



# Highway and Freight Current Investment Direction and Plan

TAB

September 20, 2017

# Today's Topics

- Where are we now, what are the current issues?



- Where do we want to go?
- How will we get there?



- What are the changes expected in this plan update?



# What Feedback are We Looking for Today?

- Messages that are important to highlight in TPP Overview (“tell a good story”)
- Important messages that you think are missing (“story isn’t there yet”)
- Your ideas on potential changes to the TPP that are not covered here (“change the story”)



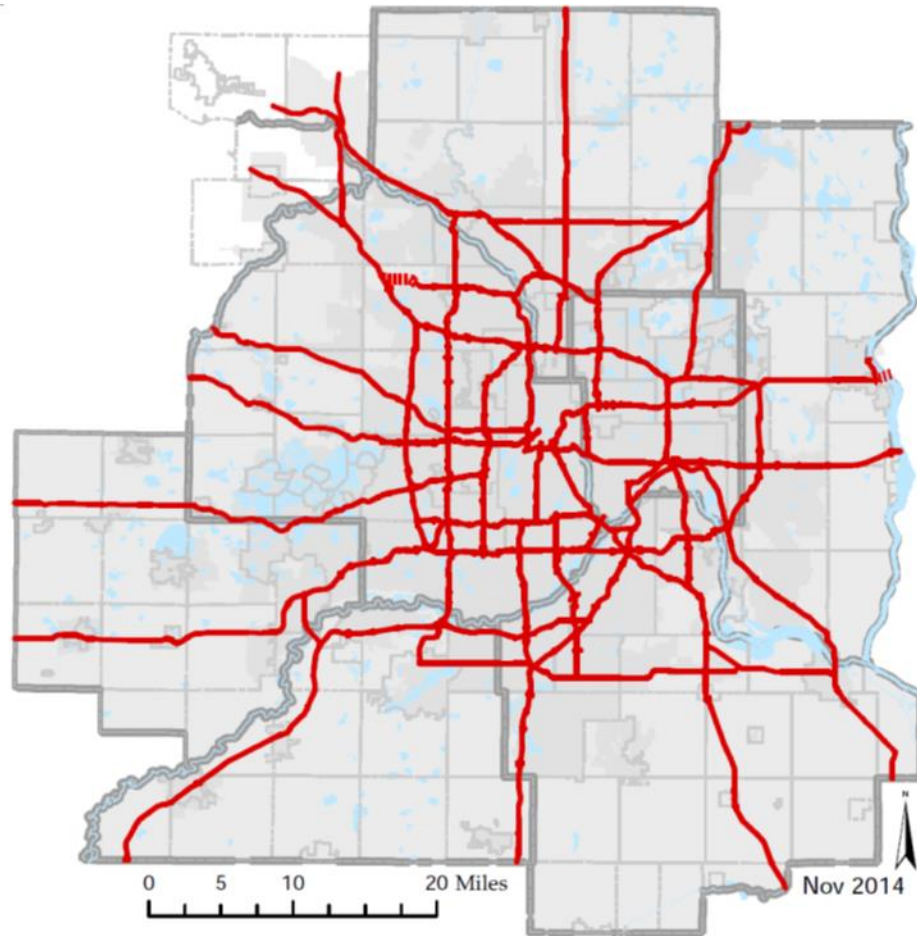
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# Where are We Now?

## Demographics and Travel

# Where are We Now?

## *Principal Arterial System*



# Where are We Now?

## *A Large, Aging Highway System*

- The region has a mature principal arterial system
  - All planned roadways have been completed (Highway 610 last major link)
  - Extensive and valuable asset (700 miles)
- High level of investment need on the principal arterials
  - Investments to operate, maintain and rebuild the aging system are mandatory (stewards of the system)
  - Increase in use will continue with regional population growth and economic activity
  - Principal arterial system expansion will be limited

# Investment Direction History

## 1989 TPP

- Recognition that traditional expansion to address congestion is unaffordable
- Region's highest priority should be to maintain the existing system
- Aggressively manage the system to ensure it functions as the carrier of the longest trips
- Focus on people-carrying capacity improvements - important that MnDOT build HOV lanes instead of general purpose lanes



# Investment Direction History

## 1995/96 TPP

- Prepared early to meet new federal law (ISTEA) required plan elements
- \$2B in planned highway investments removed to meet fiscal constraint requirement
- Demand is growing faster than available funds
- The region cannot build its way out of congestion
- Principal arterial system investment priorities are:
  - Preservation
  - Management
  - Improvement and replacement
  - Expansion





# Investment Direction History

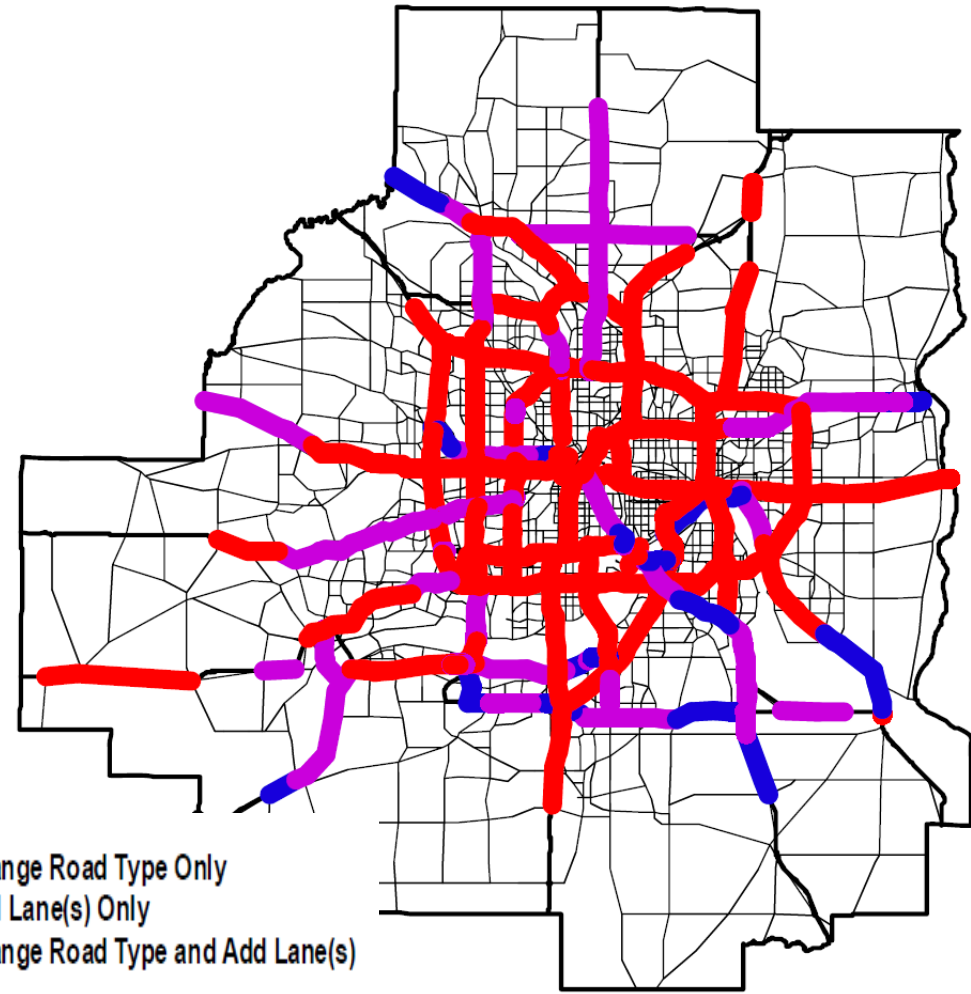
## 2008 Principal Arterial Study/2009 Metropolitan Highway Investment Study

- To largely eliminate congestion would cost > \$40 billion while revenues estimated at \$6 B
- Equivalent to \$2.30 per gallon gas tax increase
- Virtually every principal arterials converted to a freeway and/or widened by 2, 4, or 6 lanes
- Conclusions:
  - Public is unwilling to fund this strategy
  - Impacts to communities and the natural environment would be unacceptable
  - Would encourage more travel and low-density development



# Principal Arterial Improvements to “Fix” Congestion

- Convert to freeway
- Add 2, 4 or 6 lanes



Change Road Type Only  
Add Lane(s) Only  
Change Road Type and Add Lane(s)

# Investment Direction History

## 2009 TPP

- 12 major expansion projects called for in 2004 plan could not be funded with existing revenues
- Investment options:
  - 1: Build one major expansion project every five years and leave the rest of the system's congestion problems unaddressed
  - 2: Address a large number of problem areas region-wide by relying on system management, innovation, lower-cost/high-benefit solutions, and strategic capacity expansions where needed
- 2010 TPP Update removed \$2.9 B in unaffordable major expansion projects (to be reassessed)

# 2009 TPP Projects to Reassess

12 Projects to Reassess (\$2.9 B)	Accomplished Since 2009
I-494 / US 169 Interchange Reconstruction	2012 Largely Accomplished, 2 Movements Delayed
I-35E, I-94 to TH 36 – Add 4 <sup>th</sup> Lane	2015 Fully Accomplished, MnPASS
I-494, TH 55 to I-94 – Add 3 <sup>rd</sup> Lane	2016 Fully Accomplished
TH 100, 36 <sup>th</sup> St to Cedar Lake Rd – Add 3 <sup>rd</sup> Lane	2016 Largely Accomplished, Reduced Scope
TH 610, CR 130 to I-94 – 4-Lane Freeway & I-94 Interchange	2017 Largely Accomplished, Reduced Scope
I-694, I-35W to W Jct I-35E – Add 3 <sup>rd</sup> Lane	Largely Accomplished, 2013 US 10 Interchange, 2017 3 <sup>rd</sup> Lane Project, Reduced Scope
I-35W, 46 <sup>th</sup> St to I-94 – Add HOV Lane & Lake St Interchange	Largely Accomplished, 2009 UPA & Currently Under Construction, Reduced Scope
I-494, TH 77 to TH 100 – 1997 EIS	2013 Auxiliary Lane I-35W through France Av
TH 252, 73 <sup>rd</sup> Ave to TH 610 – 4-Lane Freeway	66 <sup>th</sup> St Interchange Funding, Hennepin County Corridor Study Underway
TH 36, I-35W to I-35E – Add 3 <sup>rd</sup> Lane	Eastbound Tier II MnPASS, Corridor Under Study
I-694 E Jct I-35E to TH 36 – Add 3 <sup>rd</sup> Lane	
I-35E, TH 110 to TH 5 – Add 3 <sup>rd</sup> Lane	



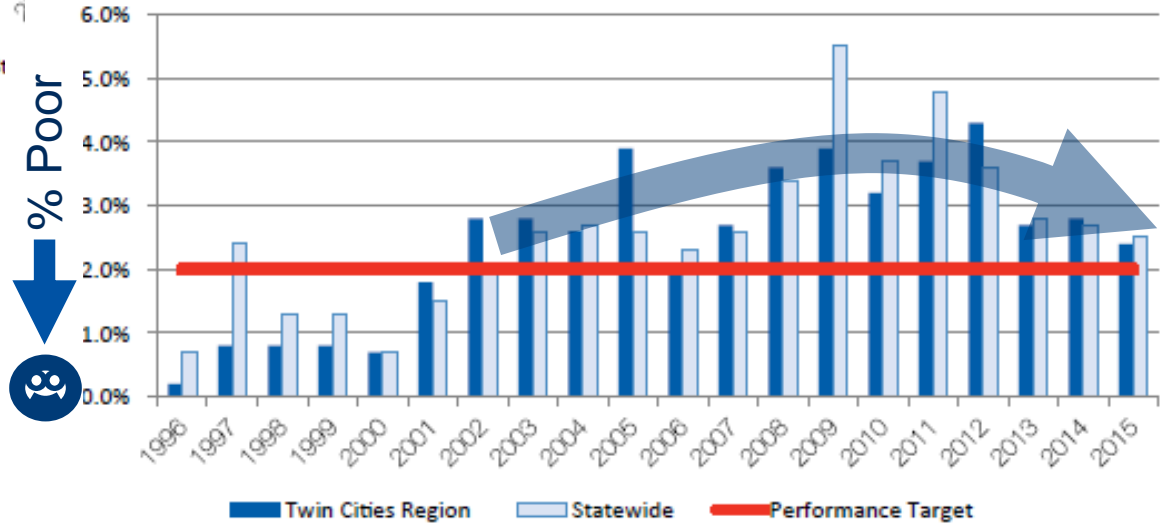
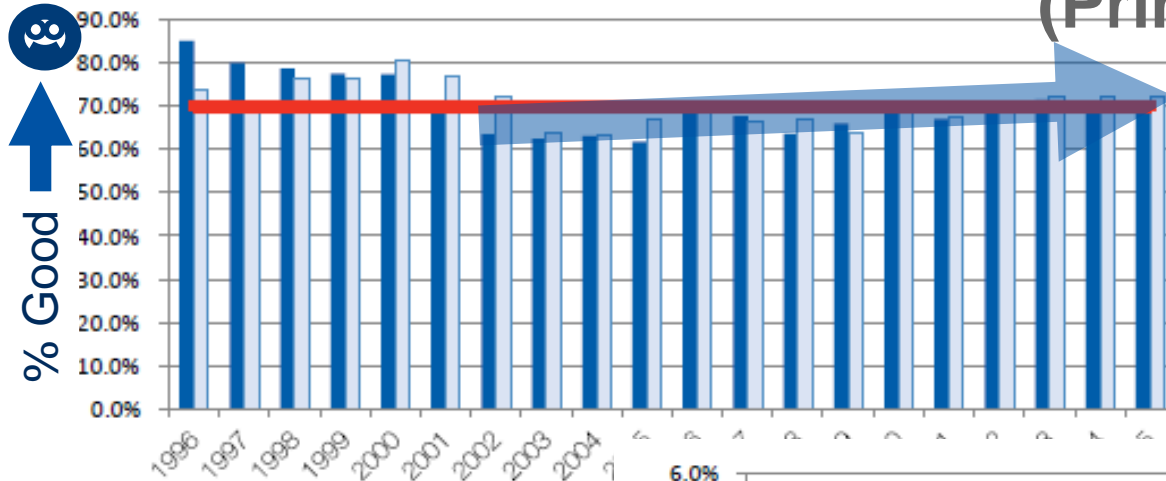
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# Where are We Now?

## Existing Highway System Performance and Issues

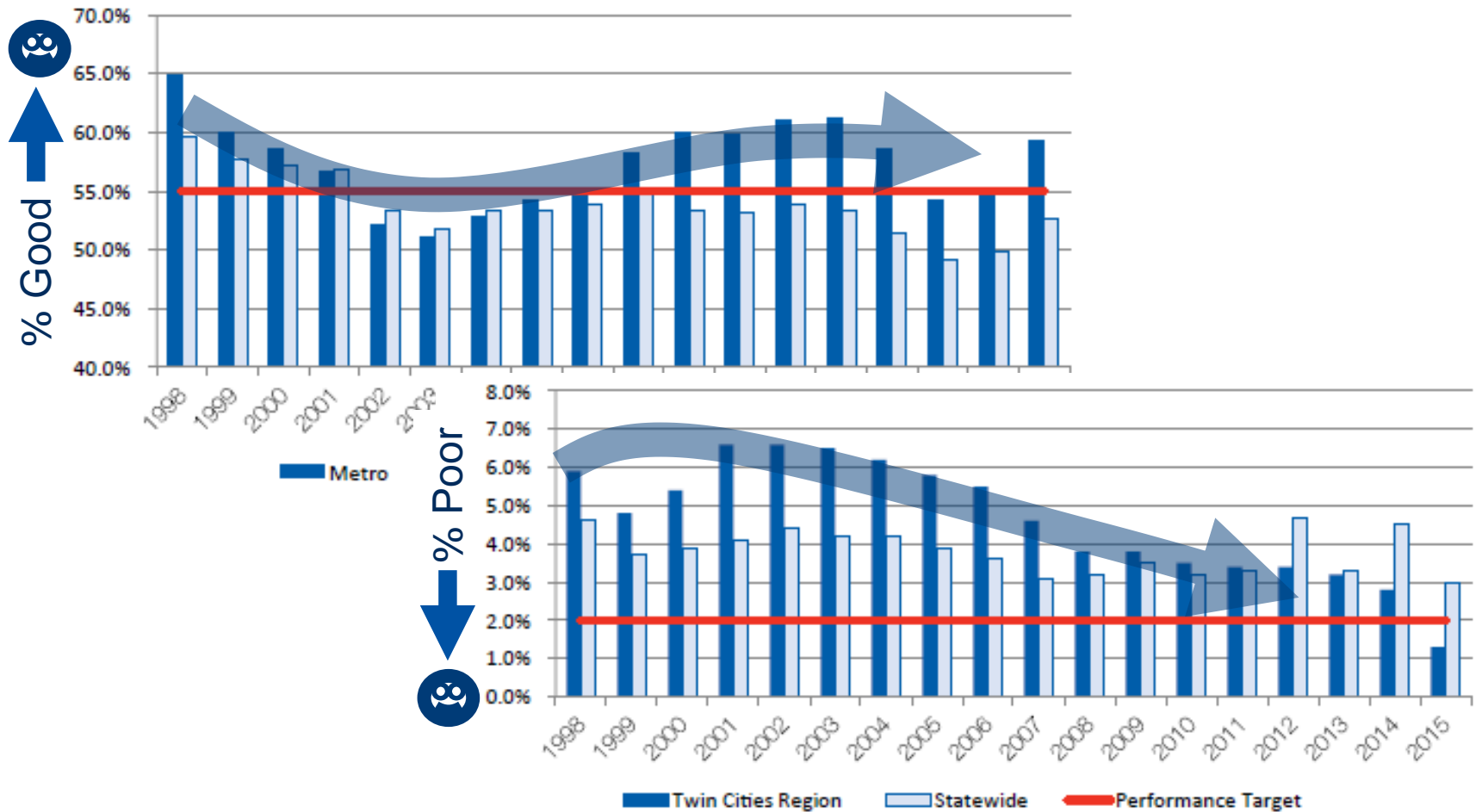
# Highways: Pavement Condition

(Principal Arterials)

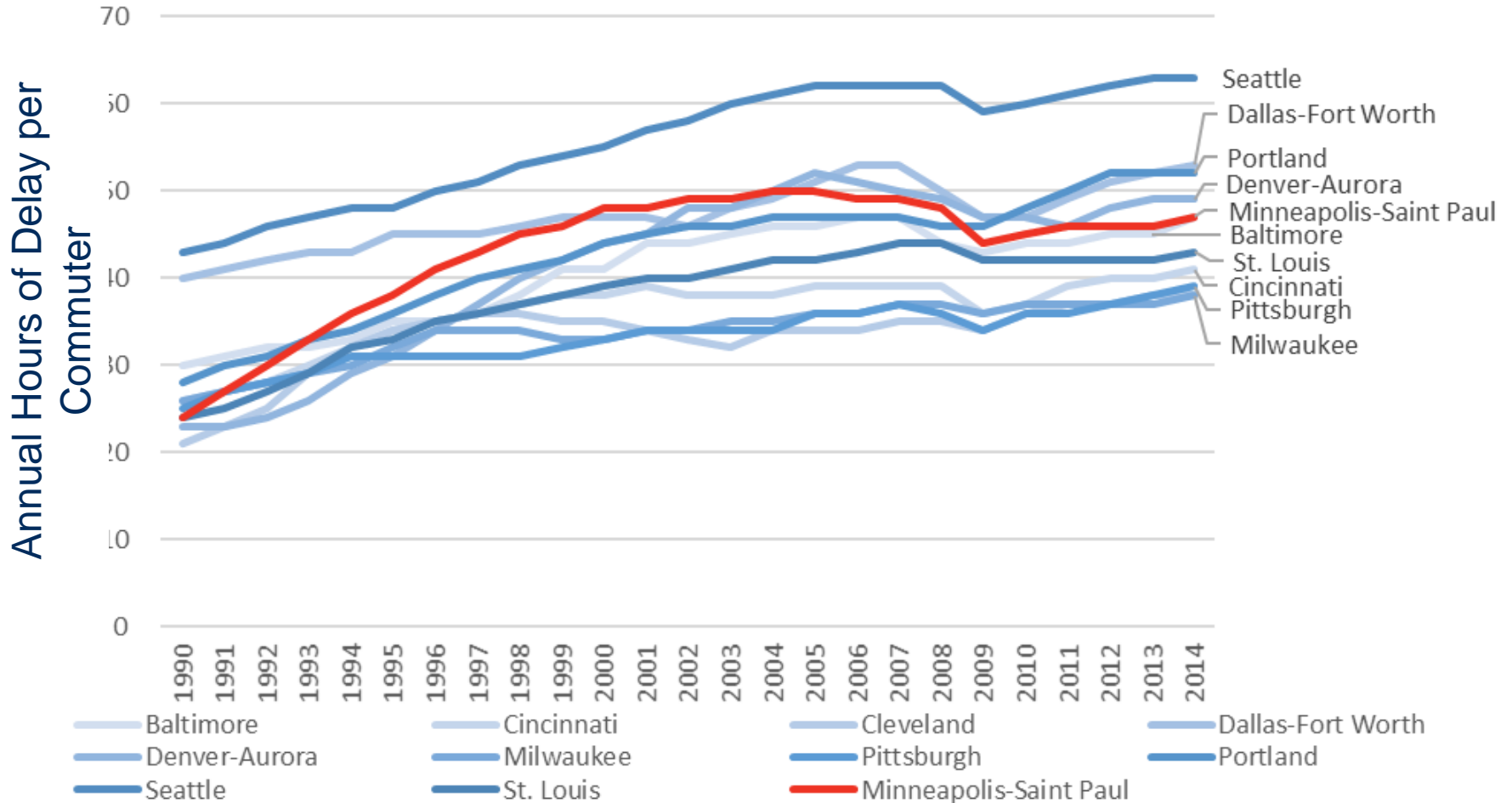


# Highway System: Bridges

## (Principal Arterials)



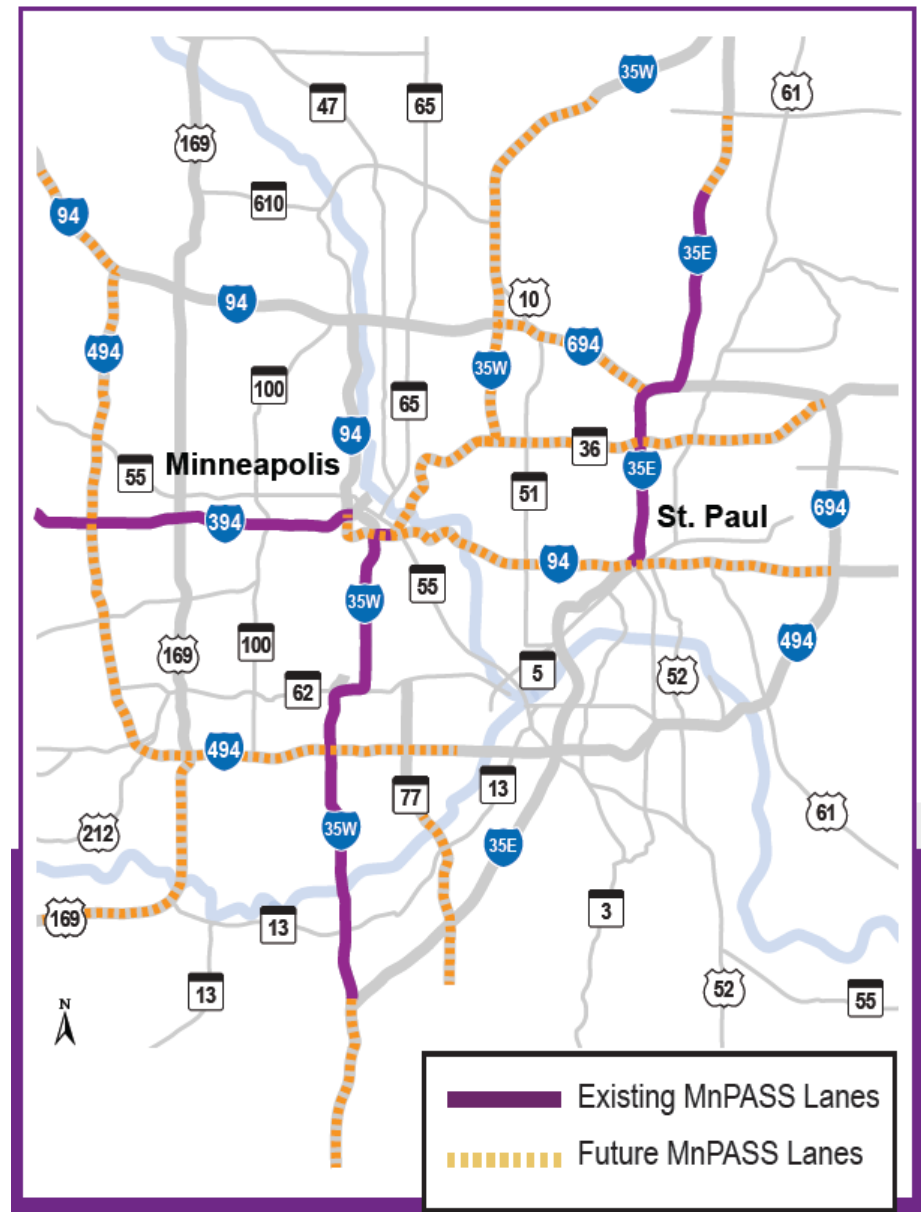
# Highways: Annual Delay





# Existing MnPASS

- I-394 (2005)
- I-35W South (2009/2010)
- I-35E
  - To Little Canada Road (2015)
  - To CR J/CR 96 (2016)



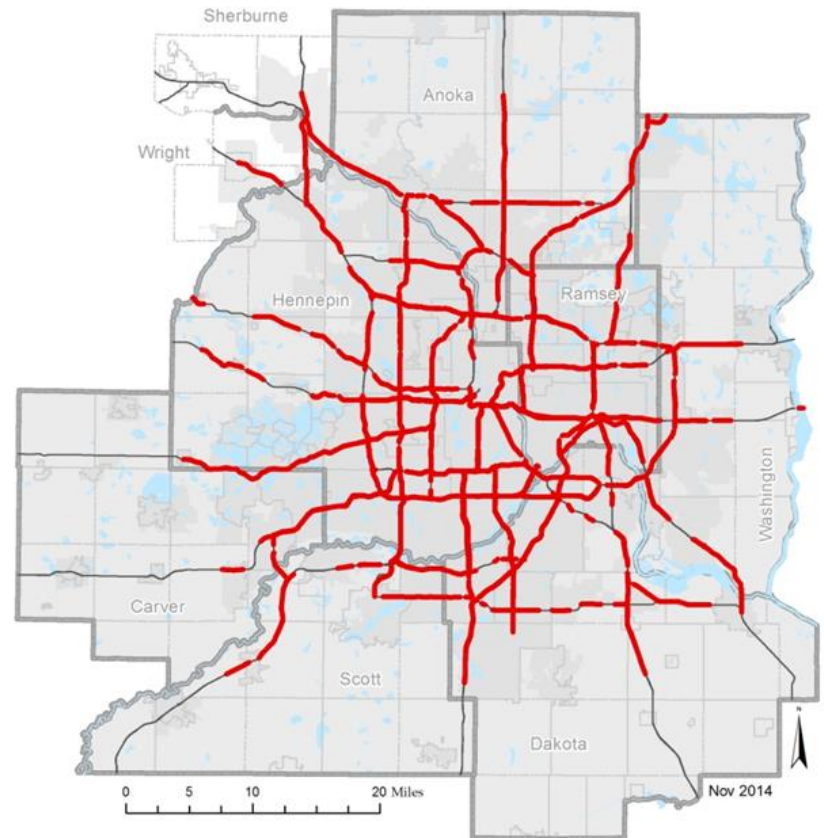
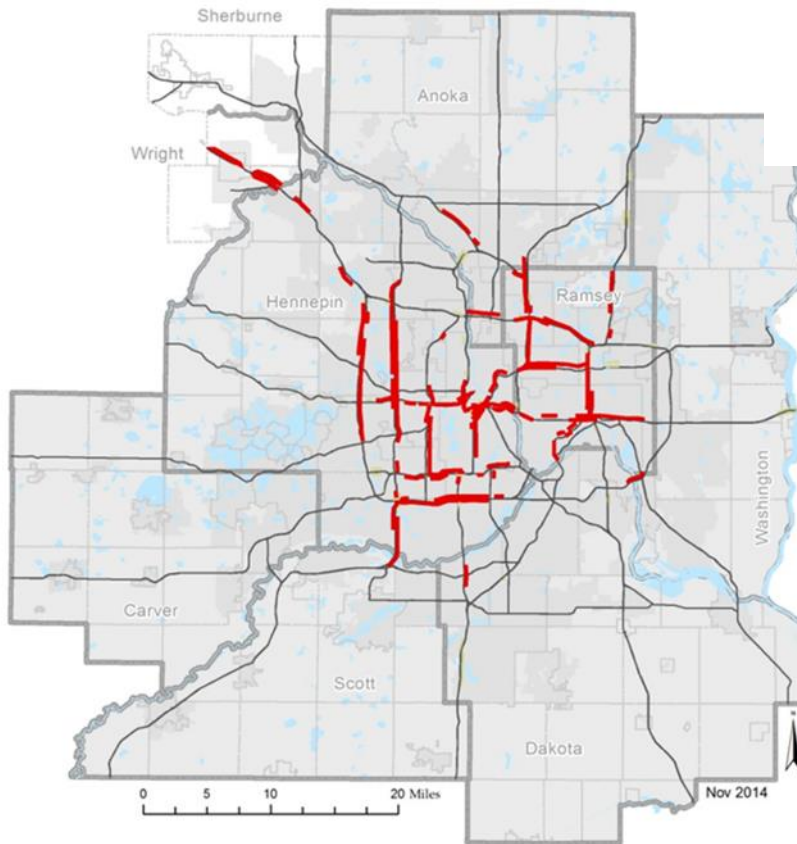
# Vehicle Trips & Miles Traveled

	2010	2040 Current Revenue Scenario	Change	Percent
Population	2,850,000	3,673,860	+823,860	+29%
Daily Vehicle Trips	6,600,000	9,776,000	+2,152,000	+28%
Daily Vehicle Miles Traveled	72,900,000	89,420,000	+16,520,000	+23%
Daily Vehicle Miles Traveled per Resident	25.6 miles per resident within the 7-county region	24.3 miles per resident within the 7-county region	-1.3 miles per resident within the 7-county region	-5%

# Principal Arterial Congestion

2013

2040



# Pavement and Bridge Outcomes

	System	Targets	2015	2037
Pavement Condition	Interstate	2% poor	2.1% poor	4% poor
	Remaining NHS	4% poor	2.7% poor	8% poor
	Non-NHS	10% poor	5.1% poor	18% poor
Bridge Condition	NHS	2% poor	3.0% poor	6% poor
	Non-NHS	8% poor	3.1% poor	7-8% poor



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# Where Do We Want to Go?

## Highway System

# Where Do We Want to Go?

## *Current TPP Planning Framework*

Goals	Objectives (Highway-related Only)
Transportation System Stewardship	<ul style="list-style-type: none"> <li>Efficiently <u>preserve</u> and <u>maintain</u> the system</li> <li>Operate <u>efficiently</u> and <u>cost-effectively</u></li> </ul>
Safety and Security	<ul style="list-style-type: none"> <li>Improve <u>safety</u> and <u>security</u></li> </ul>
Access to Destinations	<ul style="list-style-type: none"> <li>More travel <u>options</u> (esp. in congested corridors)</li> <li>Increase <u>reliability</u> and <u>predictability</u></li> </ul>
Competitive Economy	<ul style="list-style-type: none"> <li>Improve multimodal <u>access to job</u> concentrations</li> <li>Invest in multimodal to <u>attract and retain</u> businesses and residents</li> <li>Support <u>efficient movement of freight</u></li> </ul>
Healthy Environment	<ul style="list-style-type: none"> <li>Reduce <u>air emissions</u></li> <li><u>Reduce impacts</u> of transportation on the natural, cultural, and development environment</li> <li>Promote <u>community cohesion</u></li> </ul>
Leveraging Investments to Guide Land Use	<ul style="list-style-type: none"> <li>Maintain adequate highway accessible land for freight</li> <li>Encourage local land use to <u>integrate all modes</u></li> </ul>

← Equity Throughout! →

# Key Highway Outcomes

**Preserve and Maintain**

**Safety and Security**

**Reliable and Predictable**

**Efficient and Cost Effective**

**More Travel Options**

**Access to Jobs**

**Attract Businesses and Residents**

**Support Efficient Movement of Freight**

**Support Low-Impact Transportation (Equity, Clean Air, and Healthy Communities)**





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# How Will We Get There?

## Highway System



# How Will We Get There?

## *Investment Focus*

- Existing pavement and bridge conditions degrade
- Large bridge bubble for Metro in near future
- Continuing to meet targets will require increased percentage of MnDOT Metro District's resources
- \$0 available for mobility after 2023
- 2017 session provided short-term ability for limited investments



# How Will We Get There?

## *Highway Investment Direction*

- Highway System Investment Prioritization Factors in TPP
- Requirements
  - Safety and security
  - Operate, maintain, and rebuild
- Prioritization Factors
  - Economic vitality
  - Critical system connectivity
  - Travel time reliability
  - Support job and population growth forecasts and local comprehensive plans
  - Regional balance of investments

# How Will We Get There?

## *Highway Investment Philosophy*

1. Priority is to operate, maintain and preserve the existing highway system
2. Preservation projects can be a catalyst for including other investments (i.e. safety, spot mobility and lower cost/high benefit improvements)
3. Prioritize today's problems over forecasted problems
4. Existing infrastructure and right-of-way should be utilized to the maximum extent possible

# How Will We Get There?

## *Highway Investment Philosophy*

5. Focus on lower cost/higher benefit solutions (i.e. 80% of the benefit at 30% of the cost)
6. Coordinate the timing of projects with local governments to achieve cost effective results with minimum disruption
7. Where mobility needs are identified, explore in order:
  - Traffic management technologies
  - Lower cost/high benefit spot mobility improvements
  - MnPASS lanes
  - Strategic capacity investments

# How Will We Get There?

## *Highway Investment Categories*

1. Operate and maintain highway assets
2. Program support
3. Rebuild and replace highway assets
4. Safety improvements
5. Bicycle and accessible pedestrian improvements
6. Mobility Improvements:
  - Traffic management technologies
  - Spot mobility improvements
  - MnPASS
  - Strategic capacity enhancements

# How Will We Get There?

## *Highway Investment Summary*

	Operations and Maint.	Program Support	Rebuild and Replace	Safety / Bicycle Ped.	Mobility	Total
Current Revenue Scenario 2015-2040	\$2.0 billion	\$900 million	\$6.9 billion	\$700 million	\$700 million	\$11.2 billion
Increased Revenue Scenario 2015-2040	+ \$1.0 billion	+ \$700 million	+ \$2/\$2.5 billion	+ \$600 Million	+ \$4/\$5 billion	+ \$8/\$10 billion



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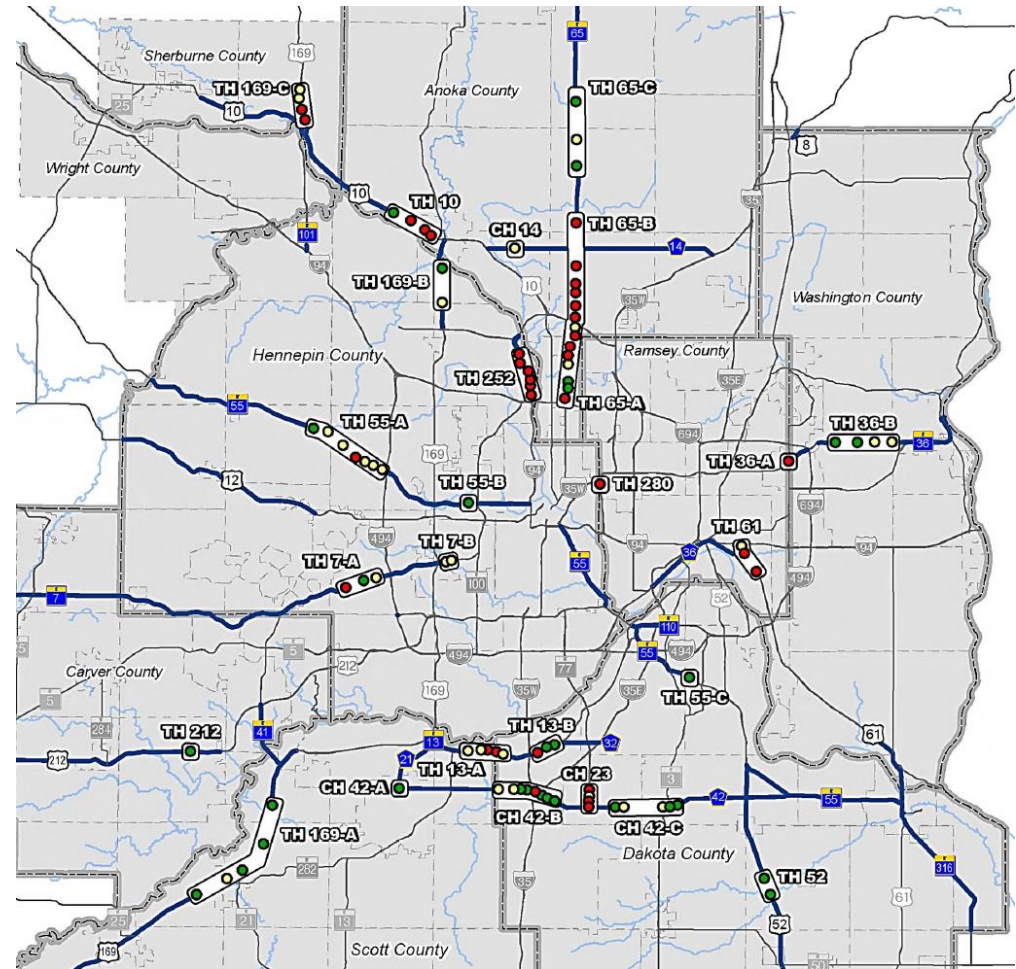
# What Changes are Expected in the Plan Update?

## Highway System

# Expected Changes

## *Update Informed by Studies*

- Principle Arterial Intersection Conversion Study
- Appendix F: Interchange Review Committee





# Expected Changes

## *Update Informed by Studies*

- Congestion Management and Safety Plan IV
- MnPASS III
- Highway Truck Corridors Study
- Regional Highway Spending & Investment Needs
- Statewide Freight System Plan

# Expected Changes

## *Increases to Current Revenue Since 2015 TPP*

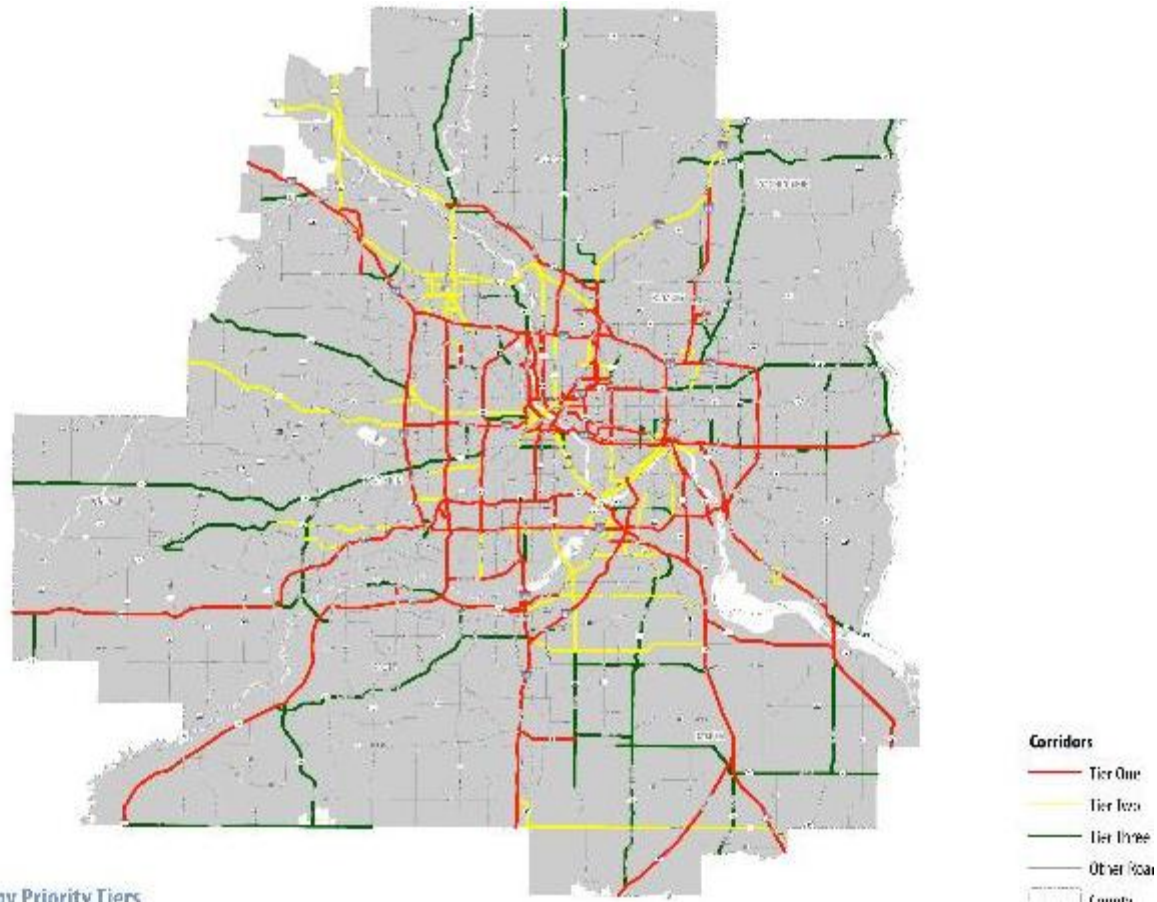
- 2015: Federal FAST Act
  - Freight Projects (\$23M/year statewide)
  - STP/CMAQ (\$90M/year)
- 2017: State Legislative Action
- 2017: Changes to County Sales Tax
  - Potential inclusion of projects in TPP

# Freight Changes to TPP

- Freight modal trends updates
  - e.g., Trucking delivery systems
- Metro Freight System map update
- Railroad Bottlenecks map update
- Industrial lands inventory results relative to river barge and rail spur access
- Incorporate results from Regional Truck Corridors Study

# Freight Changes to TPP

## Key Regional Truck Corridors



Regional Truck Corridors by Priority Tier

# Freight Changes to TPP

Proposed Key Regional Truck Corridors will provide guidance on:

- Regional planning
  - Coordinated data collection at state and local levels
  - System performance measures
- Regional Investment
  - Highway project selection criteria for Regional Solicitation
  - Guidance to local investments
  - Guidance to federal and state funding programs

# Work Program Items Freight

- Periodic updates to key regional truck corridors
- Develop process for coordinating truck counts on key truck corridors
- Investigate application of new & emerging technologies
- Others?

# Expected Changes

## *Work Program Items: Highways*

- System-to-System Interchanges
  - High volume/high cost investments
  - Recent investments illustrate demand
  - Comparative analysis to help establish priorities under Strategic Capacity Investments
  
- Others?

# What's Next?

## *Future Meeting Schedule*

Month	Topic(s)
October	Bike/Ped
November	Aviation



Thank you

# Questions?

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