





# TAMP Update

Transportation Asset Management  
Plan  
May 9, 2016





# NDOT Goals and Objectives



**Safety**



**Customer Service**



**Fiscal Responsibility**



**Asset Management**



**Mobility/  
Accessibility**



**Freight Movement**



**Environmental Stewardship**



# Federal Mandates

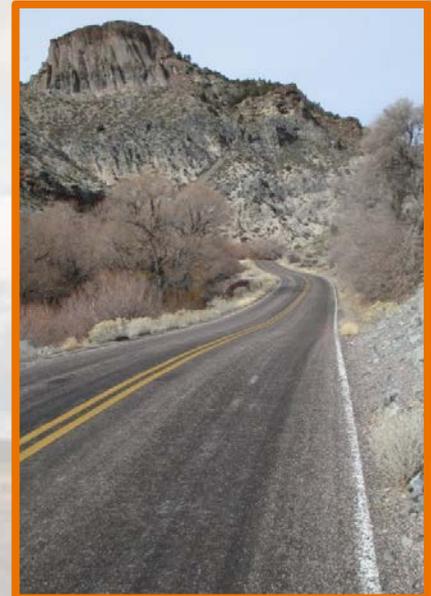
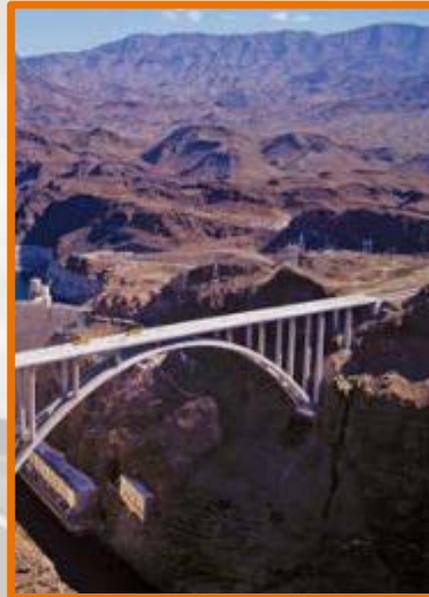
Rule	Deadline	Penalty
Develop a TAMP	Next FFY after final rule, 10/17 at earliest	Federal share reduced to 65%
<10% Deficient Bridges on NHS*	October 1, 2018	Must spend 50% of National Highway Performance Program (NHPP) funding on NHS Bridges
Interstate Pavement Condition Criteria TBD	October 1, 2018	Sets minimum amount of NHPP for interstate pavements. Forces some STP funds to be transferred for use on interstate pavements
Incorporate Pavement and Bridge Conditions into TAMP	18 Months after both rules final	FHWA will not approve any NHPP projects

\*Calculated by deck area



# The NDOT Transportation Asset Management Plan

- Included assets: pavement, bridge, intelligent transportation system (ITS) devices
- Preserving what we have saves money
- Managing to meet minimum performance targets
- Safety is not compromised
- 10-year investment strategies prioritize key corridors
- Risks are identified and addressed
- Next steps for continual improvement





# Why Only Three Asset Types?

Implementation Tier	Assets Included
I – Have data, processes and analytic tools	<ul style="list-style-type: none"><li>• Pavement</li><li>• Bridges</li><li>• ITS</li><li>• Rest Areas &amp; Buildings</li></ul>
II – Some, missing processes or analytics	<ul style="list-style-type: none"><li>• Slopes</li><li>• Guard Rails</li><li>• Culverts &amp; Pipes</li><li>• Signs &amp; Supports</li></ul>
III – Little to no information	<ul style="list-style-type: none"><li>• Lighting Structures</li><li>• Walls</li><li>• Markings</li><li>• Traffic Signals</li><li>• Bike Paths &amp; Sidewalks</li><li>• Landscape Features</li><li>• Others*</li></ul>

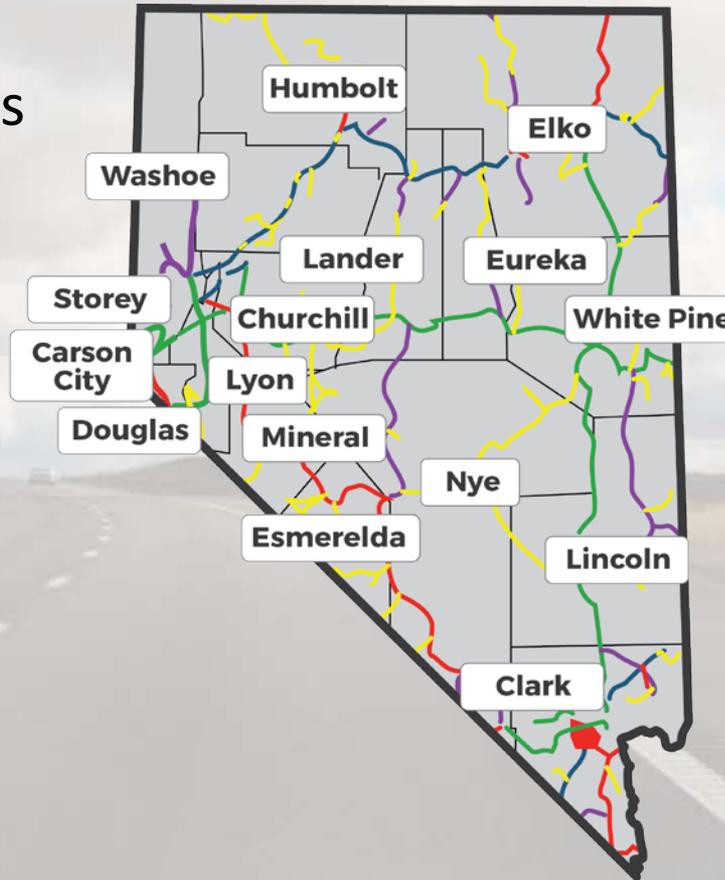
Tiers II and III will be added over time:

- Need inventory data and software tools
- Need to develop management strategies



# We Maintain All Types of Roads

- Category 1:  
Controlled Access
- Category 2:  
High Traffic
- Category 3:  
Medium Traffic
- Category 4:  
Low Traffic
- Category 5:  
Very-low Traffic





# NDOT's Pavement Investment Strategy

## Determine initial pavement conditions:

Very Good, Good, Fair, Mediocre, Poor, Very Poor, and Failed



## Determine M&R needs with constrained funding levels

Highest priority given to Roadway Category 1

Lowest priority to Roadway Category 5



## Determine work activities

Some will be contracted out, some will be performed by state maintenance forces



## Determine expected pavement conditions

Ensure all recommended preservation and rehabilitation activities have been performed and develop performance targets



Determine if federal mandates for pavement condition criteria have been met





# Current and Future Pavement Conditions



Proposed Federal Target for Interstate Pavement Condition:

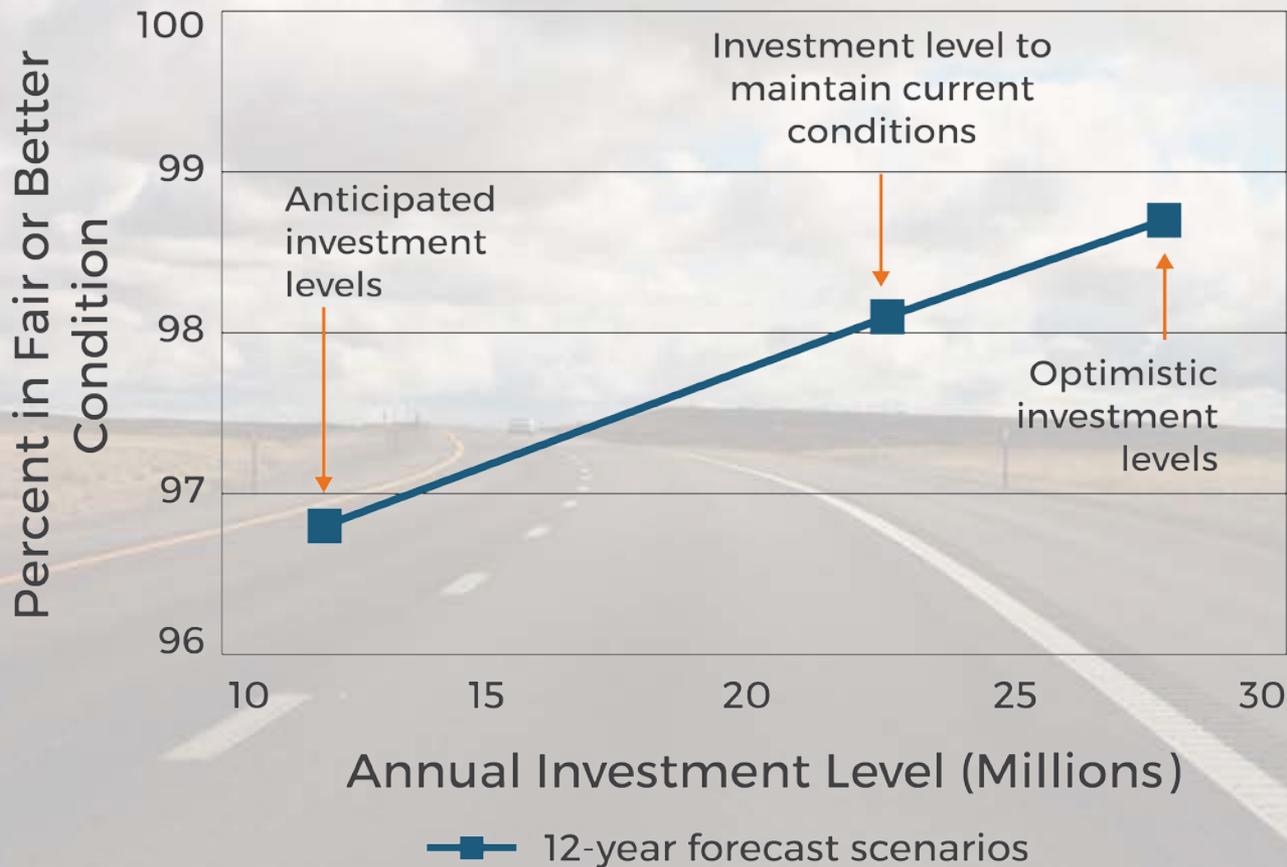
**<5% Poor**

Interstate Pavement Conditions in Nevada by 2025:

**0% Poor**



# Future Bridge Conditions at Different Investment Levels



Federal Target for Structurally Deficient NHS Bridges:

**<10%**

Structurally Deficient NHS Bridges in Nevada by 2027:

**2.4%**



# Intelligent Transportation System Devices

- Support Nevada's Strategic Planning Framework 2016-2020 - 2.1.1 Reduce Congestion
- Saves money by getting the most out of what we have
- Asset inventories nearly complete
- Timely maintenance and replacement is essential to maintaining traffic flow
- \$3.6 million per year needed to maintain the 6 ITS assets included in the TAMP
- Small need but BIG impact



# Risks





# The Way Forward

- Obtain approval of the initial TAMP at a later date
- Update TAMP to comply with final rules
- Study the use of leading indicators
- Improve and embrace decision making based on long-term life-cycle cost considerations
- Develop a communication plan
  - Funding to meet minimum performance goals and uncompromised safety
  - Economic and public benefits of sufficiently funding infrastructure



# Future Steps/ Improvements

- Implement Enterprise Asset Management System (EAMS) software
  - Include additional assets (Storm Water Assets)
  - Improve analytics
  - Improve tracking of maintenance activities
  - Quantify trade-offs between different assets and programs
  - RFP being issued in May 2016
  - Award Expected September 2016
- Adopting to emerging vehicle technology
  - Autonomous Vehicles
  - Electric Highway



Questions?



# NEVADA DOT



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