



HIGHWAY ASSETS: PAVEMENT AND BRIDGE CONDITION

TPB Performance Measures and Draft 2026-2029 Targets

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Transportation Planning Board
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National Capital Region
Transportation Planning Board

Agenda Item #8

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Photo: Virginia Department of Transportation (VDOT)



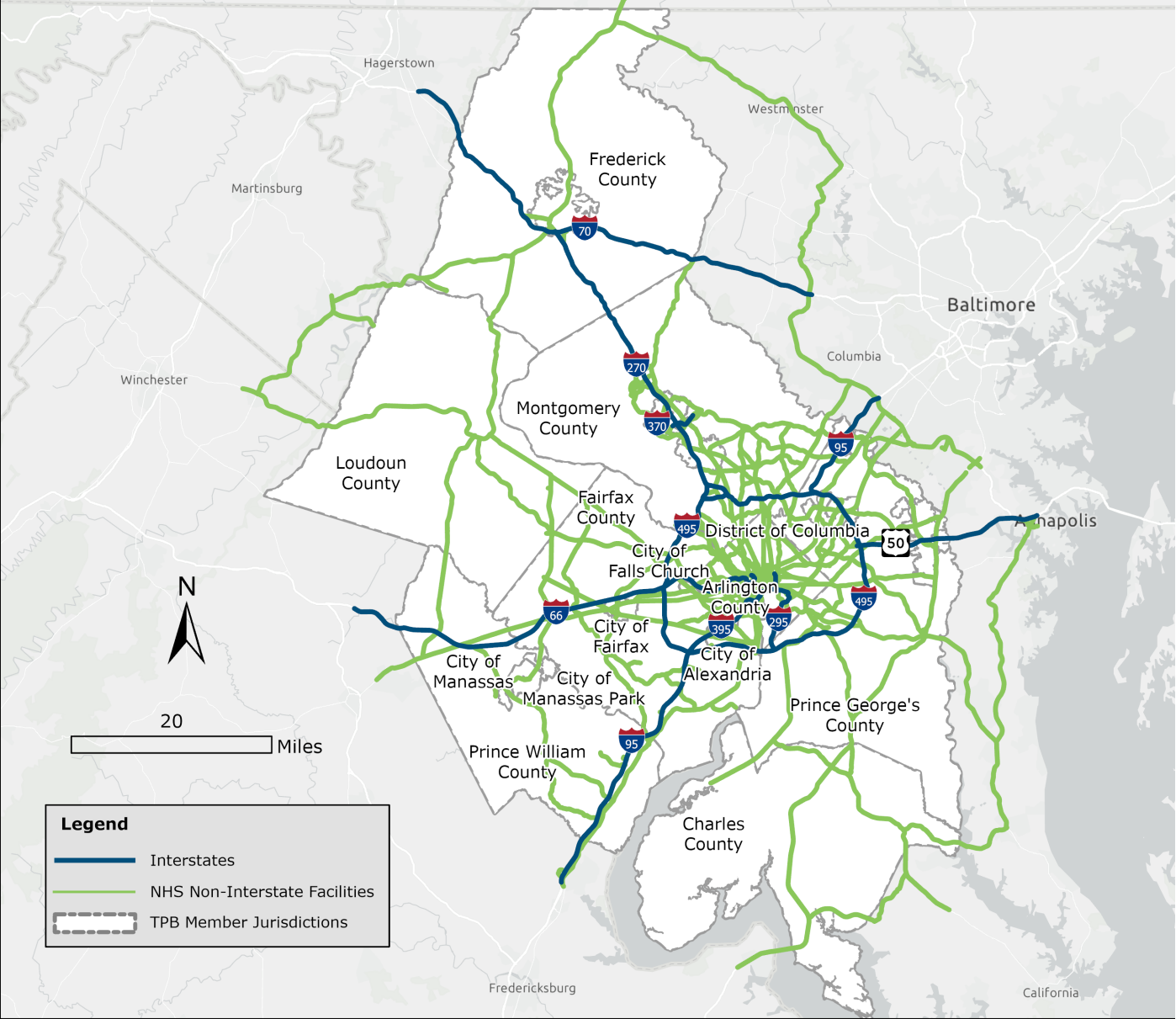
TPB Goals and Highway Maintenance Measures

- TPB's Goals: Safety, **Maintenance**, Reliability, Affordable and Convenient Mobility Options, Efficient System Operations, Environmental Protection, Resilient Region, and Livable and Prosperous Communities
- Quantifiable performance measures for the region's roadways help assess progress for highway maintenance.

Performance Measure	What is it?	What does it mean?
Roadway Pavement Condition (4 Targets)	The percentage of Interstate and Non-Interstate National Highway System (NHS) pavement in Good and Poor condition	Good: All FHWA metrics (roughness, cracking, rutting) are rated Good Poor: ≥ 2 applicable metrics rated Poor
Roadway Bridge Condition (2 Targets)	The percentage of NHS Bridge Deck Areas in Good and Poor condition	Good: All major components rated 7–9 (Good) Poor: Any major component rated ≤ 4 (Poor)



National Highway System in the TPB Planning Area



Pavement and Bridge Target-Setting Requirements

Target-Setting Requirements:

- Although State DOTs (DDOT, MDOT, and VDOT) are required to establish both 2-year and 4-year targets, MPOs are required to establish 4-year targets
- MPO targets to be set within 180 days after State DOT targets are established

Four-Year Performance Periods:

- Past Performance Period: 2022-2025
- Future Performance Period: 2026-2029



Pavement and Bridge Target-Setting Methodology

Methodology for both pavement and bridges

1. Apply State DOT Statewide Targets to Respective Portions of the TPB Planning Area

- DDOT: Apply targets to the District in its entirety
- MDOT: Apply statewide targets to conditions within the Maryland portion of the TPB planning area*
- VDOT: Apply statewide targets to conditions within the Virginia portion of the TPB planning area

2. Develop TPB Regional Targets

- Combine the subregional results to develop unified, four-year regional pavement and bridge condition targets for the entire TPB Planning Area

*Maryland results may be refined if MDOT provides forecasts for the four Maryland jurisdictions in the TPB planning area



Recent Target Setting Activities

- **Coordinated with DDOT, MDOT, and VDOT on highway asset target setting**
 - Developed and shared recent state-level performance data for the TPB region
 - Requested and obtained state targets, performance information, and target-setting methodologies
 - Reviewed state inputs to support development of draft MPO regional targets
- **Review of 2022-2025 past performance vs. targets**
 - Pavement data available through 2024 (HPMS)
 - Bridge data available through 2025 (NBI)
- **Developed draft regional targets for highway asset condition measures (pavement and bridge)**
 - Adoption of 2026-2029 four-year targets
 - TPB briefing on draft targets: October 21
 - TPB approval of final targets: November 18 (anticipated)



Pavement Condition Targets



Pavement: Past Targets and Performance 2022–2025

Interstate Pavement	2022–2025 Four Year Target	Actual Performance	
Percentage of pavements on the Interstate System in Good condition	44.8%	64.4% (2024)	✓
Percentage of pavements on the Interstate System in Poor condition	1.6%	0.1% (2024)	✓
NHS (Non-Interstate) Pavement			
Percentage of pavements on the NHS (excl. Interstate) in Good condition	26.3%	26.3% (2024)	✓
Percentage of pavements on the NHS (excl. Interstate) in Poor condition	7.2%	3.3% (2024)	✓

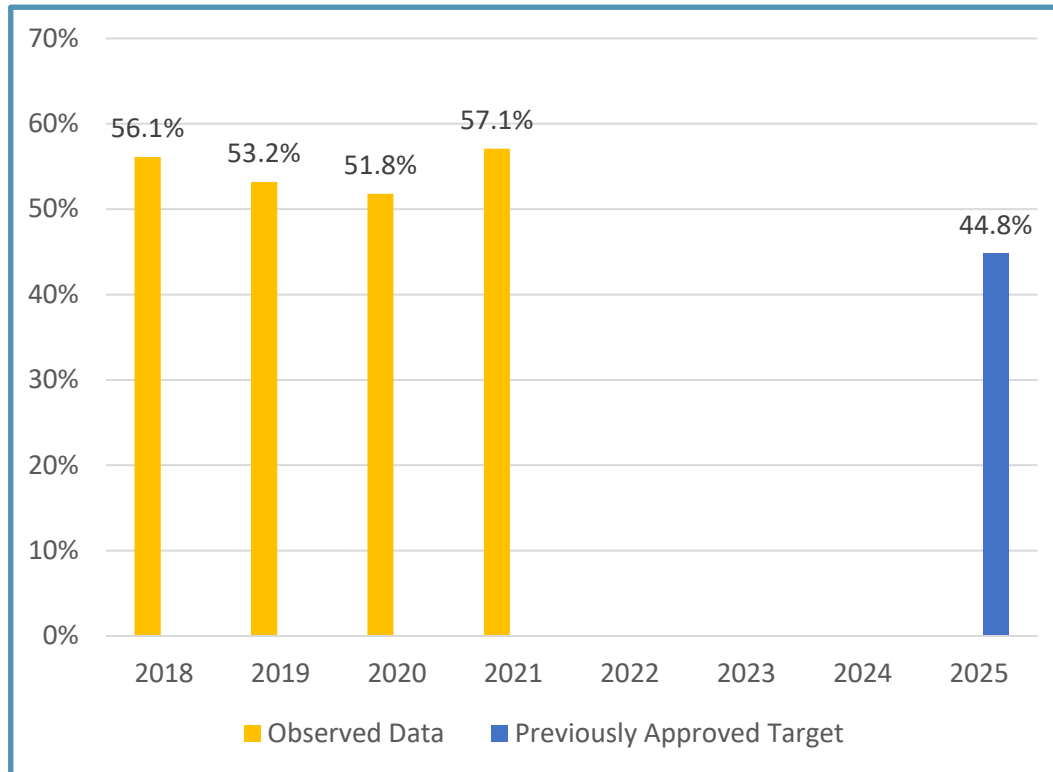
Targets set by the TPB on Oct 19, 2022



Interstate Pavement Condition: Past Performance Period (2022-2025)

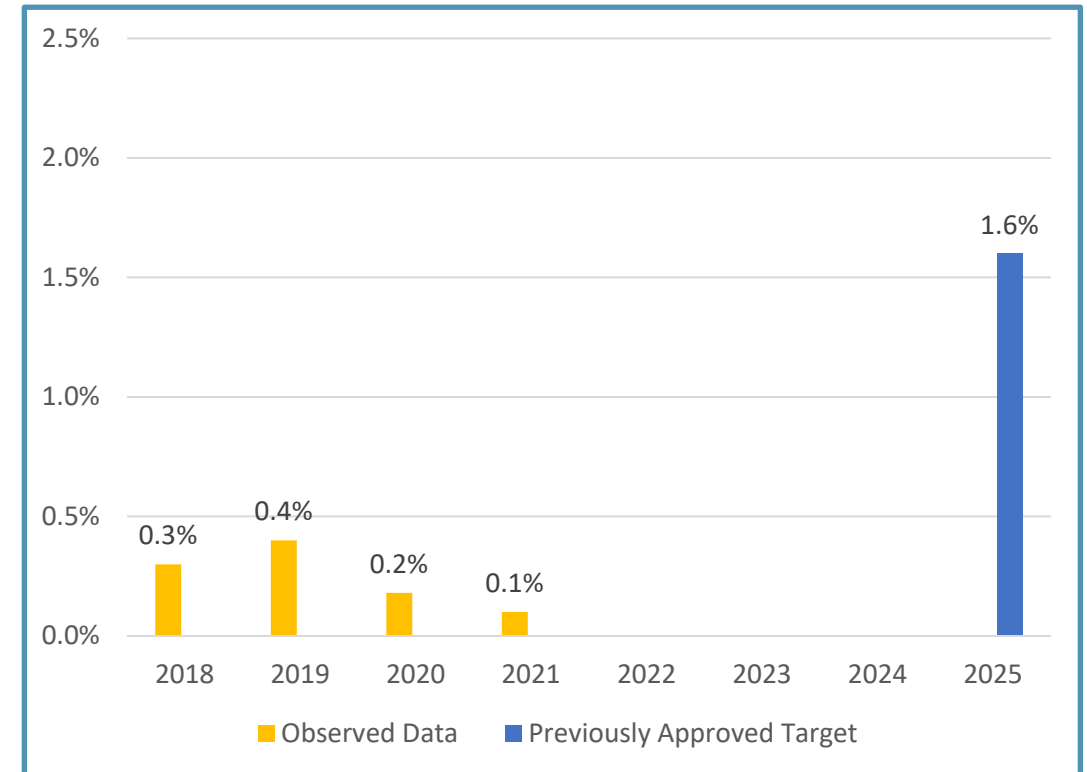
Good Condition

Desired Direction



Poor Condition

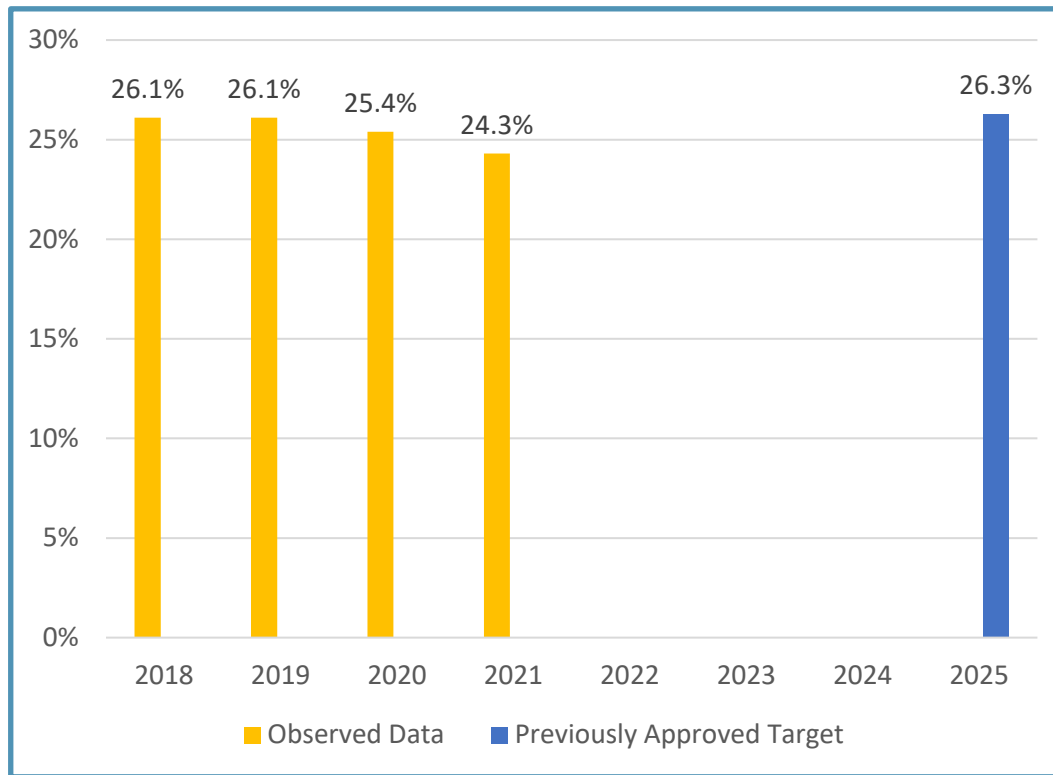
Desired Direction



NHS Non-Interstate Pavement Condition: Past Performance Period (2022-2025)

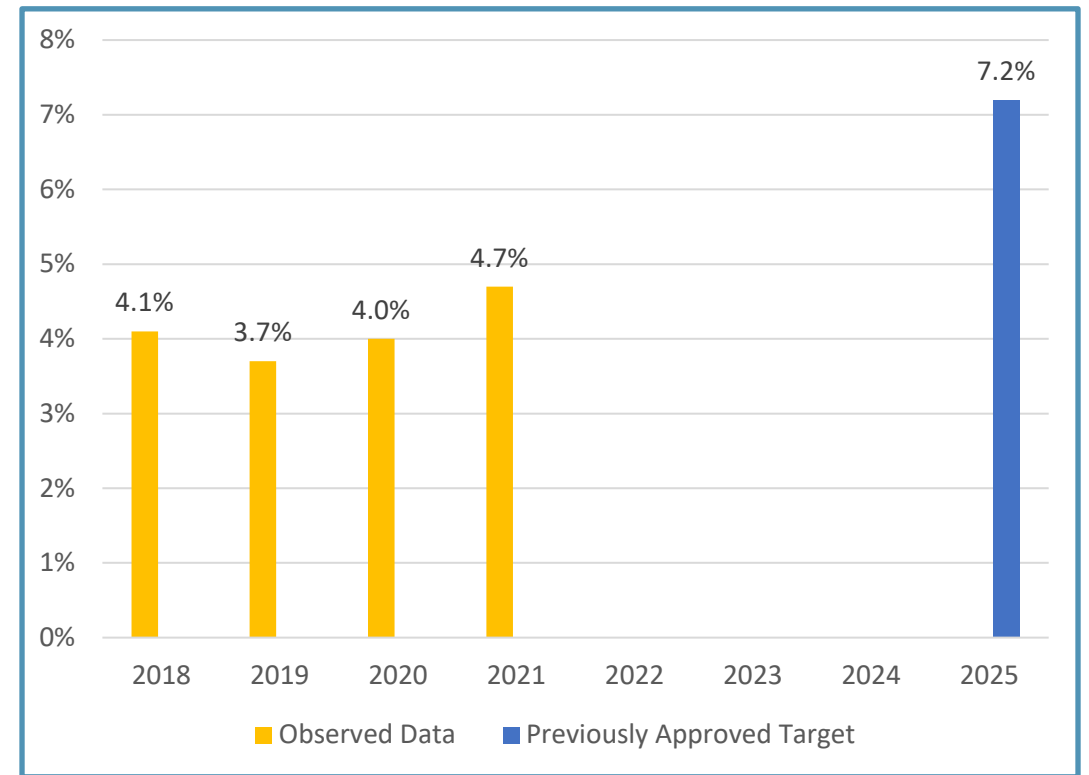
Good Condition

Desired Direction



Poor Condition

Desired Direction



Pavement: **Draft** Future Targets and Performance 2026–2029

Interstate Pavement	2026–2029 Four-Year Target*
Percentage of pavements on the Interstate System in Good condition	44.6%
Percentage of pavements on the Interstate System in Poor condition	2.0%
NHS (Non-Interstate) Pavement	2026–2029 Four-Year Target*
Percentage of pavements on the National Highway System (NHS, excl. Interstate) in Good condition	23.0%
Percentage of pavements on the NHS (excl. Interstate) in Poor condition	6.8%

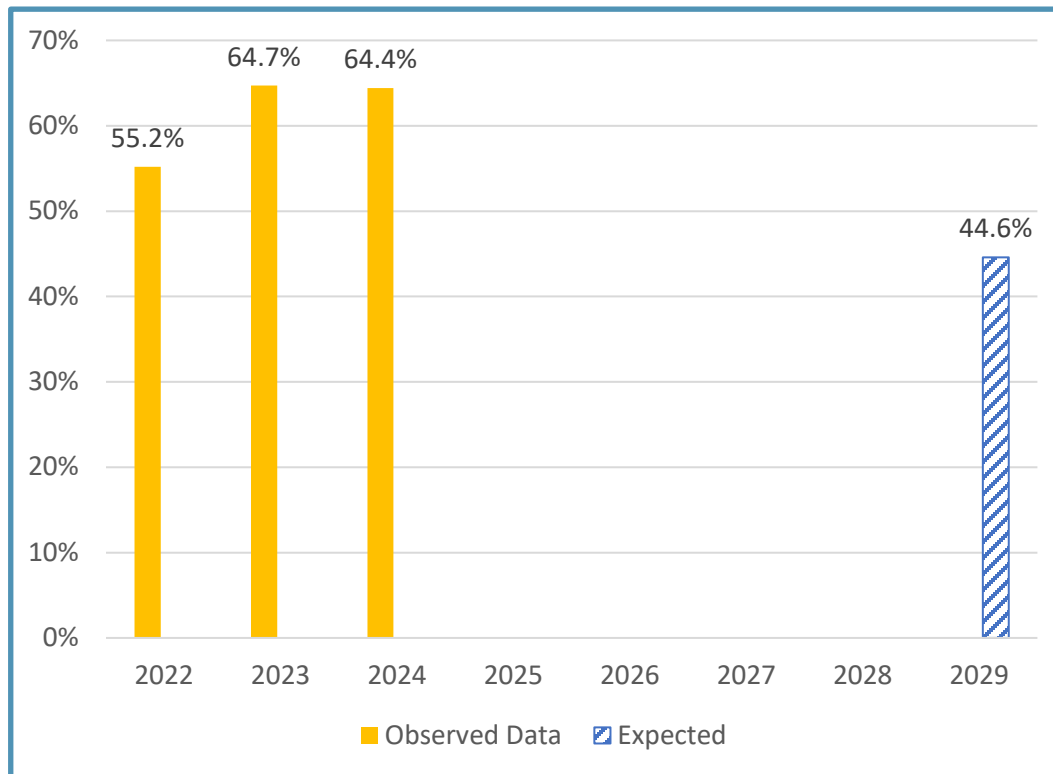
*Preliminary targets are subject to revision upon receipt of Maryland TPB Planning Area forecasts.



Interstate Pavement Condition: Future Performance Period (2026-2029)

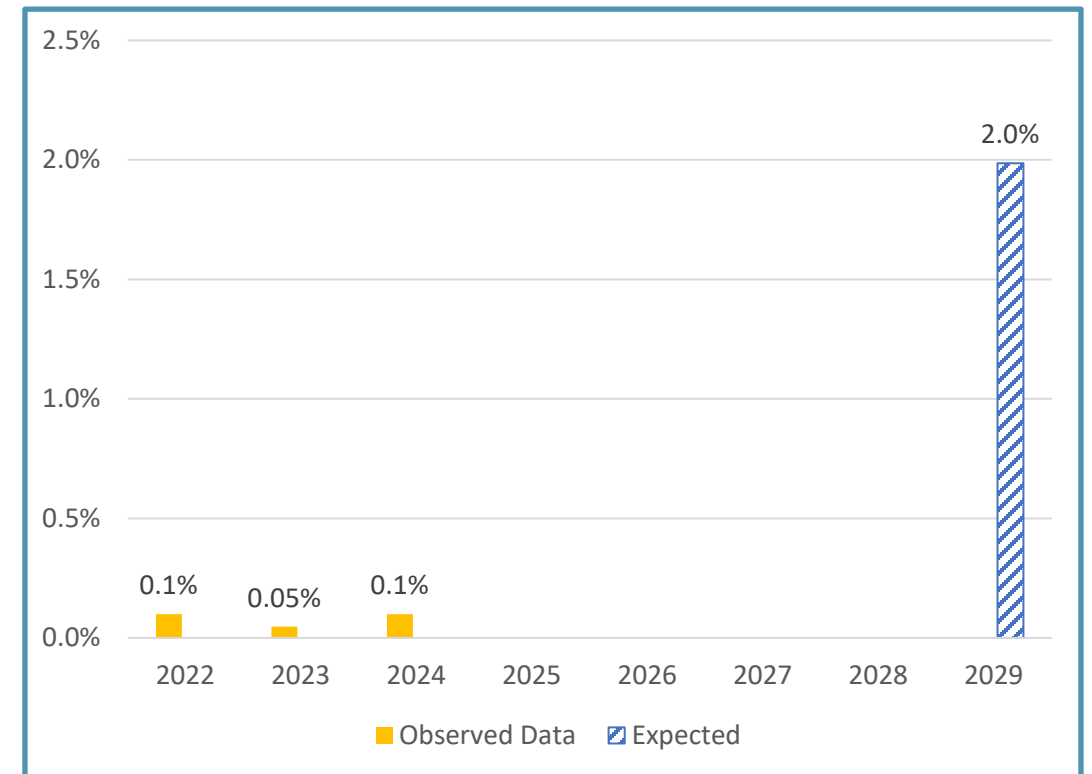
Good Condition

Desired Direction



Poor Condition

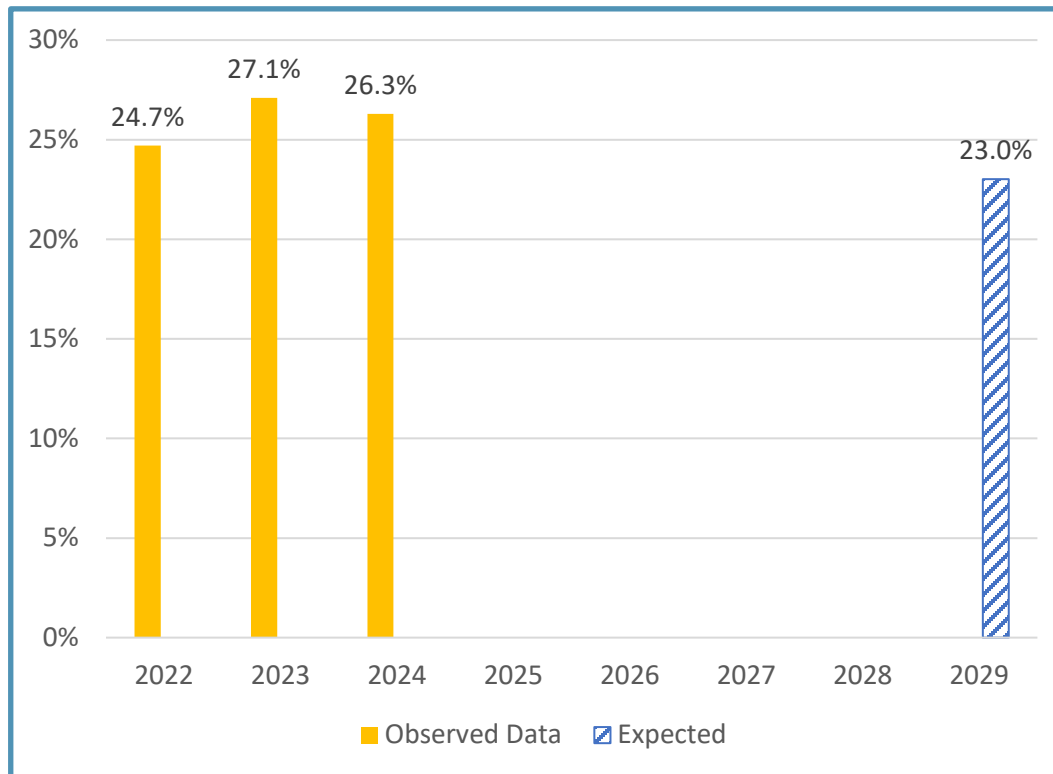
Desired Direction



NHS Non-Interstate Pavement Condition: Future Performance Period (2026-2029)

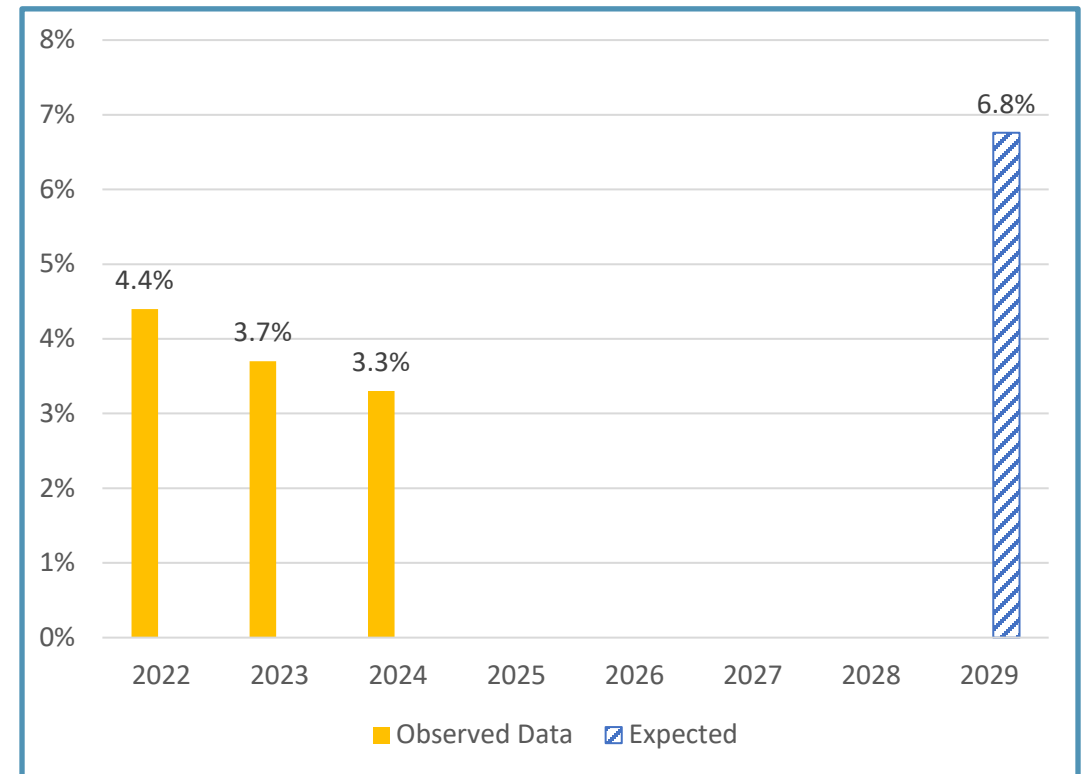
Good Condition

Desired Direction



Poor Condition

Desired Direction



Bridge Condition Targets



Bridge Condition: Past Targets and Performance 2022–2025

Bridges	2022–2025 Four-Year Target	Actual Performance	
Percentage of National Highway System Bridge Deck Area in Good condition	25.7%	41.2% (2025)	✓
Percentage of National Highway System Bridge Deck Area in Poor condition	4.2%	1.6% (2025)	✓

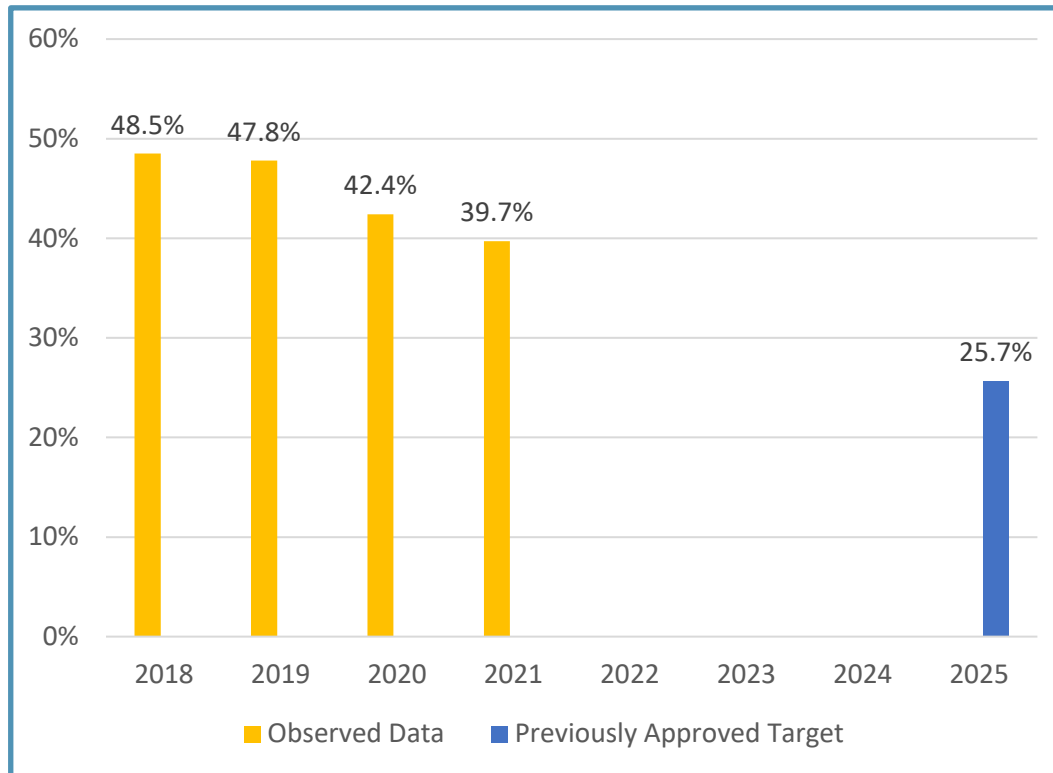
Targets set by the TPB on Oct 19, 2022



Bridge Condition: Past Performance Period (2022-2025)

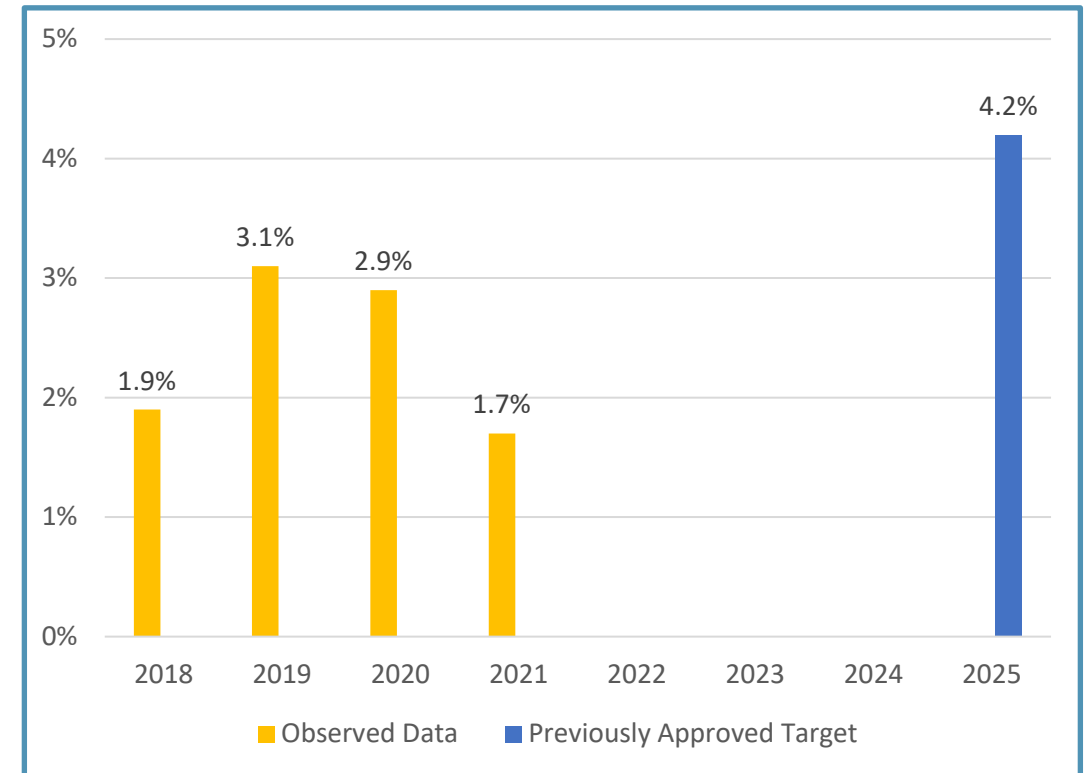
Good Condition

Desired Direction



Poor Condition

Desired Direction



Bridge Condition: **Draft** Future Targets & Performance 2026–2029

Bridges	2026–2029 Four-Year Target*
Percentage of National Highway System Bridge Deck Area in Good condition	23.8%
Percentage of National Highway System Bridge Deck Area in Poor condition	3.7%

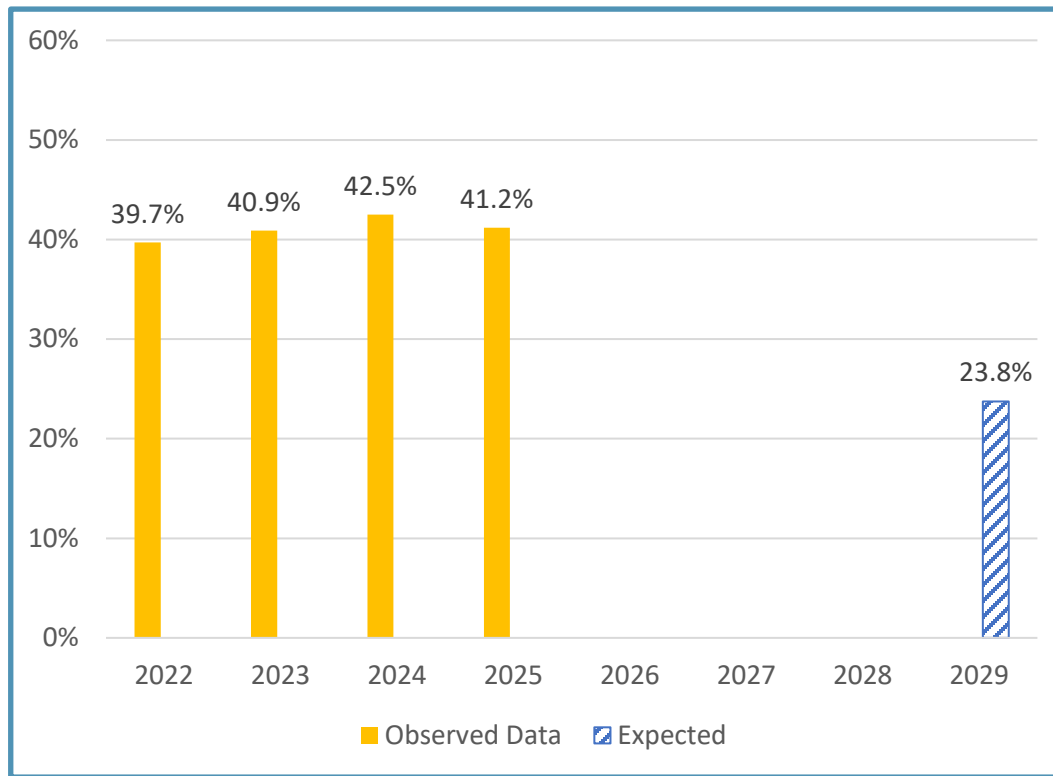
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Bridge Condition: Future Performance Period (2026-2029)

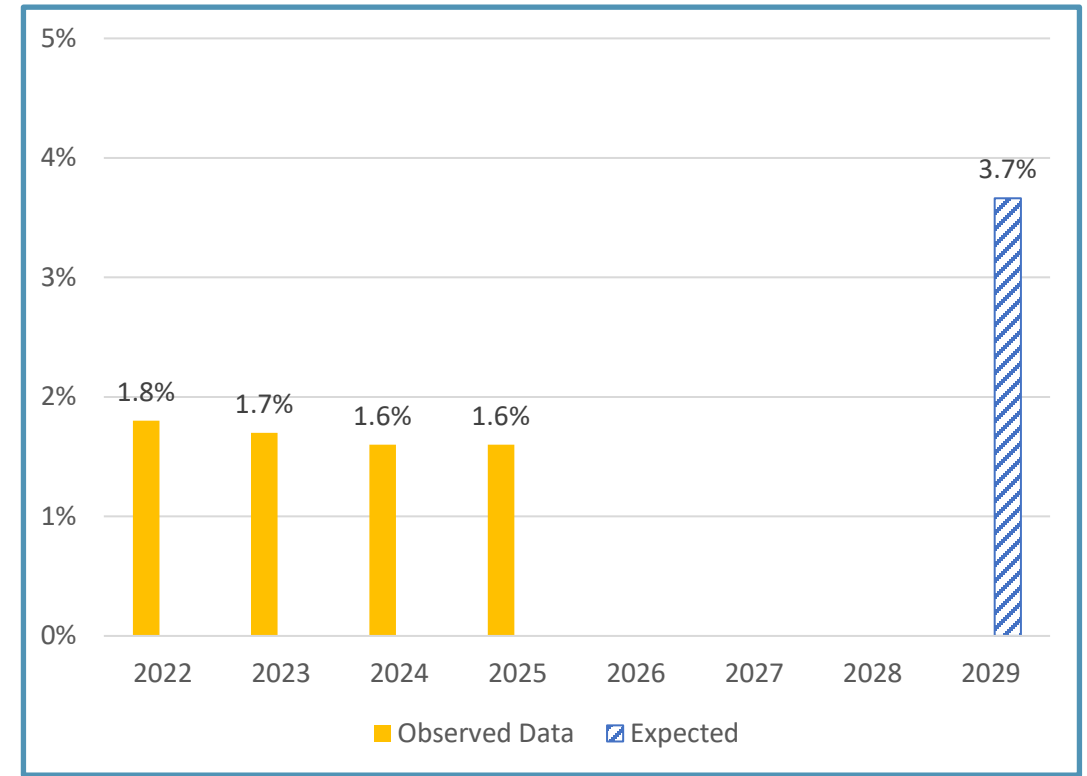
Good Condition

Desired Direction



Poor Condition

Desired Direction



Next Steps and Future Considerations

Finalize Current Round of Highway Asset Maintenance Target Setting

- Collect final State DOT target documentation and resolve pending subregional inputs (MDOT 4-county forecasts).
- Cross-reference available TIP data
- TPB approval of final targets: **November 18**

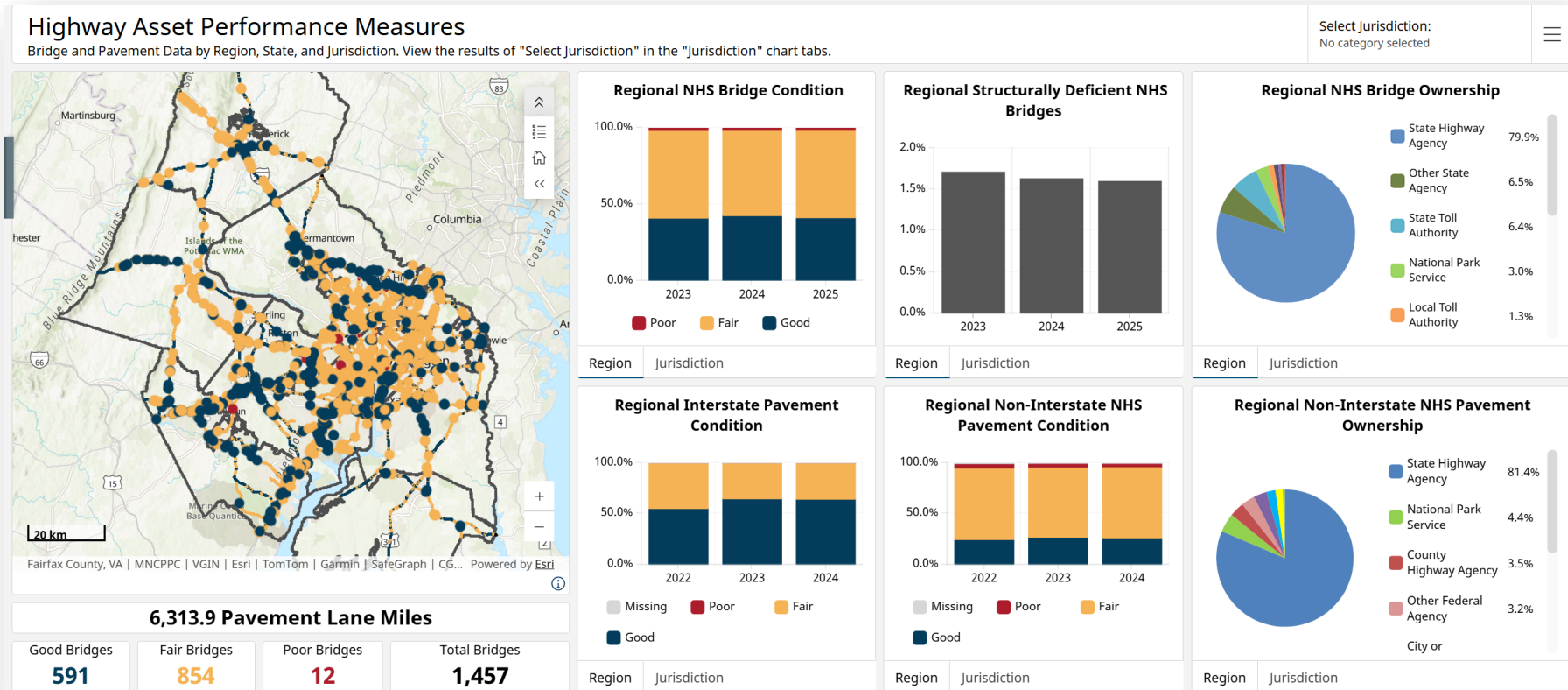
Considerations for the Next Round

- Observed trends from recent monitoring data suggest target setting methodology for the region may result in targets that are less effective as planning tools.
- If these trends continue during the next performance period, it may be appropriate to adjust the methodology to better align regional highway asset maintenance targets with corresponding performance trends.



TPB Highway Asset Condition Monitoring Tool

- TPB’s interactive dashboard allows users to explore pavement condition by roadway segment and bridge condition by individual structure across the region.



Source: <https://trap-mwcog.hub.arcgis.com/apps/40ecfeb4cc604dd78583b7ecf12f18cc/explore>



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