Rural County Pavement Preservation Planning

Applications in Minnesota

Overview

Rural Counties across America are struggling with the crippling effects of keeping up with their crumbling infrastructure. A number of rural counties in Minnesota undertook innovative planning activities as a way to manage their respective transportation systems

Common Rural County Challenges / Purpose of the Effort

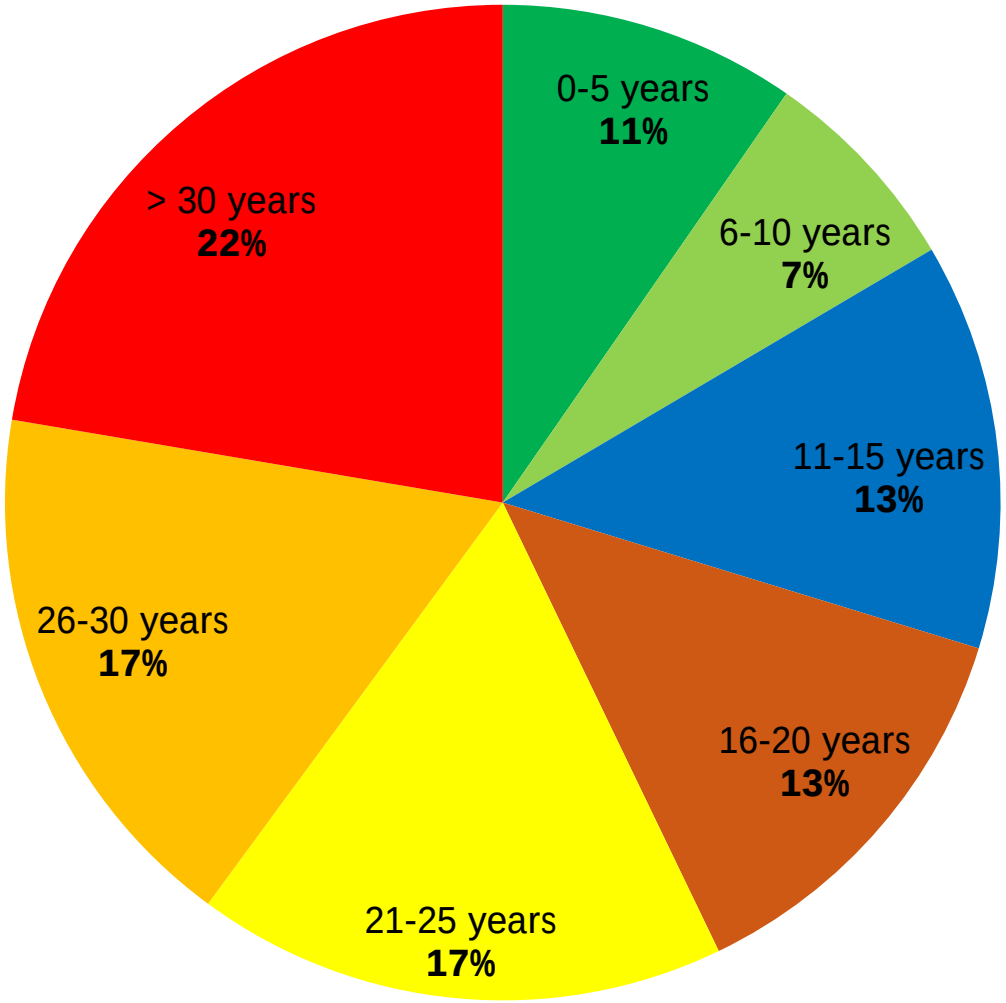
1. Leverage existing tools
2. Analyze existing road conditions
3. Manage funding opportunities versus road conditions
4. Utilize most current and innovative tools available
   - Detailed analysis and focused planning
   - Targeted communication methods
5. Develop customized solutions for future needs
6. Promote awareness of best practices

Integral to each step is: Education and Communication

- County Boards
- General Public

Common Rural County Challenges / Purpose of the Effort

Sample System Age



Note: Often typically an aging system in many rural environments

Common Rural County Challenges / Purpose of the Effort

Sample Rural County
Annual Roadway Need - $15.2 million/yr.

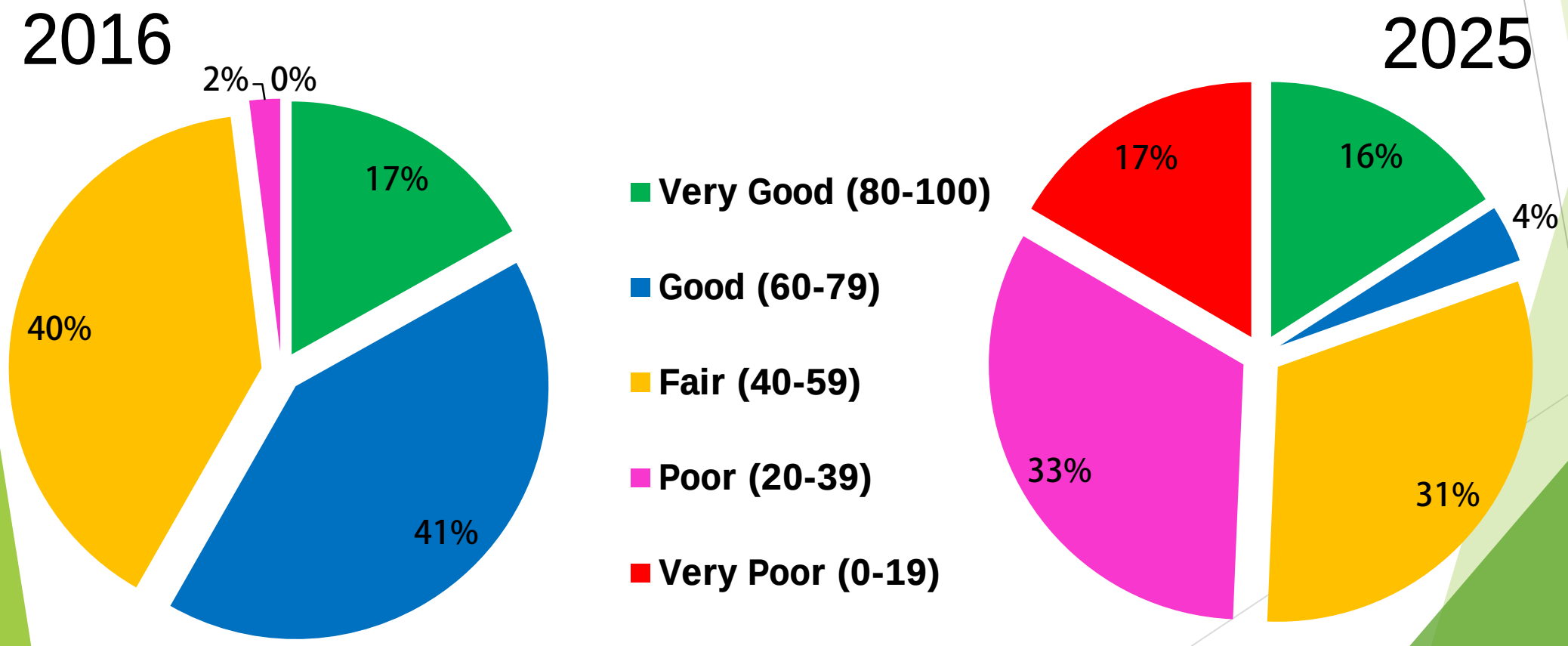
Current Expenditure
$3.4 million/yr.

Year X Funding Gap
$11.8 million/yr.

Note: This GAP analysis only represents pavement preservation and does not include roadway reconstruction needs

Common Rural County Challenges / Purpose of the Effort

CURRENT & FUTURE PROJECTED ROADWAY CONDITIONS
(Sample projection, based on current funding)

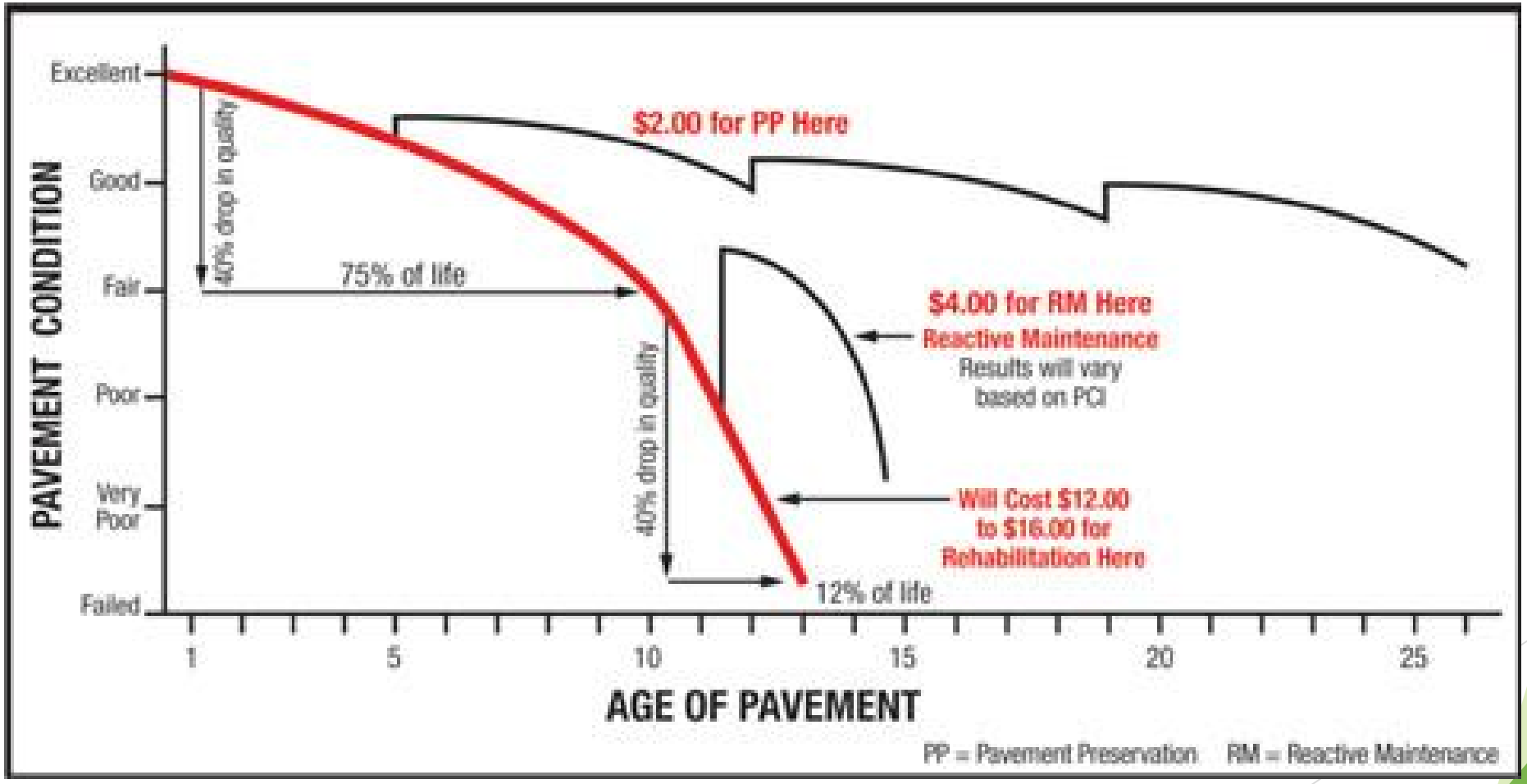


Common Rural County Project Prioritization

Prevent “fair condition” roads from falling into “poor condition”

- Use Pavement Management System to evaluate priorities, based on good data, new management policies, and performance measures
- Prioritize preservation strategies over more expensive reconstruction fixes
- Consider scope and cost

Common Rural County
Typical Pavement Life Cycle



Pavement Preservation Planning
Public / Stakeholder Outreach

Public Education and Engagement

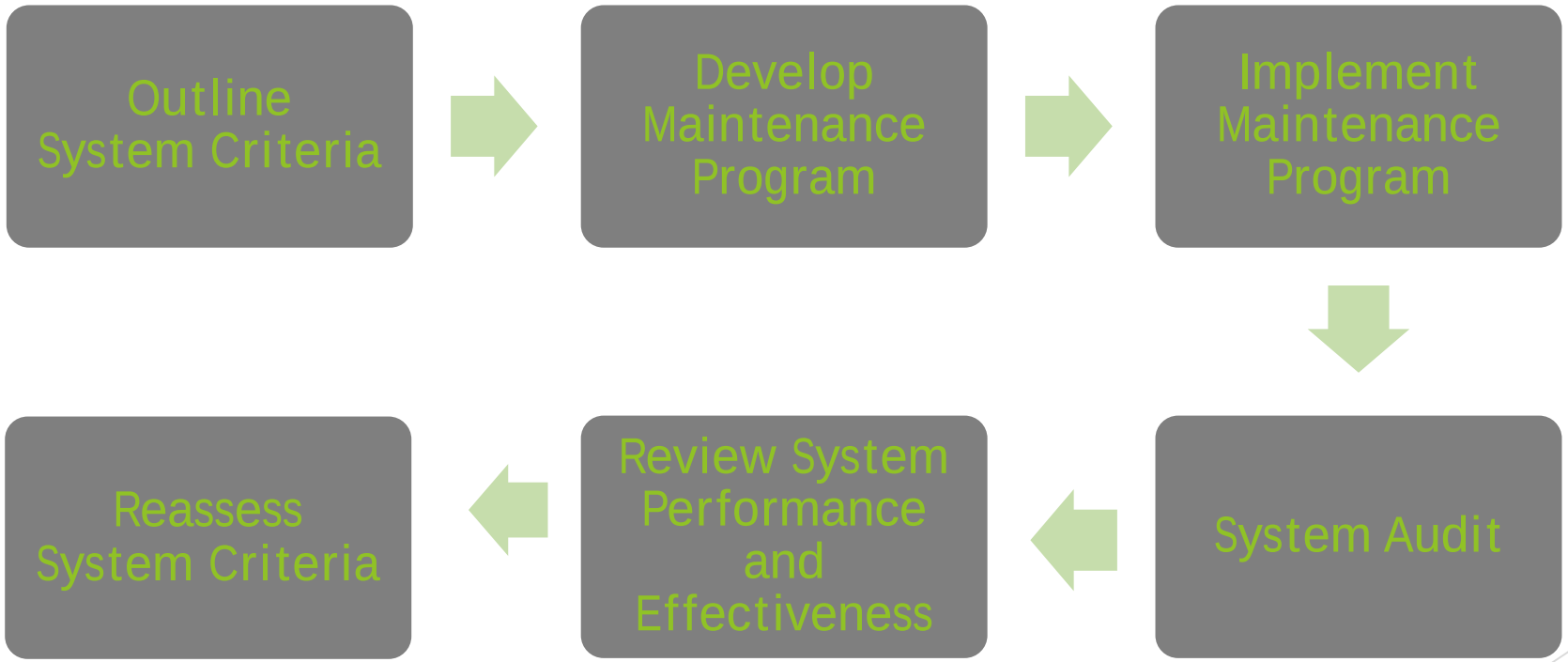
Stakeholder Participation, Education, and Engagement

Targeted Group Engagement

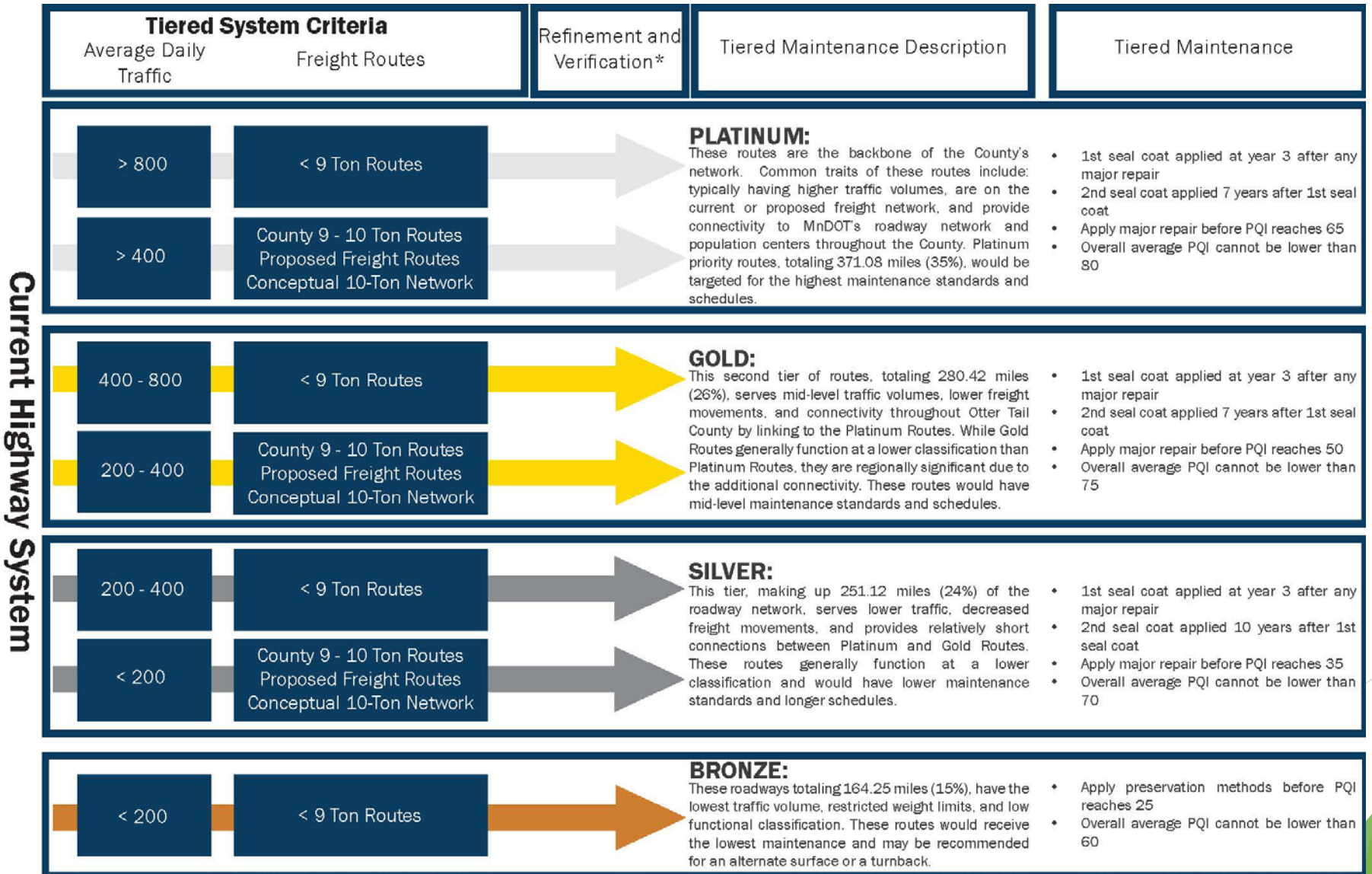
Pavement Preservation Planning
Innovative Management Strategies

- Reduce System Size
- Develop a Tiered Roadway Maintenance Program
- Develop Performance Measures & Schedules
- Identify New Funding Sources
- Establish a Transparent Project Prioritization Process
- Promote Expanded Public Engagement

Pavement Preservation Planning
Tiered Preservation System



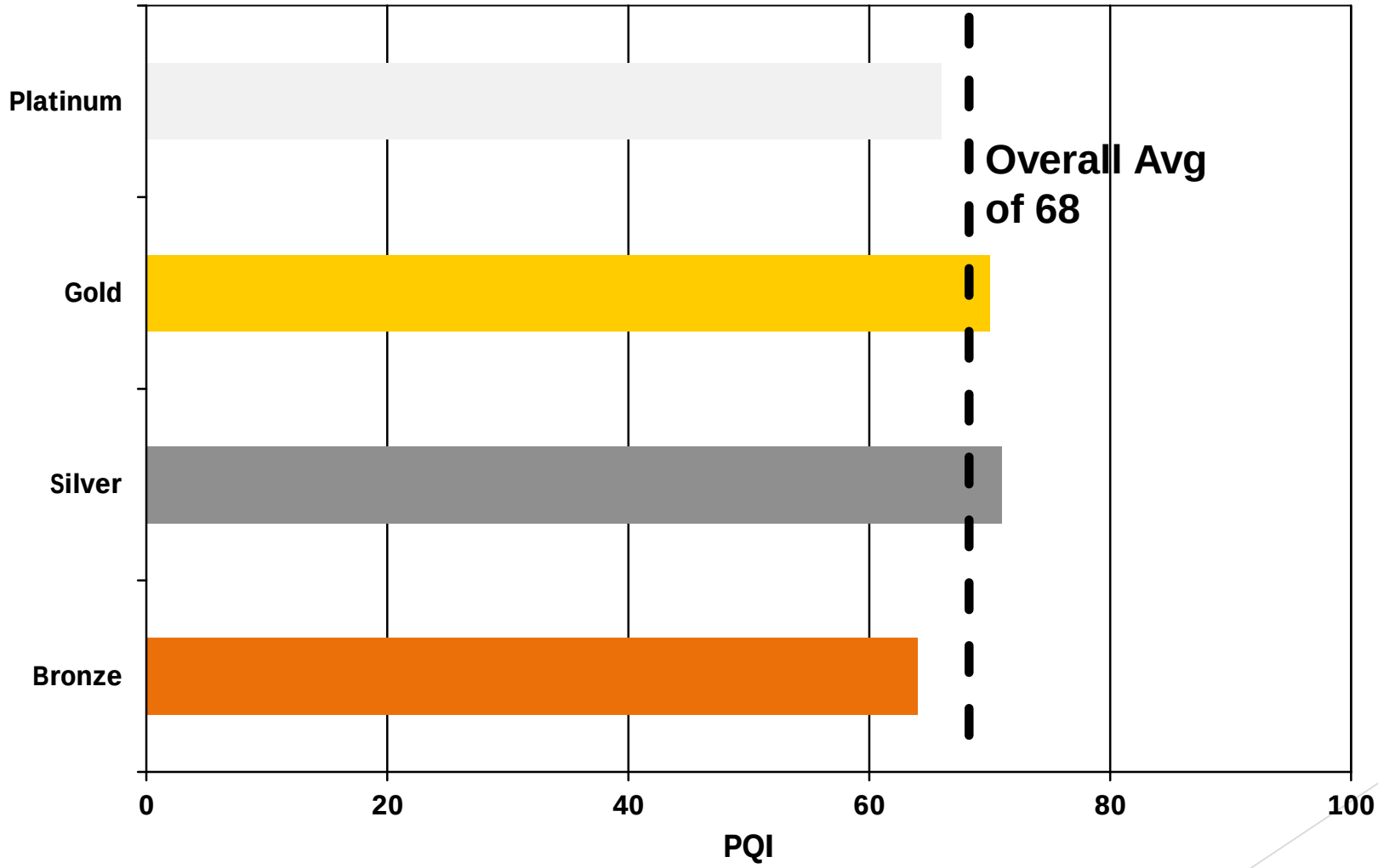
Pavement Preservation Planning
Tiered Preservation System



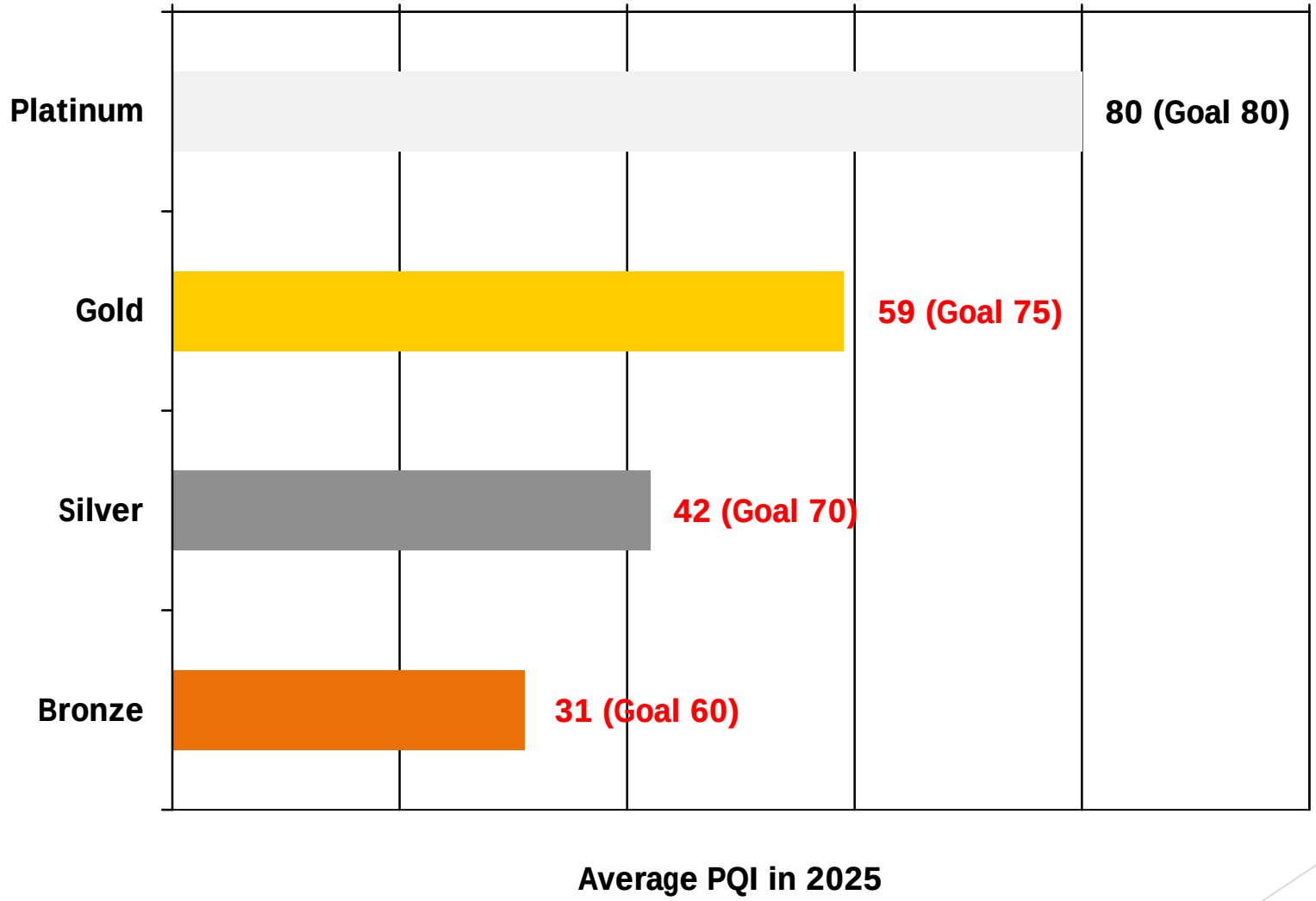
Pavement Preservation Planning Funding Opportunities

- Wheelage Tax ($10/vehicle)
- Local Option ½ cent Sales Tax
- Bonding
- Increased local road and bridge levy
- State gas tax and/or registration fees
- Gravel Tax

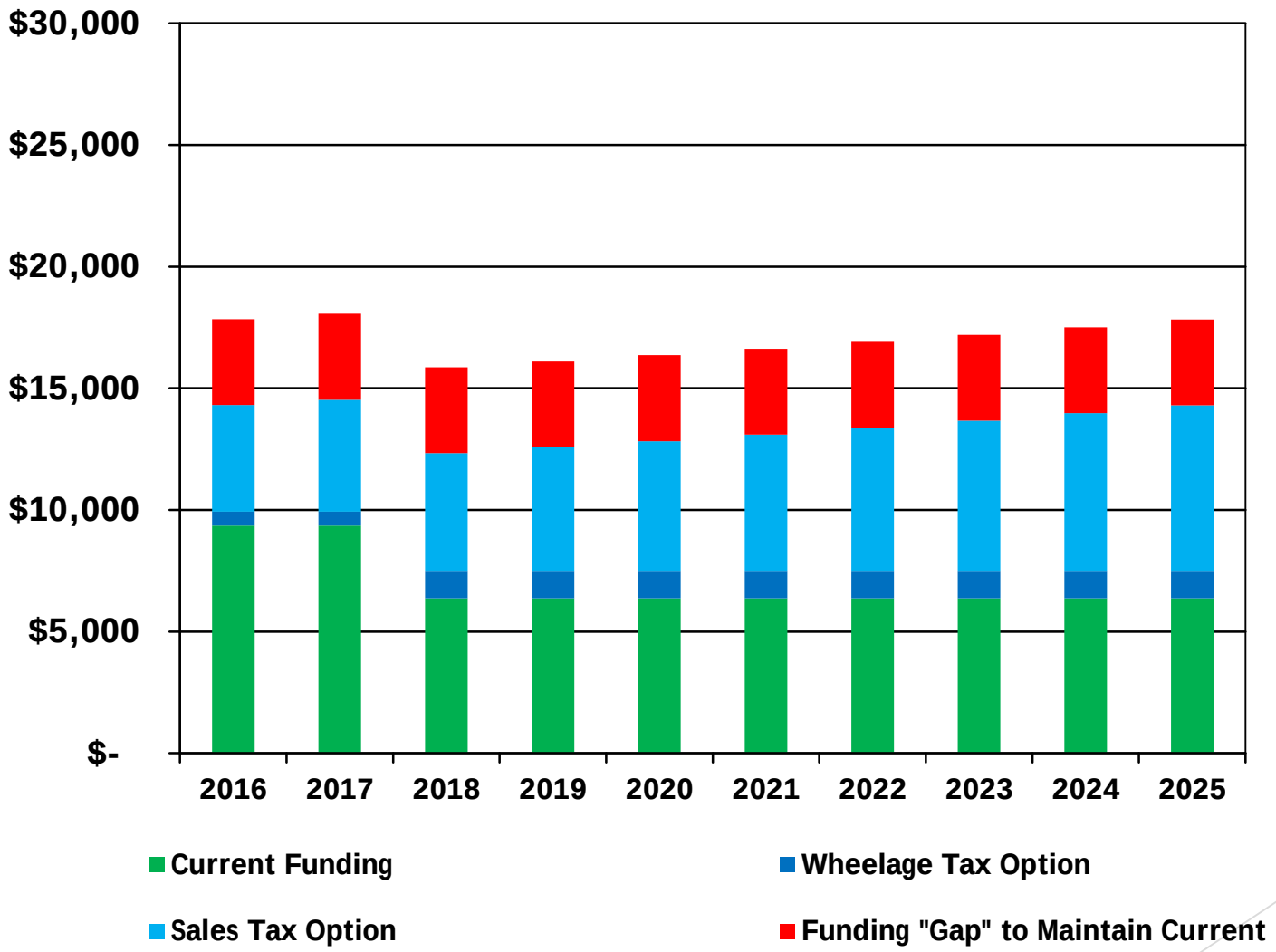
Pavement Preservation Planning
Current Condition w/ Tiered System



Pavement Preservation Planning
Resulting Tiered Conditions w/ Current Funding



Pavement Preservation Planning
Funding Needed to Maintain Current Condition



Pavement Preservation Planning
Rural County Lessons Learned

- Emphasizes the Need for a Long Range Vision
- Accurate Data is a MUST
- Pavement Asset Management System Helps
- Implement an Annual Plan Update Process
- Process Removes the Politics from Project Selection
- Public Outreach and Education – Provides an understanding of what the future holds and garners support

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