MAP-21 Performance Measures

Northeast Pavement Preservation Partnership
April, 2014

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FHWA - Office of Asset Management
National Highway Performance Program: Summary

Proactive and transparent management of $40 billion Highway Program
What affects you?

1st Principle: Implements Legislation

2nd Principle: NHPP Focus is NHS
Important terms

1. Performance
2. Asset Management
3. Risk
4. Investment Strategy
Performance Measures

1. Operational
2. Liability

Not:
How to manage system
How to prioritize investments

Used for:
Setting targets for conditions
Reporting on Progress
Asset Management

NHPP Legislation says all States have to have an Asset Management Plan

Contains:
A. Inventory of pavement and bridge assets including condition
B. High-level Objectives and Measures
C. Performance Gaps
D. LCCA and Risk Management Analysis
E. Financial Plan
F. Investment Strategies
Risk = Probability x Consequence

- Natural Disaster
- Premature Material Failure
- Construction Delay
- Inadequate Revenue
- Traffic Generator
- Crash

Oh No!
### Risk Rating = Likelihood x Severity

<table>
<thead>
<tr>
<th>Severity</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catastrophic</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>Significant</td>
<td>4</td>
<td>8</td>
<td>12</td>
<td>16</td>
<td>20</td>
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<tr>
<td>Moderate</td>
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<td>6</td>
<td>9</td>
<td>12</td>
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<tr>
<td>Low</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Negligible</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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</tbody>
</table>

**Likelihood**
- Improbable
- Remote
- Occasional
- Probable
- Frequent

**Actions**
- Catastrophic: STOP
- Unacceptable: URGENT ACTION
- Undesirable: ACTION
- Acceptable: MONITOR
- Desirable: NO ACTION
<table>
<thead>
<tr>
<th>Consequence</th>
<th>Likelihood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extreme</td>
<td>Rare</td>
</tr>
<tr>
<td>Very High</td>
<td>Unlikely</td>
</tr>
<tr>
<td>High</td>
<td>Even Chance</td>
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<tr>
<td>Medium</td>
<td>Likely</td>
</tr>
<tr>
<td>Low</td>
<td>Almost Certain</td>
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</table>
Investment Strategies

You already have them!!!

MAP-21 says:

1. Transparent
2. Performance Link
3. Data-driven
4. Do the economics
Details:

Schedule:
• Public Comment to start late May or June
• 90 days to comment
• All comments have to go to Docket
• Implementation Spring 2015