

2012 SMTP Assessment

BACKGROUND

What is the SMTP?

The Statewide Multimodal Transportation Plan is Minnesota's highest level transportation plan. It translates the Minnesota GO 50-year Vision into general policy direction for MnDOT and transportation partners. The policy direction from the SMTP guides the development of system plans, the next layer of planning in MnDOT's Family of Plans. Each system plan outlines additional policies and investment direction specific to each type of transportation – aviation, bicycle, freight, highway, pedestrian, rail, transit and waterways.

The development of the SMTP is directed by federal and state law. The plan must look 20 years into the future but is required to be updated every four years. The current version of the plan was adopted in 2012. A draft of the next version is anticipated to be complete in late 2016.

Why did we do an assessment?

The SMTP is where MnDOT and transportation partners identify what we plan to do. So it makes sense that before starting the update process we first ask “how did we do?”

It has been almost three years since the current SMTP was adopted and a lot has happened related to transportation in Minnesota during that time. This assessment is an opportunity to highlight some key activities. It is also an opportunity to grade ourselves on progress made towards the plan goals.

Additionally, the information in this assessment will help us identify which objectives and strategies we should focus on in the next version of the plan.

How do I get more information?




If you'd like more information about any of the activities highlighted in this document, contact Philip Schaffner, MnDOT Policy Planning Director (philip.schaffner@state.mn.us).

ASSESSMENT PROCESS

To start the assessment process we reached out to MnDOT planning staff and our planning partners throughout the state. We asked everyone to review the current SMTP and to identify activities they participated in since 2012 related to each of the six SMTP policy objective areas:

- Accountability, Transparency & Communication
- Traveler Safety
- Transportation in Context
- Critical Connections
- Asset Management
- System Security

From this feedback we compiled a list of activities by objective area and assigned a grade based on the following scale:

-  Substantial progress
-  Some progress
-  Minimal to no progress





This assessment is an attempt to summarize what we learned. We recognize that it is imperfect and does not include every action completed by every transportation partner; there are simply too many to document here. Instead, we focused on highlighting major statewide activities as well as the specific actions that best showed our progress toward the plan objectives.

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2012 ASSESSMENT SCORECARD








Accountability, Transparency & Communication

Make transportation system decisions through processes that are open and supported by data and analysis; provide for and support coordination, collaboration and innovation; and ensure efficient and effective use of resources.

Strategy	Actors	Grade	Rationale
Work with users of the system to better understand what is important to meet their needs today and what will matter tomorrow.	Transportation Partners	Some progress, more work needed 	We continued to support successful activities and began a number of new initiatives. However, our level of success varies by audience. We have more work to do in this area to ensure we are reaching all transportation users.
Align all performance measures with the Minnesota GO Vision and Guiding Principles, SMTP objectives and strategies as how Minnesotans define quality of life.	MnDOT	Substantial progress 	This was a focus area for MnDOT Planning since the adoption of the last SMTP. Our activities in this area established a framework that helps ensure consistency among planning and performance measurement.
Educate stakeholders on system-wide and project-specific transportation issues.	Transportation Partners	Substantial progress 	Education about transportation issues and needs is becoming more and more of a priority for Minnesota. We made strides in this area but there is still more to do.
Improve early communication and coordination on projects to minimize resource use and maximize benefits.	Transportation Partners	Some progress, more work needed 	We made big steps toward improving early communication and coordination. However, more work is needed to make these activities standard practice throughout the state.






Traveler Safety

Safeguard travelers, transportation facilities and services; apply proven strategies to reduce fatalities and serious injuries for all travel modes.

Strategy	Actors	Grade	Rationale
Increase participation of all road authorities in the collaborative safety initiative TZD and explore new opportunities to work together to improve safety for all modes.	Transportation Partners	Substantial progress 	Participation in TZD increased significantly since 2012, including major milestones such as regional workshops in all eight MnDOT districts. More work is needed to help reach the interim goal of fewer than 300 fatalities by 2020 and the long term goal of zero deaths in Minnesota.
Develop and share critical safety information and support educational initiatives.	Transportation Partners	Substantial progress 	We continued to support and implement a number of new initiatives focused on safety information and education for all modes of transportation.
Collaborate with law enforcement to promote compliance with traffic laws, affect driver behavior and reduce unsafe driving practices for all modes.	Transportation Partners	Substantial progress 	Transportation agencies at all levels partner with law enforcement on a variety of programs and initiatives to promote traffic safety.
Work with local and regional partners that are public transit providers to ensure enforcement of safety and security requirements.	MnDOT; Metropolitan Council	Some progress, more work needed 	Many of these things are built into our existing way of doing business, though we can continue to improve the enforcement of safety and security requirements. Further communication of progress on this strategy is needed in the future.
Ensure that transportation facilities are planned, engineered, operated and maintained with consideration for the safety of all users.	Transportation Partners	Some progress, more work needed 	This has been a focus area for transportation partners in Minnesota. Progress was made in both planning and implementation but more work is needed to ensure that the needs of all users are considered in all phases – planning, engineering, operations and maintenance.
Implement strategic and sustainable engineering solutions to improve safety.	MnDOT; Local, Regional and Tribal Partners	Substantial progress 	Implementing strategic engineering solutions has been and continues to be a focus for MnDOT.
Work with emergency medical and trauma services to reduce response time and increase survivability.	Transportation Partners	Some progress, more work needed 	We made progress in this area but we are not where we would like to be.






Transportation in Context




Make fiscally responsible decisions that respect and complement the natural, cultural and social context and integrate land uses and transportation systems to leverage public and private investments.

Strategy	Actors	Grade	Rationale
Support the development of land use plans or policies that minimize long-term costs by taking advantage of investments made in existing and planned infrastructure.	Local, Regional and Tribal Partners	Some progress, more work needed 	Connections between transportation and land use have been more of a focus area. However, implementation in this area can be difficult because the decision-makers for transportation and land use are often different.
Work together to improve accessibility and safety for everyone traveling on, along and across roads.	MnDOT; Local and Tribal Partners	Substantial progress 	We have made substantial progress in this area but there is still substantial progress to be made.
Plan, design, develop and maintain projects in a way that is consistent with the principles of CSS.	MnDOT	Some progress, more work needed 	Context Sensitive Solutions continues to be a priority for MnDOT. However, more work is needed to continue to integrate the principles into all planning, design, development and maintenance practices.
Work together to support and implement both system-wide and project-specific approaches to avoid, minimize and mitigate adverse impacts to Minnesota's natural and cultural resources.	Transportation Partners	Some progress, more work needed 	Natural and cultural resources include many different areas. In some areas we do well in terms of mitigating adverse impacts. In other areas, we can do much better.
Support statewide economic vitality and create and maintain jobs through transportation infrastructure investment.	Transportation Partners	Substantial progress 	The connection between transportation and the economy has received the most support – interest and funding – in recent years.

Critical Connections





Identify global, national, statewide, regional and local transportation connections essential for Minnesotans' prosperity and quality of life; maintain and improve these connections by maximizing return-on-investment, given constrained resources; consider new connections.



Strategy	Actors	Grade	Rationale
Apply multimodal solutions that ensure a high return-on-investment, given constrained resources and that complement the unique social, natural and economic features of Minnesota.	MnDOT; Local, Regional and Tribal Partners	Some progress, more work needed 	We have done a lot of planning in this area but more work is needed related to implementation.
Support and development multimodal connections that are accessible for all Minnesotans regardless of socioeconomic status or individual ability.	Transportation Partners	Some progress, more work needed 	While we have done much to support and develop multimodal connections, accessibility remains a concern.
Work together to define priority networks for all modes based on connectivity and accessibility.	MnDOT; Local, Regional and Tribal Partners	Substantial progress 	Priority networks for all modes were identified or confirmed in recent years. However, there is more work to do to integrate these networks into decision-making and delivery.
Collaborate to provide greater accessibility and more efficient movement of goods and people throughout the Twin Cities metropolitan area.	MnDOT; Metropolitan Council; Local and Private-Sector Partners	Substantial progress 	The Red Line and the Green Line began operations; expansion of the MnPASS system is underway; numerous transitway, corridor and access studies completed throughout the metro area.
Work together to improve the connections between transit services to provide greater transportation options for travel within and between cities.	MnDOT; Local, Regional and Tribal Partners	Substantial progress 	While there is still much work yet to do, there was substantial planning and some investment to improve transit connections in both Greater Minnesota and the Twin Cities metropolitan area.

Strategy	Actors	Grade	Rationale
Work to develop intercity passenger rail and improve intercity bus service for better connections between cities and regions in Minnesota and across the nation.	MnDOT; Local, Regional and Tribal Partners	Some progress, more work needed 	Substantial planning occurred in this area. However, in recent years there has been no funding available for implementation.
Work together to ensure the people and businesses of Minnesota have convenient access to the air transportation network.	MnDOT; Local, Regional, Federal and Private-Sector Partners; Neighboring States and Provinces	Some progress, more work needed 	Planning for air access has been strong. However, ensuring access is more than just planning. Additionally, more work is needed to understand air cargo needs.
Work together to improve freight operations and connections for better access to the transportation system.	MnDOT; Local, Regional and Federal Partners; Neighboring States and Provinces; Private Shippers and Carriers	Substantial progress 	Numerous studies and some investment were completed with the goal of improving freight transportation in Minnesota.

Asset Management




Strategically maintain and operate transportation assets; rely on system data, partners' needs and public expectations to inform decisions; put technology and innovation to work to improve efficiency and performance; recognize that the system should change over time.

Strategy	Actors	Grade	Rationale
Prioritize maintaining and operating assets on identified priority networks.	MnDOT; Local, Regional, and Tribal Partners	Substantial progress 	Since 2012, federal and state policy direction has been shifting toward prioritization among transportation assets, at least partially due to funding limitations. In Minnesota, we've made substantial progress in this area over the past few years.
Keep Minnesota's transportation system on a sustainable track for the future.	MnDOT; Local, Regional, and Tribal Partners	Some progress, more work needed 	A lot of progress has been made in the past few years to better maintain Minnesota's transportation system. Work in this area continues to be a focus for all transportation partners. However more data and research is needed to better understand and implement the principles of asset management.
Ensure that safety, operations, and maintenance needs are considered and addressed in transportation planning and programming.	Transportation Partners	Some progress, more work needed 	This is an area where significant progress has been made at the state level in the past few years but more progress is needed at the regional and local levels.
Better align ownership of Minnesota's roadways with statewide, regional, and local priorities.	Transportation Partners	Minimal to no progress 	Better aligning system ownership is still a goal among transportation partners in Minnesota. Planning work in this area has been widely successful, but the strategy as written implies action and limited funding is available to execute the recommendations of plans and studies. MnDOT receives \$50M annually for transfers, or \$1B over the next 20 years from the Highway User Tax Distribution Fund. MnDOT has agreed to 75 miles of transfers but must wait for funds to be available for reimbursement before the transfer is complete.

Strategy	Actors	Grade	Rationale
Work with transportation partners to implement a transparent and collaborative approach to corridor investment along the state highway system.	MnDOT	Some progress, more work needed 	Some work has been made in this area, particularly related to planning. However, funding has limited the level of investment that has resulted from these planning efforts.
Monitor and report system condition and identify investment needs for key transportation infrastructure that is owned and operated within the private sector.	MnDOT; Private-sector Partners	Substantial progress 	Public transportation partners do a good job of reporting information about infrastructure that is owned and operated within the private sector, when the information is available. However, a lot of private-sector transportation information is not publically available. That doesn't mean that private-sector investments are not being made.

System Security

Reduce system vulnerability and ensure system redundancy to meet essential travel needs during emergencies.

Strategy	Actors	Grade	Rationale
Collaborate with emergency planning efforts to ensure efficient and coordinated response to special, emergency and disaster events.	Transportation Partners	Substantial progress 	Collaboration occurred through a variety of activities, involving a number of partners, addressing many security-related issues.
Expand emergency communications infrastructure across the state.	MnDOT, Local, Regional and Tribal Partners	Substantial progress 	Emergency communications communication infrastructure continues to be built out at a solid pace.
Collaborate with local emergency management to address security issues in their planning efforts.	Transportation Partners	Some progress, more work needed 	Work is occurring in this area, though it is difficult to gauge because examples are not well known or easy to identify.

PROJECT HIGHLIGHT

Manufacturers' Perspectives on Minnesota's Transportation System: A Pilot Study in Southwest and West Central Minnesota

In 2013, MnDOT's District 8, located in southwest and west-central Minnesota, initiated a project to better understand freight customers' transportation priorities and challenges and to incorporate their feedback into MnDOT's planning and project development. Increased awareness of these customers' businesses and transportation needs is helping MnDOT to better align its work to support their success and, by extension, the economic vitality of the region and state.

The project identified concerns and suggested improvements in the areas of infrastructure, maintenance, communications and policy.

Since 2013, MnDOT has completed similar work in other districts and has plans to continue this work statewide.

Read more: <http://www.dot.state.mn.us/d8/projects/manufacturersperspectives/index.html>



Manufacturers' Perspectives on Minnesota's Transportation System: A Pilot Study in Southwest and West Central Minnesota

February 2014

- Minnesota Department of Transportation District 8, Offices of Freight/Commercial Vehicle Operations and Customer Relations
- Hubert H. Humphrey School of Public Affairs
- University of Minnesota Extension Center for Community Vitality



ACCOUNTABILITY, TRANSPARENCY & COMMUNICATION

Objective statement

Make transportation system decisions through processes that are open and supported by data and analysis; provide for and support coordination, collaboration and innovation; and ensure efficient and effective use of resources.

Why is this important?

Accountability, transparency and communication are about building public trust. Since the majority of transportation funding comes from the public through fees and taxes, it is important that we are accountable for the system we provide and that we ensure public resources are used efficiently and effectively. Additionally, we have a responsibility to be open about how and why decisions are made. Communication is an essential component of this transparency. Good communication requires more than simply making information available, but also making it easy to find and understand.

How did we do?

The table below summarizes the progress we made toward each strategy under the Accountability, Transparency and Communication objective. More information about each strategy can be found on the following pages of this document.

Strategy	Preliminary Grade
Work with users of the system to better understand what is important to meet their needs today and what will matter tomorrow.	▲
Align all plans and performance measures with the Minnesota GO Vision and Guiding Principles, SMTP objectives and strategies, and how Minnesotans define quality of life.	●
Educate stakeholders on system-wide and project-specific transportation issues.	●
Improve early communication and coordination on projects to minimize resource use and maximize benefits.	▲

Strategy

Work with users of the system to better understand what is important to meet their needs today and what will matter tomorrow.

Who will act?

Transportation partners

What did we do?

- Since 2012, MnDOT has and continues to conduct substantial statewide outreach as a part of the development process for each transportation system plan. The feedback received from outreach efforts with the general public and specific stakeholder groups is helping to inform updated policy and investment direction for all types of transportation.
- Starting in 2013, MnDOT invited Minnesotans to tell their transportation stories as a part of the “What’s your stake in A to B?” campaign. This was done in a variety of venues, including at the Minnesota State Fair, MnDOT’s Online Customer Community, and the agency website.
- MnDOT’s Online Customer Community was used extensively throughout 2013 and 2014 to communicate with hundreds of Minnesotans and gather public perceptions on a variety of issues and “take the pulse” on proposed courses of actions.
- MnDOT conducts an annual transportation omnibus survey, contacting hundreds of Minnesotans to learn about public opinions on transportation services.
- MnDOT facilitates the Minnesota Freight Advisory Committee providing an ongoing venue with quarterly meetings for freight stakeholders to meet and discuss transportation issues. In 2015, MnDOT recommended elevating the committee to a higher level in terms of structured leadership and membership as well as to develop stronger two-way communication among more stakeholders across all freight modes.
- MnDOT facilitates the State Non-Motorized Transportation Advisory Committee, established by the Minnesota Legislature in 2008. The committee serves as the central advisory body to develop non-

motorized transportation goals, policies and standards in Minnesota.

- In 2012, MnDOT created the Safe Routes to School Steering Committee to guide the work of MnDOT staff. Since 2012, the committee helped prioritize how SRTS funding is spent and developed a statewide strategic plan to guide overall SRTS activities in Minnesota.
- Since 2014, MnDOT has expanded outreach efforts with the Advocacy Council for Tribal Transportation to better coordinate with Minnesota’s Tribal Nations on transportation issues and projects.
- In 2015, MnDOT Aeronautics expanded their standard Capital Improvement Plan meetings with local airports beyond short-term project coordination to include a more comprehensive needs discussion. A regular schedule will be set with the goal of meeting with each airport every two to three years.
- MnDOT Aeronautics created an ad-hoc advisory committee, conducted statewide outreach meetings and met with individual stakeholder as it updated the airport zoning statutes.
- Minnesota’s Metropolitan Planning Organizations have all recently conducted or are currently conducting substantial outreach in their communities as part of the update process for their long-range transportation plans.
- The Metropolitan Council initiated a Trusted Advocate Program to better understand the needs of underrepresented communities and ensure their voices are heard.
- In 2013, MnDOT’s District 8 initiated a project to better understand freight customers’ priorities and challenges.

How did we do?

We continued to support successful activities and began a number of new initiatives. However, our level of success varies by audience. We have more work to do in this area to ensure we are reaching all transportation users.

Strategy

Align all plans and performance measures with the Minnesota GO Vision and Guiding Principles, SMTP objectives and strategies and how Minnesotans define quality of life.

Who will act?

MnDOT

What did we do?

- By 2016, each plan in the Family of Plans will be updated to align with the Minnesota GO 50-year Vision and the SMTP.
- In 2015, MnDOT developed and adopted a formal performance measure and target policy which more strongly ties the identification of measures and targets to planning documents and processes.
- In 2012, MnDOT established the Planning Management Group with the goal of improving coordination and consistency in statewide planning products and processes. The group has an official role in reviewing major statewide planning activities.
- Since 2012, MnDOT Planning developed and institutionalized the MnDOT Plan Development Guidelines which identify standards and best practices for the development of MnDOT planning documents.
- MnDOT's Minnesota GO planning brand was expanded to include additional supporting documents, such as the Annual Transportation Performance Report, in order to strengthen connections to the Vision.

How did we do?

This was a focus area for MnDOT Planning since the adoption of the last SMTP. Our activities in this area established a framework that helps ensure consistency among planning and performance measurement activities.

Strategy

Educate stakeholders on system-wide and project-specific transportation issues.

Who will act?

Transportation partners

What did we do?

- In the spring of 2014, MnDOT launched the Get Connected website to share information and to answer the transportation questions the public asks most often.
- In 2014, MnDOT identified enhancing financial effectiveness as a top agency priority and structured workgroups around achieving this goal, including a workgroup focused on information and outreach.
- In 2014, MnDOT worked with partners to resurrect, after a ten-year hiatus, the annual Minnesota Transportation Conference. The conference is a multi-day event that serves as a major educational avenue for the state's transportation professionals, consultants, contractors and others.
- Since 2012, MnDOT Traffic Safety, in partnership with other state and local organizations, developed and participated in a number of statewide safety campaigns focused on bicycles and pedestrians, roundabouts, flashing yellow arrows, rumble strips and others.
- In 2012, the federal government passed new surface transportation legislation – MAP-21. In order to determine how to implement many of the new provisions in the bill, MnDOT called together a broad group of transportation stakeholders, including cities, counties and regional partners, to provide input and direction.
- In 2012, the Governor created the Transportation Finance Advisory Committee which developed recommendations on how to fund and finance the state's transportation system for the next 20 years. The information from this group has been used to communicate key transportation issues and needs.
- The Area Transportation Partnerships in Minnesota provide a venue to educate key transportation

stakeholders about system-wide and project-specific transportation issues impacting their regions.

- The Regional Development Organizations in Minnesota coordinate transportation advisory committees. One function of these groups is to discuss statewide transportation issues as well as specific projects in the region.
- The Duluth-Superior Metropolitan Interstate Council hosts a blog with the goal of seeking input and informing the community about what they are recommending for transportation in the area and why.
- The Metropolitan Council created a current revenue scenario and an increased revenue scenario to describe how different levels of funding will change the transportation system – roadways and transit infrastructure. The increased revenue scenario showed what would be possible if new funding was available.

How did we do?

Education on the topic of transportation issues and needs is becoming more and more of a priority for Minnesota. We made strides in this area but there is still more to do.



Strategy

Improve early communication and coordination on projects to minimize resource use and maximize benefits.

Who will act?

Transportation partners

What did we do?

- In 2015, MnDOT revised its planning scoping worksheet. The new worksheet helps project managers better identify multimodal needs as they develop highway projects with the goal of reducing the number of scope changes that occur late in the process.
- In 2014, MnDOT released the first annual 10-year Capital Highway Investment Proposal, which identifies projects the agency anticipates doing over the next ten years. This early project identification allows for improved project communication and coordination. The communication is aided by an interactive map which allows persons to view all planned and programmed projects identified in the proposal and click on any specific project for more detailed information.
- In 2014, MnDOT Planning updated the agency's Cost Participation Policy, which outlines how costs are shared among transportation partners on projects. The update served to improve coordination through clarifying roles and responsibilities. The policy is currently undergoing another round of revisions and clarifications.
- In 2012, MnDOT Planning conducted outreach related to the Corridor Investment Management Strategy. One goal of this strategy was to improve project timing and coordination among transportation partners along specific corridors. The CIMS outreach was later replaced by the 10-year Capital Highway Investment Proposal process.
- In 2015, MnDOT Metro Communications began an effort to better align project planning with communications planning. The effort identified a typical project development timeline and identified how communications fit in at each phase.



- MnDOT District 1 works with the Arrowhead Regional Development Organization to assist local communities in addressing transportation in their comprehensive plans, which helps improve coordination with upcoming projects.
- In 2015, MnDOT District 7 met with local government officials to discuss State projects within their area that had been identified in years 2020-2022. The meetings provided MnDOT the opportunity to educate local officials on a range of topics such as cost participation, access management, and speed limits.
- Since 2012, MnDOT District 8 worked to implement increased communication and coordination for detour planning. The district now plans detours a year in advance, up from a few months, and reaches out to potential impacted stakeholders beyond the immediate closure area.
- As part of the Transportation Alternatives Program project selection process, revised in 2013, Minnesota's Metropolitan Planning Organizations and Regional Development Organizations meet with applicants to discuss their project concepts and identify potential issues early in the process.
- Starting in 2012, the Metropolitan Council conducted preliminary outreach for the 2040 Transportation Policy Plan as a part of the Council's broader Thrive MSP 2040 outreach to reduce overlap and duplication.

How did we do?

We made big steps toward improving early communication and coordination. However, more work is needed to make these activities standard practice throughout the state.



TRAVELER SAFETY

Objective statement

Safeguard travelers, transportation facilities and services; apply proven strategies to reduce fatalities and serious injuries for all travel modes.

Why is this important?

Safety is a top priority for Minnesota. Traveler safety is more than just roadway safety. It applies to all users on all types of transportation and involves an integrated approach that includes the “4Es” of safety – education, enforcement, engineering and emergency medical and trauma services.

How did we do?

The table below summarizes the progress we made toward each strategy under the Traveler Safety objective. More information about each strategy can be found on the following pages of this document.

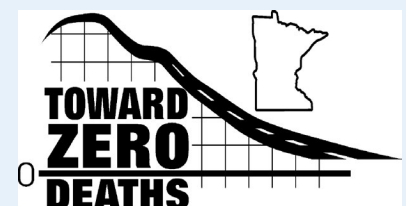
Strategy	Preliminary Grade
Increase participation of all road authorities in the collaborative safety initiative TZD and explore new opportunities to work together to improve safety for all modes.	●
Develop and share critical safety information and support educational initiatives.	●
Collaborate with law enforcement to promote compliance with traffic laws, affect driver behavior and reduce unsafe driving practices for all modes.	●
Work with local and regional partners that are public transit providers to ensure enforcement of safety and security requirements.	▲
Ensure that transportation facilities are planned, engineered, operated and maintained with consideration for the safety of all users.	▲
Implement strategic and sustainable engineering solutions to improve safety.	●
Work with emergency medical and trauma services to reduce response time and increase survivability.	▲

PROJECT HIGHLIGHT

Toward Zero Deaths

Toward Zero Deaths is Minnesota's cornerstone traffic safety program, employing an interdisciplinary approach to reducing traffic crashes, injuries and deaths on Minnesota roads. The program integrates a combination of strategies from different focus areas – education, enforcement, engineering and emergency medical and trauma services (the “4Es”) – to increase effectiveness. TZD began in 2003 and has continued to grow each year, including the addition of TZD coordinators in each MnDOT district, an increase in local TZD Safe Roads Coalitions, over 200% growth in participation at the statewide conference and TZD regional workshops held in all eight regions of the state.

For more information: www.minnesotatzd.org



Strategy

Increase participation of all road authorities in the collaborative safety initiative Toward Zero Deaths (TZD) and explore new opportunities to work together to improve safety for all modes.

Who will act?

Transportation partners

What did we do?

- Participation in the TZD statewide conference increased by over 200% between 2004 and 2014 and as of 2015 all eight regions of the state held TZD regional workshops, up from only five in 2012.
- Since 2012, MnDOT increased participation among district staff in TZD efforts, including the creation of district-level TZD coordinator positions.
- In 2014, MnDOT updated the Minnesota Strategic Highway Safety Plan. Many transportation partners were involved discussion about safety issues and priorities during the update process.
- Between 2009 and 2013, MnDOT Traffic Safety worked with all 87 counties in Minnesota to develop county roadway safety plans. The update process for these plans began in 2014.
- Since 2012 the number of active local TZD Safe Roads Coalitions has grown to more than 43. This includes both funded and unfunded coalitions. More are under development as part of the TZD Regional programs. These coalitions initiate local traffic safety measures around the state.

How did we do?

Participation in TZD increased significantly since 2012, including major milestones such as regional workshops in all eight MnDOT districts. However, more work is needed to help reach the interim goal of fewer than 300 fatalities by 2020 and the long term goal of zero deaths in Minnesota.

Strategy

Develop and share critical safety information and support educational initiatives.

Who will act?

Transportation partners

What did we do?

- Since 2012, MnDOT and DPS developed a new crash database management system, a new crash reporting form that will be simpler for officers to complete and several new analytical tools.
- In 2013, MnDOT updated the Share the Road campaign to reflect new bicycle and pedestrian safety information and data.
- MnDOT and DPS Traffic Safety continue to provide systemic and site-specific crash data, analysis and evaluation to national partners, MnDOT, legislators, counties, cities and other local units of government. Example reports include Crash Facts and Impaired Driving Facts.
- DPS Traffic Safety provides education through the Point of Impact program to parents of teens. In 2015, the Minnesota Legislature passed legislation requiring that all driver education contain a similar parental education component.
- DPS Traffic Safety promotes education, action and support for law enforcement mobilizations across Minnesota through Safe Roads grants. In 2015, there were 29 grant recipients.
- DPS Traffic Safety administers a number of educational and monitoring programs focused on transportation safety areas such as child passenger safety, seat belt use and motorcycle use. DPS Traffic Safety also administers and supports educational programs geared toward law enforcement.
- DPS Traffic Safety works with Minnesota's Tribal Nations to improve the collection and sharing of crash data within tribal communities.

- MnDOT Aeronautics helped increase awareness of airport zoning issues through outreach related to overall aviation safety. Since 2012, airport zoning was updated at a number of local airports in Minnesota.
- MnDOT Aeronautics administers six to 12 pilot safety seminars each year.
- MnDOT Freight participates in Operation Lifesaver, a national initiative to promote and educate drivers to make safe choices at grade crossings.
- The MnDOT District TZD coordinators organize local events to share safety information, such as regular TZD regional steering committee meetings.
- Beginning in 2013, the Minnesota Legislature funded a State Safe Routes to School program. This program helps support a number of statewide programs and grants to schools and communities, including educational initiatives throughout Minnesota related to bicycle and pedestrian safety.
- The St. Cloud Area Planning Organization included an analysis of “hot spot” crash locations in their most recent long-range transportation plan update, completed in 2015.

How did we do?

We continued to support and implement a number of new initiatives focused on safety information and education for all modes of transportation.

Strategy

Collaborate with law enforcement to promote compliance with traffic laws, affect driver behavior and reduce unsafe driving practices for all modes.

Who will act?

Transportation partners

What did we do?

- DPS Traffic Safety provides enforcement grants to over 300 municipal, county and tribal law enforcement agencies as well as the entire Minnesota State Patrol.
- DPS Traffic Safety provides funding for a number of law enforcement positions statewide including the State Safety Resource Prosecutor, a training coordination position at the State Patrol and full-time DWI officers in 12 city and counties in Minnesota.
- DPS Traffic Safety supports and administers programs for DWI offenders in order to enhance public safety. Examples of programs include 12 DWI courts across Minnesota and the Ignition Interlock program.
- Through the Motor Carrier Safety Assistance Program, MnDOT Freight performs commercial motor vehicle traffic / roadside enforcement and conducts investigations to ensure motor carriers comply with the safety regulations.
- MnDOT Metro District regularly collaborates with law enforcement on MnPASS and transit initiatives in the Minneapolis – St. Paul metropolitan area.
- Minnesota’s Metropolitan Planning Organizations and Regional Development Organizations include local law enforcement in many Safe Routes to School planning efforts in their communities.
- To reduce red light running, a growing number of cities and counties are installing blue lights on traffic signal poles. Installed on the backside of traffic signals, the blue light turns on when the traffic signal switches to red. This allows one law enforcement officer to monitor an intersection for red light running instead of the usual two officers that are needed without the blue light.

- Developed a video sharing platform to clearly demonstrate a red light running violation roadside when conducting red light running enforcement.

How did we do?

Transportation agencies at all levels partner with law enforcement on a variety of programs and initiatives to promote traffic safety.

Strategy

Work with local and regional partners that are public transit providers to ensure enforcement of safety and security requirements.

Who will act?

MnDOT; Metropolitan Council

What did we do?

- MnDOT Transit visits all public transit systems in Greater Minnesota at least annually to document the state of many safety areas including facility safety, vehicle maintenance and driver records. Conformance with federal requirements for drug and alcohol regulations is also reviewed annually.
- The Duluth Superior Metropolitan Interstate Council has regular meetings with the Duluth Transit Authority related to safety and security.

How did we do?

Many of these things are built into our existing way of doing business, though we can continue to improve the enforcement of safety and security requirements. Further communication of progress on this strategy is needed in the future.

Strategy

Ensure that transportation facilities are planned, engineered, operated and maintained with consideration for the safety of all users.

Who will act?

Transportation Partners

What did we do?

- In 2013, MnDOT adopted a complete streets policy and is currently working on implementation efforts, including a revised planning scoping worksheet which helps project managers identify multimodal needs.
- The 2014 Strategic Highway Safety Plan update included more safety focus areas than the previous plan in order to acknowledge and support investments in all safety areas.
- MnDOT is currently updating the Bikeways Facility Design Manual to reflect new direction for bicycle facilities.
- Starting in 2012, MnDOT began significant statewide bicycle and pedestrian planning activities. An updated Statewide Bicycle System Plan is expected in late 2015 and the first-ever Statewide Pedestrian System Plan is expected in 2016. These plans will help identify statewide priorities and help better integrate bicycling and walking into other MnDOT activities.
- Since 2012, the MnDOT Safe Routes to School program has provided planning assistance grants to more than 200 schools and communities to complete SRTS plans. SRTS plans look at programs and activities to encourage walking and biking to school, as well as infrastructure needs to improve safety around schools.
- Since 2012, MnDOT outfitted several signalized intersections with pedestrian countdown timers to help facilitate pedestrian activity throughout the traffic signal phases. Pedestrian countdown timers are now part of every signal installation moving forward. How did we do?
- Since 2012, MnDOT Freight completed a number of studies to help identify freight needs on the

transportation system, including issues like rail safety and truck parking availability.

- In 2013, MnDOT Freight updated the map of superload corridors in the state, identifying key routes for oversize and overweight vehicles to help ensure the needs of these vehicles area considered in planning, engineering, operations and maintenance decisions.
- Through the New Entrant Audit Program, MnDOT Freight reviews new interstate motor carriers to ensure that they have effective safety management programs.
- In 2012, MnDOT Traffic Safety hired a Bicycle and Pedestrian Safety Coordinator. This position ensures that bicycle and pedestrian safety concerns and effective solutions are considered in transportation planning.
- MnDOT Aeronautics participates on master plan advisory groups and in airport layout plan development to ensure airport plans meet state and federal design criteria.
- MnDOT Metro District included many multimodal safety elements on the recent TH 65 project, including a grade-separated pedestrian bridge, an innovative pedestrian safety crossing and an ADA-compliant transit stop.
- Since 2012, MnDOT District 3 conducted safety audits at a number of high crash locations in order to study the nature and characteristics of specific crash locations to determine possible safety improvements in effort to reduce the number and severity of crashes.
- Several Minnesota tribes are undertaking the development of their own safety plans. Recently, a workgroup on tribal safety was established as part of the Advocacy Council on Tribal Transportation.
- As of 2013, 43 jurisdictions in Minnesota had adopted Complete Streets policies.

How did we do?

This has been a focus area for transportation partners throughout Minnesota. Progress was made in both planning and implementation but more work is needed to ensure that the needs of all users are considered in all phases – planning, engineering, operations and maintenance.

Strategy

Implement strategic and sustainable engineering solutions to improve safety.

Who will act?

MnDOT; Local, Regional and Tribal Partners

What did we do?

- Starting in 2014, MnDOT started working with district and local stakeholders in order to update both the district safety plans as well as the county roadway safety plans. These plans help identify and prioritize safety projects which are linked to what causes of the most severe crashes in each area.
- MnDOT directs Highway Safety Improvement Program funding to implement projects consistent with the safety priorities identified in the Strategic Highway Safety Plan, updated in 2014, and overall Toward Zero Deaths goals.
- Since 2012, MnDOT installed miles of median barrier throughout the state. Nearly every mile of I-94 from Wisconsin to North Dakota has some form of median barrier. There are short sections of I-94 in the Twin Cities area scheduled to receive median barrier in 2016.
- MnDOT Traffic Engineering installed numerous rural intersection conflict warning systems across the state. The warning systems give motorists real-time warnings about traffic conditions and are expected to reduce fatal and serious injury crashes. MnDOT Traffic Safety uses data-driven processes to select strategic and sustainable safety projects and project types, such as rumble strips, pavement markings and signage improvements.
- In 2014, the Minnesota Legislature identified \$2 million for rail safety improvements. As a result, MnDOT completed the Improvements to Highway-Rail Grade Crossings and Rail Safety study which evaluated 100 high-priority crossings, identifying nine sites suitable to receive funding for short-term safety improvements.

How did we do?

Implementing strategic engineering solutions has been and continues to be a focus for MnDOT.



Strategy

Work with emergency medical and trauma services to reduce response time and increase survivability.

Who will act?

Transportation Partners

What did we do?

- MnDOT offers scholarships for EMS to attend the TZD conference to help engage emergency medical and trauma services in the TZD program.
- The Minnesota Fire Chiefs Association, State Patrol and MnDOT Regional Transportation Management Center produced an online video training session called "Scene Safe" to improve responder safety and traffic control at incident scenes.
- MnDOT Aeronautics works with aero-medical providers to solve problems and ensure the airport system is accessible when needed for trauma transport.

How did we do?

We made progress in this area but we are not where we would like to be.

Other Activities

RESEARCH

MnDOT supports traffic safety research efforts to continue to improvement safety into the future. In 2014, MnDOT funded over 60 traffic and safety related studies.

LEGISLATION

In 2014, the Minnesota Legislature increased the fine for speeding in work zones. In 2015, the fine for distracted driving was increased.

TRANSPORTATION IN CONTEXT

Objective statement

Make fiscally responsible decisions that respect and complement the natural, cultural and social context and integrate land uses and transportation systems to leverage public and private investments.

Why is this important?

Transportation systems and projects do not exist in a vacuum – they affect and are affected by the people and environment that surrounds them. Together, these systems shape the communities where life takes place. Not all places are the same making context an important consideration as transportation systems and projects are planned, executed and maintained.

How did we do?

The table below summarizes the progress we made toward each strategy under the Transportation in Context objective. More information about each strategy can be found on the following pages of this document.

Strategy	Preliminary Grade
Support the development of land use plans or policies that minimize long-term costs by taking advantage of investments made in existing and planned infrastructure	▲
Work together to improve accessibility and safety for everyone traveling on, along and across roads	●
Plan, design, develop and maintain projects in a way that is consistent with the principles of CSS	▲
Work together to support and implement both system-wide and project-specific approaches to avoid, minimize and mitigate adverse impacts to Minnesota's natural and cultural resources	▲
Support statewide economic vitality and create and maintain jobs through transportation infrastructure investment	●

PROJECT HIGHLIGHT

Complete Streets in Minnesota

In 2013, MnDOT joined a number of other transportation partners in adopting a formal complete streets policy. Under the policy, MnDOT incorporates a complete streets approach as part of every project that is delivered. This process involves understanding and working within the context of each highway so that it balances the needs of all transportation users. MnDOT uses a tracking system to better understand how the needs of different user groups are addressed through project scoping.

Complete streets policies or resolutions have been adopted by towns, cities, counties, and regional governments from Battle Lake to Saint Paul throughout the state since the late 2000s. As of 2013, 43 local government bodies had adopted complete streets policies or resolutions, up from only 1 jurisdiction in 2008.

Read more: <http://www.dot.state.mn.us/planning/completestreets/index.html>



Strategy

Support the development of land use plans or policies that minimize long-term costs by taking advantage of investments made in existing and planned infrastructure.

Who will act?

Local, Regional and Tribal Partners

What did we do?

- MnDOT Aeronautics helps ensure that airports fit within the context of sponsor communities and vice-versa by supporting local airport zoning and participating in airport master planning processes. Additionally, in 2013, MnDOT Aeronautics began a statutory revision process to better integrate airport zoning into city and county comprehensive plans and official zoning maps, which will promote compatible land use around airports.
- At the district level, MnDOT regularly conducts development reviews to determine how proposed development will impact the state highway system, specifically addressing concerns about access and mobility.
- As standard practice, Minnesota's Metropolitan Planning Organizations and Regional Development Organizations serve as key links between MnDOT and local communities by providing local information about land use and development related to highway projects.
- In 2014, the Metropolitan Council adopted Thrive MSP 2040, the vision for the Minneapolis – St. Paul metropolitan area. The document includes policy direction related to the linkage of land use and transportation for the region and local comprehensive plans. In 2015, the Metropolitan Council adopted the 2040 Transportation Policy Plan that provides further policy and investment direction for the relationship between land use and transportation.

- The Metropolitan Council provides funding to link land uses and transportation through the Livable Communities Grants program, which started in 1995. The agency also provides technical assistance to encourage higher-density development along transit corridors and created a transit-oriented development policy and department.
- In 2013, The La Crosse Area Planning Committee completed Coulee Vision 2050, a planning effort to better understand land use patterns in the region.

How did we do?

Connections between transportation and land use have received increased attention as of late. However, implementation in this area can be difficult because the decision-makers for transportation and land use are often different.



Strategy

Work together to improve accessibility and safety for everyone traveling on, along and across roads.

Who will act?

MnDOT; Local and Tribal Partners

What did we do?

- In 2013, MnDOT adopted a complete streets policy. The policy is being implemented through outreach and research efforts as well as institutional changes, including revising the planning scoping worksheet used at the outset of project development which helps project managers consider multimodal needs. Additionally in 2013, MnDOT developed and piloted a two-day Complete Streets Workshop geared to both internal and external participants. A similar workshop was also held in 2014 and 2015.
- MnDOT continues to update and implement the department's ADA Transition Plan, originally adopted in 2010.
- As part of the Northern Lights Express project, MnDOT Passenger Rail developed guidance related to safety standards for at-grade passenger rail crossings. The guidance will be implemented on future passenger rail projects in Minnesota.
- In 2014, MnDOT Freight identified how safety could be improved at highway-rail grade crossings through the Grade Crossing Inventory and Rail Crossing Safety Improvement Study.
- In 2014, MnDOT's Metro District institutionalized a multimodal scoping process which looks at all projects from bicycle, pedestrian, ADA, transit and freight perspectives to ensure that projects considered the needs of all users.
- MnDOT Metro District identified multimodal needs as a part of the Snelling Avenue project. The project implements many elements of the previous Snelling multimodal study, is integrated with Metro Transit's A-line BRT project and helps build out St. Paul's bicycle

network.

- Minnesota's Metropolitan Planning Organizations and Regional Development Organizations work with the Area Transportation Partnerships and local school districts to prioritize projects that emphasize safety and accessibility along and across roads through programs like Safe Routes to School and Transportation Alternatives.
- The Duluth-Superior Metropolitan Interstate Council worked with the City of Duluth to develop a downtown Streetscape Plan with the goal of bettering the transportation flow of all modes while making the area a destination for locals and visitors. Other multimodal studies were conducted on the Highway 23 / Grand Avenue corridor in 2013 and in the Lincoln Park community in 2015.
- More than 200 Minnesota schools have participated in Safe Routes to School planning efforts since 2012.

How did we do?

We have made substantial progress in this area but there is still substantial progress to be made.



Strategy

Plan, design, develop and maintain projects in a way that is consistent with the principles of CSS

Who will act?

MnDOT

What did we do?

- Since 2012, over 1,800 individuals within and external to MnDOT have been engaged training in Context Sensitive Solutions efforts through 21 different training venues.
- In 2012, MnDOT's State Aviation System Plan included a strategy encouraging airports to use Context Sensitive Solutions in building support with surrounding communities.
- In conjunction with MnDOT's 2013 and 2015 Environmental Stewardship Conferences, 20 awards were given to MnDOT Districts, individuals or local governments and partners for exemplary efforts, initiatives, plans and projects that demonstrate environmental stewardship and principles, benefits, and best practices of Context Sensitive Solutions.
- MnDOT Passenger Rail worked with local communities to investigate potential locations for passenger rail stations in proposed corridors.
- In 2014, MnDOT District 1 held joint Context Sensitive Solutions workshops in communities throughout Northeastern Minnesota to aid complete streets planning efforts.
- Since 2012, MnDOT District 1 worked with the Minnesota Arrowhead Association to plan and design projects that improve the quality of the visitor experience in Northeastern Minnesota.

How did we do?

Context Sensitive Solutions continues to be a priority for MnDOT. However, more work is needed to continue to integrate the principles into all planning, design, development and maintenance practices.

Strategy

Work together to support and implement both system-wide and project-specific approaches to avoid, minimize and mitigate adverse impacts to Minnesota's natural and cultural resources.

Who will act?

Transportation Partners

What did we do?

- Avoiding and minimizing impacts to wetlands in a primary consideration in MnDOT project development. Wetland impacts caused by MnDOT projects are mitigated primarily through the Cooperative Wetland Replacement Program, a joint effort between MnDOT and the Board of Water and Soil Resources.
- MnDOT is working with the tribal governments in Minnesota and the Bureau of Indian Affairs to verify the tribal boundaries are up-to-date. MnDOT will establish a process to update the boundaries annually.
- In 2013, the American Cultural Resources Association Public Sector Award was presented to MnDOT for the Department's Management Plan for Historic Bridges. The Preservation Alliance of Minnesota recognized MnDOT with a 2013 MN Preservation Award for restoring 12 historic roadside properties along the Great River Road and is recognizing MnDOT and partners in 2015 for the Roosevelt Bridge Reconstruction Project as representative of undeniable impact, quality and vision in the field of preservation.
- Since 2012, MnDOT implemented more standing corn rows and living snow fences to help reduce the amount of snow blowing onto roads during winter months, resulting in less impact on the environment because of reduced salt use, fewer truck trips and less fuel consumption.
- MnDOT partnered with other state agencies starting in the Fall of 2013 to host a series of Government to Government Tribal-State Relations training events to educate state employees in best practices when working with Minnesota's tribes.

- MnDOT's 2013 Corridor Investment Management Strategy pilot solicitation evaluated proposed projects impacts to natural and cultural resources as part of the scoring criteria.
- The Metropolitan Council goes beyond federal requirements and addresses additional equity considerations set forth in Thrive MSP 2040, adopted in 2014, particularly through a focus on areas of concentrated poverty. This focus includes consideration of these areas during prioritization of federal transportation funding that is eligible for local communities.

How did we do?

Natural and cultural resources include many different components. We do well in terms of mitigating adverse impacts in some, and can do much better in others.



Strategy

Support statewide economic vitality and create and maintain jobs through transportation infrastructure investment.

Who will act?

Transportation partners

What did we do?

- In 2013, MnDOT completed the Freight Rail Economic Development Study in conjunction with the Minnesota Department of Employment and Economic Development.
- Since 2012, MnDOT has updated or developed a number of key statewide plans related freight including the Statewide Freight System Plan, State Rail Plan, Statewide Ports and Waterways Plan, State Aviation System Plan and State Highway Investment Plan.
- In 2013, MnDOT initiated the Manufacturer's Perspective Study, which so far has involved interviewing over 150 businesses throughout the state about their transportation needs. These interviews have led to increased collaboration with MnDOT District staff, allowing them to implement helpful transportation improvements that aid the businesses' operations and allow them to grow.
- MnDOT works with Minnesota Department of Employment and Economic Development on the Transportation Economic Development program, distributing grants for transportation projects that create jobs and support economic development. Since 2010, the TED program has provided more than \$70 million in grants to 28 projects statewide.
- MnDOT sponsored a research paper assessing the economic impact of bicycling through a 2013 literature review that was completed by the University of Minnesota's Extension Center for Community Vitality.
- MnDOT Aeronautics works with the Federal Aviation Administration and local airports to distribute grants for aviation projects. Since 2012, there have been 65 runway, taxiway, and apron projects; 21 terminal and other building projects; and 8 navigational aids and

lighting projects. MnDOT works with the business community to improve freight shipping opportunities through the Rail Service Improvement Program and Port Development Assistance Program.

- In 2013 the Minnesota Legislature established the Corridors of Commerce program to address economic vitality through transportation.
- The Rochester-Olmsted Council of Governments is currently working with the city, county and Mayo Clinic on the Destination Medical Center initiative, an economic development strategy to ensure the region and Minnesota remain a global medical destination.
- The METRO Green Line project was the largest public works project in Minnesota history, when completed in 2014. In addition to directly providing a large number of jobs, regional investments in transit have improved access to jobs. Since 2012, investments have included the METRO Green and Red lines, reconfigured local bus service and improved express service.
- Minnesota's Regional Development Organizations are working together to create a master economic plan for Greater Minnesota, DevelopMN. This plan will include a section related to Greater Minnesota transportation assets and challenges as they pertain to economic development.

How did we do?

The connection between transportation and the economy has received the most support in terms of interest and funding during recent years.

Other Activities

HEALTH & TRANSPORTATION

Since 2012, the Minnesota Department of Health has conducted a number of Health Impact Assessments on transportation plans and projects to help introduce health factors into transportation decision-making.

RETURN ON INVESTMENT

In 2013-2014, Smart Growth America partnered with MnDOT and other stakeholders to evaluate the return on investment for additional state-level transportation funding and investigate new transportation performance metrics to help demonstrate the benefits of transportation investments.

BROAD-BASED FUNDING SELECTION

In 2014, the Metropolitan Council launched an updated Regional Solicitation grant application process, which takes into consideration land use, social equity and access to opportunities in transportation funding decisions.



CRITICAL CONNECTIONS

Objective statement

Identify global, national, statewide, regional and local transportation connections essential for Minnesotans' prosperity and quality of life; maintain and improve these connections by maximizing return-on-investment, given constrained resources; consider new connections.

Why is this important?

Connections are important at a variety of scales and for a variety of reasons. Depending on a traveler's trip purpose and mode, critical connections may provide links across the state, within a region, or from one side of town to the other. All of these connections are important to the overall economic prosperity and quality of life in Minnesota. Finite resources dictate that priorities are set in order to facilitate complete, efficient and affordable movement of both people and goods. MnDOT, in conjunction with other transportation planning partners, strives to develop critical connections allowing for these movements are in a coordinated manner to ensure a truly connected Minnesota.

How did we do?

The table below summarizes the progress we made toward each strategy under the Critical Connections objective. More information about each strategy can be found on the following pages of this document.

Strategy	Preliminary Grade
Apply multimodal solutions that ensure a high return-on-investment, given constrained resources and that complement the unique social, natural and economic features of Minnesota	▲
Support and develop multimodal connections that are accessible for all Minnesotans regardless of socioeconomic status or individual ability	▲
Work together to define priority networks for all modes based on connectivity and accessibility	●
Collaborate to provide greater accessibility and more efficient movement of goods and people throughout the Twin Cities metropolitan area	●
Work together to improve the connections between transit services to provide greater transportation options for travel within and between cities	●

PROJECT HIGHLIGHT

Barnesville Sidewalk Ordinance

The West Central Initiative worked with the City of Barnesville to implement policies changes in support of sidewalk infrastructure. Prior to the changes the city had an ordinance which allowed property owners to remove the sidewalks adjacent to their property (with rare exceptions). As a result of Safe Routes to School planning in the region, the city revised the ordinance to protect sidewalks on key school routes. However, in 2014, the city even further revised the ordinance. Now all sidewalks are deemed necessary and cannot be removed, helping to ensure critical connections within their community.

For more information please see the following websites: www.barnesvillemn.com, www.wcif.org



Strategy	Preliminary Grade
Work to develop intercity passenger rail and improve intercity bus service for better connections between cities and regions in Minnesota and across the nation	▲
Work together to ensure the people and business of Minnesota have convenient access to the air transportation network	▲
Work together to improve freight operations and connections for better access to the transportation system	●



Strategy

Apply multimodal solutions that ensure a high return-on-investment, given constrained resources and that complement the unique social, natural and economic features of Minnesota.

Who will act?

MnDOT; Local, Regional and Tribal Partners

What did we do?

- In 2012, MnDOT developed the Corridor Investment Management Strategy, which encouraged high return-on-investment alternatives to traditional expansion projects. A solicitation was conducted in 2013 which provided \$30 million to ten projects. However, no additional funding for this program is currently identified.
- In 2014, MnDOT completed a Highway 10 Access Planning study to address safety and operational concerns on the TH10 corridor. More than 20 small projects were identified through the study that can accomplish 90% of the benefits of a freeway for less than half the cost.
- In 2013, MnDOT Metro District completed phase three of the Congestion Management Safety Plan, which identified lower-cost / high-benefit projects that seek to maximize mobility and reduce crash risk.
- The St. Cloud APO's long-range transportation plan highlights low-cost / high-benefit solutions for managing congestion in the region amid tightening budgets for infrastructure funding.

How did we do?

We have done a lot of planning in this area but more work is needed related to implementation. All MnDOT Districts have developed an improved scoping process to account for all modes.

Strategy

Support and develop multimodal connections that are accessible for all Minnesotans regardless of socioeconomic status or individual ability.

Who will act?

Transportation Partners

What did we do?

- Starting in 2013, the Transportation Alternatives Program has provided local agencies with funding for bicycle and pedestrian improvements.
- In 2014, MnDOT established the Accessibility Observatory Pooled Fund Project with the University of Minnesota to measure access to jobs and other destinations. The study will provide planning data and report to help evaluate project and network level strategies to improve access without regard to mode.
- In 2013, MnDOT adopted a policy that requires the principles of Complete Streets to be considered at all phases of planning and project development.
- Since 2006 the MnDOT SRTS program has provided grants for infrastructure projects around schools with a focus on increasing bicycling and walking to school.
- Since 2012, MnDOT District 1 worked closely with trail groups to allow for more strategic programming of bicycle funding in the region.
- Since 2012, the St. Cloud Area Planning Organization worked with partners to develop a Lake Wobegon Trail link to downtown St. Cloud from St. Joseph, providing an east-west route for bicyclists and pedestrians in the city.
- The Region Five Development Commission's Resilient Region planning effort, adopted in 2012, developed a best practices policy toolkit for communities to guide comprehensive planning with a focus on accessibility, intercity transit and connections between modes.

How did we do?

While we have done much to support and develop multimodal connections, accessibility remains a concern.

Strategy

Work together to define priority networks for all modes based on connectivity and accessibility

Who will act?

MnDOT; Local, Regional and Tribal Partners

What did we do?

- MnDOT recently identified / confirmed the National Highway System (NHS) as the agency's priority highway network for capital investments.
- As part of the Statewide Bicycle System Plan update, currently underway, MnDOT will define a tiered system of state bikeways throughout Minnesota.
- The 2012 State Aviation System Plan groups the 135 publicly funded airports into three classifications – key airports, intermediate airports and landing strips.
- The 2015 State Rail Plan establishes three levels of passenger rail corridor prioritization. The top priority is focused on corridors that have entered the corridor-level planning phase. The remaining two levels apply to projects that have not yet entered corridor-level planning, grouping the projects based on those that have a 0-20 year implementation horizon and those that have a 20+ year implementation horizon.
- In 2015, MnDOT Planning completed an effort to identify and summarize all the different priority networks the agency uses and make recommendations to ensure more consistency and easier communication.
- MnDOT Freight is currently working on an update to the Statewide Freight System Plan, which identifies a multimodal freight priority network. The network is based on previous freight-related planning efforts for all types of transportation including highway, rail, waterways and air. It will help target design, maintenance and performance monitoring on the freight system.

- Starting in 2014, Minnesota's Metropolitan Planning Organizations and Regional Development Organizations worked with local partners and MnDOT to revise the functional classification of all roadways within urban areas.
- Minnesota's Regional Development Organizations conduct regional trail planning to identify priority bicycle and pedestrian connections within their areas. Since 2012, regional trail plans have been developed or updated in western, west central and southwest Minnesota.

How did we do?

Priority networks for all modes were identified or confirmed in recent years. However, there is more work to do to integrate these networks into decision-making and delivery.



Strategy

Collaborate to provide greater accessibility and more efficient movement of goods and people throughout the Twin Cities metropolitan area.

Who will act?

MnDOT; Metropolitan Council; Local and Private-Sector Partners

What did we do?

- In 2012, MnDOT partnered with Metropolitan Council to highlight the importance of the region's freight transportation system to businesses and residents through the Twin Cities Metro Area Freight Initiative. The efforts looked at best practices and identified opportunities to strengthen freight planning in the region
- MnDOT continues to expand the MnPASS system. The latest project along I-35E is expected to be open by the end of 2015.
- The Metropolitan Council developed a Regional Bicycle Transportation Network that includes a subset of Priority Regional Bicycle Transportation Corridors and a definition for critical bicycle transportation links in the 2040 Transportation Policy Plan.
- Metro Transit began operating two new transitway lines: the Red Line began in 2013 and the Green Line began in 2014. In 2016, the A Line is expected to begin operations.
- The Metropolitan Council completed the 2040 Transportation Policy Plan in 2015. The plan includes discussions and policies related to accessibility and mobility of people and goods throughout the region.
- Since 2012, the Nice Ride bicycle-sharing system continues to expand. The system now offers over 1,500 bicycles at 170 stations throughout Minneapolis and St. Paul.
- Car sharing services such as HOURCAR and Car2Go are becoming increasingly popular. While typically found in Minneapolis and St. Paul, the services are expanding their coverage areas.

How did we do?

The Red Line and the Green Line began operations, expansion of the MnPASS system is underway, and numerous transitway, corridor and access studies completed throughout the metro area.



Strategy

Work together to improve the connections between transit services to provide greater transportation options for travel within and between cities.

Who will act?

MnDOT; Local, Regional and Tribal Partners

What did we do?

- MnDOT's Transit for Our Future Initiative continues to improve transit customer access and service in Greater Minnesota. An example of this effort is the consolidation of transit service in Faribault and Martin counties in 2014. The consolidation allows for improved transit service and increased efficiency.
- In 2012, MnDOT District 3 completed the Central Minnesota Regional Commuter Study to better understand how people commute throughout the district and what future strategies should be used to improve the commuting environment.
- Since 2012, the opening of the METRO Green Line and the multimodal transportation hubs at Union Depot and Target Field Station has improved transit service and connections in the Twin Cities region.
- In 2014, The Duluth-Superior Metropolitan Interstate Council worked with the Duluth Transit Authority and the Wisconsin Department of Transportation to conduct a Superior, WI transit route operational analysis to identify the proper type and amount of service to provide for its customers.
- The Duluth Transit Authority is constructing a multimodal transportation center that will serve as a transportation hub for regional transit, intercity bus and future intercity passenger rail.

How did we do?

While there is still much work yet to do, there was substantial planning and some investment to improve transit connections in both Greater Minnesota and the Twin Cities metropolitan area.

Strategy

Work to develop intercity passenger rail and improve intercity bus service for better connections between cities and regions in Minnesota and across the nation.

Who will act?

MnDOT; Local, Regional, Tribal, Federal and Private-Sector Partners

What did we do?

- MnDOT updated its State Rail Plan in 2015. The plan identifies key passenger rail corridors in Minnesota for development.
- MnDOT periodically consults with intercity bus service providers to determine whether there are unmet rural intercity needs.
- MnDOT continues to support the Intercity Passenger Rail Transportation Forum. The purpose of the forum is help coordinate passenger rail projects in Minnesota.
- In 2014, MnDOT Transit completed the Minnesota Intercity Bus Study which identifies needs and provides policy recommendations for intercity bus service in the state.
- Since 2012, MnDOT Passenger Rail continued to advance a number of passenger rail studies in the state, including the Northern Lights Express, Zip Rail and the Twin Cities – Milwaukee Corridor.
- As of 2015, Union Depot provides an important point of connection between intercity passenger rail, intercity bus service and other local travel modes.

How did we do?

Substantial planning occurred in this area. However, in recent years there has been no funding available for implementation.

Strategy

Work together to ensure the people and business of Minnesota have convenient access to the air transportation network

Who will act?

MnDOT; Local, Regional, Federal and Private-Sector Partners; Neighboring States and Provinces

What did we do?

- The 2012 Statewide Aviation System Plan update included access as a plan goal and identified measures and indicators to assess overall airport access and resulting connections.
- Since 2012, MnDOT participated in Essential Air Service congressional forums aimed at ensuring rural communities maintain access to national air space.
- The Minnesota Legislature continued to support the Air Service Marketing Program which provides grants to local communities to encourage the preservation and expansion of airline service.
- In 2013, The Duluth-Superior Metropolitan Interstate Committee completed the DLH Air Service / Air Cargo Leakage & Expansion Analysis, a study of passenger and cargo trends at Duluth International Airport. The goal of the study was to help the region maintain and expand both passenger and cargo service opportunities.
- The Local Airline Service Action Committee meets regularly to collaborate on issues affecting air service in Minnesota.
- Since 2012, there have been terminal improvements or expansions at five airport locations, including Duluth International Airport, Bemidji Regional Airport, Brainerd Regional Airport, Minneapolis-St. Paul International Airport Terminals 1 and 2.
- Since 2012, Minneapolis-St. Paul International Airport added service from three new airlines – Spirit in 2012, Air France in 2013 and Condor in 2014.

- The Transportation Economic Development program funded an interchange reconstruction project in Olmsted County to improve access to the Rochester International Airport and surrounding industrial parks.

How did we do?

Planning for air access has been strong. However, ensuring access is more than just planning. Additionally, more work is needed to understand air cargo needs.



Strategy

Work together to improve freight operations and connections for better access to the transportation system.

Who will act?

MnDOT; Local, Regional and Federal Partners; Neighboring States and Provinces; Private Shippers and Carriers

What did we do?

- Since 2012, MnDOT has prepared several freight-related studies focused on the availability of truck parking, district-specific needs, crude-by-rail and rail safety.
- Freight planning activities have been conducted in an effort to bring public and private entities together. One key example of this work was MnDOT's Manufacturer's Perspectives Study in District 8. The study, completed in 2014, helped the district better understand what mattered most to businesses in the region. Similar studies have since been completed in other MnDOT districts.
- MnDOT District 1 works closely with the Port of Duluth, including annual check-in meetings to discuss upcoming needs.
- MnDOT District 2 is currently leading a corridor study to better improve mobility and safety related to freight traffic along MN 11.
- Starting in 2014 and continuing into 2015, the Fargo-Moorhead Council of Governments worked with the City of Moorhead on downtown grade separation feasibility study.
- In 2014, the Grand Forks-East Grand Forks Metropolitan Planning Organization completed a freight rail access study to identify possibilities for improved freight rail access in the region.
- A public private partnership developed the Willmar Wye proposal to construct a new rail alignment that would improve rail system efficiency, reduce rail crossing delays, and encourage local economic development.
- In 2013, the Duluth Seaway Port Authority received

a grant to expand the port's general cargo handling capacity. The project will allow the port to handle more and heavier cargo, improving the port's ability to compete in the freight market.

How did we do?

Numerous studies and some investment were completed with the goal of improving freight transportation in Minnesota.

Other Activities

IMPROVING GREATER MINNESOTA MOBILITY

MnDOT District 2 used Corridors of Commerce funding to construct passing lanes and turn lanes to provide more reliable travel time and safer passing opportunities along a key regional corridor.



ASSET MANAGEMENT

Objective statement







Strategically maintain and operate transportation assets; rely on system data, partners' needs and public expectations to inform decisions; put technology and innovation to work to improve efficiency and performance; recognize that the system should change over time.

Why is this important?

Asset management is a systematic process of cost-effectively operating, maintaining and upgrading assets once they are built or purchased. This involves keeping individual assets in good condition while considering potential adaptations that will accommodate future needs. Assessing the likely system impacts on Minnesota's economy, environment and overall quality of life is critical to asset management planning. Trade-off discussions and research into innovative mechanisms for managing the system are critical components of effective asset management.

How did we do?

The table below summarizes the progress we made toward each strategy under the Asset Management objective. More information about each strategy can be found on the following pages of this document.

Strategy	Preliminary Grade
Prioritize maintaining and operating assets on identified priority networks.	
Keep Minnesota's transportation system on a sustainable track for the future.	
Ensure that safety, operations, and maintenance needs are considered and addressed in transportation planning and programming.	
Better align ownership of Minnesota's roadways with statewide, regional, and local priorities.	
Work with transportation partners to implement a transparent and collaborative approach to corridor investment along the state highway system.	
Monitor and report system condition and identify investment needs for key transportation infrastructure that is owned and operated within the private sector.	

PROJECT HIGHLIGHT

Transportation Asset Management Plan

Asset Management is a systematic process of maintaining, upgrading and operating physical assets cost-effectively throughout their life-cycle.

In 2014, MnDOT completed a pilot project with the Federal Highway Administration to develop a Transportation Asset Management Plan (TAMP). Federal legislation focuses on asset management planning for bridges and pavements on the National Highway System (NHS), but encourages states to include other infrastructure assets within the right-of-way. MnDOT elected to expand the initial asset management planning efforts beyond the federal requirements and include pavements and bridges on the entire state highway system as well as highway culverts, deep stormwater tunnels, overhead sign structures and high-mast light tower structures. The planning included data collection, risk and life-cycle cost analyses, performance measure and targets, as well as a financial plan and investment strategies. As a pilot project, MnDOT's TAMP can be used as a guide for other states as they began asset management planning efforts.

Since the completion of the TAMP, MnDOT started a second phase of asset management planning. This second phase looks at additional assets including facilities, pedestrian infrastructure, ITS infrastructure, signals, lighting and noise walls.

Read more: www.dot.state.mn.us/assetmanagement

Strategy

Prioritize maintaining and operating assets on identified priority networks.

Who will act?

MnDOT; Local, Regional, and Tribal Partners

What did we do?

- MnDOT recently identified / confirmed the NHS system as the agency's priority roadway network for capital investments. This will guide the investment direction in the upcoming revision to the 20-year State Highway Investment Plan.
- Adopted in 2013, the current State Highway Investment Plan emphasizes prioritizing investments during the next ten years on the National Highway System through the Statewide Performance Program.
- The Statewide Freight System Plan, when approved, will identify a multimodal priority freight network and will recommend maintaining this network to a higher standard.
- Since new federal legislation was passed in 2012, MnDOT Planning worked to identify and set targets that align with anticipated federal performance targets on the National Highway System.
- MnDOT's Office of Transit, through the Greater Minnesota Transit Investment Plan, prioritizes operating funding for maintaining current transit service rather than system expansion.
- MnDOT Freight participates and provides funding for the Minnesota Rail Service Improvement Program and the Port Development Assistance Program to maintain Minnesota's priority rail, port and waterway infrastructure and networks.
- MnDOT Materials, Bridge and Safety work closely with all districts to prioritize investments on priority networks, specifically identifying investment priorities for the pavement, bridge and traveler safety investments.

- MnDOT District 2 analyzes the needs of the system over the long term, which allows the district to program projects that maximize the life of each asset.
- Starting in 2013, the Transportation Alternatives Program began giving increased consideration to projects identified as priorities through comprehensive planning processes.

How did we do?

Since 2012, federal and state policy direction has been shifting toward prioritization among transportation assets, at least partially due to funding limitations. In Minnesota, we've made substantial progress in this area over the past few years.



Strategy

Keep Minnesota's transportation system on a sustainable track for the future.

Who will act?

MnDOT; Local, Regional, and Tribal Partners

What did we do?

- In 2014, MnDOT completed the first Transportation Asset Management Plan, which included pavements and bridges, highway culverts, deep storm water tunnels, overhead sign structures and high-mast light tower structures. In 2015, MnDOT started planning for additional assets including facilities, pedestrian infrastructure, ITS infrastructure, signals, lighting and noise walls. For both rounds the planning included data collection, risk and life-cycle cost analyses, performance measures and targets as well as a financial plan and investment strategies.
- MnDOT is currently leading three research projects related to pavements, bridges and culverts to inform asset management practices. The goal of the pavement project is to identify what other states are doing related to tracking condition information and investing in ancillary pavements. The bridge and culvert projects are focused on identifying models that quantify the benefits of maintenance treatments on deterioration.
- MnDOT created an asset management working group to collect better information on maintenance treatments and costs in order to determine how and when they are being applied to assets - at what condition. Information from this effort is helping to refine the agency's life-cycle cost analysis.
- MnDOT is creating an asset management office.
- As part of the 2013 State Highway Investment Plan, MnDOT developed a risk-based process for making asset investment tradeoff decisions.

- In 2014, MnDOT Planning completed a Flash Flood Vulnerability & Climate Adaptation project to identify assets located on the state highway system in District 1 and District 6 that are particularly vulnerable to increased flooding, as well as potential adaptation strategies. MnDOT Materials, Bridge and Safety work closely with all districts to prioritize investments on priority networks, specifically identifying investment priorities for the pavement, bridge and traveler safety investments.
- MnDOT Aeronautics included a preservation goal and associated strategies in the 2012 State Aviation System Plan update.
- MnDOT districts use an opportunity-driven investment approach to address needs and create a more sustainable transportation system, often addressing pavement, bridge, roadside infrastructure, safety, pedestrian and bicycle needs into projects where appropriate.

How did we do?

A lot of progress has been made in the past few years to better maintain Minnesota's transportation system. Work in this area continues to be a focus for all transportation partners. However more data and research is needed to better understand and implement the principles of asset management.

Strategy

Ensure that safety, operations, and maintenance needs are considered and addressed in transportation planning and programming.

Who will act?

Transportation Partners

What did we do?

- MnDOT's first Transportation Asset Management Plan, completed in 2014, helped the agency better understand the connection between capital investments and operations and maintenance.
- MnDOT is working on building a transportation asset management system for signals and lighting. The new management system will allow bridging between capital and maintenance activities and investments. The result will be a system that allows MnDOT to better achieve optimal / lowest life-cycle costs.
- MnDOT formed an Asset Management Governance Committee to champion all things asset management and help link asset management from planning through construction.
- In 2015, MnDOT Planning completed phase one of a "total cost of ownership" effort, in order to provide a better understanding of what it costs the agency to own a mile of road.
- MnDOT Transit developed a 10-year capital investment plan for transit vehicles. It requires all transit vehicles meet minimum replacement standards. The plans are reviewed annually as part of the transit system's funding application.
- Minnesota's Metropolitan Planning Organizations include funding needs for system operation and maintenance in their long-range transportation plans.
- The Metropolitan Council, as a part of the 2040 Transportation Policy Plan, compiled current and projected future costs for local agencies' transportation operations and maintenance.
- The St. Cloud Area Planning Organization included an extended analysis related to long-term maintenance costs and asset management in the 2015 update to their long-range transportation plan. The plan also included an increase in funding for preservation projects.

How did we do?

This is an area where significant progress has been made at the state level in the past few years but more progress is needed at the regional and local levels.



Strategy

Better align ownership of Minnesota's roadways with statewide, regional, and local priorities.

Who will act?

Transportation Partners

What did we do?

- In 2014, MnDOT State Aid completed a report on jurisdictional transfers that identifies the state and local roadways where ownership may be misaligned as well as the projected cost to realign the identified roadways.
- In 2014, MnDOT Planning started a statewide functional classification update. A roadway's functional classification is one indicator that can help identify potentially misaligned roadways.
- MnDOT State Aid collects dedicated funding each year to help pay for roadway transfers. Since 2012, 31 projects have been funded.
- Local jurisdictions continue to work with MnDOT in order to identify state roadways that they are interested in as potential turnbacks. One reason a local jurisdiction may be interested in a turnback is that the roadway is a high priority for the local community but a lower priority for the state system.

How did we do?

Better aligning system ownership is still a goal among transportation partners in Minnesota. Planning work in this area has been widely successful, but the strategy as written implies action and limited funding is available to execute the recommendations of plans and studies. MnDOT receives \$50M annually for transfers, or \$1B over the next 20 years from the Highway User Tax Distribution Fund. MnDOT has agreed to 75 miles of transfers but must wait for funds to be available for reimbursement before the transfer is complete.

Strategy

Work with transportation partners to implement a transparent and collaborative approach to corridor investment along the state highway system.

Who will act?

MnDOT

What did we do?

- In 2013, MnDOT developed and implemented a Corridor Investment Management Strategy solicitation. Ten local jurisdictions were awarded funding. However, no additional funding for this program has been identified.
- In 2012, MnDOT Planning developed a corridor outlook strategy to make realistic long-range corridor plans. The strategy was later replaced by the broader 10-year Capital Highway Investment Proposal outreach process.
- In 2015, MnDOT District 7 met with local government officials to discuss State projects within their area that had been identified in years 2020-2022. The meetings provided MnDOT the opportunity to educate local officials on a range of topics such as cost participation, access management, and speed limits.

How did we do?

Some work has been made in this area, particularly related to planning. However, funding has limited the level of investment that has resulted from these planning efforts.



Strategy

Monitor and report system condition and identify investment needs for key transportation infrastructure that is owned and operated within the private sector.

Who will act?

MnDOT; Private-sector Partners

What did we do?

- MnDOT is currently updating the Statewide Freight System Plan, which will identify key private sector freight needs.
- MnDOT updated the State Rail Plan in 2015. The plan identifies issues and discusses needs on the rail system, both public and private.
- The 2012 State Aviation System Plan identifies measures and needs for the entire state aviation system, which includes many private and local owned airports.
- The 2014 Statewide Ports and Waterways Plan includes a strategy about reporting on marine system performance, which includes both public and private sector facilities.
- MnDOT hired additional state rail safety inspectors to improve freight system safety through monitoring and reporting. One inspector is dedicated to hazardous materials.

How did we do?

Public transportation partners do a good job of reporting information about infrastructure that is owned and operated within the private sector, when the information is available. However, a lot of private-sector transportation information is not publically available. That doesn't mean that private-sector investments are not being made.

SYSTEM SECURITY

Objective statement




Reduce system vulnerability and ensure system redundancy to meet essential travel needs during emergencies.

Why is this important?

A secure transportation system adapts to emergencies, disasters and other special events in order to maintain reliable, predictable travel times, as well as alternative travel options. During these events, system security prioritizes essential travel of goods and people that are critical to public well-being. Examples of essential travel needs include access to hospitals and pharmacies, mobilizing emergency response teams and distributing food and supplies to all areas of the state.

How did we do?

The table below summarizes the progress we made toward each strategy under the System Security objective. More information about each strategy can be found on the following pages of this document.

Strategy	Preliminary Grade
Collaborate with emergency planning efforts to ensure efficient and coordinated response to special, emergency and disaster events.	
Expand emergency communications infrastructure across the state.	
Collaborate with local emergency management to address security issues in their planning efforts.	

PROJECT HIGHLIGHT

Flash Flood Vulnerability & Adaptation Assessment Pilot Project

MnDOT received funding from FHWA to conduct a pilot project to better understand the vulnerability of bridges, culverts, pipes, and roads paralleling streams in District 1 (Northeastern Minnesota) and District 6 (Southeastern Minnesota) to increased heavy precipitation. In addition to a system-wide vulnerability assessment, the project also conducted case studies of adaptation options for one vulnerable culvert in each district.

The goals of the pilot project were as follows:

- Better understand the vulnerability of the state's trunk highway system (interstates, US routes, and state roads) to flash flooding events
- Develop a process to identify cost-effective planning and design solutions to increase resiliency
- Support MnDOT's asset management planning efforts

Read more: <http://www.dot.state.mn.us/climate/pilotproject.html>

Strategy

Collaborate with emergency planning efforts to ensure efficient and coordinated response to special, emergency and disaster events.

Who will act?

Transportation Partners

What did we do?

- Since 2012, MnDOT employees completed the Federal Emergency Management Agency National Incident Management System training. Additional requirements to complete advanced training courses apply to staff more directly involved in incident response.
- MnDOT participates in the Minnesota Silver Jackets, a group which brings together agencies at all levels to learn from one another and apply their knowledge to reduce the risk of flooding and other natural disasters.
- In 2014, MnDOT took part in a climate resilience pilot project led by the Federal Highway Administration to study the vulnerability of the state's trunk highway system to flash flooding events in Districts 1 and 6.
- The Minnesota National Guard, in partnership with state and federal authorities, regularly conducts training exercises to test disaster response readiness.
- In 2014, the Department of Public Safety updated the State Hazard Mitigation Plan which identifies the state's major hazards, assesses the vulnerability to those hazards and outlines steps to reduce vulnerability.
- The Minnesota Emergency Operations Plan, coordinated by the Department of Public Safety and most recently updated in 2015, provides a framework for a multi-agency response to major disaster / emergency events.
- MnDOT and the Minnesota State Patrol have an "open roads policy" which focuses on quick removal of any obstructions following vehicle crashes and incidents in order to restore the safe and orderly flow of traffic.
- As standard practice, MnDOT Districts consult with local emergency services prior to any road closure.
- The State Patrol, MnDOT Maintenance and MnDOT Freeway Operations are co-located in the Regional Transportation Management Center and work together to quickly detect, respond to and remove incidents off the freeway network and maximize the efficiency of our roadways.
- In 2012, MnDOT District 1 worked with local emergency management, as well as county and city governments, in response to flooding events to restore infrastructure as operational.
- MnDOT District 3, District 6 and Metro District participate in Nuclear Generating Plant Incident Response exercises on a periodic basis with other agencies and incident responders.
- In 2014, prior to the Green Line opening, Metro Transit led a multi-agency light-rail emergency preparedness exercise in order strengthen partnerships and provide hands-on training for first responders, law enforcement and communicators.
- Minnesota's Regional Development Organizations collaborate with emergency planning efforts by writing and updating regional hazard mitigation plans that identify hazards and identify steps to address them.
- Since 2012, the Northwest Regional Development Commission worked with MnDOT District 2 to plan for the best access for emergency vehicles. The district will assist with planning efforts for the development and construction of new facilities, when possible.
- The Civil Air Patrol is available 24/7 for emergency response assistance and partners with MnDOT Aeronautics to help local agencies during emergency events.

How did we do?

Collaboration occurred through a variety of activities, involving a number of partners, addressing many security-related issues.

Strategy

Expand emergency communications infrastructure across the state.

Who will act?

MnDOT, Local, Regional and Tribal Partners

What did we do?

- MnDOT continues to build out the Allied Radio Matrix for Emergency Response (ARMER) backbone – Minnesota's shared public safety radio communication system. As of 2015, 317 out of the 328 planned towers were complete, resulting in 95% coverage of the state.
- In 2012, MnDOT consolidated the State's Transportation Operations Communications Centers from nine to two. The consolidation resulted in more staff available to help during high call volume moments in one particular area and 24 hour coverage in all areas. Even with the consolidation there are still redundancies built in.
- The 2015 update to the Statewide ITS Plan includes more strategic direction for investment in ITS infrastructure than previous versions of the plan, which focused more on inventorying ITS assets.
- Since 2012, MnDOT Traffic Safety continued working to develop Minnesota's statewide Intelligent Transportation System infrastructure, which can be used for emergency communication.
- MnDOT Aeronautics owns a system of navigational aids including weather stations necessary for emergency response and / or reacting to disaster events.
- Since 2012, MnDOT Freight and Commercial Vehicle Operations assisted with Hazardous Materials communications, training, driving, parking, routing and incident reporting.

How did we do?

Emergency communications infrastructure continues to be built out at a solid pace.

Strategy

Collaborate with local emergency management to address security issues in their planning efforts.

Who will act?

Transportation Partners

What did we do?

- MnDOT Traffic has participated in local planning efforts for all major stadiums recently built or currently under development in the Twin Cities metropolitan area.
- The Duluth-Superior Metropolitan Interstate Council assisted city and county planning efforts after the 2012 flood event through data gathering and determining funding options.

How did we do?

Work is occurring in this area, though it is difficult to gauge because examples are not well known or easy to identify.





Other Activities

IDENTIFYING SYSTEM VULNERABILITIES

In 2013, MnDOT participated in a federal climate vulnerability pilot study to evaluate the effects of flash flooding on the transportation system. MnDOT developed a methodology for assessing asset vulnerability and adaptation cost-effectiveness under alternative climate scenarios and applied these methods to two regions that experienced severe flooding in 2010 and 2012.

MnDOT's 2014 Grade Crossing Safety study mapped and ranked highway-rail grade crossing sites according to the potential risk to residents and travelers in the event of crude oil tank car derailment or collision. The results of this study inform MnDOT's Rail Crossing Safety Improvement Program. The Rail Administration Office has additionally hired a hazardous materials (HAZMAT) inspector.

CLIMATE ADAPTATION PROJECTS

The 101/61 Southwest Reconnection Project in Shakopee and Chanhassen, expected to be complete in 2015, is an example of a project funded through MnDOT's Flood Mitigation Program. The project aims to reduce the frequency and duration of road closures caused by seasonal flooding of the Minnesota River Valley.

DATA SECURITY

Starting in 2010, MnDOT began work to consolidate the agency's data center resulting in cost savings as well as more secure data.

For more information about the the Statewide Multimodal Transportation Plan update please visit our website www.minnesotago.org or contact:

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