Resolution on Proposed Regional Targets for Bridge and Pavement Performance

March 28, 2023

Performance reporting requirements for State DOTs and MPOs

- Through MAP-21, Congress required FHWA to establish measures to assess performance in 12 areas, including performance on the Interstate and non-Interstate NHS.

- State DOTs establish 2- and 4-year targets for a 4-year performance period for the condition of infrastructure assets (bridges and pavement) on the NHS.

    – Performance targets apply to NHS pavement and bridges regardless of owner

    – MDOT submitted 2- and 4-year targets to USDOT in October 2022 for Performance Period 2 from 2022 to 2026

- MPOs must either support the State target or establish their own quantifiable 4-year targets within 180 days of the State target establishment.

Target Measures Related to Bridge and Pavement Performance

1) percent of NHS bridges in Good Condition;

2) percent of NHS bridges in Poor Condition;

3) percent of NHS interstate pavement in Good Condition;

4) percent of NHS interstate pavement in Poor Condition;

5) percent of NHS non-interstate pavement in Good Condition; and

6) percent of NHS non-interstate pavement in Poor Condition

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Bridge Condition Target Criteria

- **Bridge condition is based on National Bridge Inventory (NBI) condition ratings for item 58 - Deck, 59 - Superstructure, 60 - Substructure, and 62 - Culvert.**
  - Condition is determined by the lowest rating of deck, superstructure, substructure, or culvert.
    - If the lowest rating is greater than or equal to 7, the bridge is classified as good; if less than or equal to 4, the classification is poor.
    - Bridges rated below 7 but above 4 will be classified as fair; there is no related performance measure.
    - Deck area is computed using NBI item 49 - Structure Length, and 52 - Deck Width or 32 - Approach Roadway Width (for some culverts).

Current Bridge Conditions

Total area of NHS bridges in Maryland: 3,758,075 m^2
Total area of NHS bridges in the Baltimore region: 2,152,019 m^2
Baltimore region = 57% of NHS bridges in MD

Location	Total Number	State Owned Bridges								Local Owned Bridges			
		SHA	MAA	MdTA	DNR	MTA	Good	Fair	Poor	County	Good	Fair	Poor
Anne Arundel County	179	168	1	10	0	0	49	130	0	0	0	0	0
Baltimore City	225	0	0	120	0	0	21	98	1	105	11	77	17
Baltimore County	318	265	0	48	0	0	89	220	4	5	1	2	2
Carroll County	17	17	0	0	0	0	7	10	0	0	0	0	0
Harford County	44	32	0	12	0	0	11	31	2	0	0	0	0
Howard County	116	110	0	6	0	0	26	90	0	0	0	0	0
Queen Anne's County	4	4	0	0	0	0	0	4	0	0	0	0	0
Total	903	596	1	196	0	0	203	583	7	110	12	79	19

Total Area =	23,164,906.36	SF
Total Good =	4,207,691.37	18.2%
Total Fair =	17,836,189.29	77.0%
Total Poor =	1,121,025.70	4.8%
Total Bridges	903	
Total Good =	215	23.8%
Total Fair =	662	73.3%
Total Poor =	26	2.9%

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Regional Bridge Condition Targets

Region	Good			Poor		
	State (≥)	% Change used by State	Region (≥)	State (≤)	% Change used by State	Region (≤)
2022 PP2 Baseline	24.3%		18.2%	2.6%		4.8%
2024 2-Year Target	24.5%	0.8%	18.3%	2.5%	-3.8%	4.6%
2026 4-Year Target	24.8%	1.2%	18.6%	2.2%	-12.0%	4.1%

- Baseline regional bridge conditions for Good (18.2%) and Poor (4.8%) are lower than the baseline State conditions for Good (24.3%) and Poor (2.6%).

- Regional PP2 bridge targets were set by calculating the % change between target years (2022 to 2024; 2024 to 2026) for State targets and applying that to Regional targets, starting at Regional PP2 baseline.

Pavement Condition Target Criteria

- If FHWA determines State DOT's Interstate pavement condition falls below the minimum level for the most recent year, the State DOT must obligate a portion of National Highway Performance Program (NHPP) and transfer a portion of Surface Transportation Program (STP) funds to address Interstate pavement condition.

- Pavement condition is based on a calculation using measures of international roughness index (IRI), cracking, and rutting or faulting. A pavement section condition rating (Good, Fair, Poor) is based on the worst measure (IRI, cracking, rutting or faulting) for the section.

NHS Pavement Ownership

		Thru Lane Miles			
		Interstate	Non-IS	State	Local
Anne Arundel Co	State	174.5	557.2	731.7	
	Local	0.0	11.5		11.5
Baltimore City	State	91.0	774.6	865.6	
	Local	26.9	675.2		702.1
Baltimore Co	State	517.1	454.0	971.1	
	Local	0.0	89.5		89.5
Carroll Co	State	9.3	129.5	138.8	
	Local	0.0	0.0		0.0
Harford Co	State	112.8	221.3	334.1	
	Local	0.0	0.0		0.0
Howard Co	State	191.8	300.5	492.3	
	Local	0.0	6.6		6.6
Queen Anne's Co	State	0.0	199.9	199.9	
	Local	0.0	0.0		0.0
	TOTAL	1123.4	3419.8	3733.5	809.7
	% LOCAL				17.8%

Regional Pavement Condition Targets

Region Interstate	Good			Poor		
	State (≥)	% Change used by State	Region (≥)	State (≤)	% Change used by State	Region (≤)
2022 PP2 Baseline	55.4%		52.3%	0.6%		1.2%
2024 2-Year Target	48.0%	-13.4%	45.3%	1.0%	40.0%	1.7%
2026 4-Year Target	45.0%	-6.3%	42.5%	1.0%	--	1.7%

Region Non-Interstate	Good			Poor		
	State (≥)	% Change used by State	Region (≥)	State (≤)	% Change used by State	Region (≤)
2022 PP2 Baseline	30.4%		23.6%	6.2%		10.6%
2024 2-Year Target	29.0%	-4.6%	22.5%	8.0%	29.0%	13.7%
2026 4-Year Target	28.0%	-3.4%	21.7%	9.0%	12.5%	15.4%

- Baseline regional pavement conditions for all measures are lower than the baseline State conditions for all measures.
- Regional PP2 pavement targets were set by calculating the % change between target years (2022 to 2024; 2024 to 2026) for State targets and applying that to Regional targets, starting at Regional PP2 baseline

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Bridge and Pavement Condition Target Summary

Performance Measure	2-Year Targets	4-Year Targets
Percent of NHS bridges in Good Condition (2024, 2026)	18.3%	18.6%
Percent of NHS bridges in Poor Condition (2024, 2026)	4.6%	4.1%
Percent of NHS Interstate pavement in Good Condition (2024, 2026)	45.3%	42.5%
Percent of NHS Interstate pavement in Poor Condition (2024, 2026)	1.7%	1.7%
Percent of NHS non-Interstate pavement in Good Condition (2024, 2026)	22.5%	21.7%
Percent of NHS non-Interstate pavement in Poor Condition (2024, 2026)	13.7%	15.4%

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For More Information

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