

MnDOT Overview

Charlie Zelle | Commissioner, MnDOT

Jan. 19, 2016



Creation of MnDOT Minnesota Statutes, Sections 174.01-174.03

• Created by the Legislature in 1976

- Combined former Department of Aeronautics, Department of Highways, State Planning Agency and Public Service Department
- Develop and implement policies, plans and programs for highways, railroads, waterways, aeronautics, public transit and motor carriers
- Provide safe, multimodal transportation
- Recognize economic importance of transportation
- Minimize impact on the environment

Vision and Mission



- Vision a multimodal transportation system that maximizes the health of people, the environment and our economy.
- Mission 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.

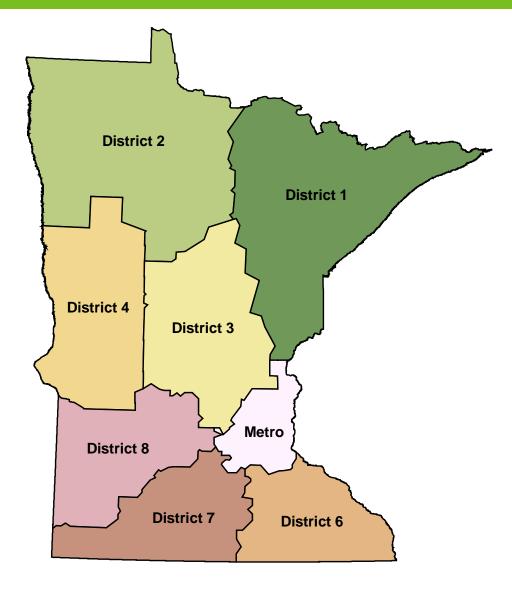
Core Values

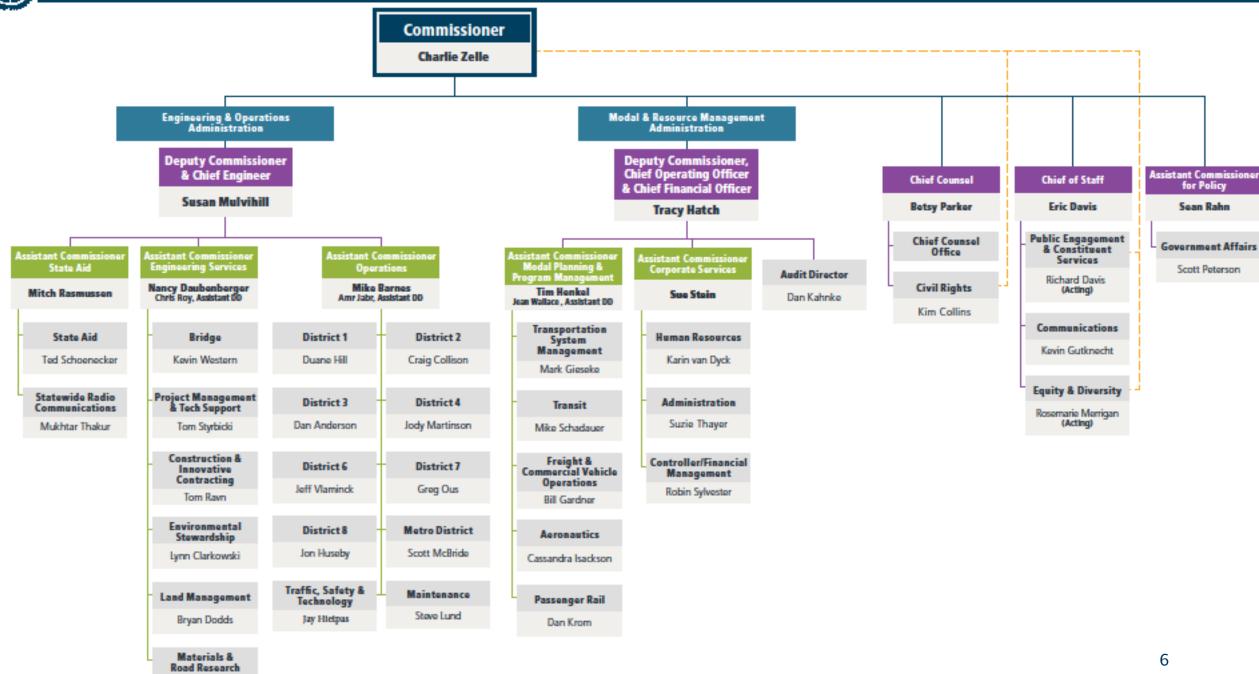
- Safety
- Excellence
- Service
- Integrity
- Accountability
- Diversity and Inclusion



MnDOT Districts

MnDOT is divided into eight regional areas – seven Greater Minnesota districts and the Minneapolis-St. Paul Metro District





Glenn Engstrom

MnDOT Services

- State Roads
 - Program Planning & Delivery
 - Construction
 - Operations & Maintenance
- Local Roads
 - County & Municipal State Aid
- Multimodal Systems
 - Aeronautics, Greater Minnesota Transit, Freight, Passenger Rail
- Electronic Communications









Roadway Network



Municipal State Aid Streets = 3,735 miles

Other City Streets=18,679 miles

*Map shows all municipal roadways.

County State Aid Highways = 30,708 miles

Other County roads=14,113 miles

*Map shows all county roadways.

Township Roads = 55,297 miles

*Map also shows unorganized territory roads.

Over 143,000 Total Miles of Roadway

5th Largest Road System in the Nation

State Transportation System

• Highways

- 59.1 billion annual vehicle miles traveled
 - 33.1 billion on trunk highways
- Bridges (10+ feet)
 - 19,801 bridges carry a roadway in Minnesota
 - Over 4,800 bridges carry or cross a trunk highway

Aviation

- 135 state-funded airports in Minnesota
 - Over half owned by cities under 5,000
- Includes 9 commercial service airports
- Includes 7 Metropolitan Airports Commission airports



State Transportation System (cont.)

• Water Freight

- 57 million tons shipped via Great Lakes
- 12 million tons via river
- Public ports in Duluth, Winona, Red Wing and St. Paul

• Rail Freight

- 253 million tons shipped
- 4,500 miles of railroads
- 19 railroad companies



State Transportation System (cont.)

• Transit

- All 80 greater Minnesota counties have public transit
- 12.2 million greater Minnesota transit trips in 2015
- 47 public bus systems funded
- Bicycle and pedestrian facilities throughout

the state

- Mississippi River Trail—US Bike Route 45
- North Star—US Bike Route 41
- 2nd most bike-friendly state by League of American Cyclists



We know what's ahead

- Freight truck and rail traffic to increase 30 percent by 2030
- 850 bridges will require significant work by 2025
- Nearly 1 million new Minnesotans by 2050
- Local roads and bridges unfunded need=\$18 billion over 20 years
- More than 600 identified state road and bridge projects go unfunded

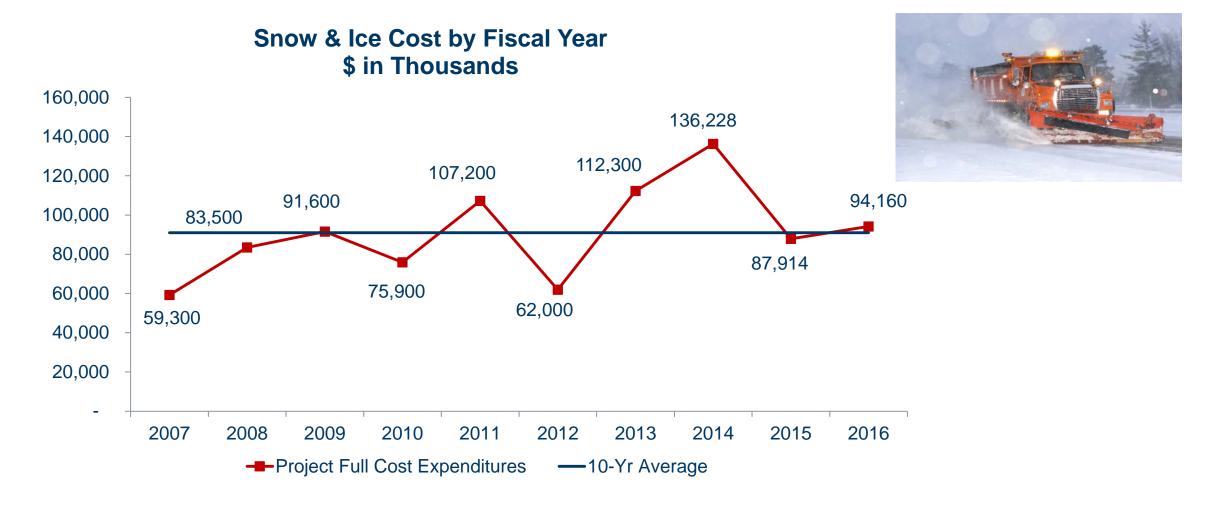


Harsh climate, heavy use

- 50% state highway pavements over 50 years old; 20% have <3 years useful life
- 40% of MnDOT bridges over 40 years old
- Minnesota weather extremes
- Snow and ice costs are climbing

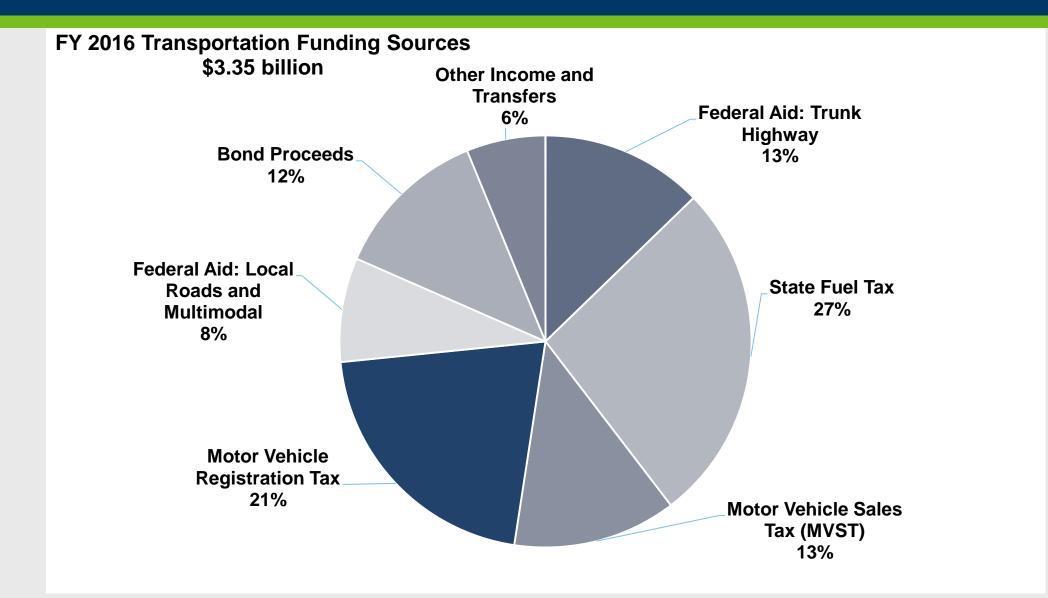


Snow & Ice Season

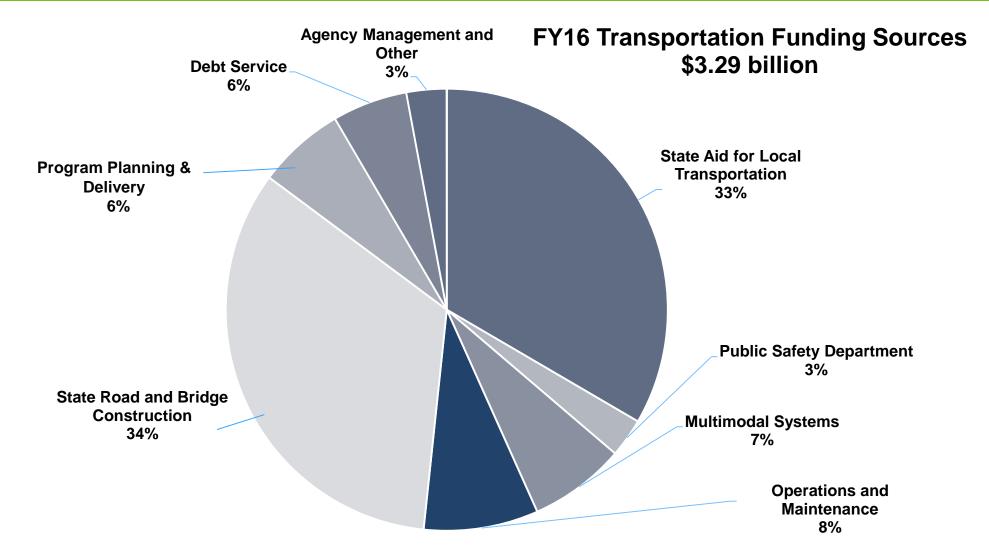


10 year average snow and ice costs: \$91M

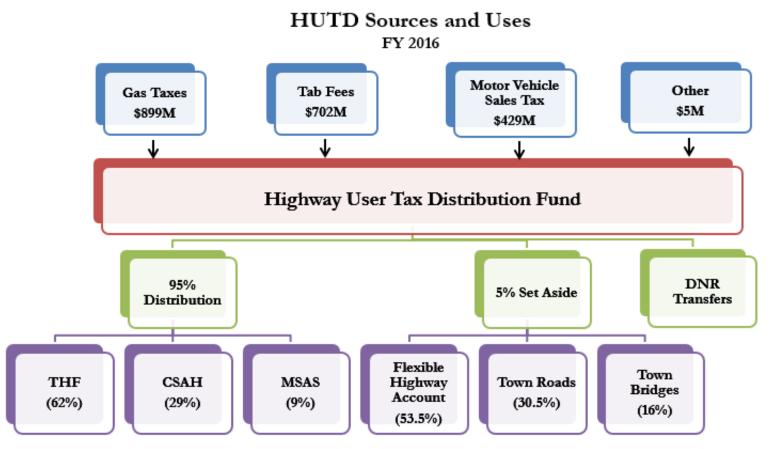
Transportation Funding Sources



Transportation Funding Uses



Highway User Tax Distribution Fund



-Article XIV of the Minnesota Constitution

-DNR transfers for unrefunded gas taxes per MS 296A.18

38% of state highway funds go to cities and counties



State Road Construction Program Outlook



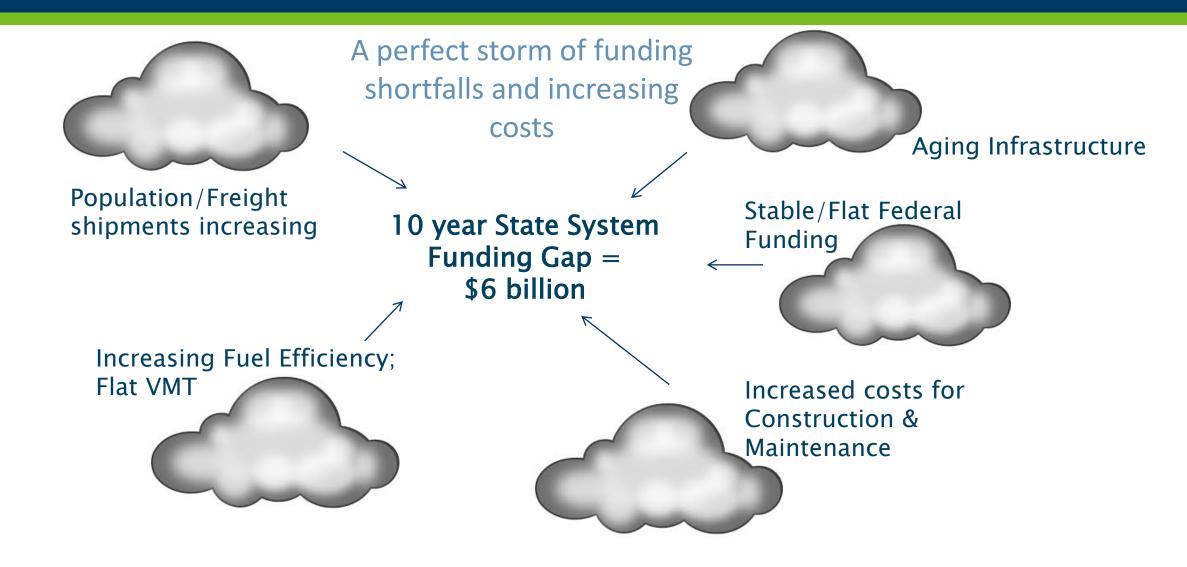
The Funding Gap

- Reality: the existing system needs additional resources to maintain and modernize our roads and bridges
- Prudent, modest expansion is also needed
- Status quo funding forces dollars toward preservation, no strategic system expansion projected after 2023

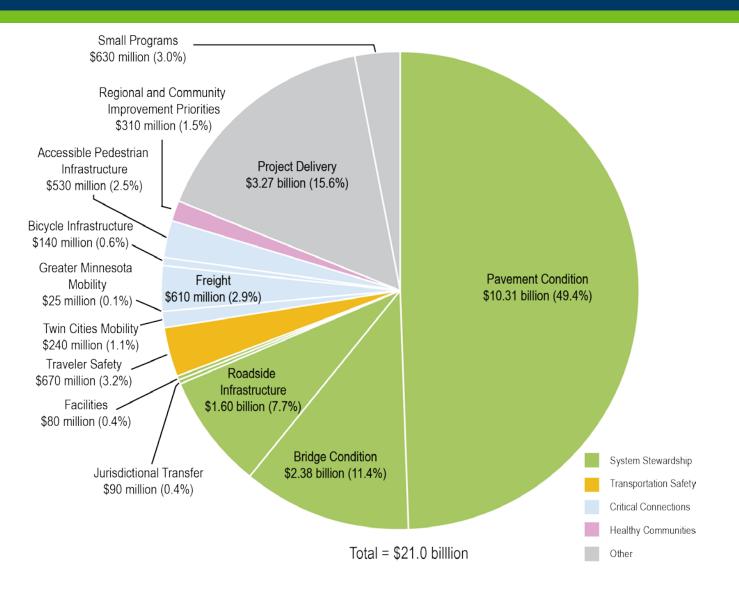
| Years | Capital Investment Preservation <u>Current Funding</u> | Strategic Expansion Investment <u>Current Funding</u> | Preservation and Modernization Gap | Strategic Expansion Investment Gap | Total Gap |
|---------------|---|--|---------------------------------------|---|--------------|
| 2018- 2027 | \$8.5 B | \$0.7 B | \$4 B | \$2 B | \$6 B |

Source: 20-Year State Highway Investment Plan, January 2017

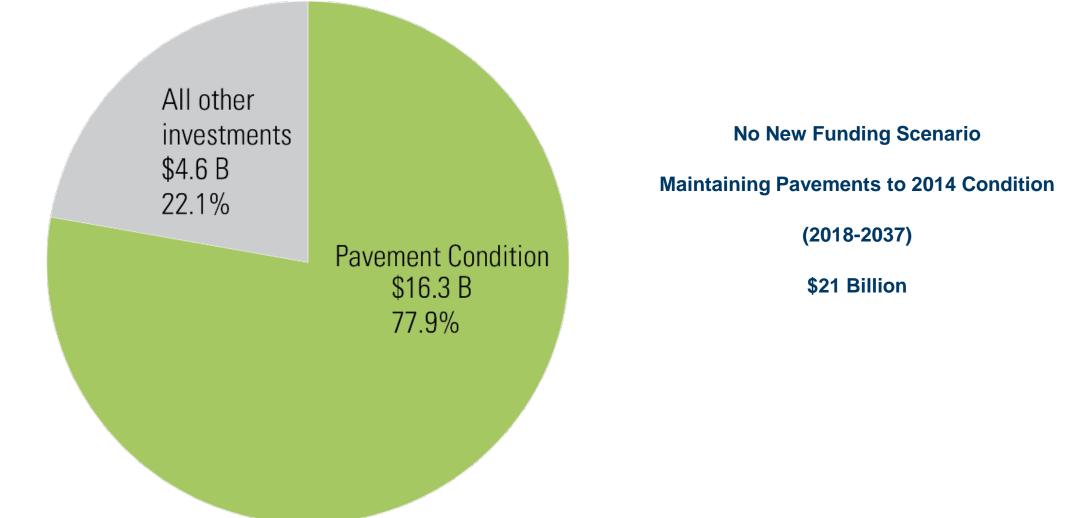
The Perfect Storm of Need Drives the Funding Gap



MnSHIP Investment Direction (2018-2037)

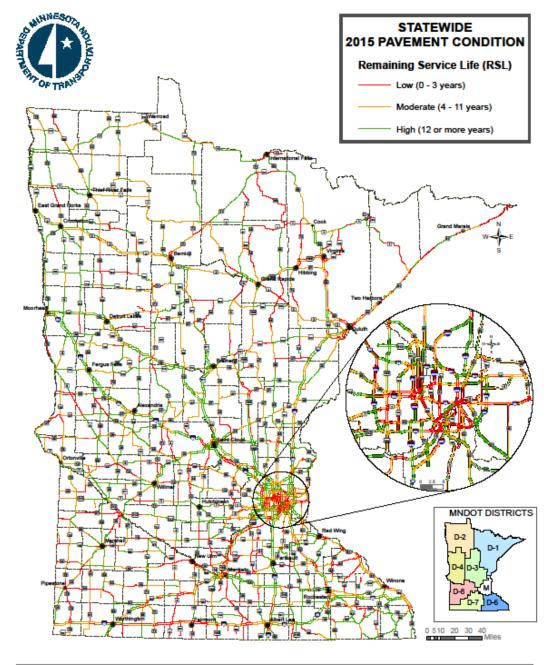


A Financially Unstable Path Forward



Funding Choices

| Scenario | 10-year additional \$ | Key Outcome |
|--|--|--|
| Status Quo | \$0 | 115% increase in state highway miles in poor condition by 2026 16% of state roads will have zero remaining service life in 10 years Limited expansion; preservation only after 2023 More rural roads and bridges in poor condition |
| Be Economically Competitive/Fund the Gap (sustainable, dedicated long-term funding) | \$6 Billion (gas tax, license tabs, bonding) | Preserve modernize, strategically expand Improve 1,700 additional miles of pavement; 235 state bridges Extend current system's service life; improve safety and access Complete Corridors of Commerce expansion projects Remove bottlenecks and improve traffic flow |



Pavement Conditions



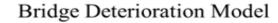
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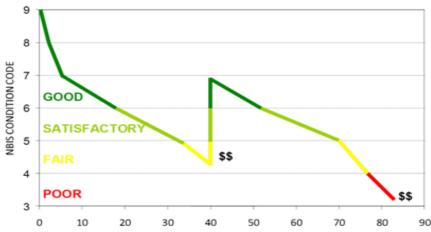
This map was created by the MnDOT Office of Materials Pavement Management Unit January 2016. The data displayed is the 2015 D-Records most recent rating. The RSL is the predicted number of years until the RQI of a segment drops from its current value to 2.5. The values on the map assume that no future work will be done. To ensure viability of pavement condition data, not all highways are labeled. Always worky data in important situations.

Bridge Conditions



High Bridge Trunk Highway 149 over Mississippi River





BRIDGE AGE IN YEARS

Maryland Ave. over I-35E (before reconstruction)



Reactive Bridge Maintenance

Chapter 152 Bridge Projects

2015 – Winona Bridge, Cayuga Bridge, Hwy 5 over Mississippi River (total 16 bridges worked on)

2016 – Hwy 36 over Lexington Ave, County Rd E2 over I-35W, Hwy 7 over Hwy 100, Hwy 250 over Root River (total 14 bridges worked on)

2017 – Kennedy Bridge, Red Wing Bridge, Hwy 99 over Minnesota River in St. Peter (total 5 bridges to be worked on)

2018 – Baudette, Smith Ave High Bridge, I-35W over Hwy 65 and I-35W to I-94 in Minneapolis (total 12 bridges to be worked on)



Funding Source: Transportation Bonds, Federal and State Funds

Post-Chapter 152 Bridge Projects

- I-35W Minnesota River in Burnsville
- US 169 Nine Mile Creek in Hopkins
- Highway 65 Mississippi River in Minneapolis (rehab)
- I-494 Mississippi River in Bloomington (rehab)
- I-35/535 in Duluth
- US 10 Rum River in Anoka
- US 61 Hay Creek in Red Wing
- I-394 Dunwoody Blvd in Minneapolis (rehab)
- I-535 St. Louis River (Blatnik) in Duluth



Effective and efficient stewardship of resources:

MnDOT continues to be good stewards of public funds.

- Since 2015, MnDOT has worked to identify and quantify efficiencies, while looking for additional best practices and improvements.
 - Influence savings within the program, reducing costs of the project up to letting
 - Repurpose savings identified on current projects
 - Manage assets appropriately making the right investment at the right time

FAST Act Changes

- Additional federal funds for most existing state and local programs
- Created the National Highway Freight Program about \$20 million annually to improve the freight network
- Nationally Significant Freight and Highway Projects Program (FASTLANE) – an annual nationwide competitive program for major freight projects

FAST Act Freight Provisions

- Freight Planning required state freight plan
- State Freight Advisory Committees
- Designation of National and State Freight Networks



FAST Act Rail Provisions



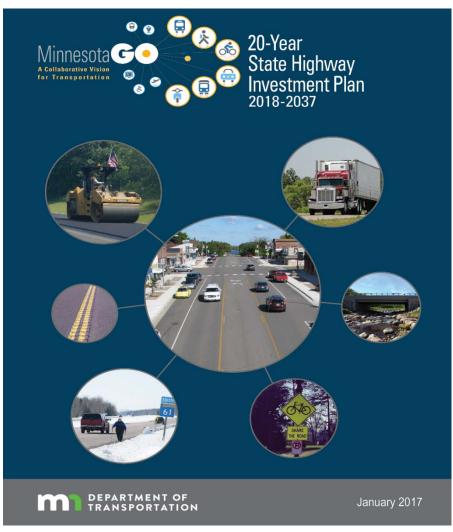
- Passenger Rail Programs authorized for 5 years
- Funding comes from Appropriations, not Highway Trust Fund
- Positive Train Control receives funding, deadline extended
- Separates Northeast Corridor from National Network

Project Selection: From Vision to Plans

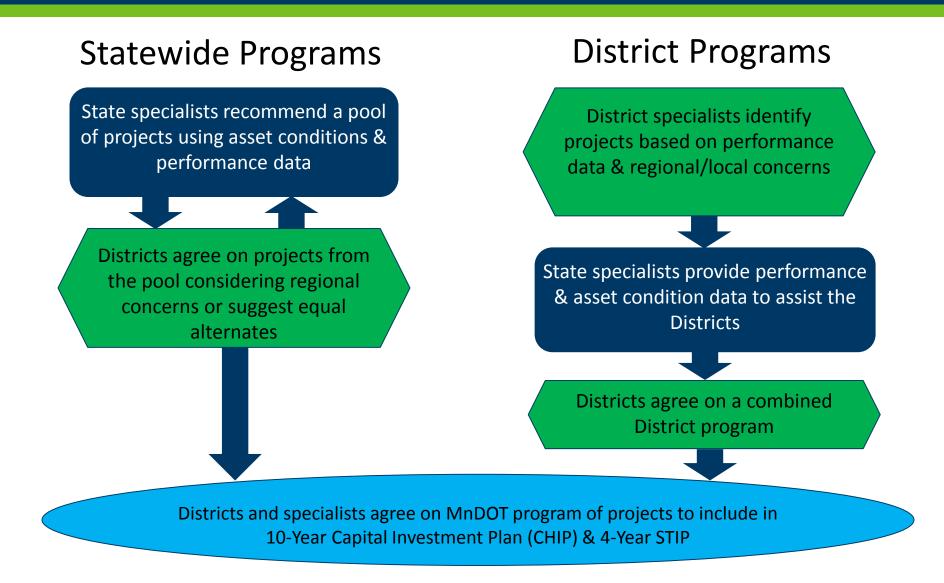
| Minnesota GO 50-year Vision | | | | |
|-----------------------------|--|---|--|--|
| Desired | Statewide N | Aultimodal Transportation Plan | | |
| Outcomes Guiding | Multimodal Objectives Strategies | State Highway Investment Plan | | |
| Principles | | | | |
| | Strategies | Mode-Specific Strategies & Guidance Performance Measures & | | |
| | | Performance-Based Needs | | |
| | | Investment Optimization System Priorities & Definition | | |

Minnesota State Highway Investment Plan (MnSHIP)

- Directs capital investments for the state highway network
- Identifies investment priorities given current and expected funding over the next 20 years
- Investment is identified by category (bridge, pavement) and is not project-specific
- Updated every four years, as required by the Minnesota State Legislature



Plans to Program: Safety & Asset Management Project Selection



Plans to Program: Local Input in Project Selection

- Area Transportation Partnerships
- Regional Development Commissions
- Metropolitan Planning Organizations
 - Areas over 50,000



The 4 Year STIP

- STIP (State Transportation Improvement Program)
 - federally required
 - includes federally funded projects on both the state and local system
 - includes state funded projects on the state system
 - updated annually





2017-2020 State Highway Capital Improvement Program

Questions?

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www.mndot.gov