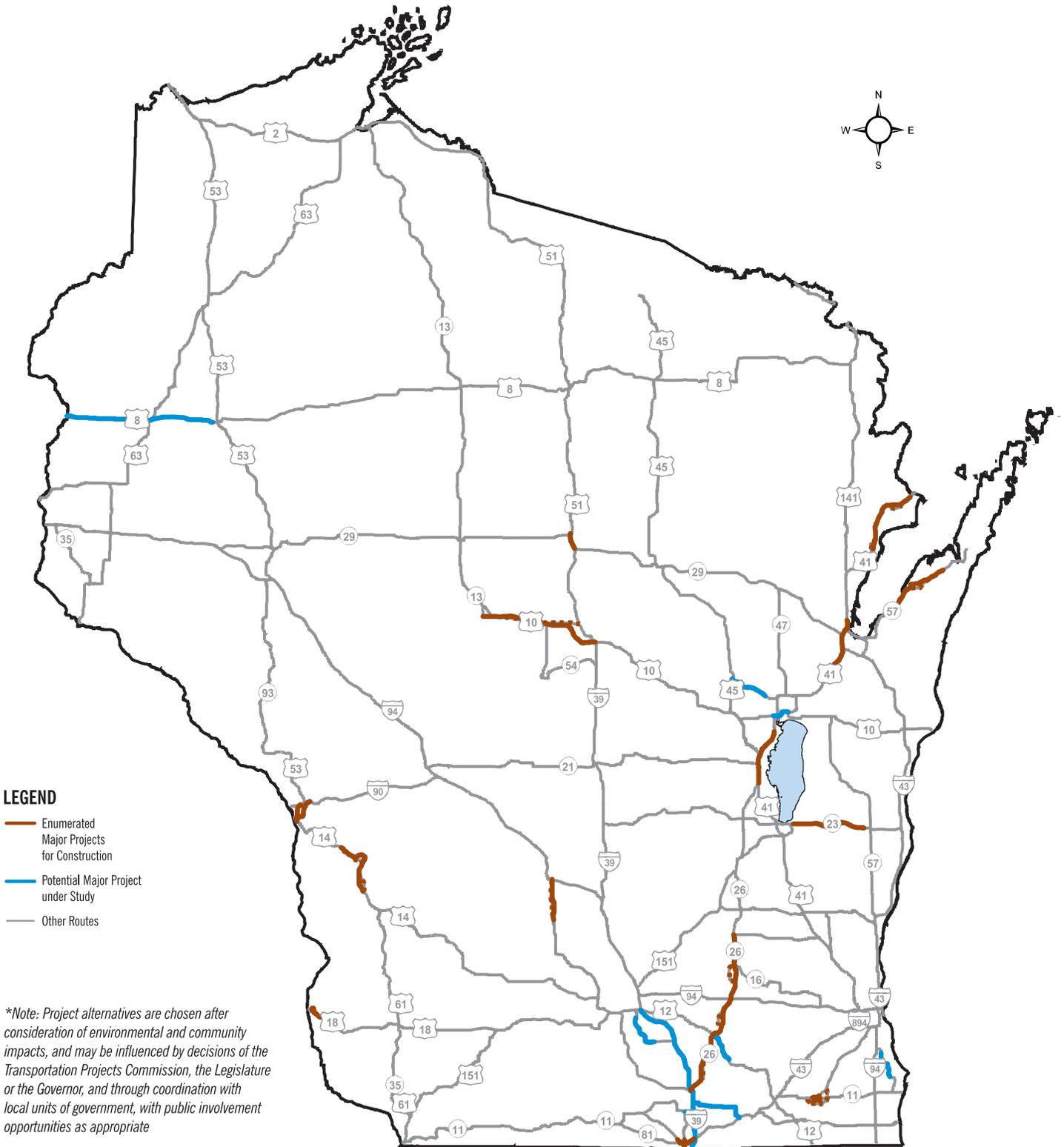
- › Constructs a new highway 2.5 or more miles long
- › Relocates 2.5 or more miles of existing highway
- › Adds at least one lane five or more miles in length to the existing highway
- › Improves to freeway standards 10 or more miles of an existing divided highway with at least two lanes in each direction

Majors generally include significant capacity expansion projects, new highways and bypasses.

WisDOT provides an analysis and recommendation of Major project candidates for study or construction to the Transportation Projects Commission. This analysis includes factors such as safety and congestion (refer to Chapter 9, *Promote Transportation Efficiencies*). The Transportation Projects Commission uses the data to make an informed decision on which study or construction candidates will be funded. The Governor chairs the commission, which consists of 10 legislative members – five senators and five representatives and three Governor-appointed members (WisDOT’s Secretary serves as a non-voting member).

Not all highway-related construction projects are defined Major Highway Development projects. WisDOT will also continue to undertake other highway projects to improve safety, reduce congestion and support economic growth. Refer to the “Optimize traffic movement on the state trunk highway system by utilizing tools to improve existing capacity and, where necessary, adding capacity” policy in Chapter 9, *Promote Transportation Efficiencies*.





▲ Map 7-5: As part of the Major Highway Development Program, WisDOT has identified the enumerated major projects as shown above.



▲ *Figure 7-10: Major Highway Development projects are long-term solutions to some of the most serious deficiencies on the highway system.*

Complete the currently enumerated Major projects and study approved corridors

WisDOT is authorized to:

- » Complete the 27 projects actively enumerated for construction
- » Complete environmental studies on the eight approved corridors for study, as they are potential Major project candidates

The limited availability of funds, and fluctuations in energy, material and real estate prices, have had impacts on the scheduling and delivery of current Major Highway Development construction projects. In addition, balancing increased preservation needs with capacity expansion considerations continues to be a concern in terms of financial priorities. Major Highway Development projects are estimated in current dollars and reported on every six months to the Transportation Projects Commission, as required by 2003 Wisconsin Act 217.

Current Major Highway Development project funding levels are at about \$322 million per year. The 27 Major Highway Development projects enumerated for construction have a future cost-to-complete of approximately \$2.3 billion (2007 dollars). The Transportation Projects Commission has approved the environmental study of eight potential Major Highway Development projects where deficiencies point to further examination. The studies are expected to be completed by 2010.

On the approved corridors for study, follow interim environmental study objectives, and when the study points to a project, enumerate for construction

The eight corridors with environmental studies should follow study objectives in the interim until the traffic need is justified or funds are made available to fully implement the plan recommendations. Corridor preservation activities can occur as spot improvements, like repairing hazardous intersections, or can include such things as real estate acquisition, meaning that the state comes into possession or control of land on or along the corridor. Assuming the environmental study points to construction of a project as the preferred alternative, and the studies are enumerated in the future, it is estimated that the eight corridors will have eventual improvement costs of at least \$1.5 billion (2007 dollars).

Propose additional Major Highway Development projects and studies to maintain or improve the functioning of the highway system (the rate at which projects are studied, enumerated and constructed will depend on funding)

Additional Major Highway Development Program projects and studies will be pursued as the need exists and funding becomes available. The vision within the Major Highway Development Program will continue to be:

- » Program and complete current projects and studies as soon as funding permits
- » Complete the current program and the addition of new projects and studies



Review and update Wisconsin Administrative Code and statute governing the Major Highway Development Program

State statute 84.013 was drafted in the mid-1980s and defines a Major Highway Development candidate project. Since the mid-1980s, funding for all highway projects has increased proportionately, most often beyond the initial dollar trigger. In addition, language in the statute limiting the addition of lanes has led to challenges when implementing some Backbone projects.

While the Major Highway Development Program historically has funded the most complex and costly projects, an emerging subset of projects has significant safety, mobility and economic impacts that do not meet the definition of a Major Highway Development project. Projects that are very large and complex, such as large bridges or large interchanges, are difficult to fund

in other programs. For example, replacement of a large Backbone bridge on a highly traveled corridor would have an extraordinarily high opportunity cost if funded out of the Backbone program. Certain key bridges have significant economic impacts both in terms of highway funding and the transport of people, goods and services.

In addition to the challenges faced with the types of projects currently funded under the Major Highway Development Program, there is little flexibility in scheduling and reprioritizing projects within the program. This means that the department is unable to respond to urgent needs on large projects in a timely manner because the projects must be delivered in the order they are enumerated. Because of the growing need for highway improvements and the limited availability of funds, WisDOT will review the state statutes governing the Major Highway Development Program and recommend revisions as necessary.

► ***SUMMARY OF POLICY ACTION ITEMS:***

Continue and improve the performance of the Major Highway Development Program

Short-term (2008 – 2013)

- Continue work on the 27 actively enumerated projects for construction.
 - Complete environmental studies on the eight Transportation Projects Commission approved corridors for study.
 - Begin review of Wisconsin Administrative Code and state statute governing the Major Highway Development Program, in cooperation with the Transportation Projects Commission and the legislature.
-

Mid-term (2014 – 2019)

- Complete the 27 Major Highway Development projects enumerated for construction.
 - Complete any recommended changes to Wisconsin Statutes governing Major Highway Development projects, in cooperation with the Transportation Projects Commission and the legislature.
 - Program and complete current projects and studies as soon as funding permits.
 - Complete the current program and add new projects and studies to the program.
-

Long-term (2020 – 2030)

- Construct enumerated Major Highway Development projects and study corridors that contain Major Highway Development candidates as allowed by funding levels.
 - Program and complete current projects and studies as soon as funding permits.
 - Complete the current program and add new projects and studies to the program.
-

► **POLICY:**
Preserve the local road and bridge system

Preserving the local road and bridge system is critical to the continued growth of Wisconsin's economy. To support Wisconsin's local road and bridge system, WisDOT will:

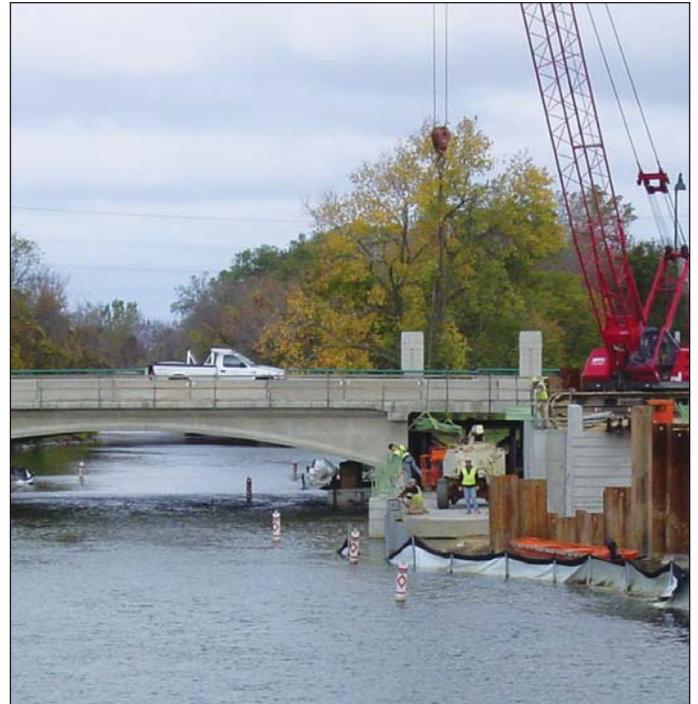
- » Define a vision for the local road system to establish a level of investment necessary to allow it to adequately fulfill its role
- » Assist in providing asset management strategies and tools for local governments to ensure that selected system preservation improvements provide cost-effective service life extension
- » Work with local entities to identify and address key safety issues on the local system
- » Partner with local governments to manage and invest in the local road and bridge network

Background

Wisconsin's locally owned and maintained road and bridge system serves as a critical link in the state's total transportation network. With over 100,000 miles of county, town and municipal roads and nearly 9,000 bridges, the local road network accounts for approximately 90 percent of Wisconsin's public road mileage.

As a critical adjunct to the state highway system, the local road system offers connections not only to local activity centers, but also to state and national facilities of importance such as ports and economic business centers.

Local roads connect to the state trunk highway network, airports, rail stations, and bus and ferry terminals. They are the first and usually last link in the state's farm-to-market commerce and offer critical links for area businesses and tourists. They are also essential for bicycle and pedestrian travel.



▲ *Figure 7-11: The local road system cannot operate safely, efficiently, or effectively without addressing current and future local bridge needs. WisDOT will continue to work with local governments to assess and maintain local bridges.*

While the state trunk highway system is critical to "through" travel, most "through" trips start and end on local roads. Finally, many trips made by Wisconsin citizens, businesses and tourists take place entirely on the local system.

In contrast to decisions made for the state trunk highway system, WisDOT does not have a direct role in the planning, construction, maintenance or operation of the local road system. However, the department is responsible for managing and distributing local program funding.

In addition, as an important component to the state's overall transportation system, the department remains committed to working with its partners to maximize the safe and efficient operation of the entire system. Currently, local governments identify and prioritize infrastructure needs according to established guidelines for various state and federal funding sources. Based



on these assessed needs, WisDOT distributes state and federal financial assistance to local governments through a variety of programs. Table 7-1 provides a summary of the local programs.

Define a vision for the local road system to establish a level of investment necessary to allow it to adequately fulfill its role

WisDOT will work with local governments to develop a strategic vision for Wisconsin's local road network that describes what is needed to support optimal economic development and vitality.

Emphasis will be placed on efforts that:

- » Encourage sound investment decisions
- » Address high-cost system components critical to the state and local road systems

Encourage sound investment decisions

WisDOT will work with its local partners to define statewide expectations specific to local road network goals and priorities, ensuring development and maintenance of a quality network. It will also develop the appropriate framework within which to promote sound investment decisions at the local level. This will be accomplished through the use of available data and asset management tools, such as the pavement analysis tools provided by the Wisconsin Information System for Local Roads (WISLR).

WISLR (pronounced “whistler”) is a comprehensive, Internet accessible local roads database and mapping system. Currently, local road network system performance monitoring is limited to pavement and bridge condition analyses; however, the data and tools offered by WISLR provide a critical starting point for both the state and local governments.

Additional data and discussions will be necessary to assess abilities to measure and appropriately address issues such as capacity, safety, infrastructure condition, weight capacity, access, routing and the role of state funding. This will fully define a network vision and assess appropriate investment levels.

Address high-cost system components (critical to state and local systems)

Local transportation financial needs are significant. Compounded with the issues surrounding already strained resources are the issues of high cost system components that do not have stable funding sources to support maintenance and preservation needs. The high-cost system components include:

- » High cost local bridges (local bridge structures that have costs exceeding \$5 million, with spans greater than 475 feet in length) – present a unique challenge because of the rehabilitation and reconstruction needs typically associated with the structures, and the limited budgets available to support them.
- » National Highway System-local routes – are typically local roads that link facilities of statewide importance (for example, ports) to the state trunk highway and interstate systems. Because of their designation and specialized use, they often are either under-funded or unfunded by the local or state government. However, the pavement deterioration experienced by these facilities is significant. Addressing these needs is generally costly.
- » Connecting highways – are local roads that serve state travel needs. These local roads connect segments of the state trunk highway system and have increased traffic levels. As a result, the wear and tear experienced on these roads is generally higher than on other local roads. Due to their importance as part of the state system, connecting highways are tracked as state roadways. Local governments are responsible for ongoing maintenance funded with connecting highway aids. Reconstruction costs are shared by the department and the local government.

Each component is critical to the safe and efficient operation of the system. If local bridges, roads and highways are allowed to deteriorate, the impact on the transportation system and the state's economy will be significant. Decisions regarding how to address these needs will require close coordination and discussion.

Table 7-1: WisDOT local road and bridge programs

Program	Description
General Transportation Aids	Returns to local governments roughly 30 percent of all state-collected transportation revenues, helping to offset the cost of county and municipal road construction, road maintenance, traffic operations and other transportation-related costs. It is the second largest program in WisDOT’s budget.
County Forest Road Aids	Helps defray county costs for the improvement and maintenance of public roads within county forests.
Lift Bridge Aids	Reimburses the cities of Milwaukee, Racine, Green Bay, Manitowoc and Two Rivers for maintenance and operating costs of lift bridges located on the Connecting Highway System.
Highway Safety Improvement Program	Funds safety projects designed to reduce the number and severity of crashes on state and local highways.
“Small Safety” Program	Funds safety projects on county trunk highways and local streets and highway systems.
Surface Transportation Program – Urban	Allocates federal funds to complete a variety of improvements to federally eligible roads and streets in urban areas.
Surface Transportation Program – Rural	Allocates federal funds to complete a variety of improvements to rural highways (primarily county highways).
Local Roads Improvement Program	Assists local governments in improving deteriorating county highways, town roads, and city and village streets. It is a reimbursement program that pays up to 50 percent of total eligible costs, with local governments providing the balance.
Local Bridge Improvement Assistance	Helps rehabilitate and replace seriously deteriorating local bridges on Wisconsin’s local highway system.
Connecting Highway Aids	Assists municipalities with costs associated with increased traffic and maintenance on roads that connect segments of the state trunk highway system.
Flood Damage Aids	Assists local governments with improving or replacing roads and roadway structures that have sustained major damage from flooding. It helps defray costs of repairing major flood damage to public streets, alleys and bridges off the state trunk highway system.
Transportation Economic Assistance Program	Provides 50 percent state matching grants to governing bodies, private businesses, and consortiums for road, rail, harbor and airport projects that help attract employers to Wisconsin, or encourage business and industry to remain and expand in the state. The program is discussed in more detail in the policy in this chapter called, “Provide loan assistance to Wisconsin businesses and communities.”

Assist in providing asset management strategies and tools for local governments to ensure that selected system preservation improvements provide cost-effective service life extension

Similar to the funding challenges faced at the state level, increasing costs – particularly those related to real estate, energy and construction materials – have impacted local governments’ ability to maintain and preserve the existing infrastructure.

In some cases, lack of adequate funding to address all needs has resulted in preservation and maintenance activities being deferred. In response, WisDOT will work with local governments to develop and adopt asset management strategies to extend the life of existing investments at the lowest cost.

Developing and adopting asset management strategies enables decision-makers to analyze preservation needs

using data based on physical condition, safety, operation, function and connectivity. While WisDOT has initiated efforts with the development and use of WISLR, gaps remain in data necessary to fully adopt and implement a local road network asset management approach.

To assist, WisDOT will focus on the following efforts:

- » Continue to support WISLR as a data and pavement asset management tool
- » Work with local entities to enhance their ability to quantify local road infrastructure needs

Continue to support WISLR as a data and pavement asset management tool

WisDOT will continue to analyze local road pavement conditions using WISLR. The department will assist local governments by doing system level analysis to identify priority areas and measure progress in addressing local road needs.



Table 7-2: Local bridge deficiencies (2001-2005)

	2001	2002	2003	2004	2005	2006	2007	2008
Total local bridges	8,629	8,663	8,552	8,883	8,772	8,767	8,809	8,736
Deficient local bridges	1,898 (22%)	1,819 (21%)	1,454 (17%)	1,371 (15%)	1,566 (18%)	1,502 (17%)	1,464 (17%)	1,386 (16%)

Local governments are required by state statute to regularly submit data to WisDOT describing local road pavement conditions. Local governments are encouraged to submit this data electronically using WISLR. WisDOT is working with the Local Roads and Street Council to develop a simple incentive program to encourage local governments to electronically submit their pavement condition data using WISLR.

The incentive program would also encourage local governments to use the data to guide local road management decisions. If adopted and implemented, this incentive program will further improve management of the state’s local roads. WISLR provides a number of benefits to Wisconsin’s local governments and WisDOT. These benefits include:

- » Allowing local officials to view specific local road data which can support local comprehensive planning efforts
- » Allowing local governments to update their local roads data which helps them meet state pavement condition data reporting requirements
- » Assisting WisDOT in distributing almost \$400 million annually in General Transportation Aids to local governments
- » Providing a gateway to data, maps, graphs and other analytic tools that help the state’s 1,900 local governments manage the local roads under their jurisdiction

WisDOT will continue to encourage communities to use WISLR to evaluate local road pavement conditions and local road network needs. The department will analyze WISLR data to see how well past pavement

investment strategies have worked in maintaining the local road system. In the future, data produced by WISLR will help the department and local governments assess and prioritize available program funding.

Local bridge⁸ infrastructure needs are also critical. The local road system cannot operate safely, efficiently, or effectively without addressing current and future local bridge needs. WisDOT will continue to work with local governments to assess and maintain local bridges. This effort will rely on regular bridge inspections (conducted every two years as required by state statute) and tracking the collected data using the Highway Structures Information System, the state’s centralized bridge database. In addition to identifying bridge needs, WisDOT also uses the system to help determine funding eligibility.

As of 2005, more than 1,500 local bridges required rehabilitation or replacement (Table 7-2). The percent of deficient local bridges has fluctuated between 15 percent and 22 percent of all local bridges over the past five years. This trend is expected to continue through the planning period. WisDOT will continue to encourage local governments to focus available resources on the most seriously deteriorated bridges.

Work with local entities to enhance the ability to quantify local road infrastructure needs

WisDOT will work with local entities to help them quantify infrastructure needs and make better informed decisions. This will be accomplished by using available data and identifying data needs to

⁸ Local bridges eligible for federal or state funds must have a clear span of 20 feet or greater, a sufficiency rating of 80 or less for rehabilitation or less than 50 for replacement, and be either “functionally obsolete” or “structurally deficient.”

improve mutual understanding of local system issues and needs. Areas that will be examined to maximize local road management efforts include improvements to data collection and analysis of local expenditure accounting methods, analyzing local system congestion and capacity issues, and safety data needs.

Local governments currently submit annual standardized expenditure reports to the Wisconsin Department of Revenue. These standardized reports are not consistent with the data used by WISLR and do not provide enough detailed information to conduct the local roads analyses desired by WisDOT and local governments.

WisDOT recognizes that barriers exist to addressing the reporting needs of local governments and level of detail required for WISLR. WisDOT will evaluate opportunities to work with the Wisconsin Department of Revenue and the Local Roads and Streets Council to ensure that the data is useful to the affected parties.

In addition, WisDOT will consider efforts to obtain more specific pavement expenditure data through a statistically valid survey of sample cities, villages, towns and counties. The survey would require the collection of about five years worth of pavement expenditures, including travel lanes and shoulders.

Work with local entities to identify and address key safety issues on the local system

WisDOT will continue its efforts to improve the safety of the state's roadway network, including Wisconsin's local roads and bridges. Addressing safety needs is critical regardless of where they occur. Depending on the location, the department's role and responsibility varies.

For the local road system, the department will work with local governments to manage available safety funding and program safety improvements, provide data, enhance analytical tools, and provide technical assistance to address safety issues.

In addition, as noted in Chapter 6, *Promote Transportation Safety*, WisDOT's Strategic

Highway Safety Plan commits the department to the following short term actions:

- » Establish data-oriented safety analysis tools and performance thresholds
- » Develop and prioritize recommended improvements for high accident locations
- » Recommend measures to prevent new hazardous locations
- » Schedule safety improvements through local and state programming processes

Current efforts focus on integrating safety data into WISLR to improve the quality and type of data available to local governments. In addition, the department has partnered with the University of Wisconsin-Madison to identify and map the locations of crashes on the local system to develop program applications that analyze improvement strategies to address the safety concerns.

In addition to developing and implementing the Strategic Highway Safety Plan and other safety-related programs (see Chapter 6, *Promote Transportation Safety*), WisDOT has designated safety engineers in each WisDOT region office to represent the department's safety interests at the state, region and local level. Key to this role is continued participation on each county's highway safety committee.

Manage and invest in the local network as a partner with local governments

Decisions regarding transportation at the state and local levels will continue to emphasize cooperation and coordinated decision-making. All levels of government are responsible for transportation system management and efforts should be made to ensure that decisions are coordinated. WisDOT will continue to work with local governments when managing corridors to ensure that decisions regarding operations, access management, or project planning design or construction consider concerns and issues at the local level.



In addition, WisDOT will work with its stakeholders and local governments to evaluate the issues and proposed actions regarding the transport of oversize and overweight loads on Wisconsin's roads. Overweight trucks may accelerate deterioration of highways and bridges, and can

result in additional infrastructure investment. However, allowing oversize and overweight vehicles on Wisconsin's roadways requires a balance between increasing freight movements to meet economic development goals and minimizing impacts to local roads, highways and bridges.

► **SUMMARY OF POLICY ACTION ITEMS:**
Preserve the local road and bridge system

Short-term (2008 - 2013)

- Work with local governments to develop a strategic vision for the future of Wisconsin's local roads network.
 - Continue to support WISLR as a data and pavement asset management tool, encouraging communities to use WISLR.
 - Work with stakeholders and local governments to evaluate the issues and proposed actions regarding the transport of oversize and overweight loads on Wisconsin's roads.
 - Work with local governments and stakeholders to address high cost system components (high cost bridges, National Highway System local and connecting highways).
 - Consider efforts to obtain more specific pavement expenditure data through a statistically valid survey of sample cities, villages, towns and counties.
-

Mid-term (2014 - 2019)

- Work with the Local Roads and Streets Council to develop a simple incentive program to encourage local governments to electronically submit their pavement condition data using WISLR.
 - Assist local governments by doing system level analysis to identify priority areas and measure progress.
 - Assist in the development and adoption of asset management strategies by all local governments.
 - Evaluate opportunities to work with the Wisconsin Department of Revenue and the Local Roads and Streets Council to identify strategies to make the annual standardized expenditure reports and data useful to affected parties.
-

Entire planning period (2008 - 2030)

- Continue to provide data, enhance analytical tools and provide technical assistance to address safety issues.
 - Continue to work with local governments to enhance their ability to quantify infrastructure needs using available data.
 - Continue to help local governments focus available resources on the most seriously deteriorated bridges.
 - Continue efforts to improve the safety of the state's roadway network.
 - Work with local governments to manage available safety funding and program safety improvement needs.
 - Continue to participate on county highway safety committees.
 - Continue to work with local governments when managing corridors to ensure that decisions consider concerns and issues at the local level.
-

► **POLICY:**
Promote Wisconsin tourism through transportation system maintenance and improvements

Working with local governments and the private sector, WisDOT will continue to encourage tourism and related economic development in Wisconsin through innovative programs that help communities capitalize on their resources. Specifically, WisDOT will:

- » Continue to maintain and provide high-quality transportation options for Wisconsin tourists
- » Continue to maintain Wisconsin's highway rest areas
- » Continue the Rustic Roads and Scenic Byways programs
- » Continue the Transportation Enhancements program

Background

Tourism is one of Wisconsin's major industries. In 2007, tourists spent an estimated \$12.8 billion in Wisconsin. These expenditures supported 302,000 full-time jobs in the state, and helped generate \$7.1 billion in resident income. These expenditures generated \$1.42 billion in state government revenue, as well as \$638 million in local government revenue.⁹ The economic benefits of tourism are spread throughout the year in Wisconsin. Visitors travel to Wisconsin to enjoy the state's natural beauty, to hunt and fish, to attend festivals and sporting events, to visit family and friends, and to shop and dine.

Map 7-6 shows that the economic benefits of tourism also are spread geographically to all parts of the state. The top 10 Wisconsin counties for tourism expenditures in 2007 are listed in Table 7-3.

⁹ *The Economic Impact of Expenditures by Travelers In Wisconsin, Calendar Year 2007, County by County Report.* Wisconsin Department of Tourism, April 2008.



Transportation promotes tourism in a variety of ways:

- > Provides important intercity linkages to tourist areas
- > Promotes walkable, accessible communities
- > Provides gateways to the state
- > Can be part of the tourist experience with some modes

Wisconsin tourist expenditures by season:

- > Spring – \$2.6 billion (21%)
- > Summer – \$4.9 billion (38%)
- > Fall – \$3.1 billion (24%)
- > Winter – \$2.2 billion (17%)

Tourists typically are from Wisconsin or neighboring states. As shown in Table 7-4, Wisconsin residents account for the majority (about 58 percent) of all tourists in the state. Nearly 90 percent of all Wisconsin tourists are from Wisconsin, Illinois, Minnesota or Michigan.¹⁰ Because Wisconsin's tourism industry operates year-round and is spread throughout the state, Wisconsin visitors typically use a wide range of transportation

¹⁰ *2006-07 Wisconsin Department of Tourism Strategic Marketing Plan.* Wisconsin Department of Tourism.



Table 7-3: Top 10 Wisconsin counties for tourism expenditures in 2007

Rank	County	Total tourism expenditures (\$ millions)	Percent of Wisconsin total
1	Milwaukee	\$1,678	13.14
2	Dane	\$1,184	9.27
3	Sauk	\$1,047	8.19
4	Waukesha	\$649	5.08
5	Brown	\$530	4.15
6	Walworth	\$436	3.41
7	Door	\$404	3.16
8	Outagamie	\$356	2.79
9	Sheboygan	\$352	2.76
10	Vilas	\$258	2.02

Table 7-4: Origins of Wisconsin tourists in 2005

Origin	Percent
Wisconsin	58
Illinois	21
Minnesota	6
Michigan	4
Other states	8
Other countries	3

modes to reach their destinations. These modes include cars, airplanes, trains, ferries, public transit, bicycles and pedestrian facilities. For these reasons, construction impacts, work zone traffic delays, system quality (i.e., efficiently maintained and operated), availability of trails, and bicycle/pedestrian-friendly communities impact the state’s tourism environment.

Continue to maintain and provide high-quality transportation options for Wisconsin tourists

The most fundamental way WisDOT can promote tourism in Wisconsin is to continue to maintain and improve the state’s transportation system. WisDOT also can continue to improve the intermodal connections to make travel in Wisconsin even more convenient.

To better serve Wisconsin’s tourism industry, WisDOT will coordinate with local governments and private sector partners to maintain convenient connections to tourist destinations. These efforts will include:

- » Improving incident response measures to limit traffic disruptions from crashes and other incidents on the state highway network (see Chapter 9, *Promote Transportation Efficiencies*)
- » Reducing construction zone bottlenecks on weekends (for example, opening all lanes in a construction zone) and during other peak tourist travel times (for example, major sporting events)

Most of WisDOT’s efforts to maintain and improve the state’s multimodal transportation system are described in other chapters.

Continue to maintain Wisconsin’s highway rest areas

Wisconsin’s rest areas help promote tourism in several ways. They offer basic travel services, provide tourist information, and act as ambassadors of the state to first-time visitors.

Basic travel services

Rest areas generally offer a range of amenities important to travelers, such as handicap accessibility, rest rooms, collection bins for refuse and recycling, public telephones, landscaped surroundings with shaded areas, drinking water, vending machines, picnic tables, pet walking areas, separate car and truck parking, weather information, and security lighting. These basic amenities make trips more comfortable and convenient and encourage travelers to make additional trips to Wisconsin in the future.

Tourist information

Wisconsin’s rest areas located at the state’s borders with Illinois, Iowa, Michigan and Minnesota also serve as tourist information and promotional centers. At designated hours, these “Wisconsin Welcome Centers” are staffed with knowledgeable volunteers. Maps and brochures are available to inform travelers about state attractions.



The state's rest areas are often the first impression an out-of-state visitor has of Wisconsin. The design and layout of the facility, as well as the upkeep and cleanliness, give these first-time visitors a positive impression of the state and encourage return visits.

Through the Rest Area Maintenance program, WisDOT will continue to contract with 24 work centers throughout Wisconsin to provide custodial care, landscape maintenance, and minor repairs at Wisconsin's 30 rest areas.

Continue the Rustic Roads and Scenic Byways programs

WisDOT administers two programs – the Rustic Roads program and the Scenic Byways program – that promote tourism and economic growth by preserving the scenic and cultural qualities of designated roadways.

The Wisconsin Legislature created the Rustic Roads Program in 1973 to preserve Wisconsin's remaining scenic and lightly traveled back roads for the enjoyment of motorists, hikers and bicyclists. Wisconsin is the only state to preserve these low volume rural roads.

The Scenic Byways Program, established in 2005, represents a cooperative effort between WisDOT and local community groups to preserve, promote and enhance some of the state's most scenic and historic state highway corridors.

Local governments and communities benefit from Rustic Road and Scenic Byway designations. These designations increase the visibility of their area by providing the traveler with information and an additional incentive to visit the area.

WisDOT estimates that thousands of people travel the state's Rustic Roads and Scenic Byways and spend some of their discretionary income in nearby communities.

Rustic Roads Program

WisDOT and local governments share responsibilities in identifying and maintaining the state's Rustic Roads. WisDOT's role consists of administering the program, providing unique signage for each Rustic Road and helping to develop promotional materials. Local governments continue to administer and maintain officially designated Rustic Roads using general transportation aids – the same aids they receive for any local road within their jurisdiction.



▲ *Figure 7-12: Wisconsin's rest areas offer basic travel services, provide tourist information, and act as ambassadors of the state to first-time visitors.*

Wisconsin's Rustic Roads

The Wisconsin Legislature established the Rustic Roads program in 1973 to help citizens and local units of government preserve what remains of Wisconsin's scenic, lightly traveled country roads. As of 2007, there were 103 designated routes in Wisconsin that qualify as Rustic Roads. These routes were located in 54 counties and made up 572 miles of roadway.

To qualify for the Rustic Road program, a road should:

- › Have outstanding natural features along its borders such as rugged terrain, native vegetation and native wildlife; or include open areas with agricultural vistas which singly or in combination uniquely set this road apart from other roads.
- › Be a lightly traveled local access road – one that serves the adjacent property owners and those wishing to travel by auto, bicycle, or hiking for purposes of recreational enjoyment of its rustic features.
- › Not be scheduled nor anticipated for major improvements that would change its rustic characteristics.
- › Have, preferably, a minimum length of 2 miles and, where feasible, should provide a completed closure or loop, or connect to major highways at both ends of the route.

A Rustic Road may be a dirt, gravel or paved road. It may be one-way or two-way. It may also have bicycle or hiking paths adjacent to or incorporated in the roadway area. The maximum speed limit on a Rustic Road has been established by law at 45 mph. A speed limit as low as 30 mph may be established by the local governing authority.

~ www.dot.wisconsin.gov/travel/scenic/rusticroads.htm

The Rustic Road designation provides a promotional and marketing opportunity for communities to highlight the qualities of their areas. For example, several chambers of commerce in Fond du Lac County coordinated their efforts to produce "Wander Country Roads," a county driving tour featuring scenic and rustic vistas as well as historical attractions.

Designated routes are featured in the Rustic Roads Booklet, one of the most requested publications from the Departments of Tourism and Transportation. The booklet features a small locator map with a description of flora and fauna found along each designated route. It assists the traveler in reaching the Rustic Road and provides highlights of what they can expect to see along the corridor. WisDOT will seek a reliable funding source to produce regular updates of this booklet in the future.

In 2005, WisDOT held a photo contest to commemorate the dual milestones of the 30th

year of the program and the 100th road being designated. The photo contest also served to further promote the program and educate the public on the outstanding qualities of the state's Rustic Road system. WisDOT will conduct additional photo contests at future program milestones to reach similar marketing and educational goals.

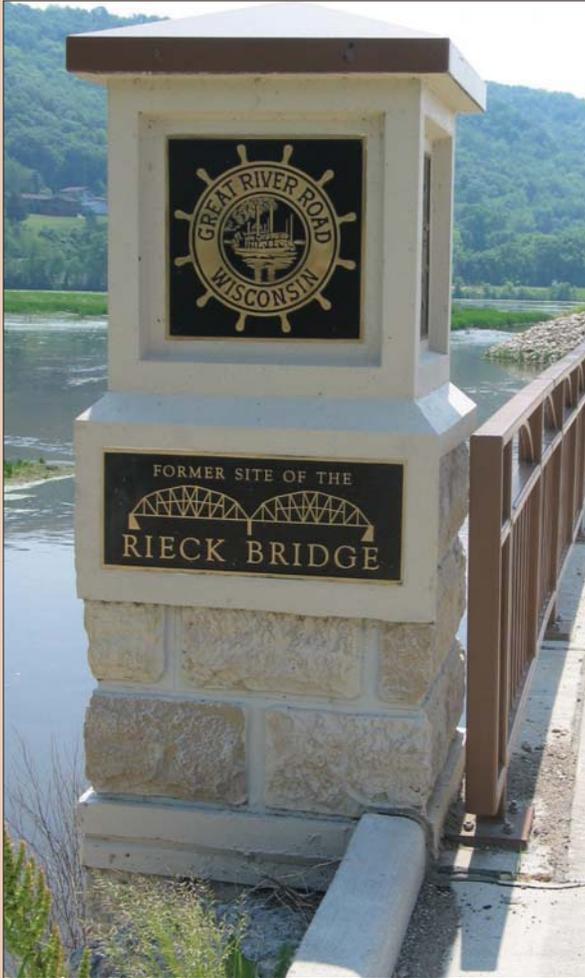
Through the year 2030, WisDOT will identify additional opportunities to develop and promote the Rustic Roads Program in cooperation with local communities, adjacent states, and the private sector.

Scenic Byways Program

Similar to the Rustic Roads Program, responsibility for creating and maintaining Wisconsin's Scenic Byways is shared by WisDOT, local groups, and the federal government.

WisDOT's role consists of administering the program and providing unique signage for each Scenic Byway and helping to develop promotional materials. Local





Great River Road, Pierce County

Wisconsin's Great River Road is a state and nationally designated Scenic Byway that extends 249 miles along the Mississippi River (primarily on WIS 35) between Prescott, Wisconsin, and Dubuque, Iowa. Federally funded projects along the Great River Road include:

- › Prescott Learning Center
- › Rieck's Lake visitor amenities
- › Renovation of historic Potosi brewery
- › Wisconsin Department of Tourism's "Birding, Boating, and Biking" media campaign

groups, with the support of local governments, submit applications for new Scenic Byways and provide the grassroots support for ongoing byway projects and activities.

If a state Scenic Byway is designated by the Federal Highway Administration as a National Scenic Byway or All-American Road, the federal government provides additional promotional support and possible additional funding for Scenic Byway improvements and maintenance.

Wisconsin currently has one National Scenic Byway, the Great River Road (WIS 35). State Scenic Byway designation offers communities several benefits:

- » Improved partnerships between local governments, businesses, civic groups and community leaders
- » Increased tourism and economic development opportunities
- » Unique signs, markers, brochures and ongoing promotional efforts that enhance community recognition and strengthen civic pride
- » Preservation of an area's scenic, historical and recreational amenities for the enjoyment of future generations
- » The potential for designation as a National Scenic Byway or All-American Road, which would bring even greater recognition and economic benefits to communities along the route

Through the year 2030, WisDOT will continue to partner with local communities and the federal government to promote tourism and economic growth along the state's Scenic Byways.

As one example, WisDOT will conduct a Scenic Byways photo contest and develop a Scenic Byways guide similar to those of the Rustic Roads Program. WisDOT will also seek a reliable source of state funds to leverage federal Scenic Byways funds awarded in the future.

National Scenic Byways Program

The National Scenic Byways Program is a voluntary, community-based program administered through the Federal Highway Administration to recognize, protect and promote America's most outstanding roads. National Scenic Byways designations recognize roads with at least one of six core intrinsic qualities – scenic, natural, historic, recreational, archaeological, or cultural – contributing a unique travel experience. To be considered for designation, a road must possess characteristics of regional significance within at least one of the intrinsic quality categories. In addition, it must be part of the numbered state or federal (non-interstate) highway system; be at least 30 miles long; offer outstanding scenic views or historic resources, combined with unique recreational, cultural or other educational opportunities.

~ www.scenic.org/byways

Continue the Transportation Enhancements Program

The U.S. Congress created the Transportation Enhancement Program in 1991. In doing so, it recognized that people want a balanced approach to transportation. Transportation is more than getting from point A to point B. It must be multimodal, improve quality of life and serve as a catalyst for economic growth. The Transportation Enhancement Program addresses these desires. For more than a decade, the program has served Wisconsin by helping to improve its communities, offering transportation choices, supporting tourism and economic growth, and enhancing the natural and man-made environment.

Transportation enhancement projects have helped make walking and bicycling easier in communities all over the state by providing funding for sidewalks, bike lanes and Rails-to-Trails conversions. In addition, funds have been used to restore historic buildings, beautify streetscapes and provide transportation museums and visitor centers resulting in increased tourist traffic and stronger regional economies. Some communities have capitalized on acquiring, restoring and preserving scenic areas, while others use the program to aid in environmental stewardship and safety efforts.

WisDOT will continue to administer the Transportation Enhancements Program to fund multi-modal transportation alternatives and projects that enhance communities and the environment. Currently, \$6.25



▲ *Figure 7-13: Transportation enhancement projects have helped make walking and bicycling easier in communities all over the state by providing funding for sidewalks, bike lanes and Rails-to-Trails conversions.*

million is available in annual funding. Federal funds administered through this program provide up to 80 percent of project costs. The local project sponsor which can be a local or tribal government, or a state agency, is responsible for funding the remaining 20 percent of project costs. Eligible projects must demonstrate a clear relationship to surface transportation and fit into one of the following 12 categories:

- » Providing facilities for pedestrians and bicyclists
- » Providing safety and educational activities for pedestrians and bicyclists
- » Sponsoring scenic or historic highway programs, including tourist and welcome centers



- » Acquiring scenic easements and scenic or historic sites
- » Completing landscaping and other scenic beautification
- » Preserving historic sites
- » Preserving abandoned railway corridors
- » Controlling and removing outdoor advertising
- » Rehabilitating and operating historic transportation buildings and structures
- » Conducting archeological planning and research
- » Mitigating water pollution due to highway runoff or reducing vehicle-induced wildlife fatalities
- » Establishing transportation museums

► **SUMMARY OF POLICY ACTION ITEMS:**

Promote Wisconsin tourism through transportation system maintenance and improvements

Short-term (2008 - 2013)

- Seek a reliable source of funding for future updates to the Rustic Road booklet.
 - Seek a reliable source of funds to leverage federal Scenic Byways grants.
-

Mid-term (2014 - 2019)

- Conduct another Rustic Roads photo contest.
 - Develop a Scenic Byways guidebook.
-

Long-term (2020 - 2030)

- Conduct a Scenic Byways photo contest.
-

Entire planning period (2008 - 2030)

- Continue to promote Rustic Roads in Wisconsin through the Rustic Roads program.
 - Continue to promote Scenic Byways in Wisconsin through the Scenic Byways program.
 - Explore public-private promotional activities for both Rustic Roads and Scenic Byways.
 - Investigate the potential for multi-state efforts to promote Rustic Roads and Scenic Byways.
 - Continue to maintain Wisconsin's highway rest areas.
 - Continue the Transportation Enhancements Program.
 - As discussed in other policies, continue to help maintain and improve the state's transportation system and continue to improve intermodal connections.
 - Coordinate with local governments and private sector partners to maintain convenient connections to tourist destinations.
-

► **POLICY:**
Partner with consumers and businesses to increase transportation sustainability

The prices of fuel- and oil-related products important to transportation have risen considerably in recent years. The federal government estimates fuel costs will continue to increase.

This pattern of increasing fuel costs has impacted WisDOT, businesses, families and local communities by increasing the cost of infrastructure maintenance and construction, as well as the cost to ship goods. This has led to a demand for a transportation system that is less affected by an increasingly expensive oil supply. In response to rising energy costs, WisDOT will:

- » Track changes and analyze responses to the state’s transportation energy use and costs
- » Promote more efficient use of petroleum-based fuels and viable alternatives
- » Encourage local governments to improve vehicle efficiencies

- » Seek to adjust WisDOT’s transportation revenue stream to respond to changing fuel use

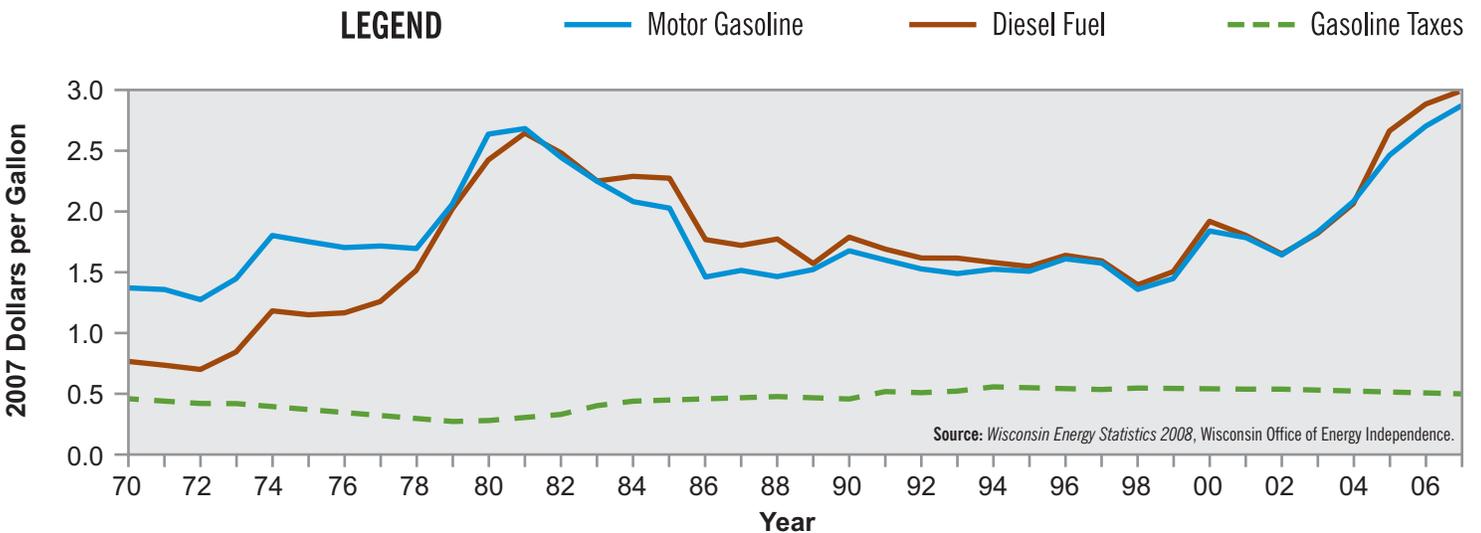
Background

Wisconsin’s transportation system depends on petroleum and related products. Petroleum-based fuels (gasoline, diesel, jet fuel, etc.) account for about 97 percent of the energy used by the automobiles, trucks, airplanes, trains and ships that move people and goods in the state.¹¹ Over 83 percent of all petroleum used in Wisconsin is consumed by the transportation sector.¹²

Rising petroleum costs directly and indirectly impact the state’s transportation system and economy because of this dependence. For example, many state roads are constructed using oil-based asphalt. Rising oil prices increase construction and maintenance costs. WisDOT’s activities are funded in large part by fuel taxes. The price consumers pay for food, clothing and other products depends in part on the

¹¹ *Wisconsin Energy Statistics 2007*. Wisconsin Office of Energy Independence.

¹² *Ibid.*



▲ *Figure 7-14: The inflation-adjusted price of regular unleaded gasoline in Wisconsin has nearly doubled over the last decade, increasing from \$1.50 per gallon (in 2007 dollars) in 1995 to \$2.87 per gallon in 2007.*



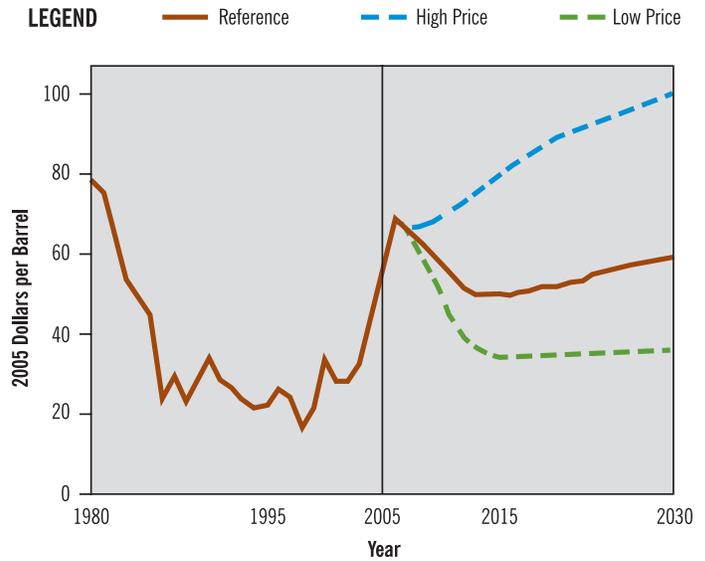
cost of transporting these items to store shelves. Similarly, the ability of businesses to compete in a global marketplace depends in part on their ability to ship goods in a cost-effective manner. Rising fuel costs can increase the cost of consumer goods and make Wisconsin businesses less competitive in the global marketplace.

In recent years, the cost of fuel has increased considerably. Figure 7-11 shows the changes in fuel prices from 1970 to 2007. The inflation adjusted price of regular unleaded gasoline in Wisconsin has nearly doubled in the last decade, increasing from \$1.50 per gallon (in 2007 dollars) in 1995 to \$2.87 per gallon in 2007.¹³ When adjusted for inflation, the price of unleaded regular gasoline in Wisconsin in 2007 even exceeded the high prices encountered by Wisconsin residents during the energy crisis of the late 1970s and early 1980s. As of early 2008, the price of a barrel of oil would need to decrease 65 percent to return to its price in 2003. Many factors have influenced the recent increases in crude oil and fuel prices:

- » Worldwide demand for oil has increased, especially from the fast-growing economies of India, China and other major oil-producing countries. Worldwide production remained steady, however, resulting in a reduction of spare oil-producing capacity. In the past, spare capacity has been a major player in stabilizing oil prices
- » Political instability and the threat of terrorism in some major oil-producing countries have resulted in decreased oil production
- » Increasing control of world oil production by national oil companies has resulted in more-limited oil production and reduced exports
- » Decreased value of the U.S. dollar has resulted in more expensive oil imports to the U.S.

The federal government expects upward pressure on petroleum prices to continue at least through 2030.

¹³ Wisconsin Energy Statistics 2007. Wisconsin Office of Energy Independence.



Source: Annual Energy Outlook 2007, Energy Information Administration.

▲ Figure 7-15: The EIA's Annual Energy Outlook 2007 identifies three future scenarios for oil production prices in which prices will be higher than they have been over much of the past 20 years.

The U.S. Department of Energy's Energy Information Administration (EIA) generates projections of world oil production and prices, taking into account the above factors, estimates of supply and other relevant data. The EIA's Annual Energy Outlook 2007 identifies three future scenarios for oil production prices (Figure 7-12). In all three scenarios, the EIA projects oil prices higher than they have been over much of the past 20 years.

There is growing concern that fuel prices could continue to increase in the near future similar to the pattern shown in the EIA's High Price Scenario. A 2007 U.S. Government Accountability Office review of global oil production studies found production will likely peak – and begin to decline – between now and 2040.¹⁴ If such a peak occurs during the planning period, transportation costs can be expected to continue to rise.

¹⁴Crude Oil: Uncertainty About Future Oil Supply Makes it Important to Develop a Strategy for Addressing a Peak and Decline in Oil Production. United States Government Accountability Office. February 2007.

Rising fuel costs encourage consumers and businesses to use fuel more efficiently, either by driving less, driving slower or by switching to more fuel-efficient modes of transportation. The tradeoff, unfortunately, is less revenue for WisDOT since its main funding source to implement *Connections 2030* is tied to the consumption of gas and diesel fuels.

Both the private and public sectors are responding to higher fuel prices. Major vehicle manufacturers have increased production of more fuel-efficient models such as gasoline-electric hybrids, flex-fuel vehicles capable of running on fuel that is 85 percent ethanol, and diesel vehicles.

Major freight carriers and retail stores have instituted supply chain and vehicle changes to save fuel, and have passed on fuel surcharges to consumers. Some have focused on physical changes to trucks hauling their products to increase fuel efficiency, such as aerodynamic changes to the vehicle front end and optimal tire pressure. Some have made mode shifts from truck to rail during portions of the shipping routes. Still others have reduced the weight and/or size of packaging in order to get more products into each vehicle at a lighter, fuel saving weight.

Guided by the 2001 National Energy Policy, the federal government has funded several research and development programs to study traditional and alternative ways to meet the energy challenges facing the nation. In the transportation sector, emphasis areas include renewable fuels, more efficient engines, and new battery technologies that would advance hybrid and electric vehicles.

These efforts have increasingly also sought to address air quality issues and climate change concerns. Other major federal activities include:

- » The Energy Independence and Security Act, signed in December 2007, will improve fuel economy for cars and light trucks and significantly increase the use of renewable fuels.
- » The U.S. Supreme Court ruled that carbon dioxide is a pollutant that can be regulated by the U.S. EPA



WISCONSIN IS INVOLVED in activities to reduce fuel dependence such as tying changes in transportation related greenhouse gas emissions and carbon dioxide to increased fuel efficiency, business development related to the growth in demand for biofuels, and research.

under the Clean Air Act. Regulating this pollutant will likely result in changes to many types of power plants, refineries and vehicles.

- » The U.S. EPA is considering rule-making to address greenhouse gas emissions from a variety of sources, including motor vehicles. The rule-making may also require changes to the transportation system's fuel use.
- » Internationally, the Bali Action Plan was ratified at the December 2007 United Nations Climate Change Conference. The plan commits the U.S. and 180 other nations to negotiating a new climate agreement by the end of 2009 that will go into effect in 2012 when the Kyoto Protocol's first commitment period ends. Such agreements typically have sections applying to the transportation sector, a major contributor to atmospheric pollutants negatively impacting the climate.





▲ *Figure 7-16: Some freight carriers have focused on physical changes to trucks hauling their products to increase fuel efficiency, such as aerodynamic changes to the vehicle and optimal tire pressure.*

Wisconsin is also involved in activities to reduce fuel dependence such as tying changes in transportation related greenhouse gas emissions and carbon dioxide to increased fuel efficiency, business development related to the growth in demand for biofuels, and research. Some examples include:

- » **Midwest Greenhouse Gas Reduction Accord.** Wisconsin, along with eight other Midwest states and Manitoba, Canada, is committed to establishing greenhouse gas reduction targets and developing a market-based and multi-sector cap-and-trade mechanism to help achieve those reduction targets. The Midwest Accord joins already existing regional greenhouse gas accords covering western states and the Northeast to encompass almost half of the U.S. population.
- » **Governor's Office of Energy Independence.** Major transportation related goals include getting 25 percent of the state's transportation fuel from renewable resources by 2025; capturing a 10 percent share of the emerging renewable energy market by 2030; and becoming a national leader

in research to make alternative energy more affordable and available.

- » **Governor's Task Force on Global Warming.** This task force, which includes representatives from business and advocacy groups, recommended ways Wisconsin can make substantial progress in stabilizing and reducing its greenhouse gas emissions. Many of these recommendations are expected to overlap with fuel efficiency and sustainability goals.

The following actions outline WisDOT's efforts to help mitigate negative impacts of rising oil costs.

Track changes and analyze responses to the state's transportation energy use and costs

WisDOT needs a solid understanding of the state's transportation energy use and costs before the department can recommend adjustments to state policies and programs. For this reason, the department will establish a team focused on energy to closely monitor and analyze responses to energy cost impacts

on the transportation system. Activities will include but are not limited to:

- » Monitoring trends in transportation energy costs and transportation system use
- » Analyzing fiscal impacts on the state resulting from increases in alternative fuel use and the decline in license and vehicle registrations
- » Assessing when changes to WisDOT's policies and programs should occur and any associated cost implications
- » Collaborating with other state agencies, task forces, federal agencies and the state legislature on potential changes in state policies and programs

Promote more efficient use of petroleum-based fuels and viable alternatives

To facilitate energy conservation in the near term, WisDOT will:

- » Educate Wisconsin travelers on ways to conserve fuel, such as reducing driving speeds, maintaining proper tire pressure and consolidating trips
- » Engage in marketing campaigns for alternatives to driving, such as use of transit, rail, bicycling and walking
- » Analyze potential fuel saving strategies and air quality impacts
- » Support local, state and federal initiatives to encourage use of alternative fuels such as hybrids, ethanol (E10 and E85), biodiesel, biobutanol and hydrogen

Fuel economy

Cars and trucks typically achieve better fuel economy at lower speeds. Each 5 mph you drive over 60 mph is like paying an extra \$0.20 per gallon of gas.

~ www.fueleconomy.gov

- » Support state and federal initiatives that promote the adoption of fuel-saving technologies. For example, WisDOT supports the state Department of Commerce program that assists the trucking industry in purchasing auxiliary power units that reduce fuel consumption while trucks idle

Encourage local governments to improve vehicle efficiencies

As fuel prices increase, local governments face higher costs to run their construction, maintenance and transit vehicles. For this reason, WisDOT will consider the following actions to help control the negative impact of rising fuel prices on contract costs:

- » Assist public transit agencies in accelerated replacement of their fleets with more fuel-efficient buses. This is especially important for fixed-route systems, many of which have fleets dominated by older model diesel powered busses with significantly lower fuel economies than models built in the last five years
- » Examine alternative fuel use and anti-idling technologies that can be used by WisDOT's maintenance partners at the county level

WisDOT SUPPORTS THE STATE DEPARTMENT OF COMMERCE PROGRAM *that assists the trucking industry in purchasing auxiliary power units that reduce fuel consumption while trucks idle.*



- » Encourage counties to upgrade their heavy truck and equipment fleets to more fuel-efficient models

Seek to adjust WisDOT's transportation revenue stream to respond to changing fuel use

Both the state and federal transportation funds are substantially tied to vehicle travel and the gas tax. Response to increased fuel costs will likely reduce both of these while WisDOT's costs to provide transportation choices increase.

To address this potential funding shortfall, WisDOT will:

- » Examine the relationship between fuel type and taxation if alternative fuel use significantly reduces revenues
- » Examine adjustment of transportation funding sources to accommodate any significant increase in demand for alternative modes, such as intercity passenger rail, local bus, and commuter rail (see Chapter 12, *Funding Wisconsin's Transportation System*)

► SUMMARY OF POLICY ACTION ITEMS:

Partner with consumers and businesses to increase transportation sustainability

Short-term (2008 – 2013)

Short-term actions will focus on consumers and businesses dealing with fuel increases. Work will also begin in the short-term on identifying a more comprehensive strategy to address larger issues of global climate change and peak oil.

- Initiate a work group to track changes in the state's transportation energy use and recommend changes to state policies and programs.
- Encourage alternative fuel use, anti-idling technologies, and fuel-efficient fleet vehicles that can be used by WisDOT's maintenance partners at the county level.
- Assist public transit agencies in accelerated replacement of their fleets.
- Educate Wisconsin travelers on ways to conserve fuel.
- Engage in marketing campaigns for alternatives to driving.
- Analyze potential fuel saving strategies and air quality impacts.
- Continue education to encourage change at the local level.

Entire planning period (2008 – 2030)

- Continue policies that promote passenger and freight transportation efficiencies and alternative trip options.
- Support state and federal initiatives to encourage use of alternative fuels.
- Support state and federal initiatives that promote the adoption of fuel-saving technologies.
- Adjust WisDOT's revenue stream to respond to changing demand for conventional and alternative fuels (as in Chapter 12, *Funding Wisconsin's Transportation System*).

► **POLICY:**

Promote a diverse workforce in Wisconsin's transportation industry by building alliances and business opportunities through civil rights initiatives

WisDOT will continue to demonstrate its leadership and commitment to civil rights by promoting fairness and equity, as well as business and employment opportunities, in Wisconsin's transportation industry. WisDOT will continue to focus efforts on expanding business and employment opportunities for minorities into all state transportation programs and projects.

To achieve this, WisDOT will continue and expand efforts to:

- » Target the distribution of information and availability of assistance to businesses certified as socially and economically disadvantaged to encourage their participation in the transportation industry
- » Build partnerships and stakeholder alliances to leverage equity goals and requirements, and promote civil rights efforts
- » Build a diverse, skilled and professional transportation workforce
- » Integrate environmental justice principles into transportation planning and project development

Background

Government plays a key role in addressing the issues of equity, access and opportunities for socially and economically disadvantaged people. Within the transportation industry, government can help build the future transportation workforce and ensure access for disadvantaged businesses to not only meet growing transportation needs, but also promote economic growth. WisDOT's efforts are directly aligned with a focus on the economic benefits of

Civil rights

For the purposes of this policy, civil rights are limited to transportation business and workforce issues. WisDOT will continue its efforts to improve accessibility to all WisDOT programs and services. Examples of these activities include providing documents in languages other than English, providing translators, etc.

WisDOT civil rights policies exist to ensure that its operations and decisions are free of bias. Title VI of the Civil Rights Act of 1964, and subsequent federal and state laws, give WisDOT the authority to facilitate programs for business and workforce development, outreach and recruitment, contract compliance and prevailing wage enforcement.

Federal and state laws addressing civil rights include:

- › Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU)
- › Title VI of the Civil Rights Act of 1964
- › Davis-Bacon Act of 1931
- › Wisconsin State Statute 103.50 (Employment regulations related to highway contracts)
- › Presidential Executive Orders 11246, 12898, 13216, 13230, 13256 and 13270
- › Governor's Executive Order 108
- › Several regulations, forms, notices and agency orders

transportation investments, including those that enhance transportation equity and participation for businesses and workers.

WisDOT will continue to lead efforts to expand opportunities, establish a sense of urgency within the transportation industry to promote opportunities, and partnerships to support ongoing efforts.



Disadvantaged Business Enterprise Program

The Disadvantaged Business Enterprise Program's goal is to increase participation of firms qualifying as disadvantaged business enterprises in all federally aided and state transportation contracts. The program started with the Surface Transportation Assistance Act of 1982. The act set a national goal of placing at least 10 percent of federal highway and transit funds with persons who qualify as disadvantaged small business operators. A subsequent act in 1987 included women.

WisDOT annually invests between \$600 million and \$700 million of federal and state dollars in highway, airport and transit projects. These funds translate into millions of dollars in transportation-related contracts and project work for disadvantaged business enterprise firms.

To qualify as a disadvantaged business enterprise, a company must be a small business at least 51 percent owned, operated and fully controlled on a daily basis by a member or members of the following groups:

- › African Americans
- › Native Americans
- › Hispanic
- › Asian-Pacific
- › Asian-Indian Americans
- › Women
- › Individuals found to be disadvantaged as defined by the Small Business Act under the 8(a) program

WisDOT may determine that individuals who are not members of the above groups may be socially and economically disadvantaged. WisDOT makes such determinations on a case-by-case basis.

~ www.dot.wisconsin.gov/business/engrserv/dbe-main.htm

Providing opportunities for individuals and businesses in transportation is not a new goal. The Disadvantaged Business Enterprise Program has been part of federal legislation since the Surface Transportation Assistance Act of 1982. In 2005, the Safe Accountable Flexible Efficient Transportation Equity Act- A Legacy for Users (SAFETEA-LU) continued funding for DBE support services, tribal technical assistance and workforce development initiatives.

Wisconsin began its Disadvantaged Business Enterprise Program in 1980 to increase the participation of minority and women-owned businesses in federal and state highway contracting.

Since then, WisDOT has developed policies and technical guidance and undertaken several efforts to respond to growing demands for improved participation in state transportation projects, as well as encourage greater participation by disadvantaged individuals and businesses.

Since 1982, WisDOT's program has:

- › Developed funding programs to aid disadvantaged business enterprises
- › Established procedures and measures to track performance

- » Expanded participation of minority-owned and other businesses in the transportation industry

WisDOT also provides and supports several programs to build the knowledge, expertise and competitive capabilities of both minority-owned businesses and the transportation workforce.

Target the distribution of information and technical assistance to businesses certified as socially and economically disadvantaged to encourage their participation in the transportation industry

WisDOT annually invests between \$600 million and \$700 million in federal and state funding for transportation projects, and allocates another \$100 million for design contracts. These funds translate into millions of dollars in transportation-related contracts, as well as opportunities for local communities and the transportation industry. Ensuring access to these opportunities and working to eliminate barriers for disadvantaged business enterprise firms that want to participate is the goal of the program as it strives to create a level playing field.

Specifically, WisDOT will:

- » Identify and implement strategies to maximize opportunities and participation in transportation projects, while promoting and strengthening the Disadvantaged Business Enterprise Program
- » Identify opportunities to expand and improve tribal contract firm participation in projects on or near tribal reservations

Identify and implement strategies to maximize opportunities and participation in transportation projects, while promoting and strengthening the Disadvantaged Business Enterprise Program

Efforts will focus on promoting and expanding the existing Disadvantaged Business Enterprise Program, identifying strategies and best practices that may be tailored for specific projects, emphasizing continued collaboration and partnering with stakeholders, and enhancing training opportunities.



▲ *Figure 7-17: The Marquette Interchange Reconstruction Project included partnering between disadvantaged business enterprises and prime contracting firms, mandatory subcontracting and disadvantaged business enterprise goal-setting conducted by a technical stakeholder group.*

In addition, WisDOT will continue to promote and strengthen its Disadvantaged Business Enterprise Program by:

- » Continuing to implement the Unified Certification Program Agreement to create a “One-Stop” certification system for all U.S. DOT assisted contracts in the state
- » Continuing the \$1.5 million Disadvantaged Business Enterprise Loan Guarantee Program
- » Hosting workshops, training and networking opportunities
- » Targeting marketing efforts to increase disadvantaged business enterprise participation
- » Continuing to review and evaluate potential firms to ensure that only firms that qualify for the program participate





▲ *Figure 7-18: WisDOT annually invests \$600 million to \$700 million in federal and state funding for transportation projects, and allocates another \$100 million for design contracts. These funds translate into millions of dollars in transportation-related contracts, as well as opportunities for local communities and the transportation industry.*

- » Using customized, computerized payroll tracking to monitor the relationship between prime contractors and disadvantaged business enterprise firms
- » Providing mediation and dispute resolution assistance
- » Providing management, technical and legal assistance
- » Developing partnership agreements
- » Using stakeholder committees such as the Transportation Advisory Committee and the Transportation Consultant Advisory Committee, and alliances including the Tribal Partnership Agreement, as well as project specific advisory committees such as the Marquette Interchange project's Disadvantaged Business Enterprise Advisory Committee

WisDOT uses a variety of techniques to encourage disadvantaged business enterprise participation in all projects. For example, the Marquette Interchange

reconstruction project included 'bull's-eye' or targeted marketing, and mandatory pre-bid meetings to provide opportunities for firms to ask questions about the project. It also included partnering between disadvantaged business enterprises and prime contracting firms, mandatory subcontracting, unbundling contracts into nontraditional and smaller stand-alone projects, project specific advisory meetings including elected officials, and disadvantaged business enterprise goal-setting conducted by a technical stakeholder group.

Initial efforts on the I-94 North South Corridor Project, which passes through Kenosha and Racine counties and into Milwaukee County, determined that many prospective workers, for various reasons, lack valid driver's licenses, necessary for job training and employment. In response, WisDOT worked with the individuals and the legal system to restore licenses through a driver's license recovery and restoration effort. WisDOT has initiated business and labor training programs have been initiated modeled after those used on the Marquette Interchange reconstruction project.

Tribal partnership agreement

In 2004, Governor Doyle issued Executive Order 39, recognizing the government-to-government relationship between the state and tribal governments, and requiring strengthening of the working relationship between the two governments. In accordance with this order, WisDOT created a partnership agreement with Wisconsin's federally recognized tribes.

Its purpose is to create and define the processes by which WisDOT and the Federal Highway Administration will work in collaboration with Wisconsin's eleven sovereign Indian nations. The agreement is also designed to acknowledge and support the government-to-government relationship between tribes and state and federal agencies and to support American Indian sovereignty.

~ www.dot.wisconsin.gov/localgov/docs/partnership-agreement.pdf

As the US 41 corridor project in northeastern Wisconsin progresses, the department will apply many of the techniques used on the Marquette Interchange reconstruction project. However, these techniques will be tailored to meet the demands and interests of the surrounding area. Current plans include targeted marketing for tribal members and others, goal-setting efforts specific to the area, and evaluating progress.

As these efforts move forward, WisDOT will document and quantify the benefits of these practices for future projects. The department will also research national best practices to identify effective techniques for increasing stakeholder and business participation that could be used in Wisconsin.

WisDOT will continue to support the need for updating the women and minority project labor goals set by the U.S. Department of Labor. WisDOT will also conduct research to better measure and evaluate the value of its efforts toward serving disadvantaged business enterprise populations.

Identify opportunities to expand and improve tribal contract firm participation in projects on or near tribal reservations.

WisDOT is evaluating opportunities to expand the participation of tribal contracting firms statewide. Early efforts in the 1990s focused on tribal training needs to assist in developing local roads inventories, orientation programs for newly certified Native American firms, and acquiring computers, equipment and materials. Recent efforts have focused on outlining coordination and improving communication between the state's tribes and WisDOT.

WisDOT has also begun efforts to encourage greater participation among Native American contractors. WisDOT will continue to support the efforts of the Native American Initiative. The primary goal of the initiative is to increase participation of Native American contractors in WisDOT projects. Currently, WisDOT is working with the Lac Courte Oreilles Ojibwa Community College and the College of the Menominee Nation to provide training to Native American disadvantaged business enterprise firms.

Past Native American Initiative efforts include:

- » Hosting summer training institutes (Lac Courte Oreilles and Menominee Nation)
- » Training tribal governments to prepare road inventories (Lac Courte Oreilles)
- » Performing GIS work for WisDOT region offices (Lac Courte Oreilles)

Building partnerships and stakeholder alliances to leverage equity goals, requirements and efforts

WisDOT will continue to build partnerships and stakeholder alliances. Specific efforts will focus on partnering with Wisconsin's:

- » Tribal nations
- » Racial and ethnic minority and low-income communities
- » Key stakeholders and committees



Workforce Development Initiative benefits:

- › Economic and business development resulting from the creation of transportation industry jobs and related job preparation programs.
- › Employment programs served to enable a better quality of life for many (over 500 in the Transportation Alliance for New Solutions Program have been placed in family-supporting positions as laborers in the industry)
- › Lowered training costs and increased employee retention for the contracting industry as a result of a collaborative approach to improving the supply line for laborers and the skilled trades.

Partner with Wisconsin's tribal nations

WisDOT will continue to partner with the tribes to build strong relationships and gain a better understanding of tribal needs. Prompted by Governor Doyle's Executive Order 39 (2004), WisDOT was the first state agency to implement a tribal partnership agreement.

WisDOT worked with the tribes to draft the agreement and created a tribal liaison position to build the government-to-government relationship between WisDOT and Wisconsin's 11 sovereign Indian nations.

The agreement promotes communication and cooperation between WisDOT and Wisconsin's tribes. Its goal is to work with Indian nations as equal partners focused on people, economics, and natural and human environments to improve the quality of life for all people.

Since signing the partnership agreement, WisDOT has:

- » Created the WisDOT Tribal Task Force to address internal policies and procedures affecting tribes
- » Conducted cultural competency training for WisDOT staff
- » Developed a WisDOT tribal Web page
- » Started a tribal historic preservation officer initiative to improve WisDOT procedures related to cultural resources

- » Improved economic development/capacity building programs to increase participation of tribal and individual Indian businesses

WisDOT will continue to implement these activities. In addition, WisDOT will continue to monitor activities in other states to identify practices that could be used in Wisconsin to improve tribal relations.

Partner with Wisconsin's racial and ethnic minority and low-income communities

WisDOT will continue efforts to reach out to and partner with Wisconsin's racial/ethnic minority and low-income communities across the state to ensure expanded and enhanced participation in the transportation decision making process.

Examples of regional activities include:

- » WIS 54/WIS 172 Corridor Study: WisDOT staff worked closely with the Oneida Tribe of Wisconsin to understand the safety, community, environmental and archeological concerns. While the corridor study focused on broader corridor level issues, WisDOT planners and engineers saw the study as an opportunity to reach out and become aware of the tribe's issues. WisDOT will continue to work with the tribe to address its concerns.
- » Verona Road/West Beltline Needs Study: WisDOT continues to work closely with the

Transportation Alliance for New Solutions Program success story

The first Marquette Interchange reconstruction project was the Bridge Deck Overlay project. The work required the surface to be jack-hammered manually. This project was well-suited for hiring workers in the laborer classification.

Of the 14,401 total work hours expended on the project, 31.2 percent were completed by minority workers and 8.8 percent were completed by female workers.

The laborer classification alone yielded 39.7 percent minority hours and 9.7 percent female hours. Fourteen TrANS program graduates contributed to these successful numbers.

“After I graduated from the TrANS program I worked on the 1st Marquette Interchange project doing the jack hammering for Zenith Tech. The crew had a bet that I wouldn’t make it a week on the job probably because I’m female and under five feet tall. It was rough work but I wasn’t willing to give up. I’m proud of my work and I’m still working on the Marquette Interchange today.”

~ Paige Edwards, 2003 TrANS Graduate

minority and low-income communities living along the corridor to identify their concerns, needs and potential solutions. These include providing better transportation connections to area neighborhoods and developing neighborhood improvement plans to reduce the potential loss of low-income housing.

- » Southeast Wisconsin Freeways: WisDOT staff worked with the minority and low-income populations residing adjacent to the corridors to gain a better understanding of their issues and concerns and to identify ways to avoid, reduce or mitigate the issues.

Continue relations with key stakeholders and committees

WisDOT will continue to work with communities and stakeholders to encourage collaboration to consolidate gains and incorporate new cultures into equity efforts. The Transportation Advisory Committee, Transportation Consultant Advisory Committee, Marquette Interchange Advisory Committees and the tribal partnership agreement are examples of WisDOT’s inclusion efforts.

Continue efforts to build a diverse skilled and professional transportation workforce

WisDOT will continue to strongly encourage and help facilitate opportunities for all contractors to employ a workforce that mirrors the surrounding project’s population. Over the last 10 years, WisDOT and its partners in industry and labor, community-based organizations, and other government agencies have collaborated to address critical workforce needs in the highway construction skilled trades. One outcome is the Transportation Alliance for New Solutions.

The Transportation Alliance for New Solutions Program demonstrates how the public and private sectors can work together to address the outreach, preparation, placement and retention of women, minorities and others in the highway construction skilled trades. This program, and similar programs, prepares the underemployed and unemployed with skills needed to gain access to the road building industry as laborers and eventually as apprentices. WisDOT will expand the program to serve the Green Bay, Racine, Kenosha and La Crosse areas. WisDOT will continue to require contractors to document a diligent effort in hiring underutilized employees.

WisDOT will conduct equal employment opportunity reviews to monitor contractor hiring practices and efforts to utilize Transportation Alliance for New Solutions Program graduates and diversify its workforce. WisDOT will also educate its staff and stakeholders on federal labor goals and requirements including:

- » Tribal employment rights
- » Prevailing wage requirements (i.e., ensure that workers receive the appropriate wage rate)



- » State and federal requirements for equal employment opportunities

WisDOT will continue to fund, oversee and implement several programs to encourage youth to consider future careers in transportation:

- » Transportation and Civil Engineering – allows students in grades 7 to 12 to work on a variety of transportation projects such as bridge design, land use planning and traffic signal timing
- » National Summer Transportation Institute – introduces high school students to transportation careers
- » Career Awareness Summer Program – provides an opportunity for students in grades 5 to 8 to observe professionals using industry tools and machinery as they work on a variety of WisDOT projects

WisDOT will expand the Transportation and Civil Engineering Program statewide. In addition, WisDOT will coordinate efforts between the Transportation and Civil Engineering and existing National Summer Transportation Institute programs in Wisconsin. WisDOT will also continue to research methods used in other states to build their transportation workforce, and identify methods that could be used in Wisconsin.

Integrate environmental justice principles into planning and project development

Environmental justice is a public policy goal developed to ensure that adverse human health or environmental effects of government activities do not fall disproportionately upon minority or low-income populations. The essence of effective environmental justice practice is summarized in three fundamental principles:

- » Ensure the full and fair participation by all potentially affected communities in the transportation decision-making process
- » Prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations
- » Avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects (including social and economic), on minority and low-income populations

At its core, environmental justice requires a commitment from its partners and stakeholders to be more inclusive – to fully involve, recognize and explore the needs of all its citizens when making transportation decisions. It also requires partners and stakeholders to be more comprehensive in determining how existing transportation plans, projects and activities distribute their benefits and burdens across all socioeconomic groups.

Executive Order 12898 and the subsequent U.S. DOT order clarify and reinforce Title VI responsibilities and require agencies to consider impacts on low-income populations as well as minority populations. Both orders were developed to ensure that transportation programs, policies and other activities do not have a disproportionately high and adverse effect on minority or low-income populations.

WisDOT will continue to conduct environmental justice analyses on all transportation planning and project activities (see the policy in Chapter 10, *Preserve Wisconsin's Quality of Life* called "Incorporate environmental justice in all planning, programming and project decisions").

AT ITS CORE, ENVIRONMENTAL JUSTICE *requires a commitment from its partners and stakeholders to be more inclusive – to fully involve, recognize and explore the needs of all its citizens when making transportation decisions.*

► **SUMMARY OF POLICY ACTION ITEMS:**

Promote a diverse workforce in Wisconsin's transportation industry by building alliances and business opportunities through civil rights initiatives

Short-term (2008 – 2013)

- Expand the Transportation Alliance for New Solutions Program to serve the Green Bay, Kenosha, Racine and La Crosse areas.
- Expand the Transportation and Civil Engineering Program statewide.
- Coordinate efforts between the Transportation and Civil Engineering Program and existing National Summer Transportation Institute programs in Wisconsin.
- Evaluate opportunities to expand the participation of tribal contracting firms statewide.
- Continue to support the effort to update the women and minority project labor goals set by the U.S. Department of Labor.

Long-term (2020 – 2030)

- Conduct research to better measure and evaluate WisDOT's efforts toward serving disadvantaged business enterprise populations.

Entire planning period (2008 – 2030)

- Identify opportunities to expand and improve tribal contract firm participation in projects on or near tribal reservations.
- Promote and expand the existing Disadvantaged Business Enterprise Program; identify strategies and best practices that may be tailored for specific projects; emphasize continued collaboration and partnering with stakeholders; and enhance training opportunities.
- Continue efforts to reach out to and partner with Wisconsin's racial and ethnic minority and low-income communities to ensure expanded and enhanced participation in the transportation decision making process.
- Document and quantify the benefits of disadvantaged business enterprise practices for future WisDOT projects.
- Continue to support the efforts of the Native American Initiative.
- Partner with tribes to build strong relationships and gain a better understanding of tribal needs.
- Continue to monitor activities in other states to identify practices that could be used to improve tribal relations in Wisconsin.
- Continue to work with communities and stakeholders to consolidate gains and incorporate new cultures into progressive equity efforts.
- Continue to strongly encourage and help facilitate opportunities for all contractors to employ a workforce that mirrors the surrounding project's population.
- Continue to require contractors to document a diligent effort in hiring underutilized employees.
- Research national best practices to identify effective techniques for increasing minority stakeholder and business participation that could be used in Wisconsin.
- Conduct equal employment opportunity reviews to monitor contractor hiring practices and their efforts to utilize Transportation Alliance for New Solutions Program graduates and diversify their workforce.
- Continue to fund, oversee and implement programs to encourage youth to consider future careers in transportation .
- Continue to research methods used in other states to the build transportation workforce and identify methods that could be used in Wisconsin.
- Educate WisDOT staff and contractors on federal labor goals and requirements, including tribal employment rights, prevailing wage requirements and state and federal requirements for equal employment opportunities.
- Continue to conduct environmental justice analyses on all transportation planning and project activities.

