



MICHIGAN STATE RAIL PLAN SUMMARY

September 2011

The Michigan Department of Transportation (MDOT) has developed a State Rail Plan to guide the future development of Michigan's rail system for both passenger and freight rail over the next 20 years. The plan identifies current and future system needs and makes recommendations to encourage ongoing rail investments. The plan meets the requirements established by the federal Passenger Rail Investment and Improvement Act of 2008, which positions the state to receive additional federal funding for rail projects.

THE MICHIGAN RAIL SYSTEM

The State of Michigan has a robust rail system that consists of both freight and passenger rail services. The rail system is an important component of Michigan's economy and will continue to evolve with state, national and global economic trends.

FREIGHT RAIL PROFILE

Michigan had the 12th highest number of track miles in 2008 consisting of 4,294 miles operated and 3,499 miles owned by four-Class 1 railroads, two-Class II regional railroads, 15-Class III short-line railroads, and eight switching and terminal operators. The state owns 530 active track miles. Other major rail facilities in Michigan include intermodal freight terminals concentrated in the Detroit area, three international border crossings with Canada, and two ports that transport iron ore mined in the Upper Peninsula.

In 2009, 33 percent of Michigan's freight tonnage was moved by rail accounting for \$41.4 billion in commodities. Major rail shipments moving in and out of Michigan include coal, metallic ores, chemical products, and transportation equipment. Through the year 2030, rail imports are forecast to increase modestly at 0.13 percent annually, while rail exports are anticipated to increase at a faster pace at 2.51 percent annually.

PASSENGER RAIL PROFILE

Amtrak operates three intercity passenger rail service lines serving 22 stations in Michigan along 521 track miles. Thruway bus connections are provided in East Lansing, Ann Arbor, Dearborn, and Detroit. The

PLAN VISION *and* GOALS

The *State Rail Plan* envisions a rail system that provides enhanced mobility for travelers and the efficient movement of goods, while supporting economic development and environmental sustainability.

This vision is supported by the following plan goals:

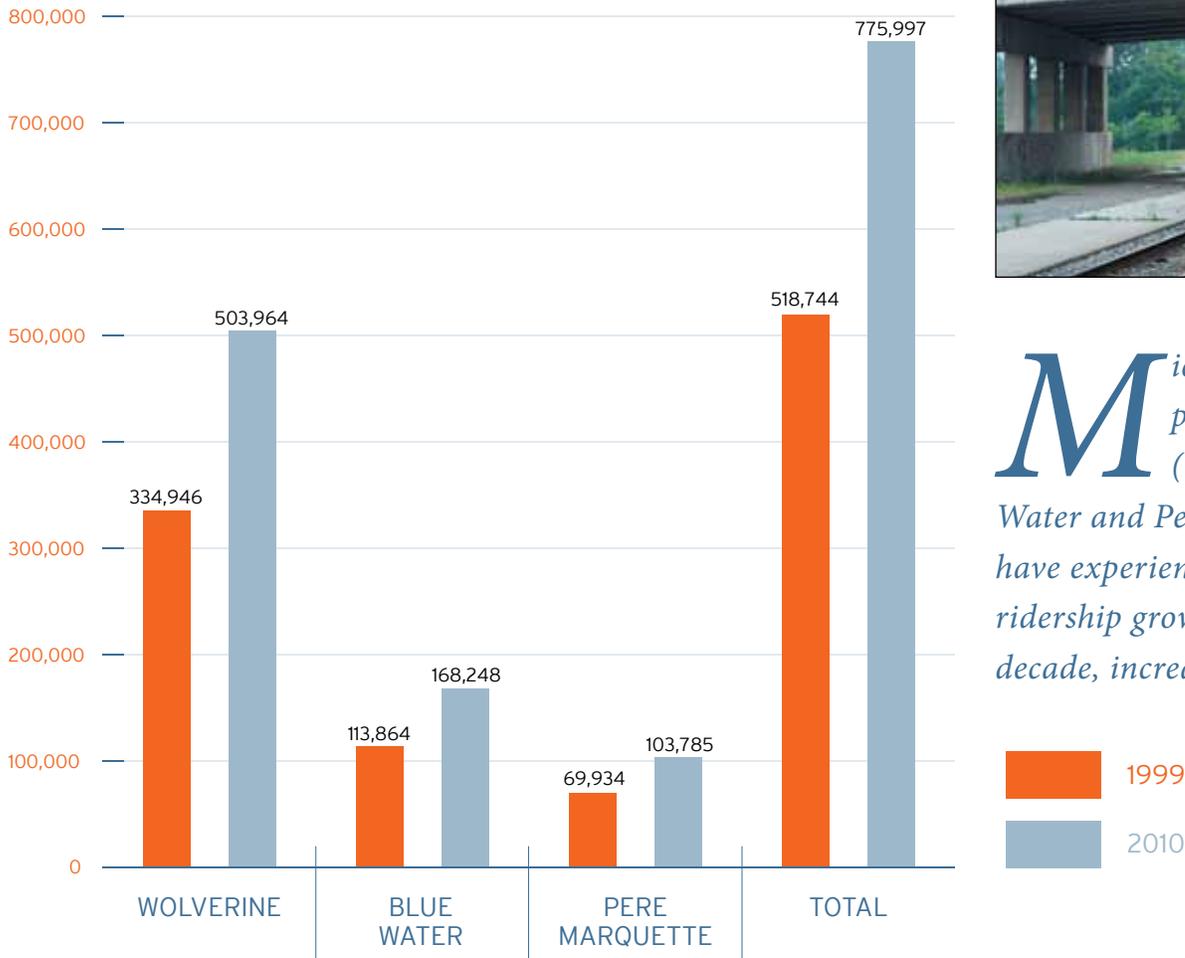
- Promote the efficient movement of passengers
- Promote the efficient movement of freight
- Encourage intermodal connectivity
- Enhance state and local economic development
- Promote environmental sustainability
- Promote safe and secure railroad operations

state provides about \$8 million per year in operating support for the Pere Marquette and Blue Water. The Wolverine is part of Amtrak's national system and is provided at no cost to the state.

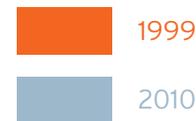
Ridership on Michigan's passenger rail lines totaled 775,997 in 2010, which is a 50 percent increase from 1999. The Wolverine is the most highly utilized route operating on the Chicago-Detroit-Pontiac corridor. This corridor is a key component of the Midwest Regional Rail Initiative (MWRRI) and is a federally designated

High-Speed Rail corridor. The 97-mile segment between Kalamazoo, Mich., and Porter, Ind., is the only corridor outside the Northeast Corridor that is owned by Amtrak and is designed for train speeds up to 110 mph. Passenger trains currently operate at speeds up to 95 mph on this segment, and are expected to increase up to 110 mph in late 2011, when testing of the signal system is completed. MDOT has been successful in obtaining approximately \$350 million in federal funds to purchase and upgrade the Dearborn to Kalamazoo segment of this corridor.

AMTRAK RIDERSHIP



Michigan's three passenger rail lines (Wolverine, Blue Water and Pere Marquette) have experienced outstanding ridership growth over the past decade, increasing by 50 percent.



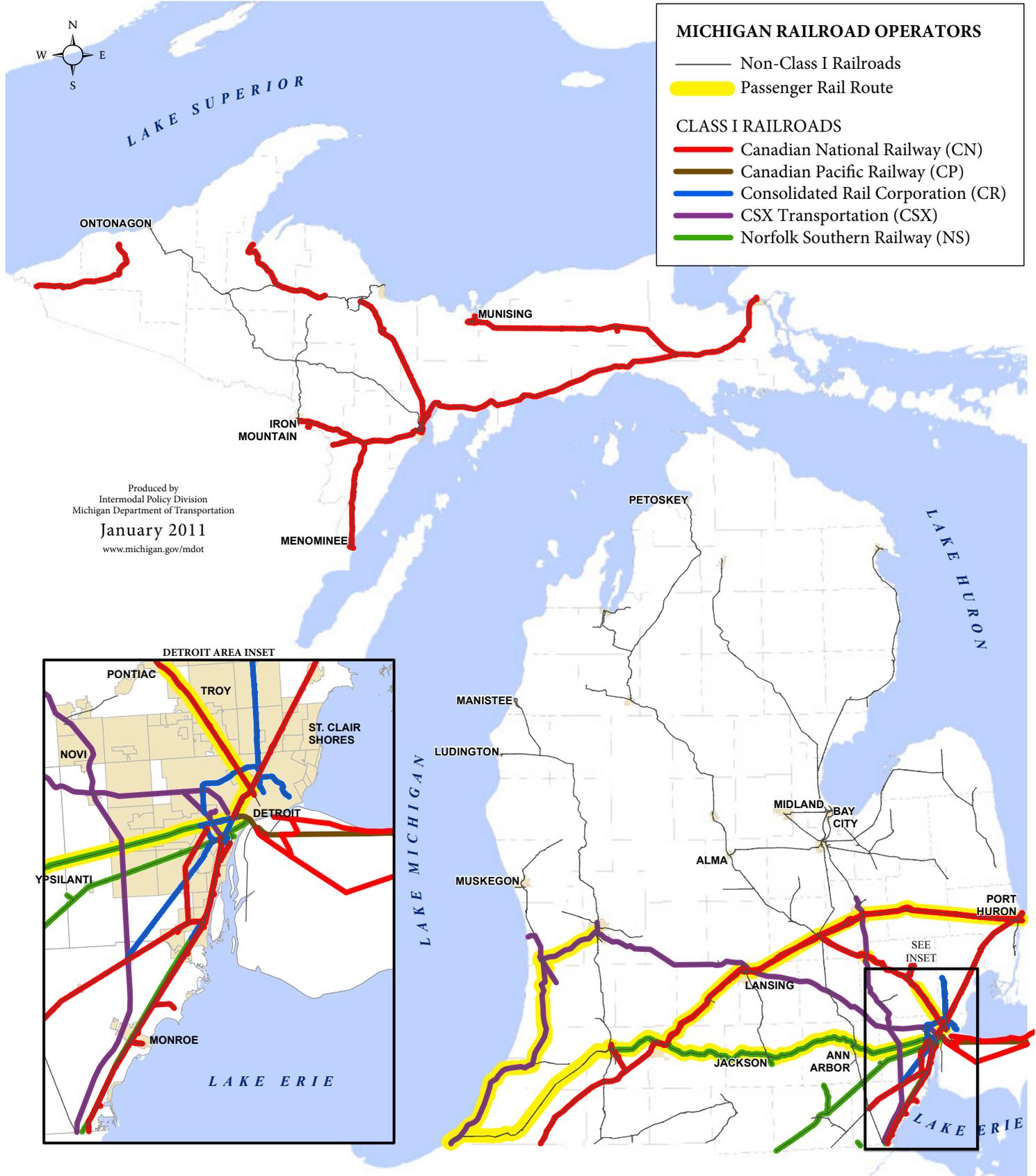
PUBLIC OUTREACH

The public outreach strategy for the plan was designed to ensure interested persons and organizations had an opportunity to be informed and involved throughout the process. Outreach included:

- A dedicated rail plan Web page with online comments and plan information.
- Two rounds of statewide public meetings.
- More than 25 meetings with organizations and companies involved in freight movements.
- Coordination with Michigan by Rail.



RAILROADS OPERATING *in* MICHIGAN



RAIL FUNDING CHALLENGES *and* OPPORTUNITIES

Michigan has relied on a variety of relatively small federal and state funding programs to develop their rail system. These programs have achieved a high level of service for Michigan, but funding levels are not adequate to sustain the system.



In May 2011, Michigan received nearly \$200 million in federal rail grants for projects to improve the rail corridor between Dearborn and Kalamazoo. Image source: MDOT Photography Unit.

FUNDING OPPORTUNITIES

New federal legislation for passenger rail has changed the funding outlook by creating competitive grant programs that have made billions of dollars available for projects throughout the country.

Michigan has successfully obtained the following major awards:

- January 2010: \$40 million for station improvements.
- August 2010: \$150 million for upgrades to Dearborn and Kalamazoo corridor.
- **Recently awarded!** May 2011: \$199 million to improve the Dearborn to Kalamazoo corridor.

Since Amtrak began operating the nation's passenger rail service in 1974, MDOT has invested more than \$100 million in state, federal and local funds on passenger-related rail projects. Since 1995 Michigan has also invested more than \$100 million of federal and state funds for grade crossing safety projects and \$115 million in state funds for state-owned rail lines and rail-related economic development projects.

FUNDING CHALLENGES

Rail in Michigan is facing several challenges:

- State budget shortfalls have led to the retraction of many transportation programs.
- State freight rail funds are limited and there are no dedicated federal freight funds.
- The state must consider purchasing the track between Kalamazoo and Dearborn valued at \$200 million to avoid it being downgraded to 25 mph.
- State matching funds are needed to take advantage of new federal passenger rail grant awards.
- The federal Passenger Rail Investment and Improvement Act of 2008 will require Michigan to provide the operating subsidy for the Wolverine starting in fiscal year 2014 at an estimated cost of \$25 million per year.
- Federal funding for passenger rail is uncertain because it requires ongoing congressional appropriations.

2010 STATE RAIL FUNDING PROGRAMS

PASSENGER RAIL PROGRAM - OPERATIONAL SUPPORT	 \$7.6 million
LOCAL GRADE CROSSING PROGRAM	 \$7.0 million
TRUNKLINE RAILROAD CROSSING PROGRAM	 \$1.4 million
FREIGHT ECONOMIC DEVELOPMENT PROGRAM	 \$1.3 million
STATE-OWNED RAIL PROPERTY CAPITAL DEVELOPMENT	 \$1.0 million
MICHIGAN RAIL LOAN ASSISTANCE PROGRAM	 Program suspended in 2010

RAIL INVESTMENT PACKAGES

A list of projects with a total cost of more than \$10 billion has been developed to identify and prioritize Michigan's rail investment needs. The list includes projects that have been identified by local, state and regional planning efforts, railroad companies and other freight stakeholders, and through the plan's public outreach process. Projects from the list were prioritized into Baseline, Good, Better and Best investment packages.



BASELINE PACKAGE

Cost: \$3.9 billion
 Funded: \$3.9 billion
 Unfunded: \$0

The Baseline package maintains funding at current levels, allowing for some public and private rail system investment. The Baseline package would complete a variety of privately financed freight projects, make some improvements to the Chicago-Detroit/Pontiac corridor, purchase next generation train sets, lease trains for the Ann Arbor-Detroit and Ann Arbor-Howell services and improve the Jackson and Durand stations. However, funding levels for this package are not sufficient to maintain the aging freight rail infrastructure and the Wolverine service would be eliminated because the operating subsidy would not be funded.



GOOD PACKAGE

Cost: \$7.2 billion
 Funded: \$4.6 billion
 Unfunded: \$2.6 billion

The Good package expands state-funded freight rail programs, subsidizes Wolverine operations, provides state matching funds for Chicago-Detroit/Pontiac corridor improvements and completes major portions of the Detroit Intermodal Freight Terminal. In addition, the Good package initiates Ann Arbor-Detroit and Ann Arbor-Howell service, constructs the Detroit River Tunnel and provides new intermodal stations in Detroit and Ann Arbor. Feasibility studies would be completed for Traverse City/Petoskey service, Detroit-Toledo service and a West Michigan Intermodal Freight Terminal. Also, an alternative analysis would be completed for expanded service to Grand Rapids.



BETTER PACKAGE

Cost: \$7.8 billion
 Funded: \$4.5 billion
 Unfunded: \$3.3 billion

The Better package includes all projects in the Baseline and Good packages and advances key projects for the state. This package would complete high-speed rail service for the Chicago-Detroit/Pontiac corridor, make improvements to the Grand Rapids and Port Huron corridors and complete all Detroit Intermodal Freight Terminal projects. In addition, the Better package funds preliminary engineering and environmental studies for Traverse City/Petoskey service and for Detroit-Toledo service. Also, an assessment of 220 mph passenger service would be conducted for the Chicago-Detroit-Toronto corridor.



BEST PACKAGE

Cost: \$10.1 billion
 Funded: \$4.6 billion
 Unfunded: \$5.5 billion

The Best package includes all projects under the Baseline, Good and Better packages as well as the remainder of the projects identified as investment needs. Under the Best package, all MWRRI projects would be implemented in Michigan and operating subsidies for more frequent passenger service would be provided for all lines. In addition, new passenger rail equipment would be purchased for all Michigan corridors and passenger service to Traverse City/Petoskey would be implemented.

BENEFITS of RAIL INVESTMENTS

Ongoing investments in Michigan’s rail system will provide transportation, economic, environmental and community benefits.

ECONOMIC BENEFITS

An analysis was conducted to demonstrate the economic benefits of each rail investment package outlined in the *State Rail Plan*. The Baseline package assumes that the existing rail programs will continue at their current funding levels. During the plan’s 20-year timeframe, the Baseline package would contribute to a substantial amount of economic activity, but it would be less than existing conditions because the state would not have enough funds to subsidize the Wolverine passenger route beginning in fiscal year 2014 and service would be discontinued. The rail investments suggested under the Good, Better and Best packages would provide a substantial increase in economic benefits for the state ranging between \$10.4 billion and \$11.4 billion in personal income earnings, \$34.6 billion to \$41.2 billion related to the sale of commodities and an annual employment average of 11,160 to 12,100.

ECONOMIC BENEFITS OF RAIL INVESTMENT PACKAGES

ECONOMIC INDICATOR	Existing Conditions	Rail Investment Packages			
		Baseline	Good	Better	Best
Personal income earnings	\$9.2 billion	\$9.0 billion	\$10.4 billion	\$10.7 billion	\$11.4 billion
Sale of commodities	\$33.4 billion	\$32.6 billion	\$34.6 billion	\$38.2 billion	\$41.2 billion
Employment (annual average)	10,140	9,950	11,160	11,450	12,100



COMMUNITY BENEFITS

Communities benefit from enhanced rail services because freight rail infrastructure encourages local business investment. Passenger services often result in increased development around stations which encourages downtown redevelopment and compact land uses. In addition, improvements to warning devices at crossings increases safety and may qualify a community for a quiet zone which reduces train horn noise.

TRANSPORTATION BENEFITS

Michigan’s rail system contributes to a multi-modal transportation network increasing efficiency and choice for passengers and freight. Intercity passenger rail connects major urban centers, allows passengers to be productive while traveling and is less prone to highway and airline delays. Also, high-speed passenger rail is time-competitive with air and auto trips between 100 and 500 miles. Investments in freight rail will make moving goods quicker, cheaper and more reliable, directly benefiting businesses and helping to create jobs in Michigan.

ENVIRONMENTAL BENEFITS

Rail travel is the most energy efficient land-based transportation mode in the country reducing fuel consumption and air pollution. According to the Texas Transportation Institute, one gallon of fuel will carry one ton of freight 413 miles via rail, as compared to 155 miles by truck. This reduces greenhouse gas emissions by 53 percent. Intercity passenger rail also provides air quality benefits by reducing vehicle miles and airline trips. According to the Oak Ridge National Laboratory, intercity passenger rail uses 21 percent less energy per passenger mile than autos and 17 percent less than airlines.

RECOMMENDATIONS

The *State Rail Plan* recommends Michigan actively pursue the Good Investment Package, which will help rail services and provide significant economic benefits for the state. To implement the Good package, Michigan must find stable, dedicated sources of funding to leverage federal funds and encourage funding from private sources. A summary of the plan's policy recommendations that will help Michigan achieve a Good level of investment are below.

To further develop **PASSENGER RAIL** Michigan should:

- ✓ Develop a detailed passenger rail implementation plan.
- ✓ Expand the feeder bus system to connect more communities to the passenger rail system.
- ✓ Conduct feasibility studies for new routes to Traverse City, Grand Rapids, Toledo, and Toronto.
- ✓ Investigate operation changes to improve passenger service operations.
- ✓ Implement regional passenger rail service.
- ✓ Establish a bonding program to provide 20% state matching funds for federal grants.
- ✓ Investigate the use of a state ticket fee or tax to offset state matching funds.
- ✓ Encourage local communities to participate in capital funding for station improvements.
- ✓ Seek Congestion Mitigation and Air Quality funding for short-term passenger rail operations.
- ✓ Identify pricing strategies to maximize ticket yields.
- ✓ Investigate outsourcing strategies to reduce operating support for Amtrak.
- ✓ Develop marketing strategies to increase ridership and revenue.
- ✓ Work with local communities and developers to encourage economic development around stations.
 - ✓ Make provisions for bicycles on trains and at stations.

To enhance **FREIGHT RAIL** services Michigan should:

- ✓ Work with local, regional and state agencies to identify regional economic development strategies.
- ✓ Prioritize freight projects that will have the most economic development impact.
- ✓ Create promotional materials for state funding programs.
- ✓ Develop regional economic distress indicators and focus resources in those areas.
- ✓ Study freight rail movements in underserved areas.
- ✓ Study short-haul intermodal facility needs.

To address **STATE-OWNED LINES** Michigan should:

- ✓ Continue to sell state-owned rail lines in accordance with state law.
- ✓ Seek legislative permission to expedite selling larger rail systems prior to the smaller systems.
- ✓ Preserve segments that are critical to future passenger rail.
- ✓ Sell short segments of track that are not critical to overall system.
- ✓ Encourage new industry to locate along state-owned lines.
- ✓ Make strategic investments to increase the track's ability to carry heavier loads.

To enhance **STATE RAIL FUNDING PROGRAMS** Michigan should:

- ✓ Continue to fund the Freight Economic Development Program to encourage businesses development.
- ✓ Re-institute the Michigan Rail Loan Infrastructure Program and implement a grant program.
- ✓ Expand funding for the Local Grade Crossing Program.

To **PRESERVE RAIL CORRIDORS** Michigan should:

- ✓ Maintain a database of potential abandonment candidates.
- ✓ Work with organizations and agencies to encourage the expansion of rail users.
- ✓ Consider purchasing abandoned segments to preserve critical transportation corridors.
- ✓ Work with DNR to allow rail-trail conversions to revert back to rail use or shared rail/recreation corridors.

To obtain more **FEDERAL FUNDING** Michigan should:

- ✓ Review previous grant submittals to increase understanding of requirements that most often lead to successful grant awards.
- ✓ Move projects through the planning and environmental review processes so they are eligible for federal funding.
- ✓ Ensure state funding is available to match federal funds and seek funding participation from railroads and other private entities.

