TRANSPORTATION ASSET MANAGEMENT PLAN

Meredith Hill
MDOT SHA, Innovative Planning & Performance Division
November 26, 2019
TRANSPORTATION GOALS

National Goal Areas

- Safety
- Infrastructure condition
- Congestion reduction
- System reliability
- Freight movement and economic vitality
- Environmental sustainability
- Reduced project delivery delays

Maryland Transportation Goals

- Ensure a Safe, Secure, and Resilient Transportation System
- Facilitate Economic Opportunity and Reduce Congestion in Maryland Through Strategic System Expansion
- Maintain a High Standard and Modernize Maryland’s Multimodal Transportation System
- Improve the Quality and Efficiency of the Transportation System to Enhance the Customer Experience
- Ensure Environmental Protection and Sensitivity
- Promote Fiscal Responsibility
- Provide Better Transportation Choices and Connections
PBPP PRODUCTS AND PARTNERS

Maryland DOT

- Maryland Transportation Plan
- Consolidated Transportation Plan
  - Statewide Transportation Improvement Program
- Annual Attainment Report

- Maryland Strategic Highway Safety Plan
- Maryland Transportation Asset Management Plan (TAMP)
- Maryland State Highway Mobility Report

Metropolitan Planning Organizations

- Long Range Transportation Plan
- Transportation Improvement Program
- Transportation Performance Management
- Regional Congestion Mitigation & Air Quality Performance Plan
NATIONAL HIGHWAY SYSTEM IN MARYLAND

PARTNER OWNERS

- National Park Service
- ACOE/Military
- Anne Arundel
- Baltimore County
- Howard County
- Montgomery County
- Prince George’s County
- Washington County
- Baltimore City
- Brunswick
- Greenbelt
- Hagerstown
- Salisbury
NHS BASELINE PERFORMANCE - PAVEMENT

9,035 lane miles on NHS  
CY2018

12% NHS  
73,566 lane miles in Maryland

Pavement (Lane Miles)

- NHS: 53.3%, 41.6%, 5.1%  
- Interstate: 39.1%, 0.5%, 59.3%  
- Non-Interstate: 7.0%, 33.7%
MARYLAND’S NHS PERFORMANCE OBJECTIVES

Performance Objectives

- Maintain the baseline

Federal Threshold in Poor Condition

- Bridge – below 10.0% bridge deck area
- Interstate Pavement – below 5.0%
FINANCIAL PLAN – NON-FEDERAL NHS BRIDGES

<table>
<thead>
<tr>
<th>WORK TYPES</th>
<th>10-YEAR AVERAGE ANNUAL INVESTMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Initial Construction</td>
<td>$0</td>
</tr>
<tr>
<td>2. Maintenance</td>
<td>$3</td>
</tr>
<tr>
<td>3. Reconstruction</td>
<td>$268</td>
</tr>
<tr>
<td>4. Rehabilitation</td>
<td>$64</td>
</tr>
<tr>
<td>5. Preventative</td>
<td>$40</td>
</tr>
<tr>
<td>6. Other NHS Activities</td>
<td>$31</td>
</tr>
<tr>
<td>NHS Bridge Financial Plan</td>
<td>$406M/Yr</td>
</tr>
</tbody>
</table>

NHS Bridge Projections from Reasonably Available Funding ($406M/Yr)
- Good: 4.2%
- Far: 77.5%
- Poor: 18.3%
## FINANCIAL GAP – NON-FEDERAL NHS BRIDGES

<table>
<thead>
<tr>
<th>NHS Bridges</th>
<th>SYSTEM PERFORMANCE</th>
<th>10-YEAR</th>
<th>10-YEAR GAP ANALYSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline (Current)</td>
<td>4-Year</td>
<td>Objective</td>
</tr>
<tr>
<td>Good Condition</td>
<td>27.4%</td>
<td>28.4%</td>
<td>30.0%</td>
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<tr>
<td>Poor Condition</td>
<td>2.6%</td>
<td>2.4%</td>
<td>2.0%</td>
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<tr>
<td>Financial Gap (average annual in $M)</td>
<td>$515</td>
<td>$406</td>
<td>$109M/Yr &lt; desired</td>
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</tbody>
</table>
# FINANCIAL PLAN – NHS PAVEMENT

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<tbody>
<tr>
<td>1. Initial Construction</td>
<td>$0</td>
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<td>2. Maintenance</td>
<td>$4</td>
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<td>3. Reconstruction</td>
<td>$8</td>
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<tr>
<td>4. Rehabilitation</td>
<td>$125</td>
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<td>5. Preventative</td>
<td>$14</td>
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<td>6. Other NHS Activities</td>
<td>$42</td>
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<tr>
<td>Non-NHS Activities (Reserves)</td>
<td>$60</td>
</tr>
<tr>
<td>NHS Pavement Financial Plan</td>
<td>$253M/Yr</td>
</tr>
</tbody>
</table>

![Bar chart showing NHS Pavement Projections](image)

NHS Pavement Projections from Reasonably Available Funding ($253M/Yr)
## FINANCIAL GAP – NHS PAVEMENT

<table>
<thead>
<tr>
<th>NHS Pavement</th>
<th>SYSTEM PERFORMANCE</th>
<th>10-YEAR</th>
<th>10-YEAR GAP ANALYSIS</th>
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<td>Objective</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>Interstate</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Good Condition</td>
<td>60.4%</td>
<td>60.2%</td>
<td>60.0%</td>
</tr>
<tr>
<td>Poor Condition</td>
<td>0.5%</td>
<td>1.1%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Non-Interstate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good Condition</td>
<td>33.7%</td>
<td>34.2%</td>
<td>35.0%</td>
</tr>
<tr>
<td>Poor Condition</td>
<td>7.0%</td>
<td>7.4%</td>
<td>8.0%</td>
</tr>
</tbody>
</table>

Financial Gap (average annual in $M) | $315 | $253 | $62M/Yr < desired
NEXT STEPS

Transportation Asset Management Plan

• Annual Consistency Review (June)
  • March Structural Management Plan
  • What did you spend by work type in FY2019?

• MDOT SHA Asset Management Plan
  • Structures, Pavement, Facilities, Fleet, IT Systems (first round)

Transportation Performance Management

• Mid-Point Performance Report (October 2020)
  • Re-evaluate based on CY2019 (bridges) and CY2018 (pavement)
  • MPO target adjustments
PLAN DEVELOPMENT

Requirements from AM Policy

1. What we Own
   • Define & Record the Assets We Own (Know What we Own)

2. Condition & Performance
   • Determine the Condition of Assets (Know the Condition and Performance of Assets)

3. Plan for SOGR
   • Establish a Plan for Maintaining a State of Good Repair

4. Practices & Protocols
   • Commit to Asset Management Practices

5. $ and Management
   • Develop Framework & Guidance for Asset Management Software Systems to Leverage & Manage Asset Information
THANK YOU

Meredith Hill
Division Chief, Innovative Planning & Performance
Maryland DOT State Highway Administration
410-545-8739
MHill8@mdot.Maryland.gov

IPPD Products and Services