www.dot.state.mn.us/

AT A GLANCE

- Over 143,000 centerline miles of road including trunk highways and local roads
- 5th largest state highway system in the nation
- 4,860 bridges greater than 10 feet on the trunk highway
- More than 90 million vehicle miles driven everyday on the state highway system
- 50% of state highways and 35% of state bridges are more than 50 years old
- 290 construction projects planned in the 16-17 biennium (236 Preservation/Other, 54 Expansion)
- $18+ billion in planned investments for state highways over the next 20 years (MnSHIP)
- 4,815 full time equivalent employees (as of FY15)
- Truck freight traffic projected to increase 30% by 2030

We work with our partners to support:

- 4,500 track miles serving 19 railroad companies, Northstar commuter and Amtrak passenger service
- Four Lake Superior and five Mississippi River ports
- Transit services in all 80 non-metro counties
- Greater MN transit ridership needs to increase by 40% by 2025
- 135 publicly owned state-funded airports

PURPOSE

Transportation today is about access and opportunities for all Minnesotans through managing an efficient system of interconnected modes that serve as critical connections to opportunities. Transportation supports a robust quality of life through various modes working together to link people to education, healthcare, jobs and recreation. Transportation supports a healthy economy, providing for the efficient shipping of raw and finished goods as well as access to jobs. Transportation also plays an important role in the stewardship of our environment. Therefore, the Minnesota Department of Transportation (MnDOT) has adopted the following:

Vision: Minnesota's multimodal transportation system maximizes the health of people, the environment and the economy.

Mission: To plan, build, operate and maintain a safe, accessible, efficient and reliable multimodal transportation system that connects people to destinations and markets throughout the state, regionally and around the world.

Funding is provided in four programs with 13 budget activities:

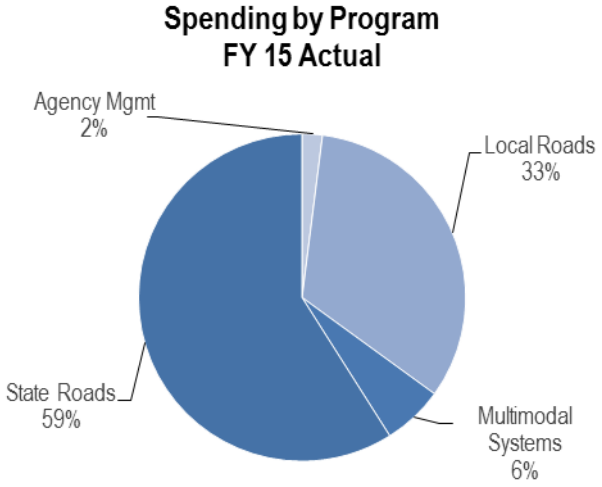
Multimodal Systems Program
- Aeronautics
- Transit
- Freight
- Passenger Rail

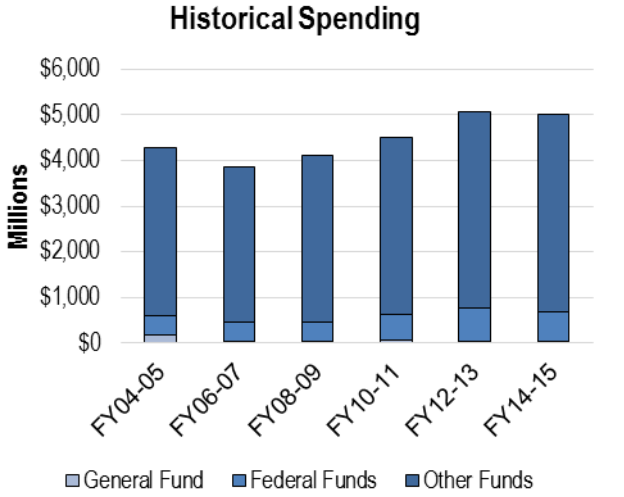
Local Roads Program
- County State Aid Roads
- Municipal State Aid Roads

State Roads Program
- Program Planning & Delivery
- State Road Construction
- Debt Service
- Operations and Maintenance
- Statewide Radio Communications

Agency Management Program
- Agency Services
- Building Services

BUDGET





Note: Spending includes Trunk

The primary source of financing for state-owned highways is the trunk highway fund, which is supported by motor fuel taxes, motor vehicle registration fees and motor vehicle sales taxes. Other sources include federal, transit assistance, county state aid highway, municipal state aid street, state airport and special revenue funds. Historically, less than 1 percent of the operating budget is from the general fund, which supports non-highway modes such as greater Minnesota transit, ports and rail.

STRATEGIES

Over the next two years, MnDOT seeks to earn customer trust through activities primarily associated with advancing equity and improving customer engagement. We will achieve this through the completion of targeted activities in the following areas:

- Contracting practices
- Recruitment, training and retention
- Improving customer impacts, experiences and involvement

Similarly, as stewards of the transportation system, we're committed to the following objectives as identified in our formal plans:

1. **Accountability, Transparency and Communication:** Ensure efficient and effective use of available resources to achieve the most value on transportation investments, including completing projects on time and within budget as well as performing timely and efficient operations and maintenance (http://www.dot.state.mn.us/getconnected/).
2. **Traveler Safety:** Ensure the safety of all who use the system by partnering with the Minnesota Department of Public Safety and Minnesota Department of Health on Toward Zero Deaths, the state's cornerstone traffic safety initiative (http://www.minnesotatzd.org/).
3. **Transportation in Context:** Consider context when making transportation decisions. This will lead to projects that are safer, sustainable in scale and tailored to the specific place in which they exist. Also, projects that respect and complement the economy, environment and integrate land uses and leverage both public and private investments.
4. **Critical Connections:** Connect key regional centers through multiple transportation modes to improve Minnesotans' prosperity and quality of life. While doing this, we strive to maximize return on investment over the lifecycle of any expansion to the system given constrained resources.
5. **Asset Management:** Operate, maintain and upgrade transportation assets in a systematic and cost-effective manner over their lifetime.
6. **System Security:** Maintain the system to provide essential travel needs and safe recovery during times of emergency and disruptive weather.

The Minnesota Department of Transportation requires that the principles of "Complete Streets" are to be considered at all phases of planning and project development in the establishment, development, operation and maintenance of a comprehensive, integrated and connected multimodal transportation system (http://www.dot.state.mn.us/policy/operations/op004.html.

The Department of Transportation's legal authority comes from:
Minnesota Constitution, Article XIV, Public Highway System (https://www.revisor.mn.gov/constitution)
Powers of Road Authorities, M.S. 160 (https://www.revisor.mn.gov/statutes/?id=160)
Trunk Highways, M.S. 161 (https://www.revisor.mn.gov/statutes/?id=161)
Administration of State Aid Road Systems, M.S. 162 (https://www.revisor.mn.gov/statutes/?id=162)
Responsibilities Related to Bridges, M.S. 165 (https://www.revisor.mn.gov/statutes/?id=165)
Trunk Highway Bonds, M.S. 167 (https://www.revisor.mn.gov/statutes/?id=167)
Traffic Regulation, M.S. 169 (https://www.revisor.mn.gov/statutes/?id=169)
Signs and Billboards Along Highways, M.S. 173 (https://www.revisor.mn.gov/statutes/?id=173)
Department of Transportation, M.S. 174 (https://www.revisor.mn.gov/statutes/?id=174)
Enforcement of Prevailing Wage, M.S. 177.44 (https://www.revisor.mn.gov/statutes/?id=177.44)
Rail Transportation, M.S. 218 (https://www.revisor.mn.gov/statutes/?id=218)
Railroad Safety, M.S. 219 (https://www.revisor.mn.gov/statutes/?id=219)
Regulation of Motor Carriers, M.S. 221 (https://www.revisor.mn.gov/statutes/?id=221)
Rail Service Improvement and Rail Bank, M.S. 222 (https://www.revisor.mn.gov/statutes/?id=222)
Aeronautics, M.S. 360 (https://www.revisor.mn.gov/statutes/?id=360).

Program: Multimodal Systems
Activity: Aeronautics

www.dot.state.mn.us/aero/

AT A GLANCE

- 375+ airports in Minnesota:
  - 135 publicly owned that receive state funds
  - Six privately owned public use
  - 67 privately owned private use
  - Numerous seaplane bases and heliports, including hospital heliports
- 55% of public airports are owned by a city with a population less than 5,000 people
- 70%+ of MN public airports are eligible to receive FAA Airport Improvement Program (AIP) funds
- 7,000 registered aircraft
- 12,000+ licensed pilots
- 368 commercial operators provide: agricultural spraying, aerial photography, flight instruction, aircraft maintenance and emergency response
- Nine airports provide scheduled airline service: Minneapolis-St. Paul, Rochester, Duluth, St. Cloud, Brainerd, International Falls, Thief River Falls, Bemidji and Hibbing
- 30 key airports are capable of supporting business jets, airfreight and airlines

PURPOSE & CONTEXT

Aviation allows time critical connection to destinations for the people, products and businesses of Minnesota. It is a key component of our multimodal-transportation system within the state, regionally and around the world.

Passenger airline travel accounts for only 25 percent of aviation activity. General Aviation provides the other 75 percent with a wide range of flight activity.

Farming communities reap benefits from agricultural spraying increasing crop yields through more efficient fertilizing. Aerial firefighting, mapping, and patrolling of utility lines help protect forested regions. In addition, mail and package deliveries, emergency response and patient transport services benefit all Minnesota residents and businesses.

Aviation taxes support the state aviation system; these include aircraft registration taxes, sales and lease taxes on aircraft, airline flight property taxes, and aviation fuel taxes. The 2016 Aviation Tax Report (http://www.dot.state.mn.us/govrel/reports/2016/2016-aviation-tax-report.pdf) provides more detail.

SERVICES PROVIDED

As the state aviation agency, MnDOT Aeronautics:

- Collects aviation taxes and safeguards the long-term viability of the state airports fund
- Distributes state airport and federal funds to ensure a robust, well-balanced aviation system
- Offers technical resources and expertise to communities to preserve the utility of airports
- Plans and promotes a coordinated, cost-effective statewide system of airports
- Provides navigational systems to increase the safety and efficiency of our airspace
- Enforces state and federal safety standards through airport licensure and inspection
- Promotes aeronautics through information, education, and outreach to pilots and the public

Airports

Construction projects and infrastructure improvements ensure continued safety, reliability, and access to the transportation system. State construction funds are awarded based on a statewide prioritization system that considers: project purpose, airport classification, airport component and type of project. Generally, projects that provide for safety, essential air navigation and are physically on the airfield will score higher than projects that enhance ground-side services such as fueling and baggage loading equipment. Federal construction funds are awarded based on Federal Aviation Administration (FAA) AIP eligibility (entitlements) and nationwide competition (discretionary).

Due to the unique challenges of Minnesota's climate and large size we distribute state funds to airports for maintenance and operation (M&O) activities - such as keeping runways free of snow and ice, equipment purchases and building upkeep. M&O funds are distributed based on a formula that considers the area of runway and taxiway, the size of lighting systems and available funding. Each category has a state and local cost share and a maximum reimbursement amount. In addition, the state owns, operates and maintains a system of navigational aids and weather stations that enhance federally owned systems.

Aviation Safety, Operation and Regulation

Our office provides statewide aviation system planning. The State Aviation System Plan (http://www.dot.state.mn.us/aero/planning/sasp.html) serves to benchmark the current condition of the airport system by identifying performance gaps, quantifying needs and promoting efficiency in operations, guiding investments and fostering transparency in decision-making.

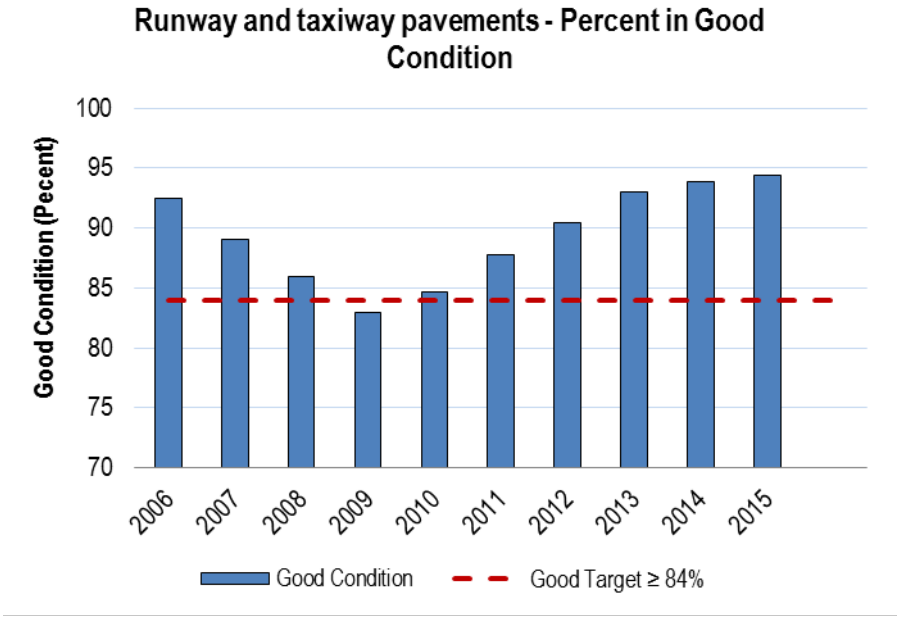
We also provide for aviation safety through the inspection and licensing of airports, permitting of tall towers, licensing of commercial operators, registering aircraft and ensuring regulatory compliance. Education and training programs, pilot safety, and information services (airport directory and navigational chart) also enhance the overall safety of the aviation system.

Aviation Career Education (ACE) camps are held annually and co-hosted by the Aeronautics Office and the FAA. These camps serve to extend the culture of aviation safety to future generations and are celebrating their 25th year in 2016. Camp experiences allow students to explore careers in aviation, including: piloting, military, engineering, manufacturing and air traffic control. They also can fly several types of aircraft.

RESULTS

Airports

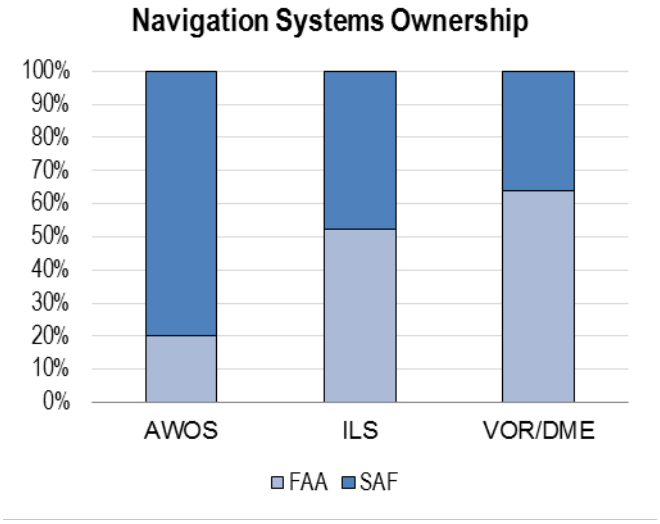
A measure of the quality of the airport system is the Runway Pavement Condition Index (PCI). A score between 0 and 100 is assigned based on a physical inspection of runway and parallel taxiway pavements: zero indicates the worst possible condition and 100 the best condition. Targets are set with a goal of 84 percent of runway pavements in good or better condition and no more than 4 percent of pavements in poor condition.



Aviation Safety, Operations, and Regulation

Each year our staff inspects approximately 55 public use airports for compliance with minimum safety standards and airport licensing requirements. Inspection results help airport managers identify areas for improvement. Information from the inspection is also provided to the FAA and published in airport directories to enhance safe use of the aviation system.

One of the most common causes of aviation accidents is continued flight into deteriorating weather conditions and again the large size and climate of our state increases variables for pilots. Providing weather stations at multiple airports creates a reliable network of available weather information along any flight route enhancing safety. Ground based navigation systems provide pilots better access to airports in weather conditions when visibility is limited by clouds, fog, rain, or snow. In Minnesota pilots have access to over 40 Instrument Landing Systems (ILS), 36 VHF Omni-directional radio-range systems and distance measuring equipment (VOR/DME) and support from 100 automated weather observation stations (AWOS). The pilots can check weather conditions, get updated airport information and file flight plans at 134 MnDOT provided computers at airports. A portion of this equipment is provided through assistance from FAA but the State Airports Fund owns over half of the total navigational system providing level of safety greater than would be provided by FAA alone.



Pavement improvements and other airport infrastructure projects are funded with Federal and State grant processes. MnDOT Aeronautics partners with airport sponsors and FAA to maximize federal dollars applied to projects in Minnesota. Starting in FY 2015, we supported FAA projects with a fund mixture of 90 percent FAA, 5 percent state, and 5 percent local funds. The additional 5 percent state match enabled our smallest communities eligible for an FAA grant to afford the local share. The result was fewer state only grants issued and an increase in FAA grants with matching state funds. This meant more federal funds were leveraged and fewer, but larger, grants were issued and more priority projects were funded.

Chapter 360 Airports and Aeronautics M.S. 360.011-360.93 (https://www.revisor.mn.gov/statutes/?id=360) provides the legal authority for this activity.

Program: Multimodal Systems
Activity: Transit

www.dot.state.mn.us/transit/
www.dot.state.mn.us/bike/
www.dot.state.mn.us/peds/

AT A GLANCE

- 80 counties in Greater Minnesota served
- 47 public bus systems funded
- 115 wheelchair-accessible buses funded for public and non-profit run systems
- 70 Safe Routes to Schools projects funded
- Completed the MnDOT Bicycle System Plan
- In partnership with the Minnesota Department of Health, began the Minnesota Walks Plan
- Began a statewide Non-Motorized Traffic Monitoring Program
- Continued to partner in the planning, development, design and construction of the Green Line extension and Blue Line extension light rail transit routes

PURPOSE & CONTEXT

The Office of Transit has achieved its goal to support transit services to all 80 non-metro counties and meet the needs of transit users. We continue to work to increase the use of public transit, bicycling and walking as a percentage of all trips statewide.

Transit provides grants and technical assistance to:

- Greater Minnesota public bus systems
- Organizations that support mobility services for seniors and people with disabilities
- Organizations for non-infrastructure Safe Routes to Schools projects

We provide planning and policy direction for transit, walking and bicycling routes on a statewide basis. We also provide design support for transit facilities, walking and bicycling infrastructure. The Office of Transit works closely with the Metropolitan Council on the planning, development, design and construction of major transit projects in the Twin Cities metro area

SERVICES PROVIDED

Transit Planning and Grants

The office provides grants to fund:

- Public bus service outside the Twin Cities metro area, including grants to purchase buses and bus facilities
- Programs for travel options focused on seniors and persons with disabilities

As part of issuing these grants the Office of Transit monitors grantees to ensure compliance with state and federal regulations. In addition, we provide administrative support for the legislatively created Minnesota Council on Transportation Access as well as various advisory committees that ensure transit is delivered successfully. In 2015 Minnesota organizations that received grants through the federal Enhanced Mobility of Seniors and Individuals with Disabilities Program (https://www.transit.dot.gov/funding/grants/enhanced-mobility-seniors-individuals-disabilities-section-5310) delivered 1.26 million trips statewide.

Bicycle and Pedestrian Planning and Grants

The Office of Transit provides planning for bicycle transportation and pedestrian infrastructure which includes programs and services that:

- Provide administrative support for the legislatively created Minnesota Non-motorized Transportation Committee
- Promote bicycling as an energy-efficient and healthy transportation alternative. The Statewide Bicycle System Plan (http://www.dot.state.mn.us/bike/system-plan/pdfs/statewide-bicycle-system-plan.pdf) provides more details

- Deliver programs and resources that encourage walking and bicycling as a part of the Trunk Highway and local transportation network (e.g., Share the Road, State Bicycle Map, State Bicycle Routes, Minnesota Walks Plan (http://www.dot.state.mn.us/peds/plan/))
- Coordinate the statewide Non-Motorized Traffic Monitoring Program
- (http://www.dot.state.mn.us/bike/research/research.html)
- Deliver grants through the Safe Routes to Schools Program for planning, education and related projects
- Support walking and biking infrastructure in Trunk Highway and local road projects through guidance and technical design manuals
- Provide strategic direction for the MnDOT-owned ABC parking ramps in downtown Minneapolis to encourage carpooling, transit and bicycle commuting. The parking ramps serve as bridges over Interstate 394 which surrounds Target Field and are managed by the city of Minneapolis on MnDOT's behalf

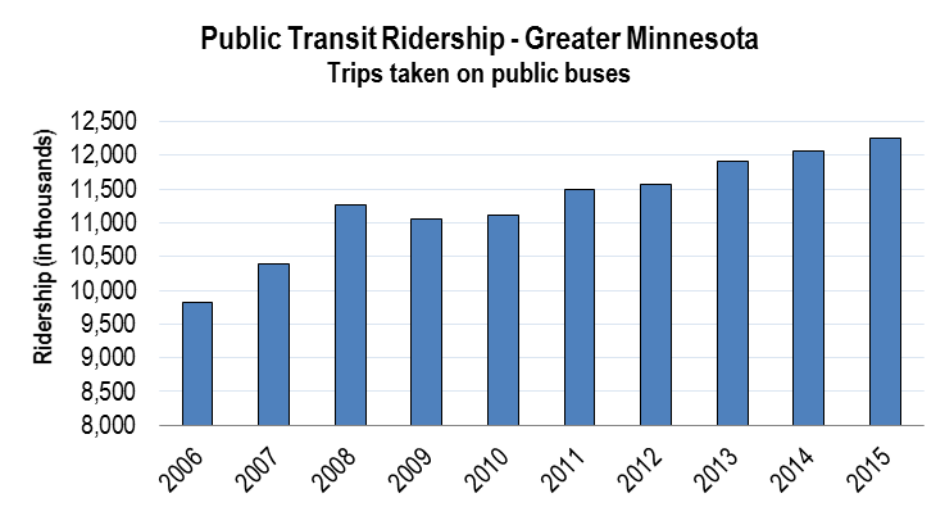
Light and Commuter Rail

The Transit Office partners with the Metropolitan Council for the planning, design and construction of light rail transit and commuter rail. This partnership has resulted in the opening of operating lines such as the Northstar commuter rail, and Blue Line and Green Line light rail and is now working toward the opening of the Green Line Extension and Blue Line Extension light rail projects.

RESULTS

Public Transit in Greater Minnesota

There are 47 public transit systems serving at least a portion of all 80 counties in Greater Minnesota. They delivered 12.25 million rides in 2015.

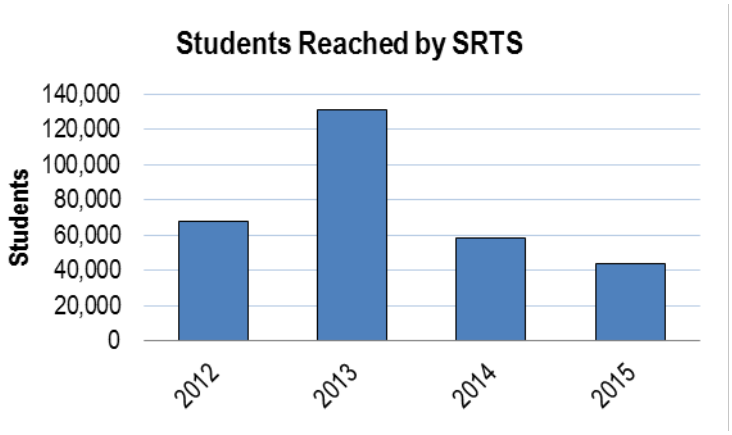


During the last decade, Greater Minnesota public transit ridership has increased 24.7 percent. Service has expanded so that every non-metro county now has at least some public bus service. Minnesota statute requires MnDOT to develop a transit investment plan that contains a goal of meeting at least 80 percent of total transit needs in Greater Minnesota by July 1, 2015 and 90 percent by 2025. Based on the new model developed for the 2016 Greater Minnesota Transit Investment Plan (http://www.dot.state.mn.us/transitinvestment/), in 2015 public transit systems met approximately 88 percent of the estimated total transit demand in Greater Minnesota. That model predicts Greater Minnesota public transit demand will increase 45 percent from 2015 to 2025, primarily due to the rapid increase in people reaching age 65.

Bicycle and Pedestrian Programs

In 2015, Minnesota was named the second most bike-friendly state in the United States by the League of American Cyclists. As bicycling has increased, Minnesota's rate of bicycle crashes had been declining consistently until a slight increase in 2015. For pedestrian safety, data in 2015 shows that both participation in walking as a form of transportation, and crashes involving pedestrians, has remained relatively flat.

The United States Congress created the Safe Routes to School Program in 2005 with the goal of getting more children to walk or bicycle to school safely. In 2012, the Minnesota Legislature created a state-level program with similar goals. Since 2005, MnDOT has provided nearly $20 million in grants to 538 schools across Minnesota for infrastructure improvements, education and planning activities. Students reached by the Safe Routes to School program averaged about 10,000 per year from 2006 to 2011. Funding increased in 2012 with the availability of state funds, peaked in 2013 when both federal and state funds were available and has been declining since federal dedicated funding ended with MAP 21.



The legal authority for the Transit activity comes from:
Department of Transportation Creation, M.S. 174.01 (https://www.revisor.mn.gov/statutes/?id=174.01)
Public Transit Participation Program, M.S. 174.24 (https://www.revisor.mn.gov/statutes/?id=174.24)
Construction of Light Rail, M.S. 174.35 (https://www.revisor.mn.gov/statutes/?id=174.35)
Transportation Alternatives Projects, M.S. 174.42 (https://www.revisor.mn.gov/statutes/?id=174.42)
Safe Routes to School Programs, M.S. 174.40 (https://www.revisor.mn.gov/statutes/?id=174.40)
Minnesota Council on Transportation Access, M.S. 174.285 (https://www.revisor.mn.gov/statutes/?id=174.285)
Advisory Committee on Non-Motorized Transportation, M.S. 174.37 (https://www.revisor.mn.gov/statutes/?id=174.37)
Construction of Commuter Rail, M.S. 174.82 (https://www.revisor.mn.gov/statutes/?id=174.82)
Metropolitan Council authority on light rail transit and commuter rail, M.S. 473.3993-4057
(https://www.revisor.mn.gov/statutes/?id=473.3993)

Program: Multimodal Systems
Activity: Freight

www.dot.state.mn.us/cvo
www.dot.state.mn.us/aboutrail

AT A GLANCE

- 80,000+ motor carrier oversize/overweight permits issued
- 7,500 motor carrier operating credentials authorized
- 1,100+ truck, bus and new entrant safety evaluations conducted
- 30 motor carrier safety classes provided
- $3 million Port Development Assistance Grants developed for public port authority infrastructure improvements
- 60 highway/rail grade crossing safety improvements completed on state and local roads
- 39 rail agreements executed for Trunk Highway construction projects
- Developed the Statewide Freight Plan and updated the Rail Plan

PURPOSE & CONTEXT

Freight and Commercial Vehicle Operations programs enhance Minnesota's economic competitiveness by improving access to regional, national, and global markets through the safe and efficient movement of goods. Freight is transported by truck, rail, water and air. The Freight and Commercial Vehicle Operation's activities are directed at improving the safety and performance of the state's multimodal freight transportation system by:

- Ensuring motor carriers (trucks, buses, etc.) comply with state and federal regulations
- Ensuring railroad compliance with state and federal safety standards
- Improving safety for the traveling public at public grade crossings
- Planning and delivering freight infrastructure projects
- Implementing strategies to advance freight mobility, safety access and economic competitiveness

SERVICES PROVIDED

Rail Crossing Safety: Freight uses general obligation bonds and general funds to fund projects for active warning devices (gates and/or flashing lights) and other safety improvements at highway-rail grade crossings to enhance safety. These projects replace antiquated safety equipment and construct low-cost safety improvements. Our office also evaluates highway-rail grade crossings on oil train routes to identify high-risk sites. The Federal Highway Administration's Section 130 grade crossing safety program provides approximately $6 million annually which funds approximately 25 projects per year at currently uncontrolled crossings. Freight also coordinates and executes construction agreements with railroads in support of Trunk Highway construction projects affected by rail lines.

Freight Rail Improvements: The Minnesota Rail Service Improvement Program (loans) improves the condition and capacity of rail infrastructure. Freight rail projects funded by the Minnesota Rail Service Improvement Program address track and rail bridge condition for railroads and extend access to shippers.

The Rail Safety Inspection Program inspects rail track, rail cars, locomotives and hazardous materials transports to ensure railroad compliance with federal and state safety standards providing improvements to freight rail and rail crossing safety.

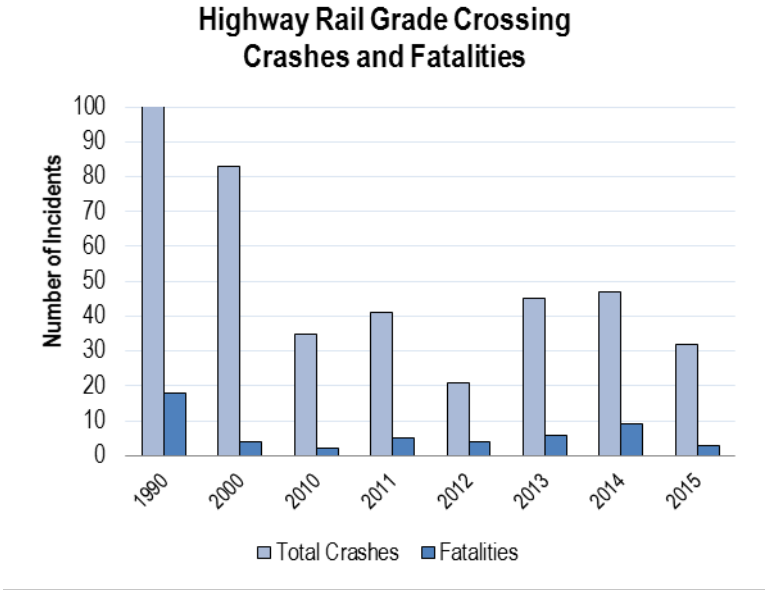
Freight System Planning: Freight develops plans and supports legislative and other initiatives that improve Minnesota's freight transportation system. Plans include the Statewide Freight Plan (http://www.dot.state.mn.us/planning/freightplan/index.html) and the Ports and Waterways Plan (http://dot.state.mn.us/ofrw/waterways/pwp.html)

Port Improvements: The Port Development Assistance Program (grants) improves port infrastructure and access to waterways. The Port Development Assistance Program has committed $25 million for 37 projects since its inception in 1996 and is primarily supported by bonds. Recent projects include the redevelopment of Duluth Seaway Port Authority docks, increasing the capacity of the Port of Duluth; replacement of 1,100 feet of deteriorating dock wall at St. Paul Port Authority's Barge Terminal #1; concrete cap and access roadway paving at Port Authority of Winona's Commercial Harbor; and rehabilitation of the sheet piling face at Red Wing Port Authority's Little River Bulkhead.

Commercial Truck and Bus Safety: Commercial Vehicle issues oversize/overweight truck permits protecting the infrastructure and promoting safety. Commercial Vehicle also supports and maintains weigh scales and electronic components to allow enforcement of the oversize / overweight permits. The office administers carrier credentials and performs carrier safety evaluations to insure compliance with state standards and hazardous material regulations. Alongside credentialing and compliance, we also provide training, technical assistance and outreach for carrier safety as well as weight enforcement.

RESULTS

Rail Crossing Safety: Through improvements in infrastructure and public education, grade crossing crashes have declined substantially, from a high of 392 in 1970 to a low of 21 in 2012. In 2015, there were 32 grade crossing crashes in the state. We evaluate and prioritize grade crossing improvement projects based on safety risk factors and replacement needs. Approximately one-third of Minnesota's 4,100 public road grade crossings have gates and/or flashing lights. As technology advances, existing equipment becomes obsolete and harder to procure repair parts for. Once a crossing malfunctions it will continue to do so until repaired, increasing the risk of motorists driving around the gates in the path of an oncoming train. Nearly 40 percent of these systems are over 20 years old and need to be replaced. Many factors contribute to crashes and we will continue to monitor trends and invest in safety improvement projects.

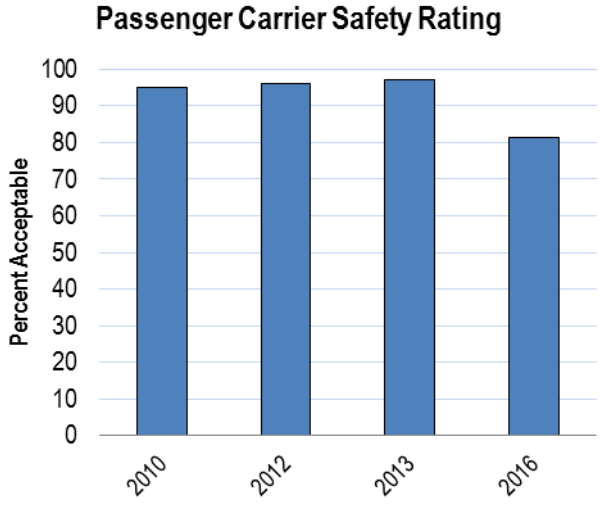


Rail Inspection: In 2015, the latest year in which data is available, MnDOT state rail inspectors and Federal Railroad Administration inspectors working in Minnesota documented 7,293 defects as well as 230 reports of more serious violations. MnDOT works with the appropriate railroads to ensure that all defects and violations are corrected.

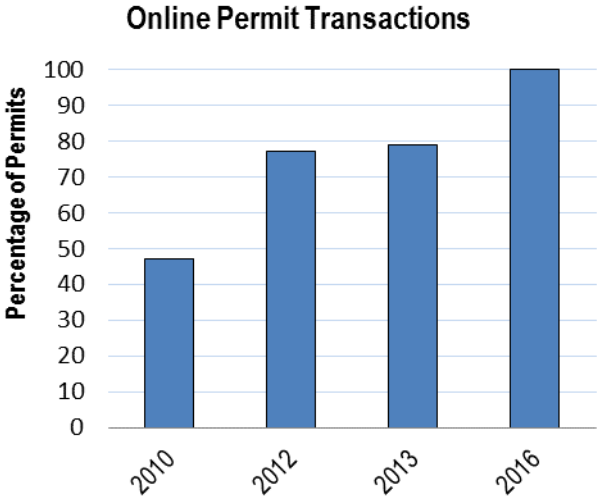
Commercial Truck and Bus Safety: Minnesota, like most states, uses comprehensive safety monitoring and compliance strategies developed by the Federal government. To accomplish this nearly 700 safety evaluations of trucking companies including new companies entering the industry (new entrants) and hazardous material carriers were conducted.

This activity works to improve the safety performance of passenger carriers, including special transportation service (STS) providers (transportation designed to serve the elderly and disabled), limousine operators, and motor carriers of passengers (formerly charter and regular route bus operators). The number of passenger carriers has nearly doubled during the past ten

years. At the end of FY16, 73 percent of STS carriers, 81 percent of limousine operators and 90 percent of the bus operators had a satisfactory safety rating according to Federal safety methodology. The decrease in 2016, seen in the graph below, is primarily due a large number of new carriers that have entered the business, including non-emergency medical transport (NEMT) carriers.



Oversize/Overweight Truck Permits: An upgraded online oversize/overweight permitting system deployed in 2013 has provided a more efficient customer service experience. One hundred percent of permits are now issued online and of those 37 percent were successfully issued without staff intervention.



The legal authority for the Freight and Commercial Vehicle Operations activity comes from:
Oversize/overweight permits, M.S. 169.80-86 (https://www.revisor.mn.gov/statutes/?id=169.80)
Motor Carrier Credentials, Motor Carrier Education, and Safety Reviews, M.S. 174.30 (https://www.revisor.mn.gov/statutes/?id=174.30) and M.S. 221 (https://www.revisor.mn.gov/statutes/?id=221)
Port Development Assistance Program, M.S. 457A (https://www.revisor.mn.gov/statutes/?id=457A)
Minnesota Rail Service Improvement (MRSI) Program and Rail Bank Program, M.S. 222 (https://www.revisor.mn.gov/statutes/?id=222)
Railroad Safety (including grade crossing safety), M.S. 219 (https://www.revisor.mn.gov/statutes/?id=219)
Nonemergency Medical Transportation M.S. 174.29-30 (https://www.revisor.mn.gov/statutes/?id=174.29)

Program: Multimodal Systems
Activity: Passenger Rail

www.dot.state.mn.us/passengerrail/

AT A GLANCE

- Work continues on development of three passenger rail corridors:
  - Twin Cities to Duluth (Northern Lights Express or NLX)
  - Twin Cities to Chicago high speed rail
  - Twin Cities to Chicago, 2nd train at conventional speeds
- Planning work on emerging passenger rail corridor identified in the State Rail Plan – I-35 Corridor
- Technical support for regional rail planning and development including the East Metro Capacity Project.
- 340 miles of operating passenger rail service
- 155 miles of passenger rail line in development over the next five years
- 90 miles of high speed rail service (110 mph) will be in development over the next 6-10 years

PURPOSE & CONTEXT

Passenger rail works in partnership with local governments and regional rail authorities, community groups and corridor advocates to deliver passenger rail services that are federally compliant, environmentally friendly and sustainable to connect Minnesota with the national passenger rail system.

The focus is to connect Minnesota's regional centers to increase mobility and access to employment, education, health care and commercial services. The most recent 2015 Statewide Rail Plan (http://www.dot.state.mn.us/planning/railplan/resources.html) identifies priority passenger rail corridors for development by MnDOT.

SERVICES PROVIDED

The Statewide Rail Plan identifies a network of passenger rail corridor opportunities to be developed over the next 25 years. This network provides alternative transportation options that connect Minnesota with the rest of the country. Our office leads partnership efforts that may include local agencies, regional rail authorities, community groups and corridor advocates to deliver passenger rail services. The corridor development activities include environmental review, preliminary engineering and design.

The Amtrak Empire Builder is Minnesota's current one daily interstate passenger train connecting Minnesota with Seattle and Chicago. Work continues on a second daily conventional speed (up to 79 mph) train between the Twin Cities and Chicago as a first step in building a system of higher speed (90 to 110 mph) routes interconnecting the upper Midwest. The Twin Cities to Chicago high speed rail corridor project is currently in the environmental impact statement and conceptual engineering phase while the Twin Cities to Chicago second conventional speed route is in the Twin Cities to Milwaukee phase 1 study. The higher speed rail system will eventually provide additional regional routes (up to six trains daily) to integrate with the Midwest States network and Amtrak's national system.

The Passenger Rail Office is leading the Twin Cities to Duluth corridor (NLX) project and is currently in the final environmental review, preliminary engineering and design stages. The service will improve access to the recreational and commercial opportunities in the northeastern part of the state as well as the Twin Cities.

Our office is a financial partner and participates with the Ramsey County Regional Railroad Authority on the East Metro Rail Capacity Study. The 2015 Statewide Rail Plan has identified current regional constraint issues and this study is an effort to plan and design improved rail movements that will provide enough system capacity to allow for passenger rail implementation.

RESULTS

Since adoption of the Statewide Rail Plan, our office has initiated five corridor planning and development projects and two capital projects: Saint Paul Union Depot and Target Field Station. The Passenger Rail Office has successfully received $40 million in federal funding and $26 million in general obligation bonds since 2009. The federal FAST Act has identified four new rail programs that offer future funding that would require a state capital investment match to apply.

The legal authority for the Passenger Rail activity comes from: M.S. 174.632 (https://www.revisor.mn.gov/statutes/?id=174.632)

Program: State Roads
Activity: Program Planning and Delivery

www.dot.state.mn.us/planning/program/plans.html

AT A GLANCE

- 502 Construction projects let during calendar years 2014 and 2015
- $1.8 billion in construction projects were developed
- $18+ billion in planned investments for state highways over the next 20 years (MnSHIP)
- Federal "Fast Act" provides an increase in Federal formula funds for State Highways
- MnSHIP – is updated every four years with the new version planned for release in January 2017
- The 10 year CHIP and four year STIP are updated every year
- 60+ research projects started each year with about 190 in progress at any time

PURPOSE & CONTEXT

Program Planning and Delivery of the Trunk Highway system requires thoughtful and efficient short, mid and long range plans to fit the varied needs of the systems stakeholders. This activity includes: writing plans, conducting data analysis, reviewing performance outcomes, managing the capital program and construction oversight, as well as research and development. All of our projects strive to meet our performance measure targets and the identified plan objectives.

The transportation infrastructure is aging; a large portion of the existing infrastructure was built during the 'Interstate Era' of the 1960's and early 1970's and is nearing the end of its useful life.

We must efficiently use the resources available to plan and preserve infrastructure, while also providing oversight for the replacement and limited expansion of the system. In addition, we must meet an increased demand for safety, mobility, freight movement, bicyclists and pedestrian.

SERVICES PROVIDED

Highway System Planning

Highway planning includes assessing statewide infrastructure conditions, determining future needs for automobile users as well as freight, bicycles and pedestrians, then making planning decisions based on projected available funding. We strive to make policy and planning decisions that provide the greatest return on transportation system investment.

The Minnesota State Highway Investment Plan (MnSHIP) (http://www.dot.state.mn.us/planning/mnship/) is completed every four years and establishes capital investment priorities for the next 20 years. MnSHIP draws on performance management systems to establish investment scenarios which optimize the highway system based on projected available funding. The MnSHIP ensures that performance measures set by the federal government such as infrastructure preservation, safety, freight movement and mobility are met.

The Capital Highway Improvement Plan (CHIP) (http://www.dot.state.mn.us/planning/10yearplan/) is a ten year list of financially constrained projects that are selected to meet the investment priorities and performance targets established by MnSHIP. For preservation projects, MnDOT selects projects based upon the projected condition of the pavement or bridge available from the pavement and bridge management systems.

The State Transportation Improvement Program (STIP) (http://www.dot.state.mn.us/planning/program/stip.html) includes the first four years of the CHIP and these projects are considered funded and committed for delivery. The last six years of the CHIP are priorities based upon the MnSHIP investment criteria, but may change as project scope and revised revenue forecasts are developed.

Develop Highway Improvement Projects

Development of highway improvement projects involves several steps:

- **Scoping** determines the elements of a project that are needed to meet the goals established in the CHIP and also sets preliminary budgets and schedules
- **Environmental Review** considers impacts of proposed projects to ensure compliance with environmental laws and policies
- **Public Involvement** meets with impacted communities and the public to engage and inform them about upcoming projects
- **Designing** performs engineering studies and analysis, prepares construction plans, uses performance based practical design and flexible design standards to ensure road designs meet project goals while minimizing costs

MnDOT is employing Shared Service Centers to provide centralized technical expertise to districts and for agency efficiency. A Shared Service Center will maintain an expertise that the districts can draw upon when needed and functions much like an internal consultant by bringing expertise and resources to a project that a district doesn't have available. Currently Shared Service Centers exist for project scheduling, sign design, and signal and lighting design. We will be hiring additional staff in a Shared Service Center to accommodate the rise in the number of right of way parcels being acquired due to the additional space necessary to incorporate American's with Disability Act (ADA) standards.

Highway Construction Management Oversight

We monitor construction projects to ensure that the final product meets all specifications by doing the following:

- **Managing** the overall progress of State Highway projects from project letting through construction completion and final project documentation
- **Coordinating** the early stages of projects with unique features or procurement methods
- **Providing** opportunities for small business participation and employment opportunities to minorities and women to work on MnDOT contracts
- **Overseeing** quality management, material testing, project scheduling and compliance with specifications
- **Providing** sound fiscal management, financial tracking and regulatory compliance
- **Ensuring** that construction traffic control provides the most efficient and safest movement possible through work zones

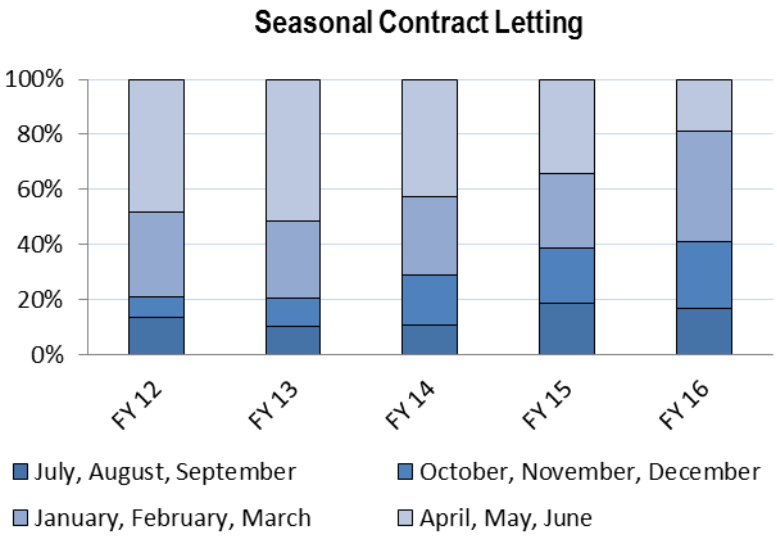
Research and Development

We develop and apply new technologies for Trunk Highway projects, such as newer, more cost-effective pavement designs, accelerated bridge construction techniques, and methods to improve highway safety. Our Research Services & Library Section manages research projects that complement federal and local agencies to create a comprehensive program. Research Services & Library staff serve as a resource for MnDOT staff as well as city and county engineers. Other offices conduct additional research in the areas of bridges, pavements and intelligent transportation systems.

RESULTS

Project Delivery

To help ensure projects are delivered within budget and on time, we are placing greater emphasis on project scheduling and monitoring. In 2014 the department began using balanced letting. This initiative is designed to increase the number of projects let during better bidding environments (October through March) to maximize competition between bids and more evenly distribute the design work throughout the year, lessening the need for overtime.

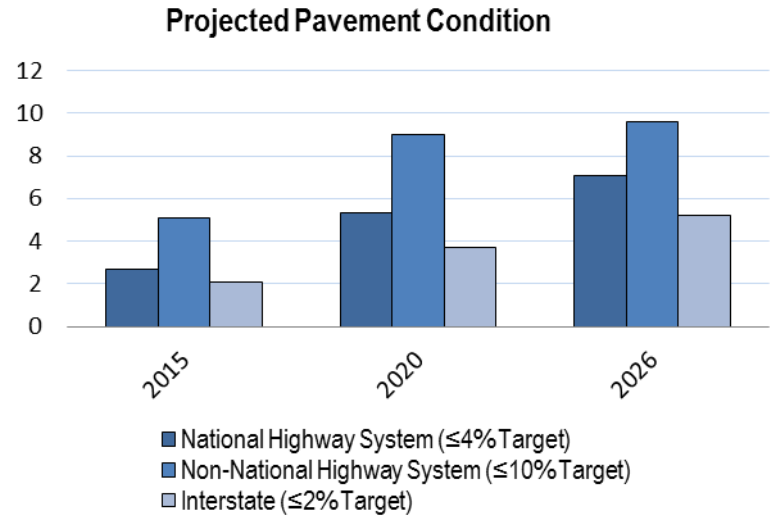


Source: MnDOT Office of Transportation System Management

Highway projects are much more complicated than even 20 years ago. Management of traffic in a work zone, permitting regulations, and innovative design all take more design resources in order to minimize traffic disruptions, comply with state and federal rules, and reduce the cost to construct. Currently for every dollar spent on construction 17 cents is spent on design and 9 cents on construction oversight.

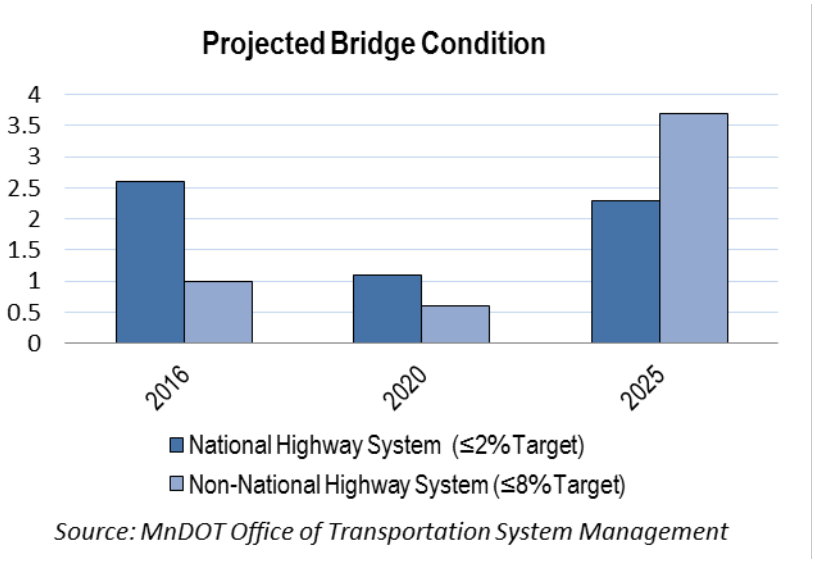
Use of Performance Measures

The STIP currently under development for FY 2017 to FY 2020 is the first STIP that will be completely developed using the performance based guidance from MnSHIP. Even though MnDOT is planning, programming, and developing projects for preserving the infrastructure as outlined in MnSHIP, the decline of infrastructure condition presents us with many challenges for maintaining the condition of our highways and bridges.



Source: MnDOT Office of Transportation System Management

Targets for pavement conditions vary slightly by road system but the overall goal is to have pavements rated as poor condition to be under the target percentage provided in the graph above.



Targets for bridge conditions also vary slightly by road system but the overall goal again is to have bridges rated as poor condition to be under the target percentage provided in the graph above.

The Department of Transportation's Program Planning and Delivery legal authority comes from:
Roads General Provisions M.S.160 (https://www.revisor.mn.gov/statutes/?id=160)
Trunk Highway M.S.161 (https://www.revisor.mn.gov/statutes/?id=161)
Department of Transportation M.S.174 (https://www.revisor.mn.gov/statutes/?id=174)

Program: State Roads
Activity: State Road Construction

www.dot.state.mn.us/planning/program/stip.html
www.minnesotago.org/
www.dot.state.mn.us/planning/mnship/

AT A GLANCE

- 328 construction projects started in the 14-15 biennium (246 Preservation/Other, 82 Expansion)
- 290 construction projects planned in the 16-17 biennium (236 Preservation/Other, 54 Expansion) Included in these were
  - Nine Transportation for Economic Development (TED) projects received funding in 2015
  - Twelve Corridors of Commerce projects received funding in 2015
- Funded through a direct appropriation from the Trunk Highway Fund also utilizing Federal Highway Trust Fund and authorized Trunk Highway Bond proceeds

PURPOSE & CONTEXT

The State Road Construction budget activity is the capital investment program for the construction, reconstruction and improvement on the 12,000 miles of state managed roads and bridges. State managed roads include the federal Interstate System, US State Highways and Minnesota Trunk Highways and the bridges and other infrastructure on these systems. These investments are primarily in the areas of system preservation, improvements, and expansion. Our staff administers and provides oversight to hundreds of projects each season.

Investment decisions are made based on priorities and policies identified in the planning documents developed by the agency.

SERVICES PROVIDED

MnDOT selects, designs and manages construction projects to maximize the investment level impact and the Trunk Highway systems ability to meet the future needs of communities, businesses and the traveling public. These investments are initially prioritized in the Minnesota State Highway Investment Plan, MnSHIP (http://www.dot.state.mn.us/planning/mnship/), based on preservation, safety, mobility for all users and regional priority. The annual construction program provides work for contractors across the state and opportunities for small business participation and employment opportunities to minorities and women to work on MnDOT contracts. Programs like Transportation Economic Development and Corridors of Commerce prioritize projects based on criteria specific to these programs.

Trunk Highway System Preservation Construction

- Repairing and reconstructing highways and bridges to maintain the existing transportation system
- Planning for the preservation of highway and bridge investments in a timely and cost-effective manner, MnDOT is able to maintain the state's existing vital connections
- Selecting preservation projects to provide a safe and reliable riding surface for travelers while minimizing life-cycle costs

Trunk Highway System Expansion

- Adding capacity to the transportation system with new lanes, bridges and interchanges, and in rare cases adding additional centerline miles
- Creating safer roadways with new turn lanes, wider shoulders and roundabouts
- Completing critical connections through special legislation and bonding programs, such as the Corridors of Commerce program. These improvements are not always identified in the agency's performance plans, but improve Minnesota's quality of life

Other Trunk Highway System Improvements

Investing in areas within the right of way but outside of the traditional highway footprint, including:

- Multimodal investments like bike paths and pedestrian bridges
- Intelligent Traffic Systems like ramp meters and changeable message signs
- Truck weigh stations and scales
- Travel center and safety rest areas

RESULTS

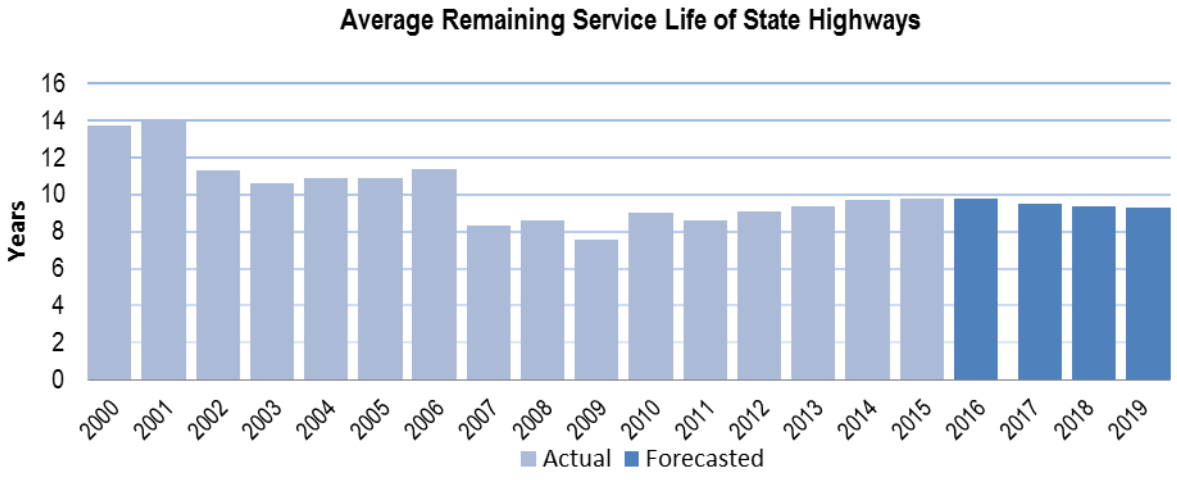
MnSHIP Outcomes (2014 to 2023)

MnSHIP identifies the investment priorities for the State Road and Bridge Construction Program and the outcomes of those investments. Under estimated available funding during this time period, MnDOT will focus on the following outcomes:

- **Asset Management:** Conditions of roads, bridges and roadside infrastructure on the National Highway System (NHS) routes (45 percent of the system) remain stable in the near term then decline. Known and anticipated federal and state performance requirements are met on the NHS. Conditions of roads, bridges, and roadside infrastructure decline for non-NHS Trunk Highways (55 percent of the system)
- **Traveler Safety:** Continue to focus on lower cost, proactive treatments that prevent fatalities and serious injuries
- **Critical Connections:** Improve conditions for pedestrians and bicyclists at priority locations through Complete Streets reviews. The number and scope of system capacity improvements will decrease as the available funds become increasingly directed toward asset preservation
- **Regional and Community Improvement Priorities:** We will continue to address local concerns through partnerships. The agency will deliver a few small stand-alone projects to support economic competitiveness and quality of life for Minnesotans

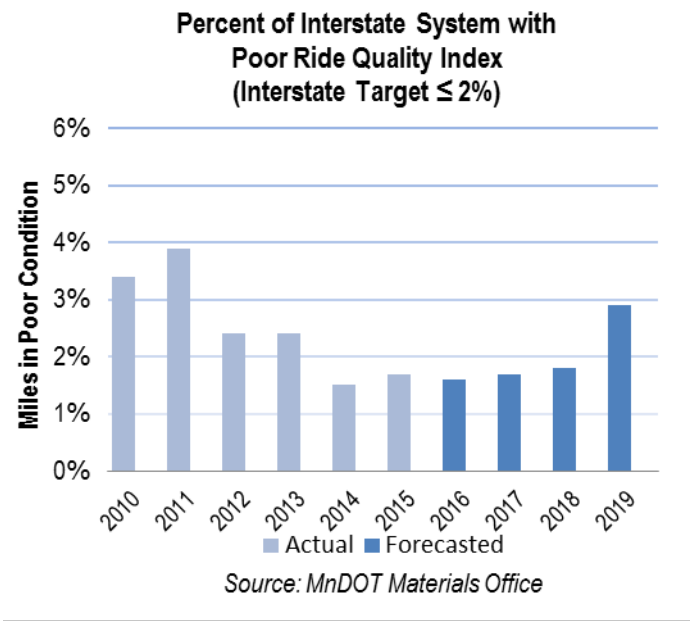
Performance Indicators

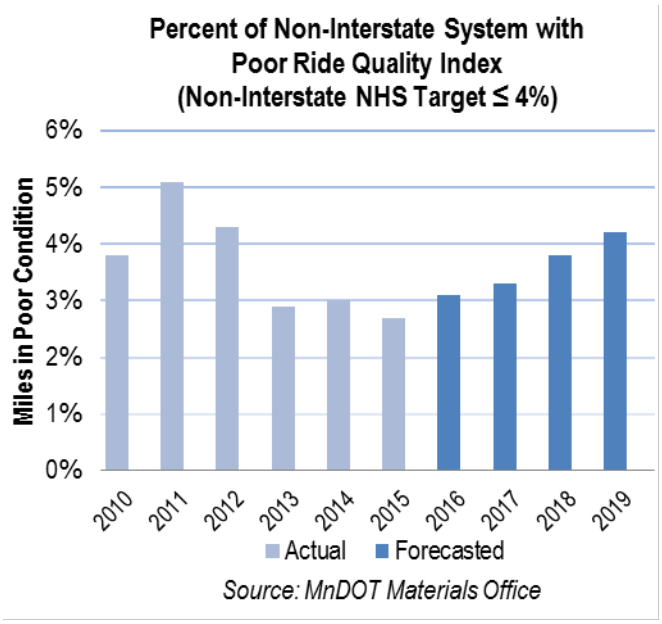
Remaining Service Life (RSL) is the time, in years, until the roughness of a pavement section is predicted to reach the point where travelers feel the road surface is somewhat uncomfortable to drive over. An RSL of zero indicates that some sort of major repair or replacement is needed. The RSL is calculated annually for each section of state highway. The average RSL has dropped considerably since 2000. A large portion of the Interstate System was built in the 1960's and early 1970's so a large portion is nearing the end of its useful life.



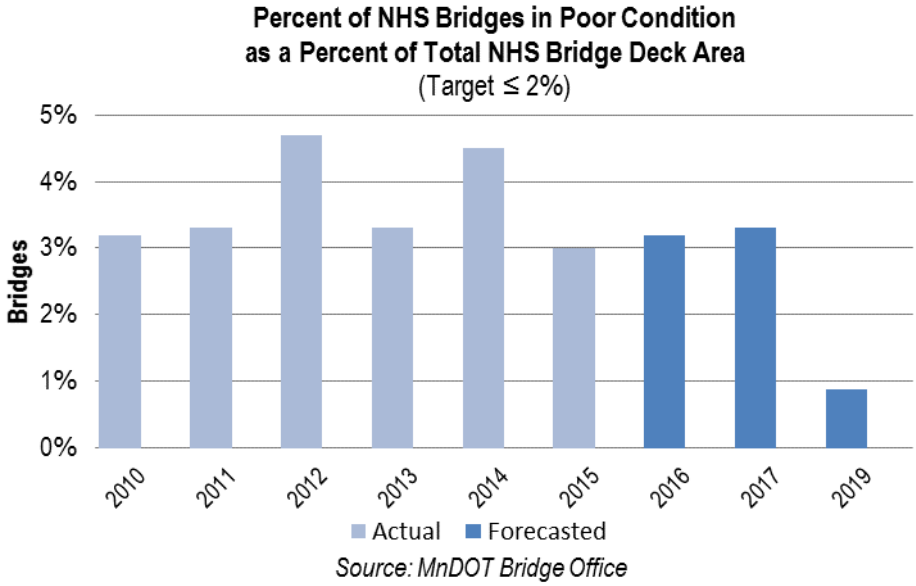
Source: MnDOT Materials Office

We track the performance of the Trunk Highway system with a number of different performance measures, many of which are published in the Annual Transportation Performance Report. Pavement condition is measured by the percent of miles of highway in poor condition. The system condition is projected to be declining after 2016.





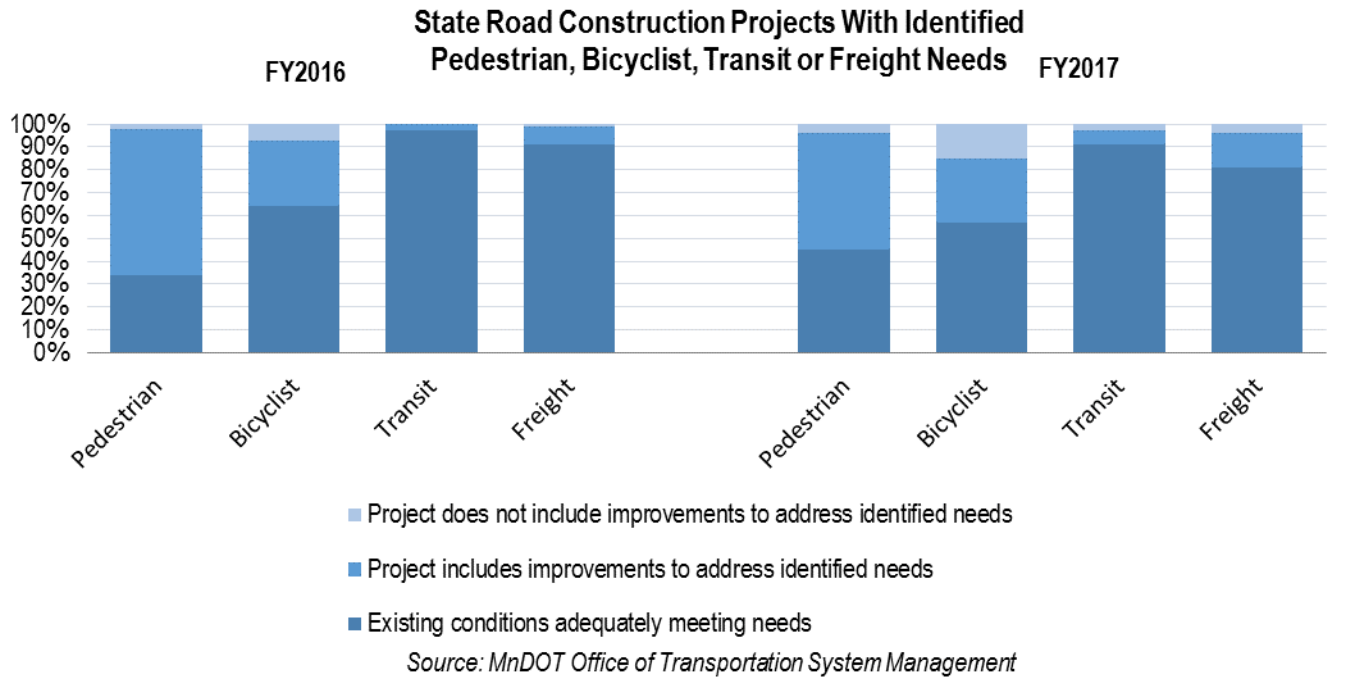
Bridge condition is measured by percent of bridge deck area in poor condition. This graph illustrates that bridges on the National Highway System are being held in a stable condition around 3 to 4 percent. In 2015 there was a change in methodology in how we calculate our forecasted condition; this was compounded by the completion of the large bridge program created by the Laws of Minnesota 2008, Chapter 152 bonds.



*FY 2018 is not included, as we typically do not include yearly condition forecasts in the planning process.

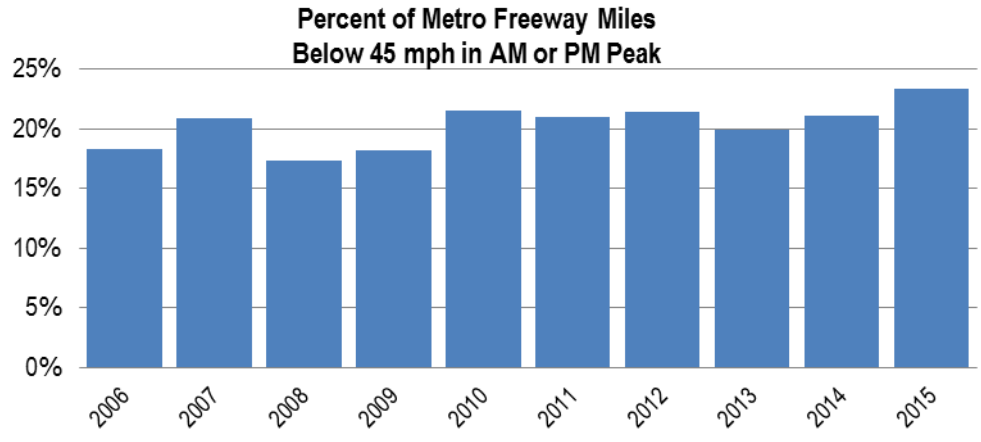
The Complete Street Policy requires MnDOT to consider the needs of pedestrians, bicyclists, transit, motorists, and commercial and emergency vehicles in all phases of planning, project development, operation, and maintenance activities. MnDOT documents considerations for each type of user. In the graph below you will see we are making improvements as part of the

majority of projects where we identified needs. However, in some cases the desired improvements are not feasible or cost effective so are not included in the final plan. Percentages, in the graph below, exclude projects where the user is legally prohibited according to Minnesota Statutes 169.305 or where there is no evidence of a current need to provide for the user group, no plans identify the project corridor for future use, and land use trends suggest an absence of future need over the life of the project.



Source: MnDOT Office of Transportation System Management

Mobility is measured by the speed that users can travel on Metro freeways. The performance is stable at the current investment level, although the percentage of congested miles is expected to increase in the future as traffic volumes rebound from the 2008 Recession.



Source: MnDOT Metro District

The Department of Transportation's State Road Construction legal authority comes from:
Roads, General Provisions M.S.160 (https://www.revisor.mn.gov/statutes/?id=160)
Trunk Highways M.S.161 (https://www.revisor.mn.gov/statutes/?id=161)
Complete Streets M.S. 174.75 (https://www.revisor.mn.gov/statutes/?id=174.75)

Program: State Roads
Activity: Debt Service

www.dot.state.mn.us/policy/financial/fm007.html

AT A GLANCE

Trunk Highway Fund Bonds:

- $2.969 billion authorized since 2000
- $2.617 billion sold since 2000
- $310 million three-year average expenditures of bond-funded projects
- 11 percent average growth per year in debt service payments
- $2.391 billion in remaining debt service payments on current bond authorizations

PURPOSE & CONTEXT

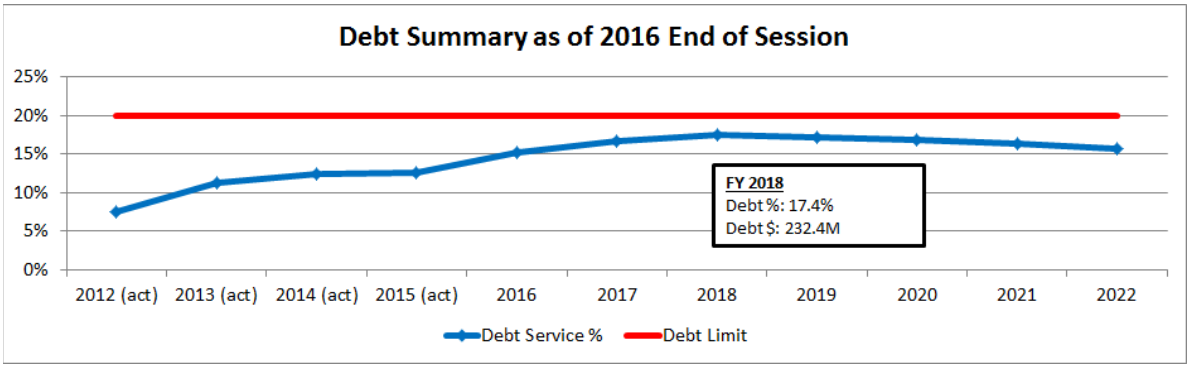
The state of Minnesota is authorized to issue general obligation bonds for trunk highway purposes under Article XIV, section 11 of the constitution. Bonds are purchased to advance construction projects beyond what the State Road Construction and Federal funding programs can support in a given period. The Minnesota Department of Transportation is also authorized to enter into loan agreements using the Transportation Revolving Loan Fund and to enter into local government advance agreements. The debt service activity is funded by a direct appropriation from the Trunk Highway Fund. The Trunk Highway Fund, rather than the State's General Fund, pays all of the debt service for Trunk Highway bonds.

SERVICES PROVIDED

This activity encompasses repayment of all debt related to the Trunk Highway System. This includes the required annual payment of the principal and interest on Trunk Highway bonds to the State Debt Service Fund from the Trunk Highway Fund, as well as payments to the Transportation Revolving Loan Fund for Trunk Highway loan agreements and repayments of advances from local governments. We work closely with Minnesota Management and Budget to coordinate activities related to selling bonds and forecasting both debt cash flow and debt service payments.

RESULTS

Minnesota's goals for the transportation system are established in the Minnesota State Highway Investment Plan (MnSHIP). Bond debt, particularly when interest rates are low, is an important strategy for funding transportation projects. The key goal for the debt service activity is to balance the needs of the transportation system by maximizing the funding resources available within a financially sound debt management policy. MnDOT policy states that debt service cannot exceed 20 percent of annual projected state revenues to the Trunk Highway Fund. The graph below depicts the most current debt service estimates compared with the policy limit.



The Department of Transportation's Debt Service activity legal authority comes from:
Minnesota Constitution Article XIV, Section 6 and 11 (https://www.revisor.leg.state.mn.us/constitution/#article_14)
Trunk Highway Revolving Loan Account, M.S. 161.04, Subd. 3 and 4 (https://www.revisor.leg.state.mn.us/statutes/?id=161.04)
Advance Funding for Trunk Highway Projects, M.S. 161.361 (https://www.revisor.leg.state.mn.us/statutes/?id=161.361)

Program: State Roads
Activity: Operations and Maintenance

www.dot.state.mn.us/
www.dot.state.mn.us/maintenance/

AT A GLANCE

We maintain:

- 12,000 state highway miles (33,000 lane miles), including the interstate
- 3,335 traffic management systems (signals, ramp meters, changeable message signs, cameras and road weather information stations)
- 536 miles of cable median barrier
- 28,500 highway lighting fixtures
- 4,860 bridges greater than 10 feet on Trunk Highway routes (including rail road, pedestrian and other structures)
- 256,204 acres of highway right of way (including wetlands and ponds)
- 838 snowplows

PURPOSE & CONTEXT

The state highway system makes up only 8.5 percent of Minnesota's roads, but carries 60 percent of total traffic volume with more than 90 million vehicle miles driven every day. Safety and efficiency is integral to the work we perform daily. MnDOT maintenance crews clear, repair, and improve highways, bridges, shoulders, safety devices and traffic management systems. We also maintain the fleet, equipment and buildings necessary to perform these tasks. In addition, this activity includes striping, signage, roadway lighting structures and utility payments.

As an agency we strive to preserve and optimize these investments while delivering faster, smoother and more reliable trips. We also respond to emergencies 24 hours per day, 365 days per year and perform our work regardless of snow, rain, floods, construction or emergencies. This activity is primarily funded by a direct appropriation from the Trunk Highway Fund.

SERVICES PROVIDED

Bridges and Structures Maintenance

Operations and Maintenance inspect 4,860 state highway bridges in accordance with state and federal requirements as well as additional inspections due to unforeseen events. Federal rules require that all bridges are inspected on a one- or two-year cycle. See our website for more information on bridge inspection (http://www.dot.state.mn.us/bridge/inspection.html).

MnDOT performs preventive maintenance to extend the service life of state highway system bridges by protecting these assets from exposure to moisture and corrosive agents like salt. Preventive routine maintenance like sealing cracks, joints and railings, spot painting, lubrication of expansion bearings and flushing of the bridge deck, superstructure and substructure elements with water to remove winter residue to reduce the frequency and scope of future repairs.

Reactive maintenance occurs when a vehicle damages a bridge or when deterioration is discovered during an inspection or maintenance assessment and is classified as high, medium or low priority. High priority includes deficiencies that could affect safe function of the bridge or result in deterioration to a critical condition. See our website for more information on Bridge Construction and Maintenance (http://www.dot.state.mn.us/bridge/maintenance.html).

Traffic Devices Operation and Maintenance

To increase freeway and arterial efficiency, reduce crashes and provide travelers with information, we operate the Regional Transportation Management Center (RTMC) (http://www.dot.state.mn.us/rtmc), the Greater MN Traffic Operation Communication Centers, and the Freeway Incident Response Safety Team. These activities provide travelers with current travel times and critical roadway information, including Amber Alerts, and road condition information from our Roadway Weather Information System. We relay this information using changeable message signs, the Internet, and telephones. We also

maintain over 1,200 traffic signals statewide, install and repair signs and lights, stripe roads, install and repair guardrails and maintain approximately 536 miles of cable median barriers. See our websites for more information on MnDOT Traffic Engineering (http://www.dot.state.mn.us/trafficeng) and MN 511 (http://www.511mn.org).

Road and Roadside Maintenance

To keep roads safe and in good operating condition, we patch potholes, seal cracks, pave road surfaces, remove debris (including the Adopt-a-Highway program), repair or replace culverts, maintain roadway shoulders and respond to flooding. We also measure highway smoothness and remaining pavement life to inform and prioritize our work. This information helps us make timely investments to prolong pavement life.

In FY15 MnDOT drafted a Transportation Asset Management Plan (TAMP) (http://www.dot.state.mn.us/assetmanagement/pdf/tamp/tamp.pdf). The plan describes asset inventory and condition information, performance measures and targets, risks, financial plans, and life cycle cost assessments. These assessments help MnDOT evaluate the cost effectiveness of existing management and investment practices, and identify areas where process improvements can be made.

Prior to the completion of the draft TAMP, MnDOT began to respond to the identified need for better operations and maintenance costing data by launching a statewide project to improve tracking and analysis of these costs to improve accuracy and comprehensiveness of TAMP analyses' and a broad range of agency decision making.

MnDOT is investing in an Asset Management System which will provide a comprehensive enterprise-wide database for asset inventory and condition, historical work and maintenance costs of the asset. It will provide advanced analytical functions, and allow retirement of several antiquated asset record keeping systems. Work will be ongoing to configure several additional asset classes over the next several years.

Maintenance crews mow, control noxious weeds, remove trees and brush, issue permits for public roadway activities like utility work, and maintain rest areas and weigh stations. See our websites for more information on roadway vegetation management (http://www.dot.state.mn.us/roadsides/vegetation/index.html) and rest areas (http://www.dot.state.mn.us/restareas/). The state also owns more than 256,000 acres of right of way that is managed within the operations and maintenance activity.

Snow and Ice

Our snow and ice activities include anti-icing treatment before storms, snow plowing and ice removal during storms and clean-up of snow and ice after storms have passed. Crews perform high priority services first. During years with harsh winters, we may redirect system maintenance funds to snow plowing from other functions like drainage, roadside maintenance and pothole patching. We use a flexible workforce to fight winter storms. Nearly 13 percent of the state's snow plow drivers work in other areas of the department and are reassigned to plow snow during winter snowfalls. Snow plowing on Minnesota's 12,000 miles of roads is expensive and labor intensive. The agency is very proactive in implementing and using new technology to help reduce costs and chemical usage. See our website for more information on Snow and Ice (http://www.dot.state.mn.us/maintenance/) which includes the most current "Annual Winter Report at a Glance".

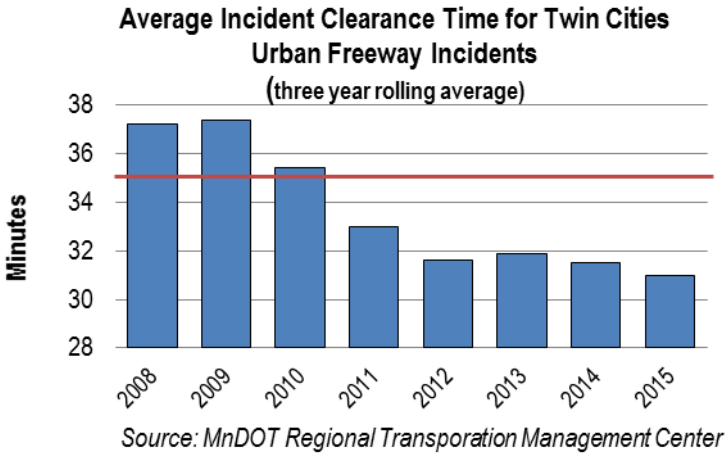
RESULTS

Bridges and Structures Maintenance Performance

MnDOT measures the timeliness of bridge inspections and of completing high priority reactive maintenance. The bridge fracture critical inspection goal is to complete 100 percent of inspections on time (98 percent for routine inspections). This exceeds the 95 percent target established in the National Bridge Inspection Standards. The bridge maintenance goal is to complete 100 percent of high priority reactive maintenance on time. MnDOT has substantially met this goal the last four years. Achieving this performance measure on time will ensure the safe function of bridges and will keep bridges from further deterioration, saving time and money in the long run.

Efficiency (recurring and non-recurring congestion):

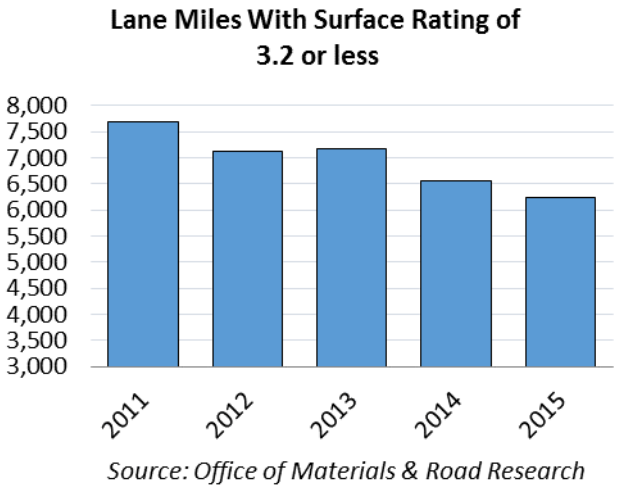
Traffic incidents, like crashes, cause major congestion on the Twin Cities Metro area freeway system. We measure incident clearance time on the system between 6 a.m. and 7 p.m. on weekdays. The target is incident clearance within 35 minutes to minimize delay. We have been meeting this target for the past five years.



Recurring congestion is minimized through a sophisticated traffic management system while non-recurring congestion (crashes, stalls) through quick clearance response. MnDOT expects congestion to remain the same or increase as the region continues to grow. Since 2010, MnDOT's strategy has shifted from reducing congestion toward providing alternatives to congested travel.

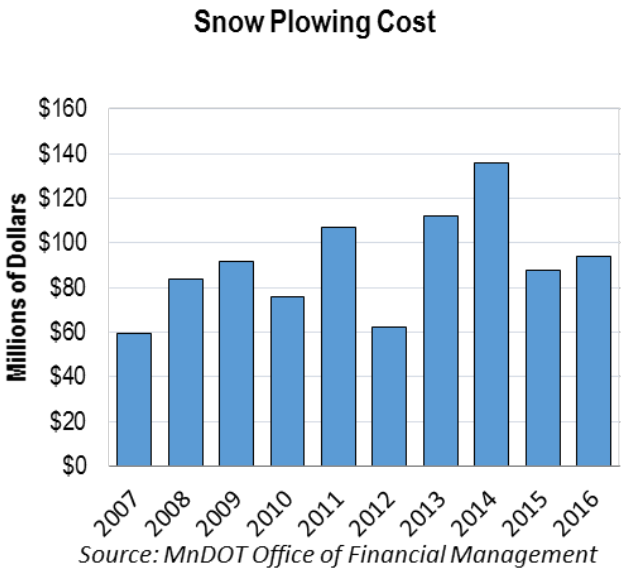
Road and Roadside Maintenance Performance

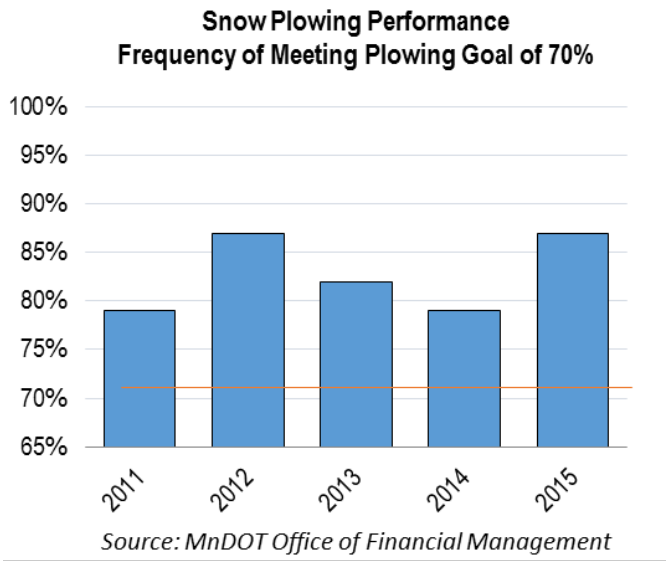
We are committed to protecting, maintaining and preserving our roads. In doing so, we maximize taxpayers' investments in better, longer-lasting roads for smoother, safer and more efficient travel. MnDOT measures pavement cracking based on a surface ranking index that has a zero to four scale, with a four meaning no cracks. Typically, a 3.2 rating receives some sort of patching.



Snow and Ice Performance

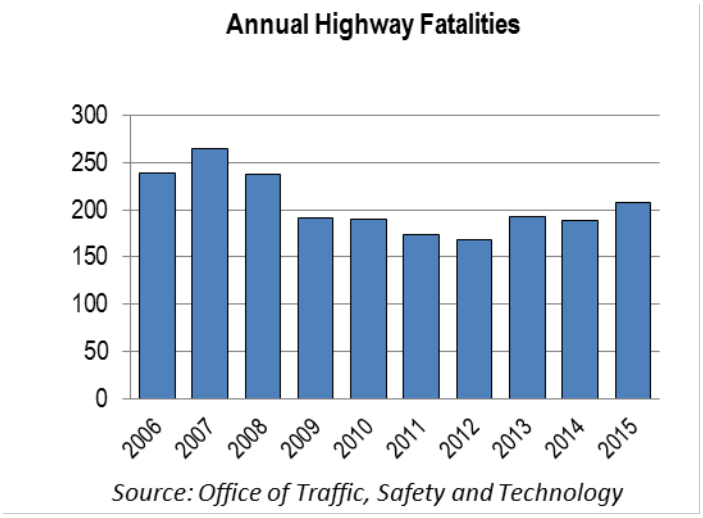
To assess plowing performance, MnDOT evaluates each snow plow route after each snowstorm. The goal is returning the road to an acceptable driving condition in a prescribed amount of time (the time varies by the amount of traffic on the road). Our goal is to meet the clearance targets for each type of roadway 70 percent of the time in a season. We have met this goal in nine of the last ten seasons. Winter weather severity varies significantly from year to year and from region to region.





Traffic Operation and Maintenance Performance Safety:

We help reduce injuries and deaths on the highway as a partner in the Toward Zero Deaths Initiative (http://www.minnesotatzd.org/). We produce a Highway Safety Improvement Program, district safety plans and county safety plans to deliver safety investments throughout the state.



The Department of Transportation's Maintenance and Operations activity legal authority comes from:
Roads General Provisions M.S.160 (https://www.revisor.mn.gov/statutes/?id=160)
Trunk Highway M.S.161 (https://www.revisor.mn.gov/statutes/?id=161)

Program: State Roads
Activity: Statewide Radio Communications

www.dot.state.mn.us/oec
www.dps.mn.gov/divisions/ecn/programs/armer/Pages/default.aspx

AT A GLANCE

- ARMER System
  - 326 of the planned 335 ARMER towers constructed and on the air
  - Approximately 82,000 subscribers to the Allied Radio Matrix for Emergency Response system
  - 483 tower leases with partners
- Radio/Electronic System Maintenance
  - 17 radio repair facilities statewide
  - 9,900 mobile and portable radios maintained for state agencies
  - 3,708 base station radios maintained for state agencies
  - 87 Road Weather Information System sites maintained across the state

PURPOSE & CONTEXT

Statewide Radio Communications builds, maintains, owns and operates the Allied Radio Matrix for Emergency Response (ARMER) backbone. This is Minnesota's shared public safety radio communication system that provides 24/7/365 interoperable radio communication service to multiple state and local agencies.

ARMER serves the day-to-day and emergency communication needs of MnDOT, the Department of Public Safety (DPS) and other state agencies, as well as the majority of local and regional law enforcement agencies. This includes fire, emergency medical and public works services.

The system is a network of radio towers, equipment shelters and radio transmission equipment which is shared by network users throughout the state. This is identified in the Statewide Radio Communication Plan maintained by the Statewide Emergency Communications Board (SECB), originally known as the Statewide Radio Board (SRB).

SERVICES PROVIDED

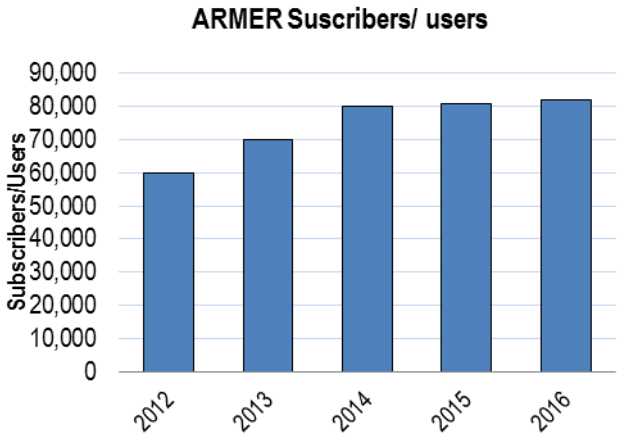
As a part of our Statewide Radio Communications investment and planning function, we provide the overall electrical engineering direction for the strategic and tactical planning of wireless, voice and data systems for ARMER and other public safety or transportation applications (RWIS, automatic vehicle location (AVL), dispatcher console systems, audio loggers, remote site data connections, camera systems). This includes electronic communication system engineering, design and construction expertise to offices and districts and other state and local agencies. We also act as public safety radio spectrum frequency advisor for the state of Minnesota.

Management of the system requires us to monitor, repair, upgrade and replace the radio communications infrastructure, facilities, base stations and mobile and portable radios. The agency also provides maintenance for electronic equipment, such as road weather information systems. We manage private and public tower lease/rental space for antenna use statewide

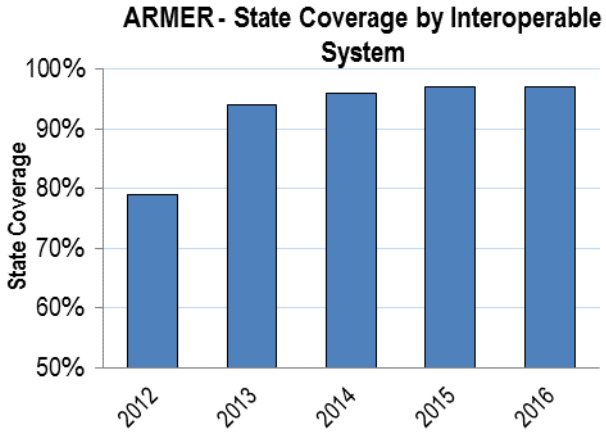
We also provide emergency service response for public safety electronic communications systems. We work with other state and local agencies, including the DPS and the DNR to provide shared expertise and technical services. As the lead agency, we provide Minnesota with the infrastructure and resources to allow its emergency responders to communicate with each other at any time regardless of the nature or scope of an event.

Currently, the ARMER system build-out is on schedule and on budget. There are approximately 335 towers planned and scheduled for completion by 2019, to provide for 95 percent mobile-level coverage by county. As of July 2016, land acquisition for a handful of sites is proving challenging.

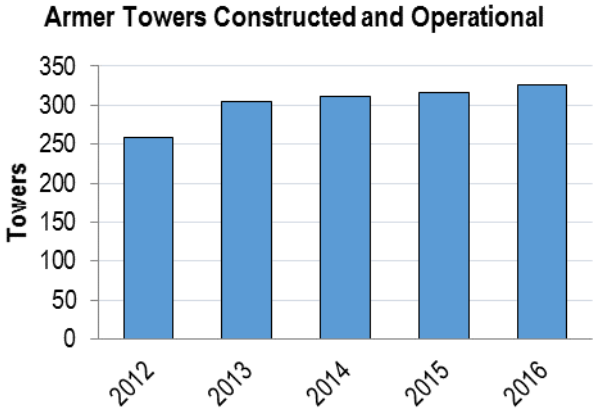
RESULTS



Source: MnDOT Office of Statewide Radio Communications



Source: MnDOT Office of Statewide Radio Communications



Source: MnDOT Office of Statewide Radio Communications

The legal authority for the Statewide Radio Communications activity comes from: Public Safety Radio Communications, M.S. 174.70 (https://www.revisor.mn.gov/statutes/?id=174.70) and M.S. 403 (https://www.revisor.mn.gov/statutes/?id=403)

Program: Local Roads
Activity: County State Aid Roads

www.dot.state.mn.us/stateaid/

AT A GLANCE

- 87 counties
- 30,708 miles of County State Aid Highways (CSAH) make up approximately 20% of the statewide system
- 5,739 bridges on the CSAH system
- 55,297 township road miles eligible for funding
- 6,074 township bridges eligible for funding
- 488 CSAH projects approved on average per year
- 201 federal aid projects approved on average per year
- 84 bridge bond projects approved on average per year
- 69 township bridge projects approved on average per year

PURPOSE & CONTEXT

State Aid for Local Transportation (SALT) oversees funding provided to Minnesota counties through annual allotments from the Highway User Tax Distribution (HUTD) fund, general obligation bonding for local bridges and road improvements and Federal Highway Administration funds.

Funds from the HUTD are for construction and system maintenance on the County State Aid Highways (CSAH) system, with a small portion available to townships for maintenance and bridge replacement. The other funding sources are primarily for construction on the CSAH system.

Counties select construction projects and perform maintenance activities within their jurisdictions, which include identified roads within cities with a population of less than 5,000. Our office reviews and approves individual construction plans for compliance with state and federal standards and rules.

SERVICES PROVIDED

To promote a safe, reliable and sustainable local transportation system, State Aid works closely with county highway departments to keep people and freight moving throughout the state. The state administers local bridge and road improvement bond funds on a priority basis to supplement costly bridge replacement and improve safety and mobility on local roads. We also provide counties with technical advice and materials, like crash record data. Our financial unit processes payments for construction projects and the annual maintenance allotments. They also provide training, procedural guidance and respond to financial questions. The agency also provides support by connecting counties together on common issues.

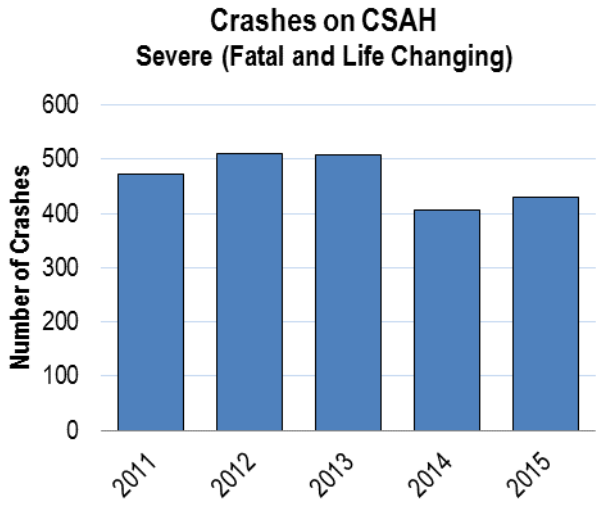
Our office reviews and approves construction plans and project funding requests to ensure consistency with the rules for State Aid Operation. We also work with all counties on their construction, maintenance and project delivery costs, as well as project activities to get the best value for limited resources. A small portion of the HUTD funding supports a research board made up of county engineers and State Aid employees. This board researches methods and materials for maintenance and construction to be more innovative and economical.

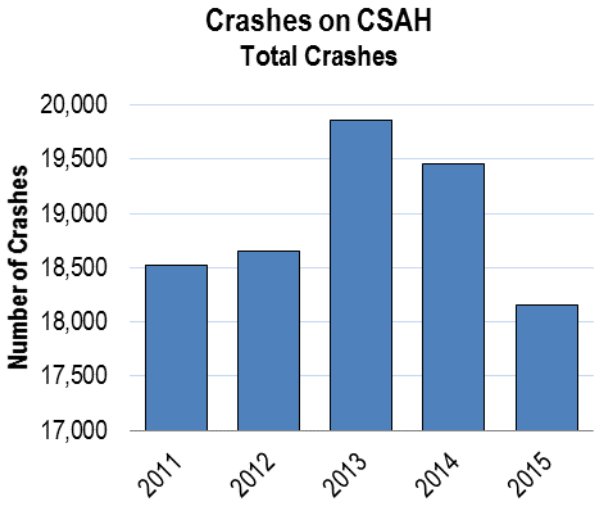
We also act as an agent for the local authorities in the administration of their federal construction contracts and fulfill the state's obligations for federal oversight of all local federal aid projects. We assist local agencies in completing the requirements for federal aid, including public involvement and documentation to comply with environmental and historic preservation requirements.

These administrative functions are funded from an allocation from the HUTD set in statute at two percent of available funds. In addition one percent of available funds are set aside for a disaster account to assist counties with extraordinary disaster costs when they arise. The State Park Road Account is an account that provides funding for access roads to state parks and recreational areas. These projects are selected by the Department of Natural Resources. The town road account is also identified in statute and is distributed from the HUTD through the counties to township governments for maintenance of township roads. The town bridge account is distributed to counties for the replacement of deficient township bridges through the five percent set aside from the HUTD.

Safety

Safety on the CSAH system is measured in both the number of serious crashes (fatalities and life changing crashes) and the total number of crashes that occur.

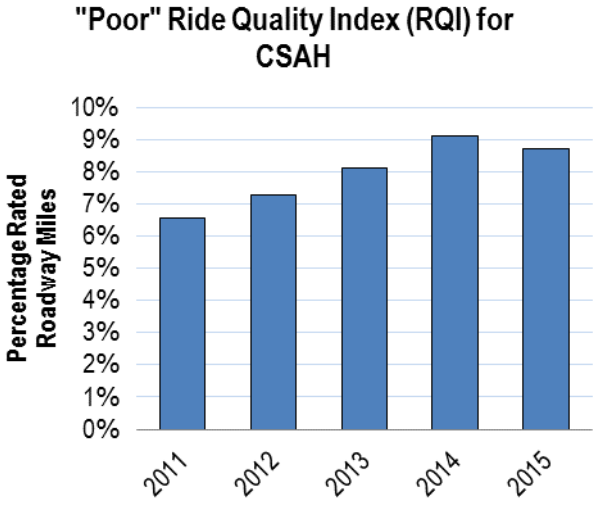




Source: Minnesota Crash Mapping Analysis Tool (MnCMAT)

Pavement Condition

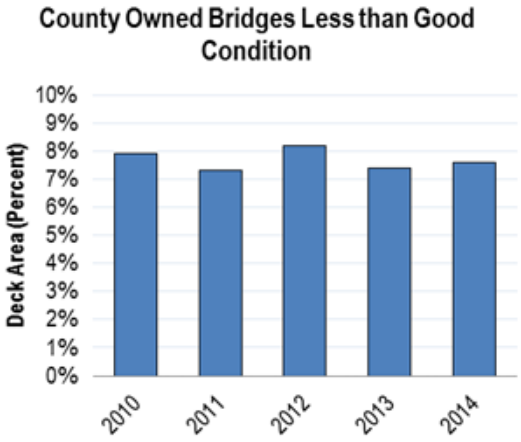
Pavement Condition – Ride Quality Index (RQI). Over the past six years, there has been an upward trend in the percentage of pavement on the CSAH system that is rated in "Poor" condition based on the RQI.



Source: Office of Materials and Road Research, Pavement Management Unit

Bridge Condition

Over the past six years, the percentage of bridges rated in “Poor” condition has been relatively flat.



Source: MnDOT Bridge Office - Bridge Assessment Data Management Unit

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The legal authority for the County State Aid Highways activity comes from:
Distribution of State Aid funds to counties and cities, Constitution of MN, Article XIV (https://www.revisor.leg.state.mn.us/constitution/MN-Constitution.pdf)
Legal authority for the State Aid system, M.S. 162 (https://www.revisor.mn.gov/statutes/?id=162)

Program: Local Roads
Activity: Municipal State Aid Roads

www.dot.state.mn.us/stateaid/

AT A GLANCE

- 148 cities with a population greater than 5,000
- 3,735 miles of Municipal State Aid Streets (MSAS)
- 503 bridges on the MSAS system
- 196 MSAS projects approved on average per year
- 84 bridge bond projects approved on average per year

PURPOSE & CONTEXT

This activity oversees funding for Minnesota cities with populations greater than 5,000 through annual allotments from the Highway User Tax Distribution (HUTD) Fund. We also distribute general obligation bond proceeds for local bridges, and Federal Highway Administration funds. Funds from the HUTD are for construction and system maintenance on the municipal street system.

Cities select construction projects and perform maintenance activities. We review and approve individual construction plans for compliance with state and federal standards and rules.

SERVICES PROVIDED

MnDOT works closely with municipalities to promote a safe, reliable and sustainable local transportation system. This system is vital for moving people and freight throughout the state. The state administers local bridge bond funds on a priority basis to supplement costly bridge replacement on local roads.

We also provide cities with technical advice and materials. Our financial unit processes payments for construction projects and the annual maintenance allotments. They also provide procedural guidance and respond to financial questions. The agency also hosts meetings for cities on common transportation issues.

Our office reviews and approves construction plans and project funding requests to ensure consistency with the rules for State Aid Operation. We also work with all cities on their construction, maintenance and project delivery costs, as well as project activities to help them identify innovative and economical methods and materials to get the best value for limited resources.

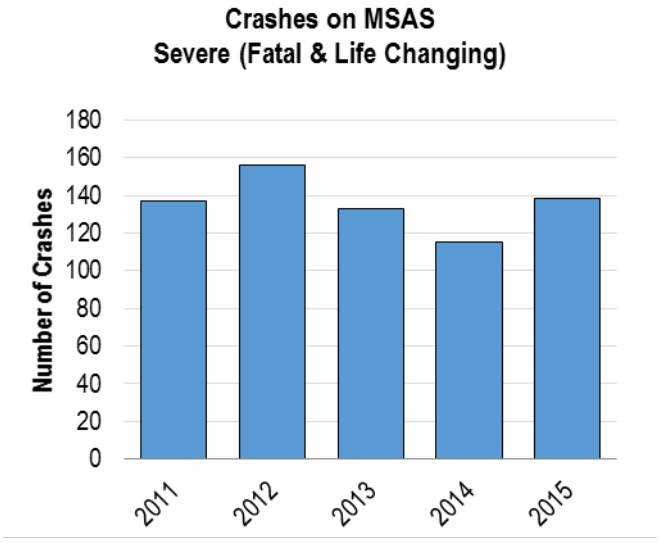
We also act as an agent for the local authorities in the administration of their federal construction contracts and fulfill the state's obligations for federal oversight of all local federal aid projects. We assist local agencies in completing the requirements for federal aid, including public involvement and documentation to comply with environmental and historic preservation requirements.

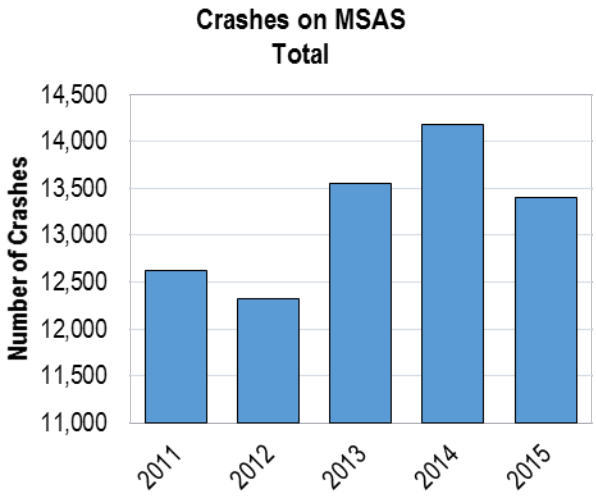
These administrative functions are funded from an allocation from the HUTD set in statute at two percent of available funds. In addition two percent of available funds are set aside for a disaster account to assist cities with extraordinary disaster costs when they arise.

RESULTS

Safety

Safety on the MSAS system is measured in both the number of serious crashes (fatalities and life changing crashes) and the total number of crashes that occur.

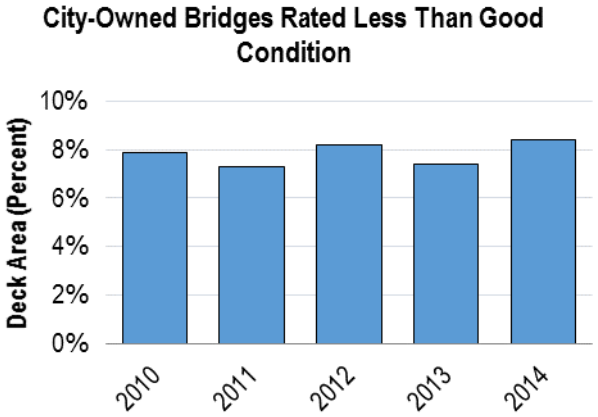




Source: Minnesota Crash Mapping Analysis Tool (MnCMAT)

Bridges

Over the past six years, the percentage of bridges rated in "Poor" condition has varied only slightly.



Source: MnDOT Bridge Office - Bridge Assessment Data Management Unit

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The legal authority for the Municipal State Aid Streets activity comes from:
Distribution of State Aid funds to counties and cities, Constitution of MN, Article XIV (https://www.revisor.leg.state.mn.us/constitution/MN-Constitution.pdf)
Legal authority for the State Aid system, M.S. 162 (https://www.revisor.mn.gov/statutes/?id=162)

Program: Agency Management
Activity: Agency Services

www.dot.state.mn.us/funding/index.html
www.dot.state.mn.us/about/index.html
http://www.dot.state.mn.us/jobs/students.html

AT A GLANCE

- 2% of directly appropriated operating budget is agency services
- 145,000+ payments to vendors were processed in FY16
- $1.2+ billion in Construction & Right of Way payments were processed in FY16
- $1.025 billion in State Aid to Local Transportation payments were processed in FY16
- 331 data practice requests completed in FY16
- 3,430 contracts administered in FY16
- Audited 580 contracts totaling $187 million in FY15 and 378 contracts totaling $141 million in FY16
- 1000+ cases resolved by the Ombudsman's Office since the office was established in 2008
- 15 million unique visitors to the MnDOT website in FY15 and 66,500 email subscribers
- 29,400 Facebook and 35,200 Twitter followers in our two largest accounts

PURPOSE & CONTEXT

Agency Services directs the department's administrative, financial, technology, human and capital resources, audit, public engagement, policy and goal setting, and legal compliance and counsel for the agency.

We are responsible to ensure that budgets are based on sound fiscal policy, federal and state compliance measures are in place, and proper fiscal accounting procedures are used in handling federal, state and local funds. This activity also includes all aspects of planning for, employing and servicing a diverse and talented workforce of 4,815 full time equivalent employees (as of FY15).

Agency Services supports the cooperative initiative of resource management that works in collaboration with the Offices of Financial Management and Human Resources to plan strategically to identify the agency's future work force and funding needs.

SERVICES PROVIDED

Human Resources/Workforce Development services provide a full range of human resource management and staffing services, workforce planning, recruitment, development and retention, labor relations, employee and policy development, and oversight of human resources services.

General Administrative Support incorporates a range of services including materials management, purchasing and payables, employee services, security, mail and document services, administrative business rules, emergency management and continuity of operations, occupational safety and health services, and workers compensation administration.

Financial services include statewide financial planning, accounting, payroll services, forecasting, analysis, budgeting and management of federal, state and bond funds. Financial services also include management of our internal control program, Safeguarding MnDOT.

Technology Investment Management provides leadership and management of agency wide information technology plans, resources and investments, in addition to assuring collaboration with the Chief Business Technology Officer (CBTO) for MN.IT@DOT.

Audit ensures costs are paid in compliance with laws, rules and regulations, and that contracts are administered properly and efficiently. This includes internal auditing of our operations and external auditing of contracts.

Legal services provide legal counsel to the commissioner, legal assistance to our other offices and districts, and coordination of legal support from the Office of the Attorney General. This office manages agency compliance with the data practices act, the official records act and the open meeting law, produces documents for litigation, and reviews and approves our contracts. Included in legal is the Office of Civil Rights who Provide opportunities for small business participation and employment opportunities to minorities and women to work on MnDOT contracts

Public Engagement and Constituent Services fosters continuity and consistency across the department's public participation efforts statewide by strengthening engagement practices, cultivating partnerships, and aligning resources. This allows communities served and impacted by MnDOT's work a participatory role in shaping decisions and identifying priorities to advance transportation policies and projects.

Communications services include strategic communications planning and consultation that help us manage strategic communications and media relations to enhance public understanding of transportation objectives. The agency provides reliable transportation information to the public, updates travelers on travel options and traffic conditions, and communicates with employees so they can perform their jobs more effectively.

Diversity & Inclusion includes management of discrimination issues, diversity hiring review, compliance with disability law requirements, and staff training & development for increased cultural competence.

Ombudsman services provide a neutral, informal and independent resource to help the public and MnDOT resolve over 100+ cases annually by focusing on common interests, generating issue-specific options, and making recommendations for resolution.

Government Affairs facilitates communication between the department and elected officials, ensuring policy changes and legal authority are enacted to enable efficient operation of the department and the transportation system. This also includes close coordination with tribal governments and training for state officials in tribal/state relations.

RESULTS

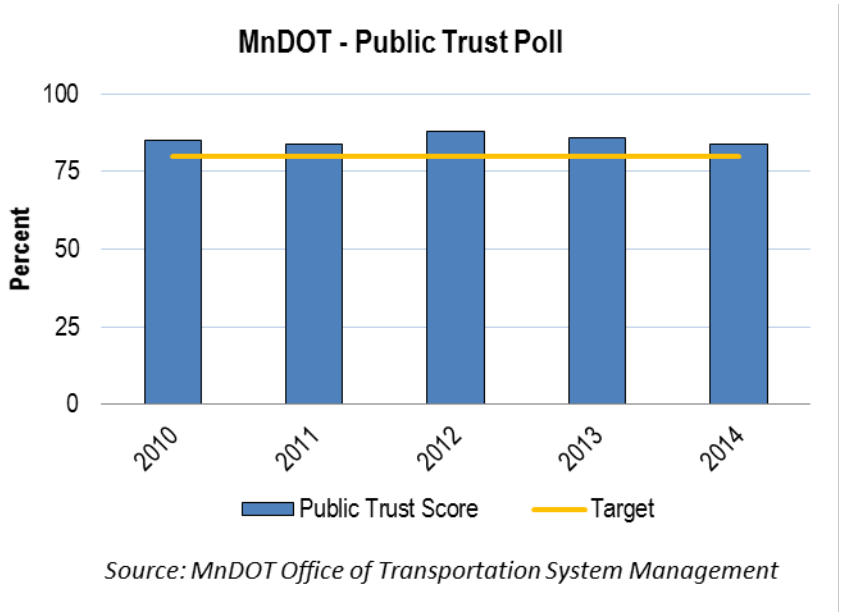
Department leadership has implemented agency-wide goals in the following areas:

- **Equity:** developing ways to advance equity, both internally and externally
- **Customer Engagement:** developing ways to improve intentional customer engagement
- **Products and Services:** budgeting and reporting expenditures by identified products and services in order to make more transparent and strategic operating decisions
- **Resource Management:** developing management practices that provide agency-wide framework and decision support tools to strategically balance resources and needs

Safeguarding MnDOT, the agency's internal control program, ensures agency goals are achieved while avoiding fraud, waste and abuse of resources. Minnesota Management and Budget has approved our internal control certification annually since FY10.

We continue to work on strategic staffing and workforce development plans to identify skills and competencies needed for our future workforce. With a 6.7 percent turnover rate for fulltime unlimited employees, we are far below the industry standard of 10 percent. Some of our strategies for building a more diverse workforce include targeted recruitment efforts, internships and student worker positions, and Employee Resource Groups.

The Office of Public Engagement and Constituent Services manages an annual tracking study surveying 800 Minnesotans statewide. Some measures, like satisfaction with snow plowing, have been queried for nearly 20 years. Beginning in 2009, we added six trust-based questions to this survey to assess the public's perception of trust in MnDOT. The agency has consistently garnered between 69-86 percent agreement with these trust measures. We are committed to maintaining and hopefully increasing scores in this area through activities dedicated to improving intentional customer engagement and supporting efforts to advance equity. This office will also work in concert with Communications to deliver timely content and surveys to the public so we can not only answers questions posed by the public but also collect feedback on how we can get better as an agency.



Source: MnDOT Office of Transportation System Management

Likewise, the percentage of respondents agreeing with the statement "MnDOT expands Minnesotans transportation options by creating alternative means of travel" has also been stable, hovering close to 70 percent for the last five years. Agreement with the statement "MnDOT considers customer concerns and needs when developing transportation plans" has fluctuated moderately between 75 and 79 percent, with the exception of a one-year drop to 71 percent agreement in 2013.

One of the ways we build public trust and confidence is through sound financial management practices. Our Office of Financial Management ensures adherence to legislatively approved budget and internal policies that promote effective stewardship of transportation dollars. These policies relate to:

Advance construction (http://www.dot.state.mn.us/policy/financial/fm008.html#1)
Trunk Highway Fund balance (http://www.dot.state.mn.us/policy/financial/fm006.html)
Trunk Highway Fund cash balance (http://www.dot.state.mn.us/policy/financial/fm005.html)
State Airport Fund balance (http://www.dot.state.mn.us/policy/financial/fm012.html)
Debt service (http://www.dot.state.mn.us/policy/financial/fm007.html)

The legal authority for the Agency Services activity comes from:
Article XIV of the Minnesota Constitution (https://www.revisor.leg.state.mn.us/constitution/#article_14)
Duties of Commissioner, M.S. 174.03 (https://www.revisor.mn.gov/statutes/?id=174.03)
Commissioner's Powers and Duties, M.S. 174.02, subd. 2a (https://www.revisor.mn.gov/statutes/?id=174.02)
Internal Controls and Internal Auditing, M.S. 16A.057 (https://www.revisor.mn.gov/statutes/?id=16A.057)
Contract Management; Validity and Review, M.S. 16C.05, subd 5 (https://www.revisor.mn.gov/statutes/?id=16C.05)

Program: Agency Management
Activity: Building Services

www.dot.state.mn.us/maintenance/facilities.html

AT A GLANCE

- MnDOT owns and operates 1,075 individual buildings at 269 sites with a total of over 6,600,000 square feet, including:
  - 137 truck station sites
  - 18 regional headquarters and maintenance sites
  - Five special service sites: MnROAD Research Facility, Arden Hills Training Center, Central Shop, Maplewood Materials Lab and the Aeronautics building
  - 173 salt and sand delivery sites
  - 68 rest area buildings.

PURPOSE & CONTEXT

MnDOT Building Services operates facilities across the state to provide prompt and efficient responses to the needs of the traveling public. They coordinate repairs and arranges for the operation and maintenance of all facilities that support the core mission of the agency as well as other state agencies that reside within these facilities.

Building Services provides planning, design and administration for building upgrades, additions and new construction.

In some facilities, costs are also shared with other agencies through the leasing of space.

SERVICES PROVIDED

Building Services provides the following services to MnDOT:

- Scheduling new facility projects
- Program planning and management for emergency building repairs
- Managing and tracking building energy use
- Providing program and pre-design services for new and renovated buildings and sites
- Hiring and overseeing consultants for large capital and specialty projects
- Managing the preparation of construction documents, bid letting and construction administration
- Providing essential professional services: architectural, structural, mechanical, electrical, building automation systems, plumbing, water, wastewater and labor contract compliance
- Maintaining building data to track building conditions and deferred maintenance

The truck station network is the heart of MnDOT's maintenance and operations program. Agency facilities are strategically located across the entire state so that customer needs, especially snow and ice operations and system emergencies, are addressed promptly. These facilities provide building space for staff, equipment and material including snow plows and salt. MnDOT facilities are often shared with other state agencies or local governments to take advantage of opportunities to reduce costs.

MnDOT buildings are funded primarily by a direct appropriation from the Trunk Highway Fund and by Trunk Highway bonds. Trunk Highway Fund operating dollars are typically used to fund small capital projects below a certain threshold (typically $2 million in total cost). Building Services staff deliver 120 -150 projects and manage approximately 50 consultant contracts per year.

Facilities Investment and Planning: We provide planning, programming, budget development, design and construction contract administration. During the annual building budget process, we review and plan for future building space requirements. Recently, we transitioned from a six-year construction plan to a four-year program, with longer range 10 and 20 year plans. These timelines align with concurrent highway planning efforts. The four year facilities plan is driven by data captured in the Enterprise Real Property Facilities Condition Assessment (FCA) and operational deficiency evaluations. This information is used to assist decision makers in prioritizing capital projects of all sizes, including district headquarters, truck stations and specialty

buildings. Other processes identify annual maintenance and repair projects that require plans and specifications be developed by licensed architects and engineers.

Our building section is adopting the same project scheduling tool that MnDOT project teams use to manage bridge and highway projects. Through better planning and use of the tool, we will improve project delivery in multiple ways: lettings will occur at the most favorable time of the year, construction will commence as soon as weather permits and district customers will be able to track project start dates and schedules.

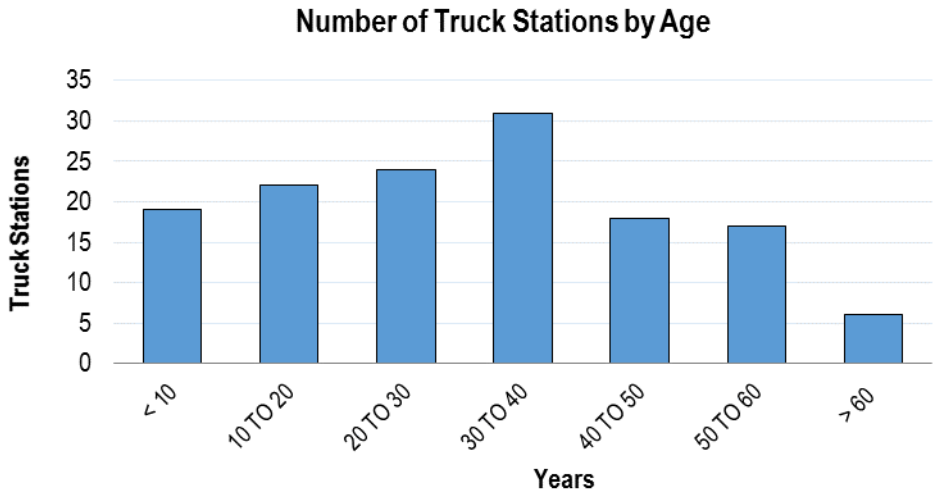
Facilities Operations and Maintenance: We develop and enforce facility standards, building codes, regulatory requirements and partnership agreements with political subdivisions. This includes the administrative functions associated with custodial work, supplies and services, and telecommunications support.

In the FY 2016-17 biennium we completed design or construction on the following MnDOT buildings:

Regional Headquarters: Rochester in District 6, Willmar in District 8
Truck Stations: Wells, McGregor, Perham, Eden Prairie, Mendota Heights, Granite Falls, Marshall, Crookston, and the Oakdale Welding Shop
Safety Rest Areas / Traveler Information Centers / Weigh Stations: Dresbach Traveler Information Center, Straight River Rest Area, Goose Creek Rest Area, Worthington Weigh Station

MnDOT is one of 19 state agencies implementing the new FCA. The initial assessment of 884 of the 1,075 MnDOT's facilities (radio equipment buildings were not assessed) is complete. This assessment, which established a baseline condition for each building, will allow us to track building condition changes over time. Using this data, along with operational functionality assessments of the buildings and sites, we make data driven building investment decisions and develop our 4, 10, and 20-year plans. This assessment indicates that overall, 120 buildings are rated excellent, 438 are rated good, 258 are rated fair, 50 are rated poor, and 18 are rated crisis/emergency. The current replacement value of our buildings in kind is approximately $1.13 million and the FCA algorithmically derived deferred maintenance is approximately $1.54 million. Both numbers are generated using the Department of Administration's Enterprise Real Property standardized FCA Program. Deferred maintenance is the total of essential, but unfunded, facilities maintenance work necessary to bring facilities and collateral equipment to the required acceptable facilities maintenance standards. It is the total work that should be accomplished but that cannot be achieved within available resources. It does not include new construction, additions, or modifications. Deferred Maintenance does include unfunded maintenance requirements, repairs, and replacement of obsolete items.

The expected service life of a MnDOT truck station facility is 50 years. At the current replacement rate of two truck stations per year, we are operating on a replacement cycle of approximately 70 years. As the graph below indicates, many of our buildings have already exceeded their expected service life. Over half of the 137 existing truck stations are more than 30 years old and will be candidates for replacement within the next 20 years.



Source: MnDOT Office of Maintenance

We continue to utilize the State's B3 Energy Benchmarking Tool (https://mn.b3benchmarking.com/Default/). The tool contains data from 265 of 269 MnDOT sites. We continually analyze this data to help ensure our buildings use energy more efficiently, as well as to comply with Governor Dayton's Executive Order 11-12 which pushes for state agencies to adopt cost effective and renewable energy strategies. The data from B3 shows that agency building energy use per square foot was 13.6 percent lower in 2015 than in the baseline year of 2008 (weather normalized).

Our energy program also enhances financial effectiveness by identifying energy improvement opportunities and implementing energy efficiency and renewable energy measures. Recently, a 40 kilowatt rooftop solar system was designed and installed as part of the Rochester Headquarters renovation. We also are transitioning our building automation systems to web-connected systems so that we may monitor facility operational trends and adjust statewide mechanical systems from any location. Other efforts include assessing and recommissioning existing systems based on data provided by the automation systems and replacing outdated and over-sized equipment with energy efficient upgrades.

The legal authority for the Buildings Services activity comes from:
Duties of Commissioner, Other duties, Construct and maintain transportation facilities, M.S. 174.03 (https://www.revisor.mn.gov/statutes/?id=174.03)
General Powers of the Commissioner, M.S. 161.20 (https://www.revisor.mn.gov/statutes/?id=161.20)