FHWA Updates

AASHTO (T-18) Technical Committee for Bridge Management, Evaluation, and Rehabilitation

June 13, 2017
PERCENT OF BRIDGES IN POOR CONDITION IS DECREASING

Surface area of U.S. bridges rated Poor has decreased by 3.7 percentage points since 2002

Poor Bridges by Deck Area

9.6% 8.7% 5.9%

Talking Points

1. Regulation Update
2. Coding Guide Update (SNBI)
3. NBIS & NTIS Compliance
4. Bridge Program Language
1. Regulation Update

- National Performance Management Measures
- Asset Management
- National Bridge Inspection Standards
PM2 Overview

• Final rule published January 18, 2017
  – Effective May 20, 2017
• External webinar May 31, 2017
• http://www.fhwa.dot.gov/tpm/
## PM2 Key Points

<table>
<thead>
<tr>
<th>Bridge Condition Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>All NHS Bridges</td>
</tr>
<tr>
<td>Percentage of NHS bridges classified as in <strong>Good</strong> condition</td>
</tr>
<tr>
<td>Percentage of NHS bridges classified as in <strong>Poor</strong> condition</td>
</tr>
</tbody>
</table>
### PM2 Key Points

<table>
<thead>
<tr>
<th>NBI Rating Scale (from 0 – 9)</th>
<th>9</th>
<th>8</th>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deck (Item 58)</td>
<td>≥7</td>
<td>5 or 6</td>
<td>≤4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Superstructure (Item 59)</td>
<td>≥7</td>
<td>5 or 6</td>
<td>≤4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Substructure (Item 60)</td>
<td>≥7</td>
<td>5 or 6</td>
<td>≤4</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Culvert (Item 62)</td>
<td>≥7</td>
<td>5 or 6</td>
<td>≤4</td>
<td></td>
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</tbody>
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PM2 Key Points

• Minimum condition provision
  – ≤ 10.0% of total deck area of NHS bridges classified as SD for 3 consecutive years
  – Set aside and obligate

• Area calculation
  – Includes culverts starting in 2018
  – Deck area of border bridges is counted toward both States’ totals
PM2 Key Points

• Structurally deficient
  – Definition same as poor condition starting in 2018

• NBI data submission
  – March 15
### PM2 Key Dates

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 20, 2017</td>
<td>Final rule effective date.</td>
</tr>
<tr>
<td>January 1, 2018</td>
<td>4-year performance period begins.</td>
</tr>
<tr>
<td>May 20, 2018</td>
<td>Initial 2-and 4-year targets established.</td>
</tr>
<tr>
<td>October 1, 2018</td>
<td>First Baseline Performance Period Report due.</td>
</tr>
<tr>
<td></td>
<td>• State DOTs report 2-year and 4-year targets</td>
</tr>
<tr>
<td>Within 180 days</td>
<td>MPOs must commit to support State target or establish separate quantifiable target.</td>
</tr>
</tbody>
</table>
# PM2 Key Dates

<table>
<thead>
<tr>
<th>Date</th>
<th>Report/Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 1, 2020</td>
<td>First Mid Performance Period Progress Report due. State DOTs report:</td>
</tr>
<tr>
<td></td>
<td>• 2-year condition/performance</td>
</tr>
<tr>
<td></td>
<td>• Progress toward achieving 2-year targets</td>
</tr>
<tr>
<td></td>
<td>• Adjusted 4-year target, if necessary</td>
</tr>
<tr>
<td>December 31, 2021</td>
<td>First 4-year performance period ends.</td>
</tr>
<tr>
<td>October 1, 2022</td>
<td>Full Performance Period Progress Report due. State DOTs report:</td>
</tr>
<tr>
<td></td>
<td>• 4-year condition/performance</td>
</tr>
<tr>
<td></td>
<td>• Progress toward achieving 4-year targets</td>
</tr>
<tr>
<td></td>
<td>• Investment strategy</td>
</tr>
<tr>
<td></td>
<td>• Baseline report for 2nd performance period due.</td>
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Asset Management Overview

• Final rule published October 24, 2016
  – Effective October 2, 2017

• Resources available at
  www.fhwa.dot.gov/asset/index.cfm and
  www.fhwa.dot.gov/tpm/
Asset Management Key Points

• **Minimum plan requirements**
  – Summary listing and condition description of the NHS pavements and bridges
  – NHS pavements and bridges targets
  – Asset management objectives and measures
  – Performance gap analysis
  – Risk analysis
  – Life-cycle planning
  – Financial plan and investment strategies
### Asset Management Key Dates

<table>
<thead>
<tr>
<th>Date and Period</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>By April 30, 2018</td>
<td>State DOTs submit initial plans describing asset management plan processes.</td>
</tr>
<tr>
<td>By June 30, 2019</td>
<td>State DOTs submit fully compliant asset management plans.</td>
</tr>
<tr>
<td>Not later than August 31, 2019, and not later than July 31 in each year thereafter</td>
<td>Annual determination by FHWA of whether the State DOT has developed and implemented a State asset management plan consistent with this final rule.</td>
</tr>
<tr>
<td>Beginning October 1, 2019, and in each fiscal year thereafter</td>
<td>If a State DOT has not developed and implemented a compliant asset management plan, the maximum Federal share on National Highway Performance Program (NHPP) projects and activities carried out by the State in that fiscal year shall be reduced to 65% for that fiscal year.</td>
</tr>
</tbody>
</table>
TPM Implementation Workshops

- Four regional workshops (AM, PM2, PM3)
  - Mid-America: Kansas City, MO, June 20-23, 2017
  - South: Raleigh, NC, July 11-14, 2017
  - North: August
  - West: September
NBIS Rulemaking

- MAP-21 directed an update
  - Methodology, training, and qualifications of inspectors
  - Frequency of inspections
    - Consider risk-based approach
- Department had multiple priorities
- FHWA’s top regulatory priority
2. SNBI Development

- Ensure highway bridge safety
- Allow for monitoring of NBIS
- Accommodate reporting to Congress
- Provide adequate and beneficial information during times of emergency
SNBI Development

• Provide data necessary for the FHWA to administer the Federal-aid bridge program
  – HBP discontinued by MAP-21
  – MAP-21: risk-based, data driven, performance management program

• Utilize data from existing management systems to the maximum extent possible
SNBI Changes

• U.S. customary units
• Grouping of items in sections and sub-sections
  – Initial sections based on SI&A sheet
• One-to-one and many-to-one data sets for bridges
SNBI Changes

- Items IDs
- XML data submittal format
- Consistency with SNTI where possible
- Consistency with HPMS where possible
- Specification/commentary format
SNBI Next Steps

• Editorial review
• Office of Chief Counsel review
• Public review and comment
3. NBIS & NTIS Compliance
2017 NBIS Compliance

% Satisfactory in PY 2017

M1: 88% CY 2011, 12% CY 2011 to PY 2017 Change
M2: 100% CY 2011, 0% CY 2011 to PY 2017 Change
M3: 92% CY 2011, 8% CY 2011 to PY 2017 Change
M4: 99% CY 2011, 1% CY 2011 to PY 2017 Change
M5: 90% CY 2011, 10% CY 2011 to PY 2017 Change
M6: 52% CY 2011, 48% CY 2011 to PY 2017 Change
M7: 85% CY 2011, 15% CY 2011 to PY 2017 Change
M8: 48% CY 2011, 52% CY 2011 to PY 2017 Change
M9: 88% CY 2011, 12% CY 2011 to PY 2017 Change
M10: 25% CY 2011, 75% CY 2011 to PY 2017 Change
M11: 30% CY 2011, 70% CY 2011 to PY 2017 Change
M12: 10% CY 2011, 90% CY 2011 to PY 2017 Change
M13: 15% CY 2011, 85% CY 2011 to PY 2017 Change
M14: 19% CY 2011, 81% CY 2011 to PY 2017 Change
M15: 46% CY 2011, 54% CY 2011 to PY 2017 Change
M16: 25% CY 2011, 75% CY 2011 to PY 2017 Change
M17: 19% CY 2011, 81% CY 2011 to PY 2017 Change
M18: 25% CY 2011, 75% CY 2011 to PY 2017 Change
M19: 19% CY 2011, 81% CY 2011 to PY 2017 Change
M20: 25% CY 2011, 75% CY 2011 to PY 2017 Change
M21: 19% CY 2011, 81% CY 2011 to PY 2017 Change
M22: 25% CY 2011, 75% CY 2011 to PY 2017 Change
M23: 19% CY 2011, 81% CY 2011 to PY 2017 Change
2017 NBIS Compliance

# of Metrics Conditionally Compliant by Year

- CY 2011
- PY 2013
- PY 2014
- PY 2015
- PY 2016
- PY 2017
NBIS Compliance in the Future

• Minor Changes for PY 2018 (in general)
  – Compliance levels – Substantial compliance
  – Assessment levels
    • Minimum, Intermediate, In-depth
  – Sample size – 80% LOC/15% MOE
NBIS Compliance in the Future

- **Minor Changes for PY 2018 (by metric)**
  - Metrics 4 & 5 – Load rating engineer & diver
    - Added substantial compliance measure
  - Metrics 6-10 – Frequency
    - Minimum assessment level no longer requires resolution of all data inconsistencies
  - Metric 12 – Quality inspection
    - Modified sample tool to select higher risk bridges
  - Metric 18 – Scour
    - Sample applies to all bridges over water
NTIS Compliance in the Future

- Finalizing metrics
- Need to coordinate with AASHTO
4. Bridge Program Language

• Functionally Obsolete
• Sufficiency Rating
• Structurally Deficient
• Fracture Critical
Thank You

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