

Strategies for Maintaining Your Highway System



February 18, 2016

Statewide System Preservation Guide



Today's Talking Points

Highlight

- Study Process
- Study Resources
- Tools Developed
- Strategies
 - Otter Tail County
 - Pavement Management



Study Purpose

It all started with the idea of unpaving roads.





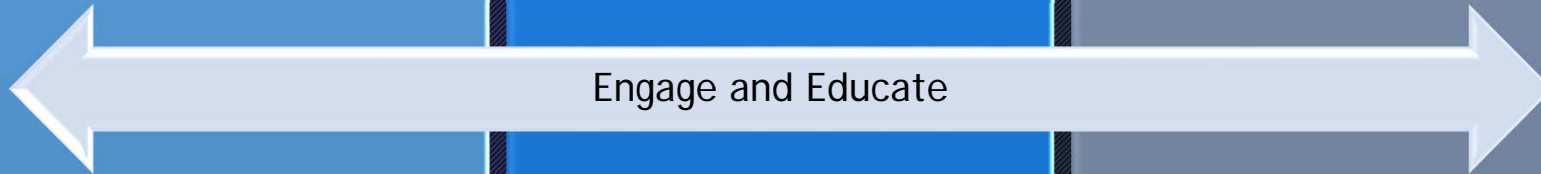
Identify
Needs



Develop
Strategies



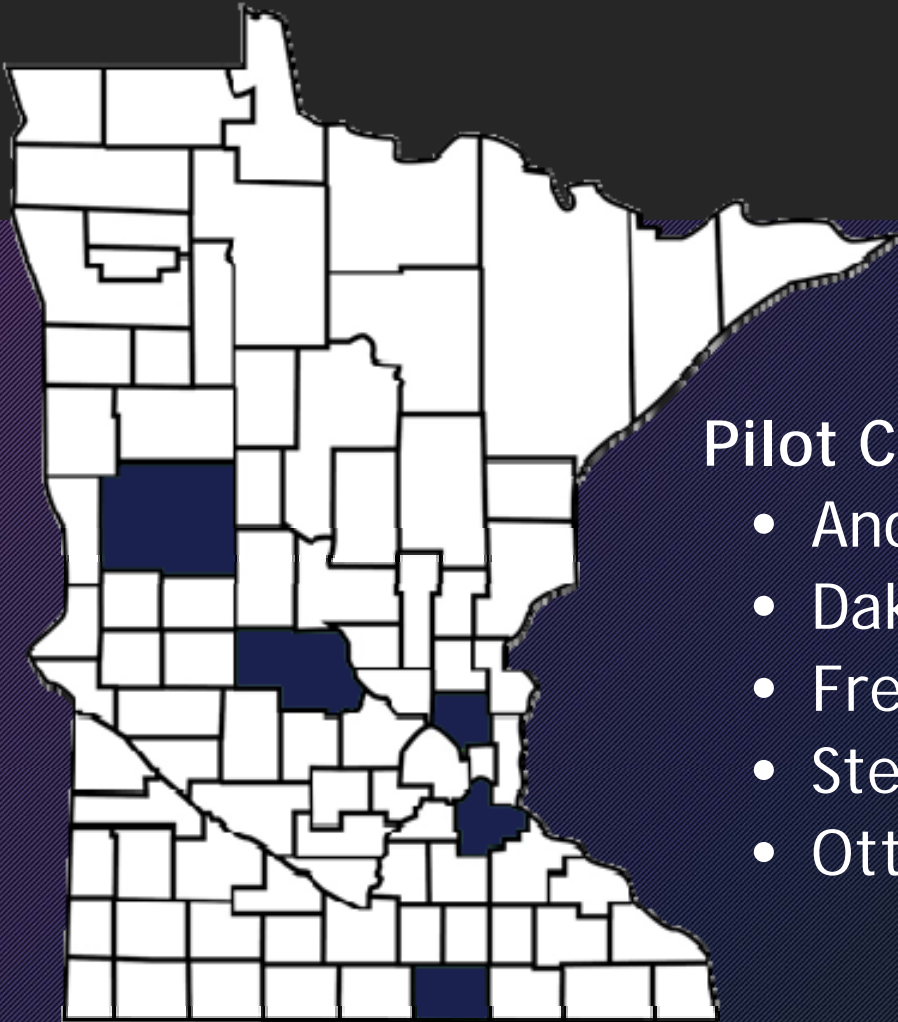
Implement



Engage and Educate

Study Purpose

Study Sponsorship & Participation



Pilot Counties

- Anoka
- Dakota
- Freeborn
- Stearns
- Otter Tail

Project Partners

- LRRB
 - MnDOT
 - SRF
- Braun Intertec
Richardson-Richter

Compile
Resources

Identify
Funding Gap

Prioritization
Methods/System
Recommendations

Six Step Process

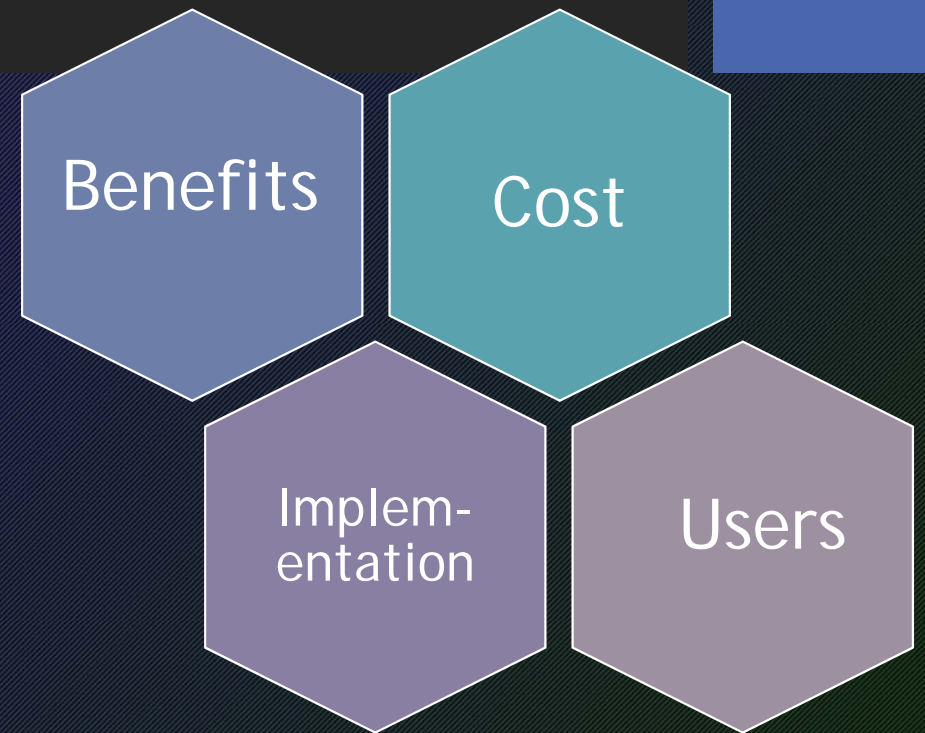
Development/Pilot
Implementation

Develop
Implementation
Products
(Statewide)

Final
Report

Resource Guide

- Falling Weight Deflectometer (FWD) Data
- Pavement Condition Data
- Pavement (or Asset) Management System
- Traffic Data and Forecasting
- MnDOT Needs Database/Spreadsheets
- Geographical Information Systems (GIS)
- Minnesota Crash Mapping Analysis Tool (MnCMAT)
- Transportation Plans
- NCHRP Report 688: Determining Highway Maintenance Costs
- NCHRP Report 743: Communicating the Value of Preservation - A Playbook



Sketch Tool

County Data

- Expenditures
- Revenue
- Maintenance Schedule

Industry Standards

- Typical Maintenance Practices
- Cost

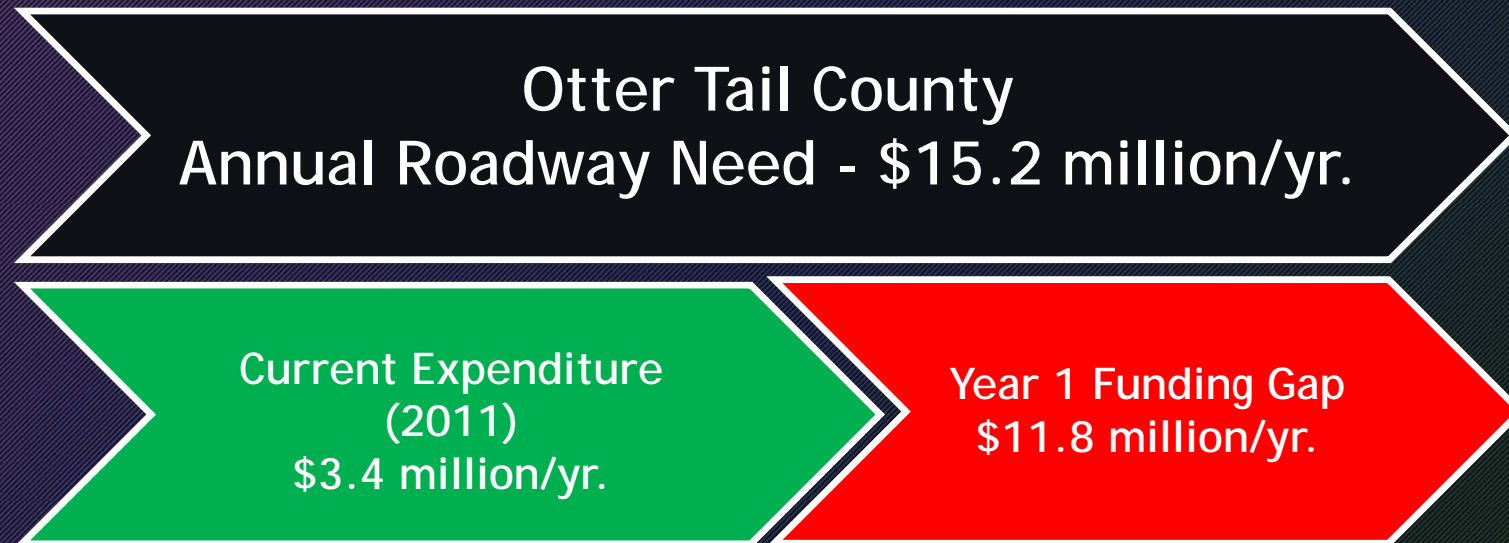
Sketch Tool

- Inflation Factor
- Gap Analysis

GAP

Measures County Maintenance Practice vs Industry Standards

Gap Analysis - Otter Tail County



Note: This GAP Analysis is for pavement preservation and does not include reconstruction.

Approaches to Reduce the "Gap"

- Adopt New Planning Strategies
- Change Size of Road System
- Consider Different Sources of Revenue
- Consider New Maintenance Methods
- Change the Level of Service



Strategies

1. Interjurisdictional Transfers
2. Tiered Classification of County Roads
(Different Maintenance Standards and Schedules)
3. Unpaved Low Volume Roads
4. Transportation Plan
5. Performance Measures/Standards
6. Project Prioritization
7. Revenue Enhancements
8. New Maintenance Techniques
9. Decision Making Tools for Resource Allocation

strat.e.gy

(strāt' ə-jē) n.

**1. Plan of action
designed to achieve
a particular goal.**

Selected Strategies

● = Selected Strategy \$ = New Implementation P = Previously Implemented

System Preservation Strategies	Anoka	Stearns	Freeborn	Otter Tail	Dakota
Jurisdictional Transfers	●	\$		\$	P
Tiered Classification of County Roads			●	●	
Unpaved Low Volume Roads					
Transportation Plans	P	\$		\$	P
Preservation Performance Measures		●		\$	P
Project Prioritization	●	●	●	●	●
Revenue Enhancements		●	●	●	●
New Maintenance Techniques					P
Decision Making Tools	●	●	●	●	●
New – Public Outreach				●	

Otter Tail County Selected Strategies

Transportation Plan

- Performance Measures
- Tiered System
- Jurisdictional Transfer
- Revenue Enhancements



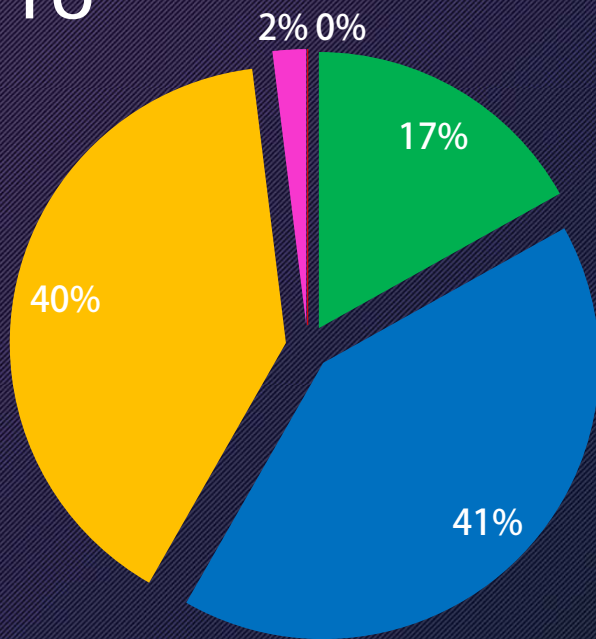
Embraced System Preservation Strategies

Built on Sound Pavement Data

2016 & 2025 ROADWAY CONDITIONS

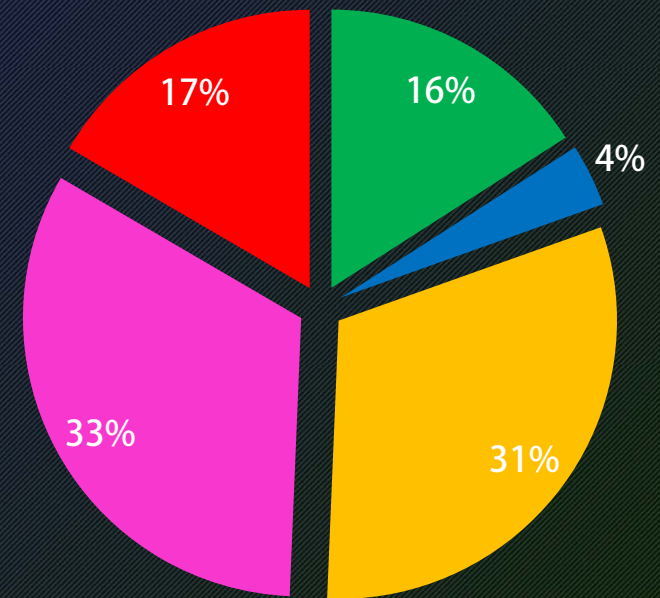
(Projected, based on current funding)

2016

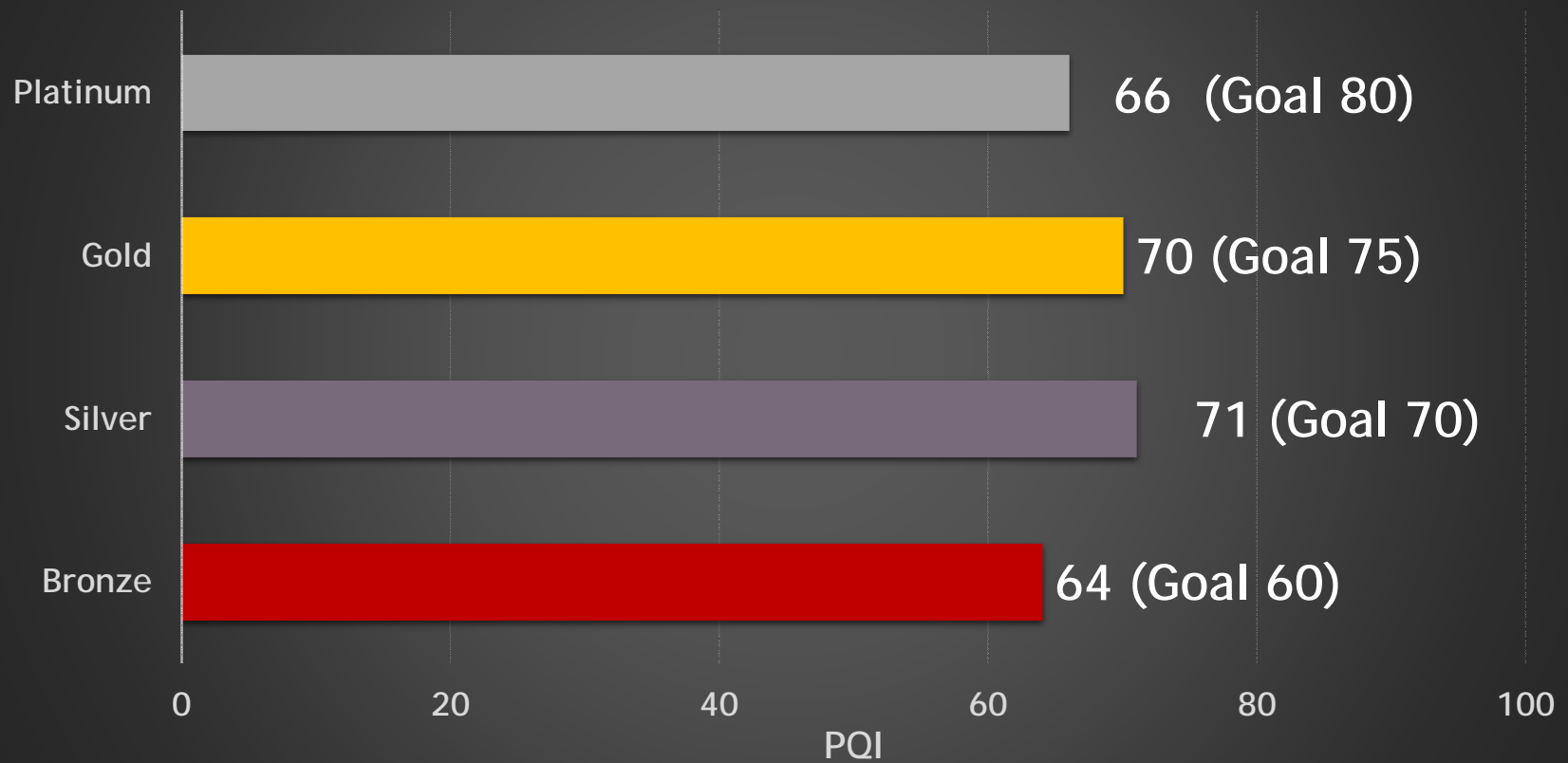


- Very Good (80-100)
- Good (60-79)
- Fair (40-59)
- Poor (20-39)
- Very Poor (0-19)

2025



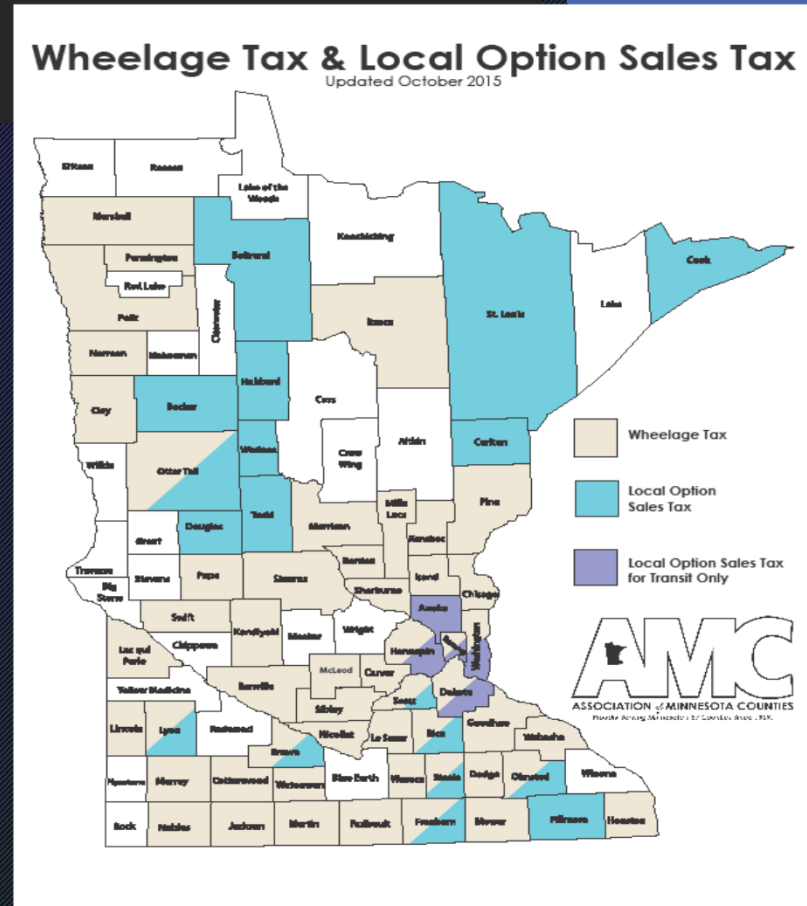
Tiered System Overview



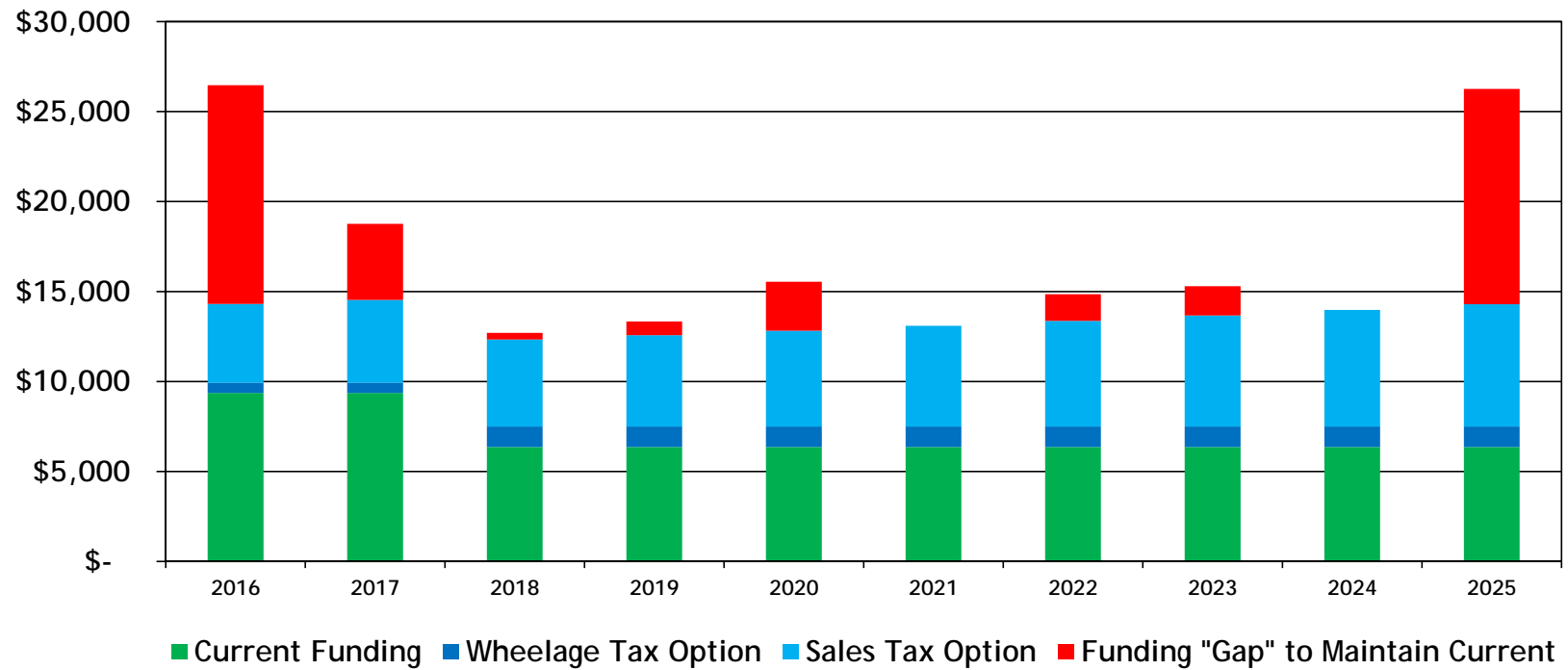
How Do We Meet the Goals?

FUNDING SCENARIOS

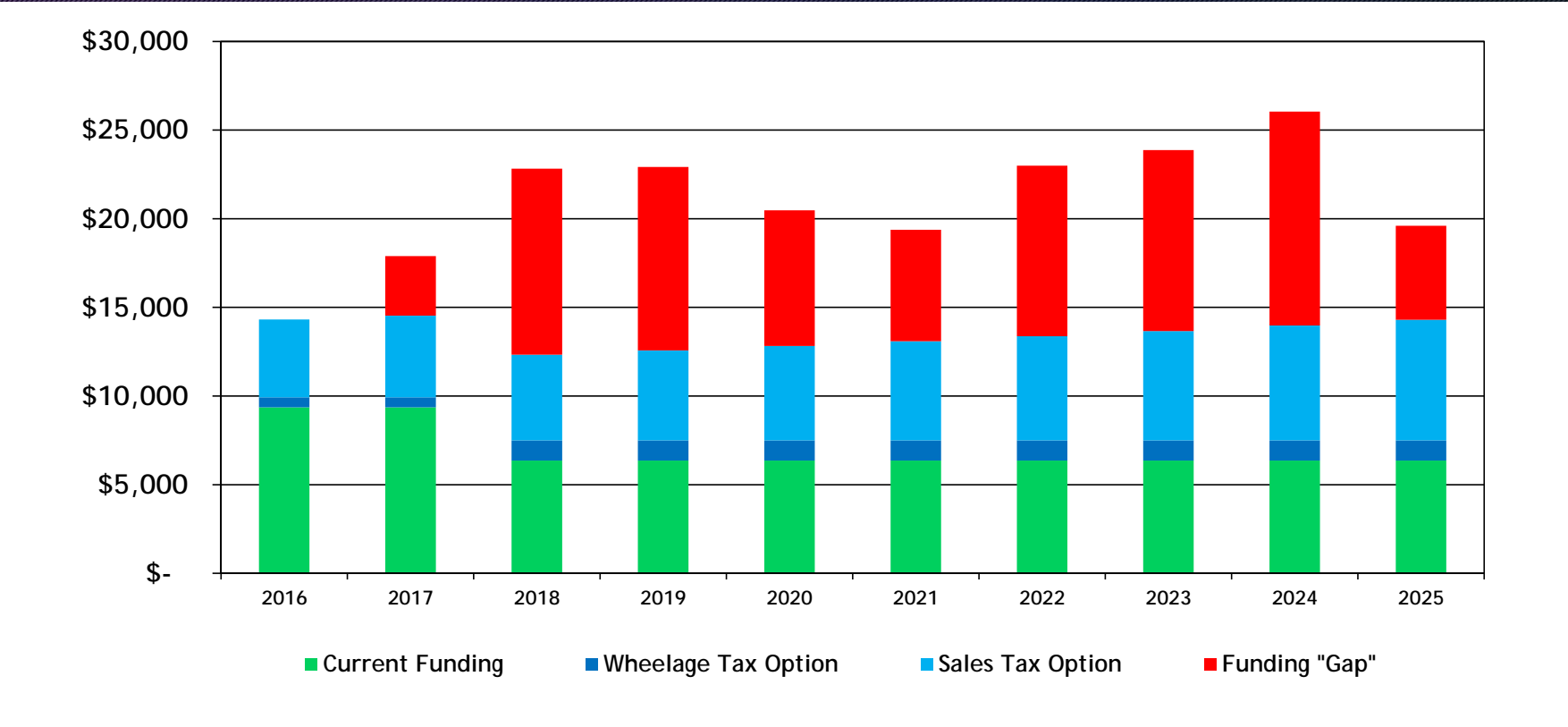
- 1 - Current Funding (CH and CSAH)
- 2 - Wheelage Tax Option (CH and CSAH)
- 3 - Sales Tax Option (CH and CSAH)
- 4 - Gas Tax Option (CSAH only)
- 5 - All Funding Options
- 6 - Wheelage plus Sales
- 7 - Maintain Current Condition of 68
- 8 - \$25M bonding option



Softening the Gap



Funding to Meet PQI Goals 2025 Condition



Otter Tail County Lesson's Learned

"The Transportation Plan helped the County Memorialize it's Policies and Procedures."

Commissioner Lee Rogness



Lessons Learned & Success

Lesson Learned

- Asset Management System
- Accurate Data
- Plan for an Annual Plan Update Process
- Provide a Time Frame to “Do It Right”
- Removes the Politics from Project Selection
- Need a Long Range Vision
- Public Understanding of What the Future Holds

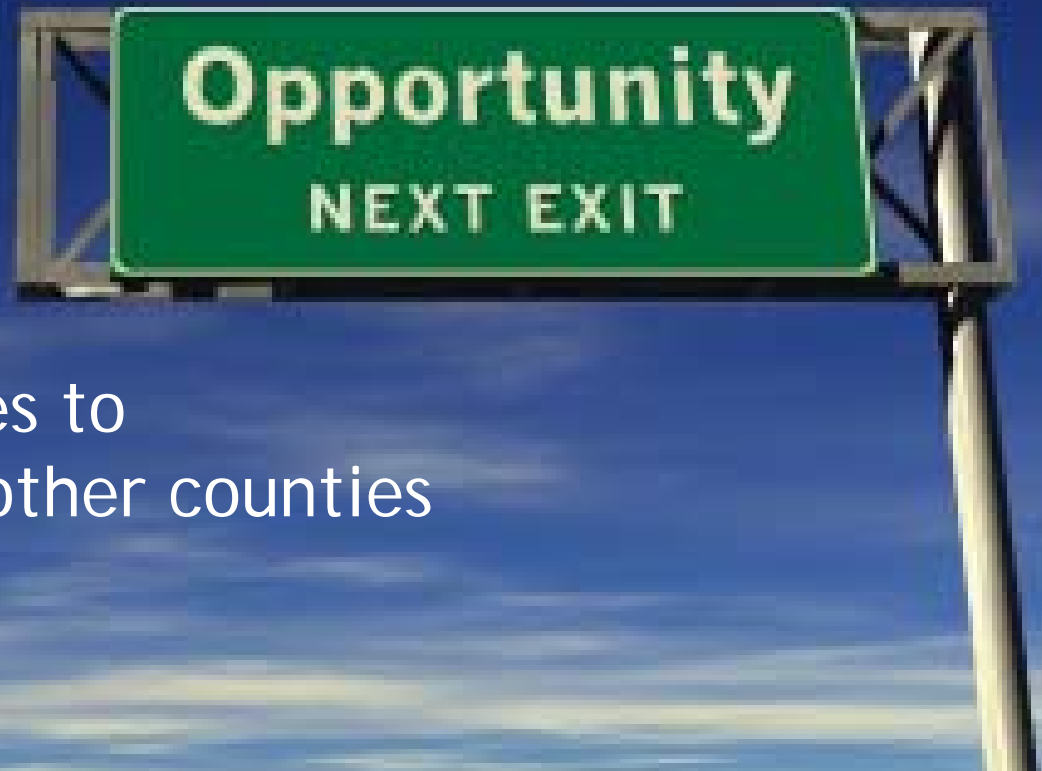
Success

- Adopted a Transportation Plan
- Adopted a Wheelage Tax
- Adopted a Sales Tax



Moving Forward

- Educate
- Find new champions
- Find funding opportunities to implement strategies in other counties



Questions and Answers



SRF



Thank You

