NEPPP Updates

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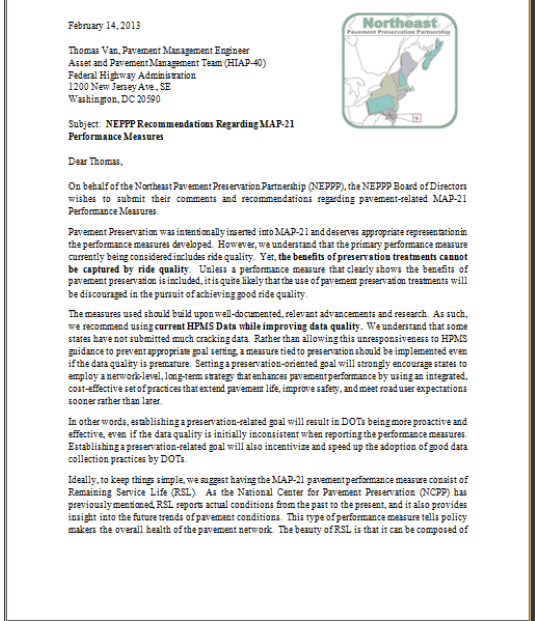
SEPPP Meeting
May 30, 2013

Agenda

- NEPPP Meeting highlights

- MAP-21 Performance Measures Recommendations
  - What we recommended to FHWA
  - And WHY!



February 14, 2013

Thomas Van, Pavement Management Engineer
Asset and Pavement Management Team (HIAP-40)
Federal Highway Administration
1200 New Jersey Ave., SE
Washington, DC 20590

Subject: **NEPPP Recommendations Regarding MAP-21 Performance Measures**

Dear Thomas,

On behalf of the Northeast Pavement Preservation Partnership (NEPPP), the NEPPP Board of Directors wishes to submit their comments and recommendations regarding pavement-related MAP-21 Performance Measures.

Pavement Preservation was intentionally inserted into MAP-21 and deserves appropriate representation in the performance measures developed. However, we understand that the primary performance measure currently being considered includes ride quality. Yet, **the benefits of preservation treatments cannot be captured by ride quality**. Unless a performance measure that clearly shows the benefits of pavement preservation is included, it is quite likely that the use of pavement preservation treatments will be discouraged in the pursuit of achieving good ride quality.

The measures used should build upon well-documented, relevant advancements and research. As such, we recommend using **current HPMS Data while improving data quality**. We understand that some states have not submitted much cracking data. Rather than allowing this unresponsiveness to HPMS guidance to prevent appropriate goal setting, a measure tied to preservation should be implemented even if the data quality is premature. Setting a preservation-oriented goal will strongly encourage states to employ a network-level, long-term strategy that enhances pavement performance by using an integrated, cost-effective set of practices that extend pavement life, improve safety, and meet road user expectations sooner rather than later.

In other words, establishing a preservation-related goal will result in DOTs being more proactive and effective, even if the data quality is initially inconsistent when reporting the performance measures. Establishing a preservation-related goal will also incentivize and speed up the adoption of good data collection practices by DOTs.

Ideally, to keep things simple, we suggest having the MAP-21 pavement performance measure consist of Remaining Service Life (RSL). As the National Center for Pavement Preservation (NCPP) has previously mentioned, RSL reports actual conditions from the past to the present, and it also provides insight into the future trends of pavement conditions. This type of performance measure tells policy makers the overall health of the pavement network. The beauty of RSL is that it can be composed of

NEPPP Meeting

- DOT-Only session
  - Spec sharing
  - Common issues
    - Led to good discussion with industry
  - Training/certification
    - Industry wants for inspectors
    - Incorporate into spec?

Guiding Principles – Perf. Measures Recs

- Promote the benefits of Pavement Preservation
- Allow flexibility state to state
- Establish clear requirements

Rumor Has It…

- R… lity me…
- Sor… sort of stru… al index
- P… or… in ter… o… Good

…romb… Pavement Preservation …on? strikes out!

Recommendations

- Use ONE Performance Measure:

Remaining Service Life (RSL)

  - Tells overall pavement health

  - Can be composed of different pavement measures
    - Automated and Manual data can both convert to RSL

RSL

Accounts for differences in roadway functional class

IRI = 171…poor?

- Officially, yes
- On an interstate…absolutely
- On a local road…not so much

Recommendations

- Use HPMS data

- Establish **clear, detailed** collection, processing and reporting requirements

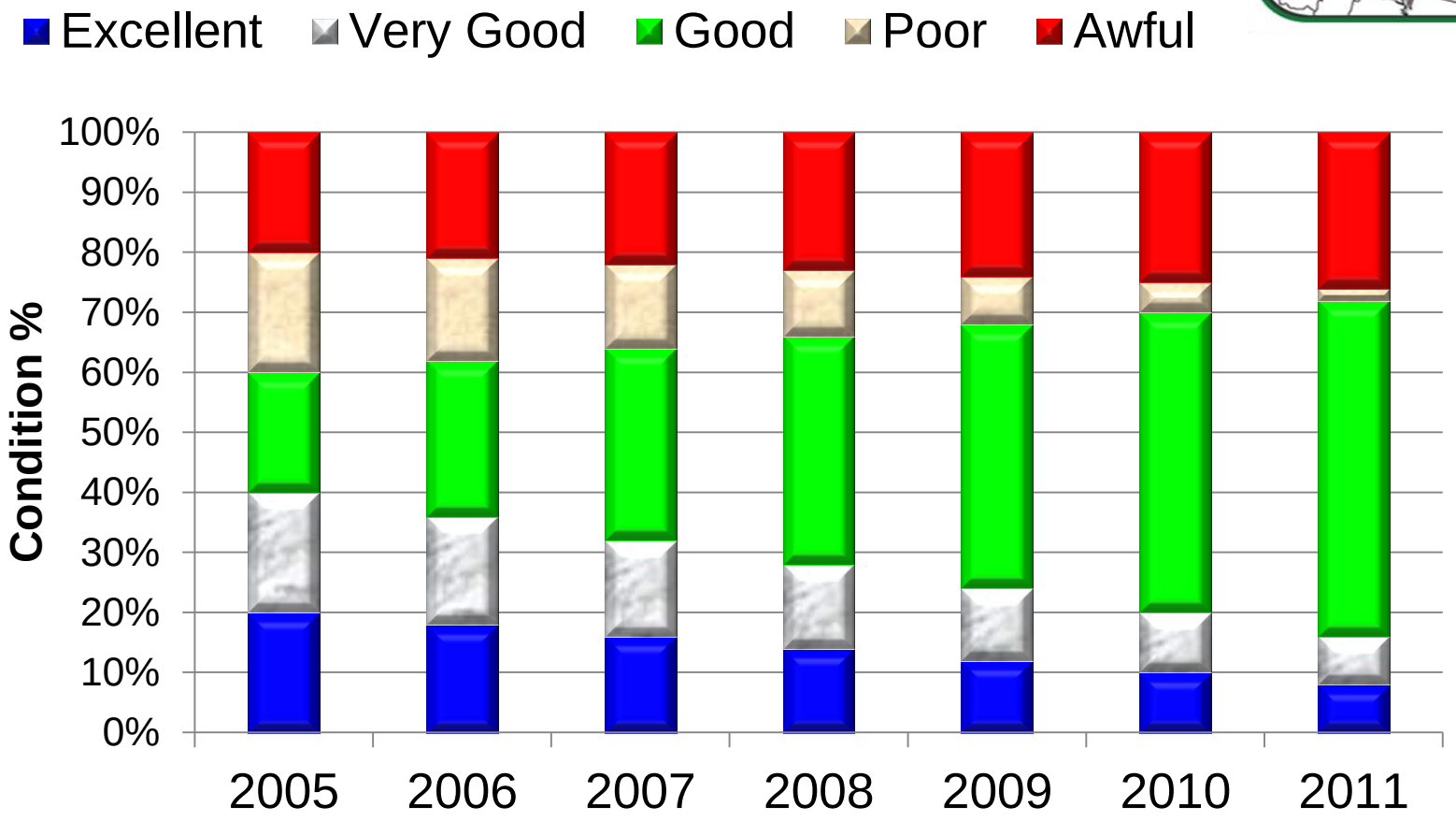
Recommendations

- Allow (more advanced) states to have more than the minimum
  - Allow states to have performance measures that **capture the benefit** of preservation treatments

Recommendations

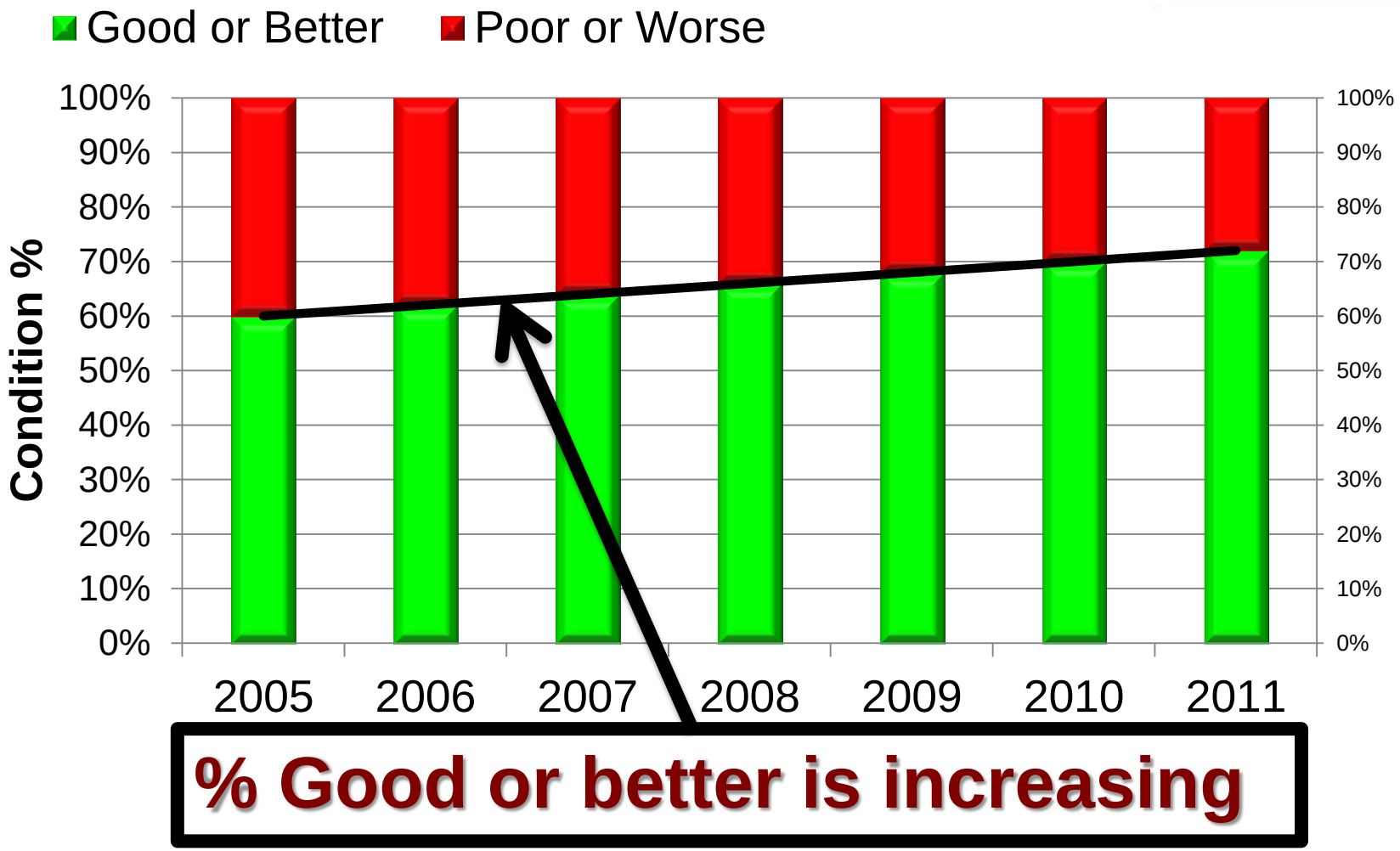
- Use **average** performance – Not bins of **"%Good"**
  - "% Good" **encourages** an unbalanced approach.
  - Average performance encourages a **balanced selection** of treatments.

Scenario

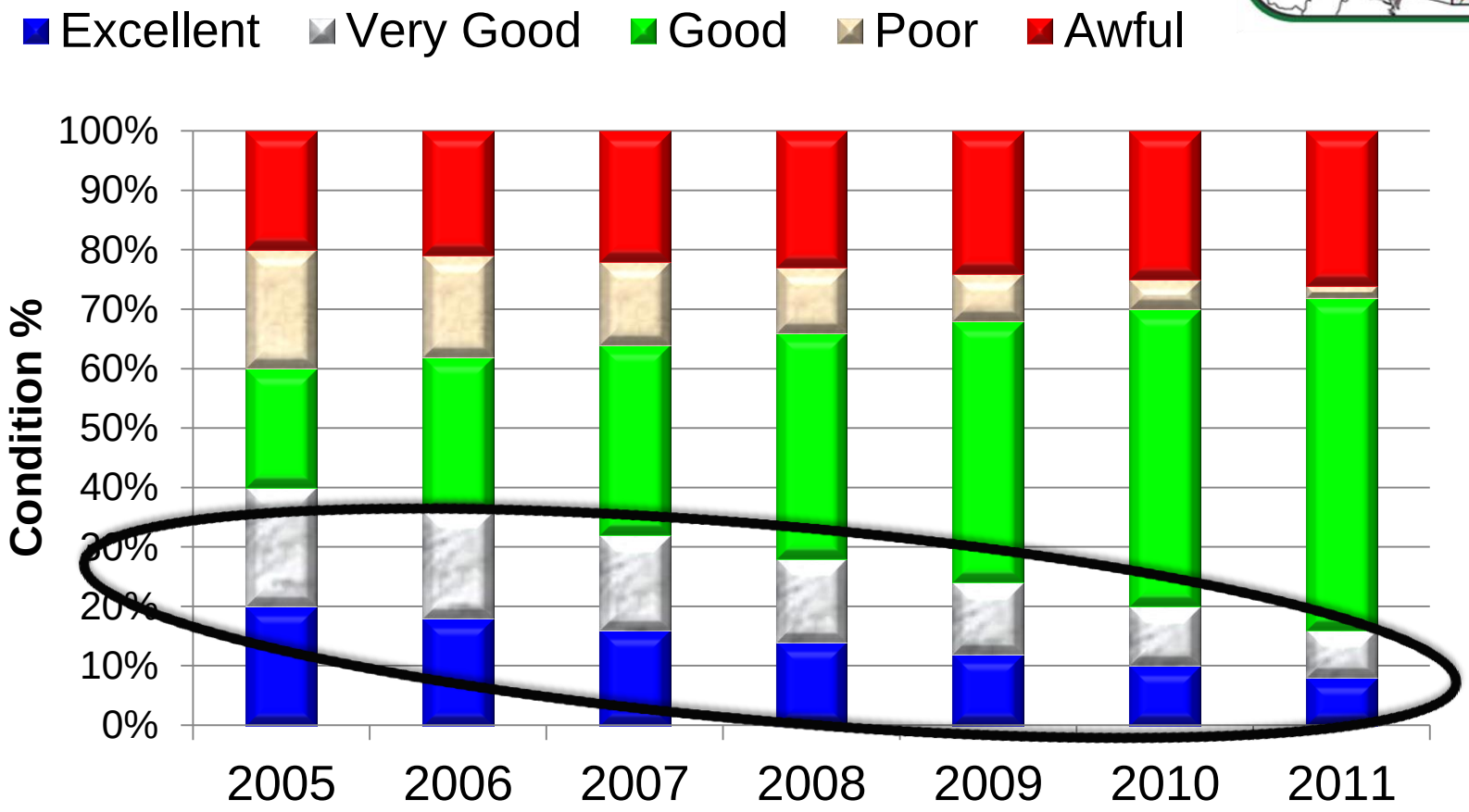


Is this pavement network improving or declining?

"% Good" Scenario

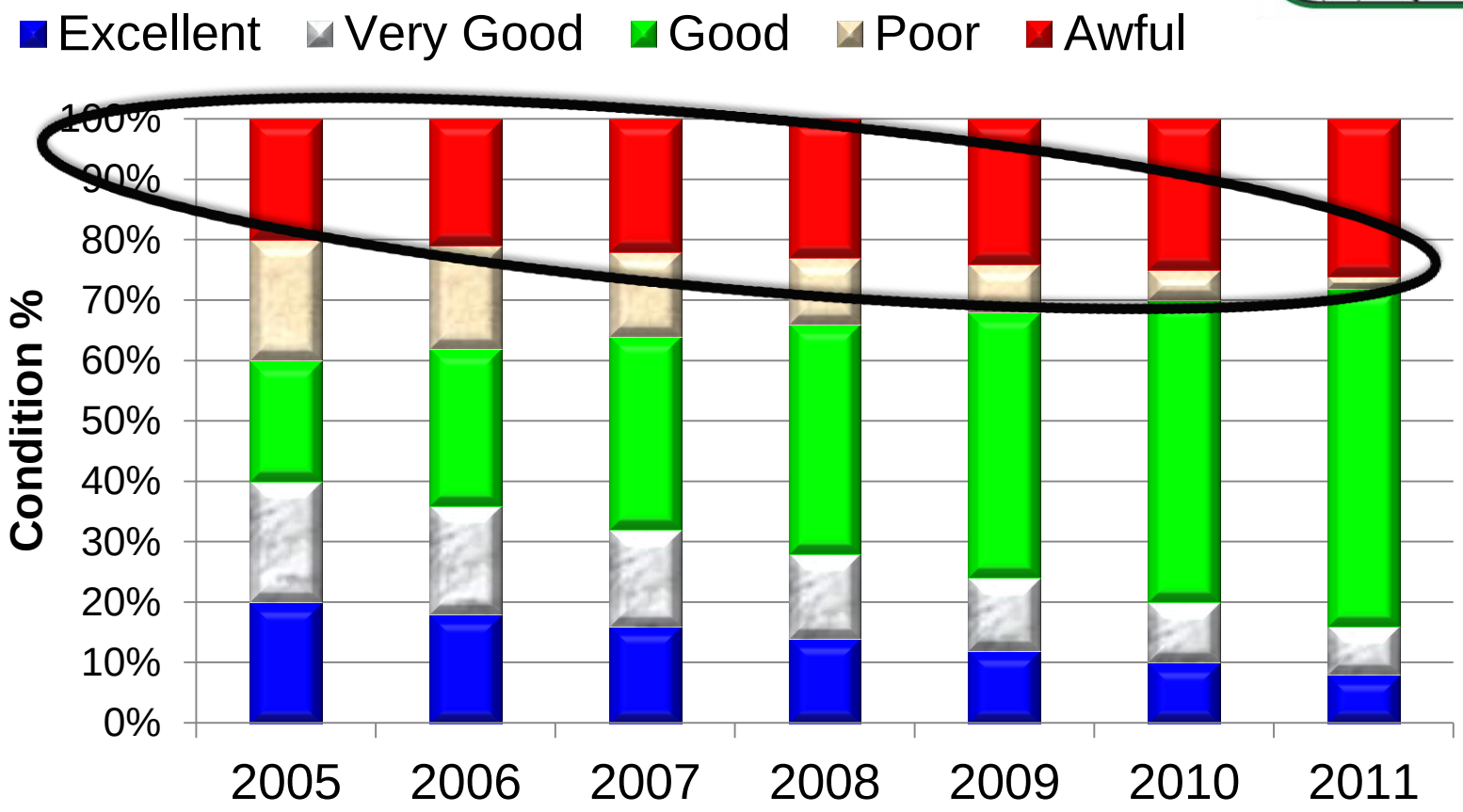


"% Good" Scenario



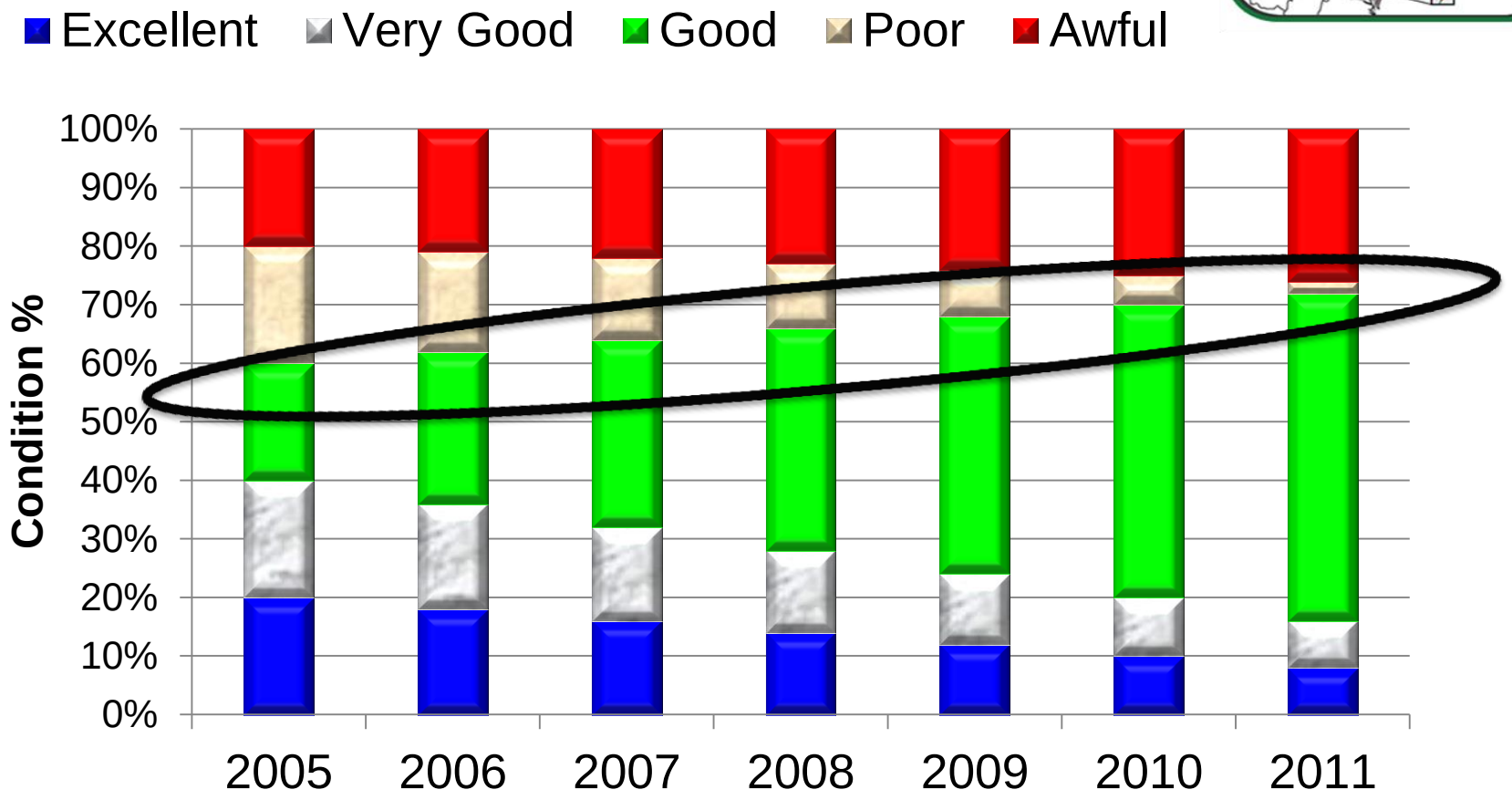
% of Excellent and Very Good decline.

"% Good" Scenario



% of Awful increase.

"% Good" Scenario

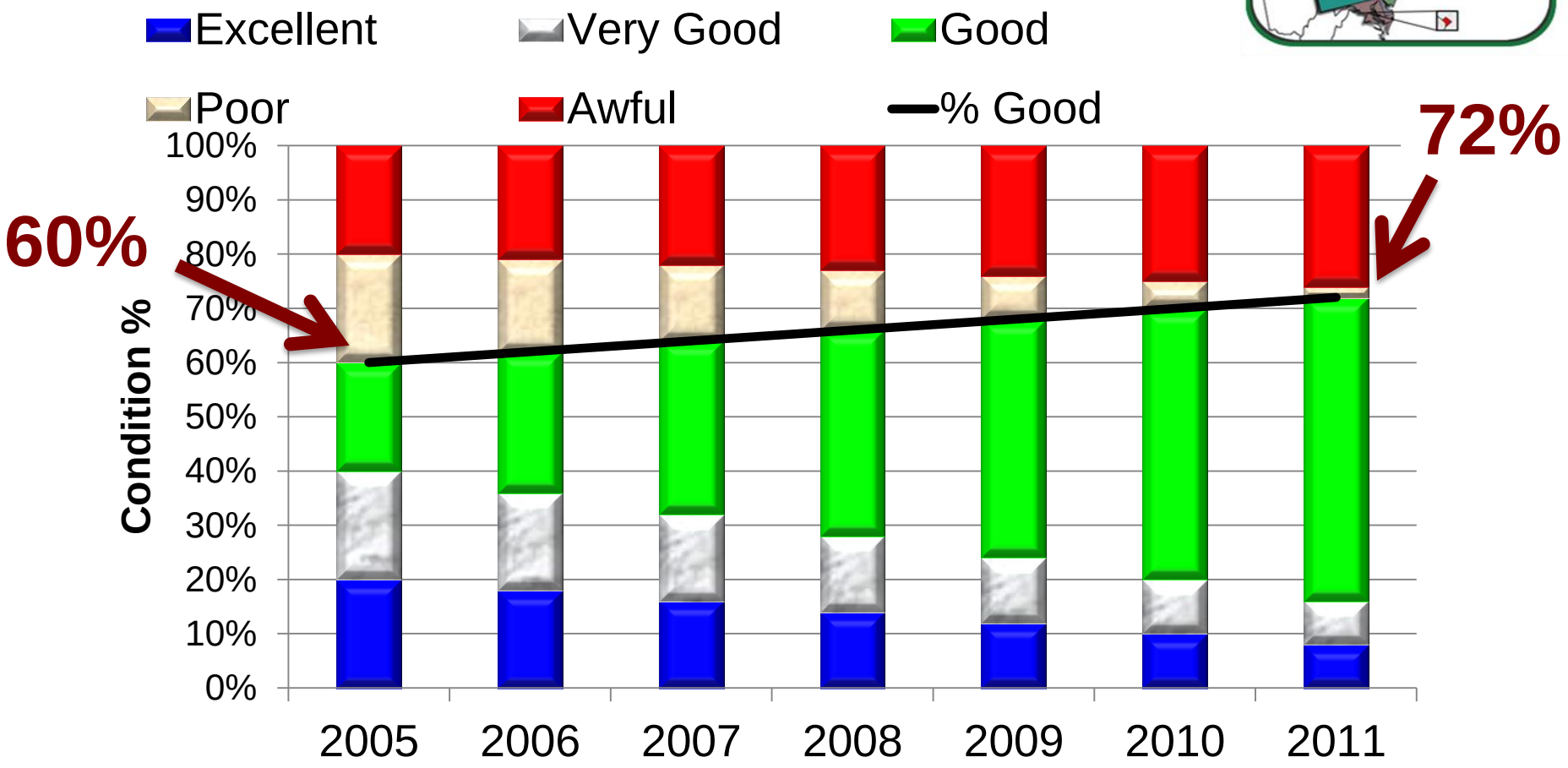


$$ Spent in Good & Poor at the exclusion of all others

% Good Scenario

- Why are $ spent near good/poor line?
  - Cheaper to fix Poor than Awful.
  - No **benefit** in fixing Very Good or Excellent
    - If they're ignored, they're still "Good"
  - Pavement Preservation thus essentially worthless.

"% Good" Scenario



By this measure, performance is **improving.**

"Average" Scenario

- What if we reported using an average index?

  - Excellent – 90 (out of 100)
  - Very Good – 70
  - Good – 50
  - Poor – 30
  - Awful - 10

"Average" Scenario

2005

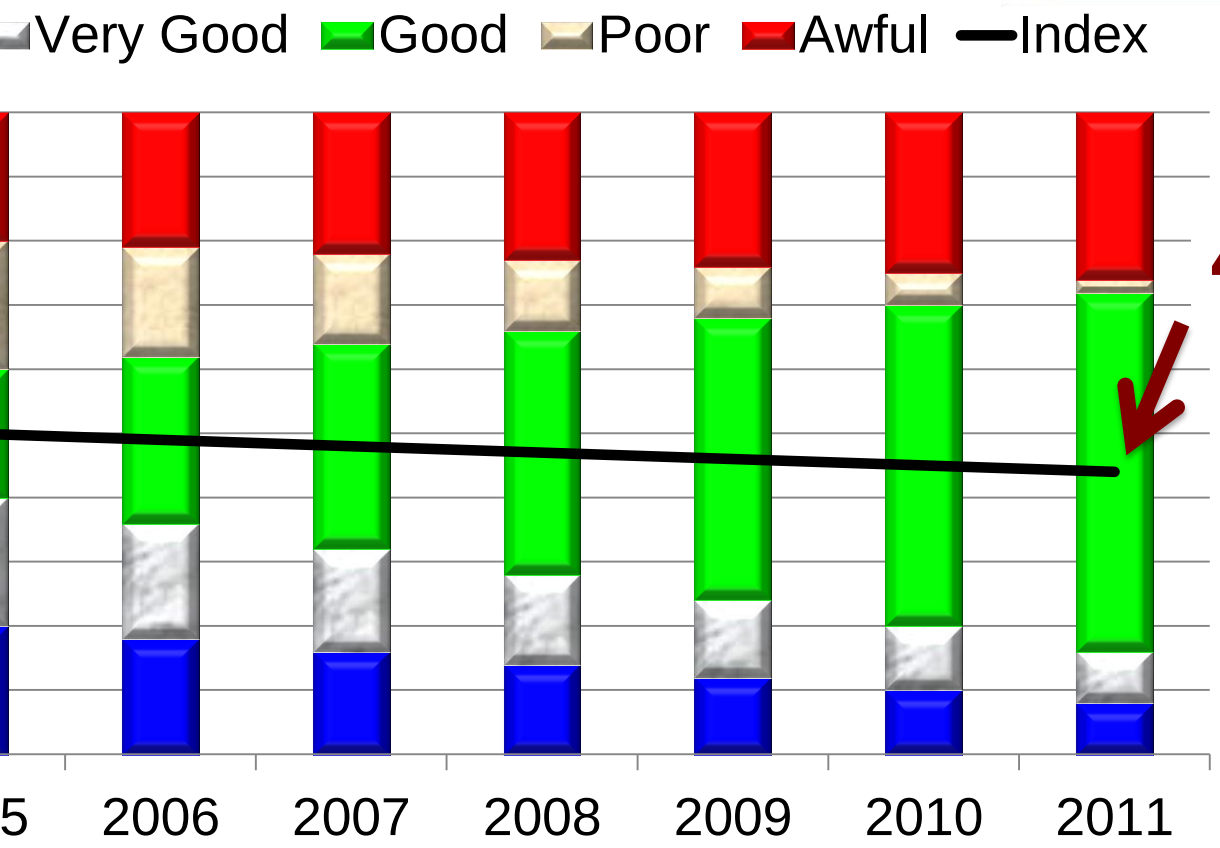
Category	% in Bin	Index	Weighted
Excellent	20%	90	18
Very Good	20%	70	14
Good	20%	50	10
Poor	20%	30	6
Awful	20%	10	2
Overall			**50**

"Average" Scenario

2011

Category	% in Bin	Index	Weighted
Excellent	8%	90	7.2
Very Good	8%	70	5.6
Good	56%	50	28
Poor	2%	30	0.6
Awful	26%	10	2.6
Overall			**44**

"Average" Scenario



50%

44%

By this measure, performance is **declining.**

"Average" Scenario

Why is this method better?

- A fix in any condition category still provides **benefit.**
  - $ spent are **balanced**
- Promotes picking projects with best benefit/cost ratio
- Pavement Preservation is **encouraged and thriving**

Summary

It is **critical** to have a measure that **promotes** pavement preservation to get…

The **Right Fix**

for the **Right Road**

at the **Right Time**

Questions?

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