ITEM 7 - Action October 19, 2022

PBPP: Final 2022-2025 Regional Targets for Highway Systems Performance and Highway Assets

Action: Adopt Resolution R3-2023 to approve

regional targets for highway systems performance and highway assets.

Background: The board will be asked to adopt the

2022-2025 highway systems performance and highway assets (bridge and pavement)

targets for the region.

NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD 777 North Capitol Street, N.E. Washington, D.C. 20002

RESOLUTION TO ADOPT REGIONAL HIGHWAY ASSET AND TRAVEL TIME RELIABILITY PERFORMANCE MEASURE TARGETS FOR 2022-2025 FOR THE NATIONAL CAPITAL REGION

WHEREAS, the National Capital Region Transportation Planning Board (TPB), as the federally designated metropolitan planning organization (MPO) for the Washington region, has the responsibility under the provisions of the Fixing America's Surface Transportation (FAST) Act, reauthorized November 15, 2021 when the Infrastructure Investment and Jobs Act (IIJA) was signed into law, for developing and carrying out a continuing, cooperative and comprehensive transportation planning process for the metropolitan area; and

WHEREAS, the provisions of the federal surface transportation acts continue the implementation of performance-based planning and programming to achieve desired performance outcomes for the multimodal transportation system, including the setting of targets for future performance by States and metropolitan planning organizations (MPOs); and

WHEREAS, the Federal Highway Administration issued a rulemaking for state departments of transportation (DOTs) and MPOs to quadrennially establish data-driven targets for performance measures and for MPOs to work in coordination with state DOTs in the development of targets; and

WHEREAS, the District Department of Transportation (DDOT), the Maryland Department of Transportation (MDOT), the Virginia Department of Transportation (VDOT), and the TPB are required to establish statewide and metropolitan planning area targets respectively for the Highway Asset (Pavement and Bridge Condition) performance measures and the Highway Systems Performance Travel Time Reliability performance measures for the 2022-2025 four-year period; and

WHEREAS, TPB staff have coordinated with officials at DDOT, MDOT and VDOT to develop regional Highway Asset and Travel Time Reliability targets that are evidence based, consistent with the targets submitted by each member state DOT, and reflective of the outcomes expected through the implementation of funded projects, programs, and policies; and

WHEREAS, the TPB encourages every jurisdiction in the region to adopt similar goals and calls on the transportation agencies of the region to redouble their efforts to develop projects, programs and policies to achieve improved conditions and increased reliability on roadways; and

WHEREAS, the TPB will use the four-year regional Highway Asset and Travel Time Reliability target setting process as one method to evaluate the region's progress toward achieving said aspirational goals going forward with each future performance period; and

WHEREAS, these Highway Asset and Travel Time Reliability targets have been reviewed and recommended for TPB approval by the TPB Technical Committee at its September 9 and October 7 meetings, and have been reviewed by the TPB at its September 21 meeting.

NOW, **THEREFORE**, **BE IT RESOLVED THAT** the National Capital Region Transportation Planning Board adopts the following set of four-year regional Highway Asset and Travel Time Reliability targets for the period 2022-2025 for the National Capital Region, as shown in the following tables.

Pavement Condition

- avoinone containen	
Performance Measure for the NCR	4-year Target 2022 – 2025
(1) Percentage of pavements on the Interstate System in Good condition	44.8%
(2) Percentage of pavements on the Interstate System in Poor condition	1.6%
(3) Percentage of pavements on the NHS (excl. Interstate) in Good condition	26.3%
(4) Percentage of pavements on the NHS (excl. Interstate) in Poor condition	7.3%

Bridge Condition

Performance Measure for the NCR	4-year Target 2022 – 2025
(5) Percentage of NHS Bridges Classified as in Good Condition	25.7%
(6) Percentage of NHS Bridges Classified as in Poor Condition	4.2%

Travel Time Reliability

Performance Measure for the NCR	4-year Target 2022 – 2025
Travel Time Reliability (TTR) -	61.1%
Interstate	31.1 70
Travel Time Reliability (TTR) -	78.6%
Non-Interstate NHS	18.0%
Truck Travel Time Reliability	2.56
(TTTR) Index	2.56

MEMORANDUM

TO: Transportation Planning Board

FROM: Eric Randall, TPB Transportation Engineer

SUBJECT: Performance-Based Planning and Programming (PBPP) Highway Asset and Highway

Travel Reliability Targets for 2022-2025 - FINAL DRAFT

DATE: October 13, 2022

This memorandum provides an update on implementation of the federal performance-based planning and programming (PBPP) target-setting requirements for performance measures of the Highway Asset area and the Highway Systems Performance: Travel Reliability area.

New targets are required to be set for the 2022 through 2025 performance period for these two performance areas. Reports on actual performance vs. the 2018-2021 targets and on the establishment of new 2022-2025 targets were due to FHWA by October 1, 2022 from the District, Maryland, and Virginia DOTs.

Draft regional targets for the two performance areas were developed by TPB staff in close coordination with the state DOTs, and were briefed to the TPB Technical Committee at its September 9 meeting and to the TPB at its September 21 meeting.

Comments on the draft targets were requested at both meetings. No comments were received by September 30.

Accordingly, the following sets of targets (unchanged since the September meetings) are recommended for adoption by the board at the October 19 meeting.

REGIONAL HIGHWAY ASSET TARGETS - DRAFT 2022-2025

Using methodologies generally consistent with those used in 2018 and reflective of state DOT targets, TPB staff developed a set of regional highway asset targets for the 2022-2025 four-year period, below.

Pavement Condition

Performance Measure for the NCR	4-year Target 2022 – 2025
(1) Percentage of pavements on the Interstate System in Good condition	44.8%
(2) Percentage of pavements on the Interstate System in Poor condition	1.6%
(3) Percentage of pavements on the NHS (excl. Interstate) in Good condition	26.3%
(4) Percentage of pavements on the NHS (excl. Interstate) in Poor condition	7.3%

Bridge Condition

Performance Measure for the NCR	4-year Target 2022 – 2025
(5) Percentage of NHS Bridges Classified as in Good Condition	25.7%
(6) Percentage of NHS Bridges Classified as in Poor Condition	4.2%

HIGHWAY SYSTEMS PERFORMANCE TRAVEL TIME RELIABILITY TARGETS – DRAFT 2022-2025

Using methodology consistent with that in 2018, TPB staff developed a set of regional travel time reliability targets for the 2022-2025 four-year period, below.

Travel Time Reliability

Performance Measure for the NCR	4-year Target 2022 – 2025
Travel Time Reliability (TTR) – Interstate	61.1%
Travel Time Reliability (TTR) – Non-Interstate NHS	78.6%
Truck Travel Time Reliability (TTTR) Index	2.56

NEXT STEPS

These final draft regional targets are recommended for TPB approval at its October 19 meeting.

Following the approval of the 2022-2025 Highway Asset and Highway System Performance targets, TPB staff intend to prepare a revised Visualize 2045 LRTP System Performance Report (Appendix D) with information on performance vs the 2018-2021 targets and with the approved 2022-2025 targets ahead of the federal certification review anticipated in early 2023.

PERFORMANCE BASED PLANNING & PROGRAMMING

2022-2025 Targets:

- Highway Assets (Pavement & Bridge Condition)
- Highway System Performance: Travel Time Reliability

Eric Randall, TPB Transportation Engineer

Transportation Planning Board October 19, 2022



Contents of Presentation

- Highway Asset Four-year Targets
- Data Visualization: Bridge Condition
- Highway System Performance: Travel Time Reliability Four-year Targets
- Resolution



As briefed at September meeting:

- Federal surface transportation regulations require the implementation of performance based planning and programming (PBPP) by State DOTs, MPOs, and transit agencies
- State DOTs, MPOs, and providers of public transportation must adopt targets in the each of the required performance areas and link investment priorities to the achievement of performance targets in the TIP and the LRTP
- Next round of 4-year targets for the two areas of Highway Assets and Highway Systems Performance for the period 2022-2025 are due for adoption



Highway Asset DRAFT 2022-2025 Targets for the NCR

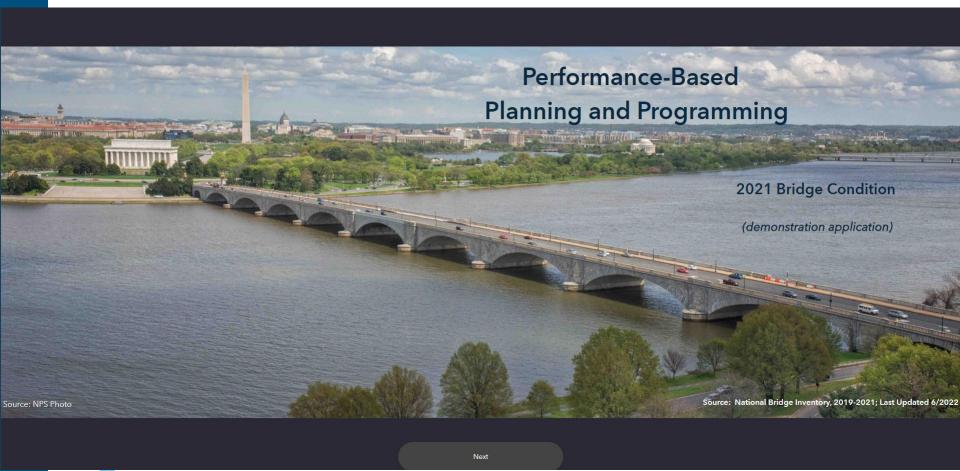
Interstate Pavement	2022 – 2025 Four Year Target
(1) Percentage of pavements on the Interstate System in Good condition	44.8%
(2) Percentage of pavements on the Interstate System in Poor condition	1.6%
NHS (Non-Interstate) Pavement	
(3) Percentage of pavements on the NHS (excl. Interstate) in Good condition	26.3%
(4) Percentage of pavements on the NHS (excl. Interstate) in Poor condition	7.3%
Bridges	
(5) Percentage of NHS Bridges Classified as in Good Condition	25.7%
(6) Percentage of NHS Bridges Classified as in Poor Condition	4.2%



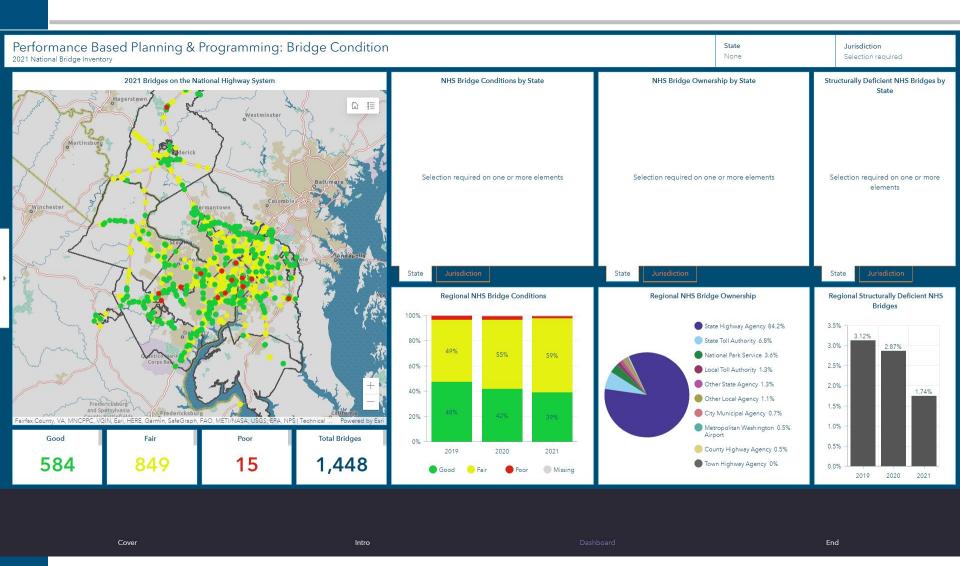
Data Visualization: Bridge Condition

https://gis.mwcog.org/webmaps/tpb/pbpp/highway_assets/

Note: webmap still in development



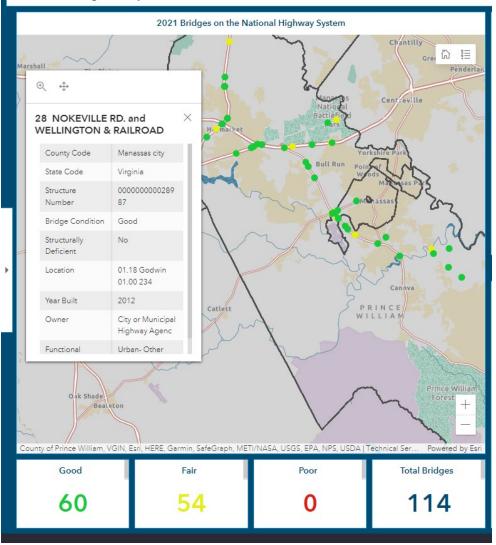
Data Visualization: Bridge Condition (2)





Data Visualization: Bridge Condition (3)

Performance Based Planning & Programming: Bridge Condition | 2021 National Bridge Inventory



- Can also select state or jurisdiction for specific detail
 - Example: PrinceWilliam County and theCity of Manassas
- Select specific bridge for more detail

Data Visualization: Bridge Condition (4)

- Can expand map for larger view
 - Example: two 'Poor' bridges: TR Bridge and H Street Bridge



Highway System Performance: Travel Time Reliability Targets



Highway System Performance: Travel Time Reliability DRAFT 2022-2025 Targets for the NCR

Highway System Performance: Travel Time Reliability for the NCR	2022 – 2025 Four Year Target
Travel Time Reliability (TTR) – Interstate	61.1%
Travel Time Reliability (TTR) – Non-Interstate NHS	78.6%
Truck Travel Time Reliability (TTTR) Index	2.56



Resolution R3-2023

TPB staff request approval of Resolution R3-2023

 To adopt targets for Highway Assets and Highway System Performance Travel Time Reliability performance measures for the period 2022-2025 for the National Capital Region metropolitan planning area



Eric Randall

TPB Engineer (202) 962-3254 erandall@mwcog.org

mwcog.org/tpb

Metropolitan Washington Council of Governments 777 North Capitol Street NE, Suite 300 Washington, DC 20002



TPB Planning Region

District of Columbia, City of Alexandria (VA), Arlington County (VA), Fairfax County (VA), Fauquier County (VA), Warrenton portion), Loudoun County (VA), Prince William County (VA), City of Fairfax (VA), City of Manassas (VA), City of Manassas Park (VA), Charles County (MD), Frederick County (MD), Montgomery County (MD), Prince George's County (MD, City of Manassas (VA), City of Manassas

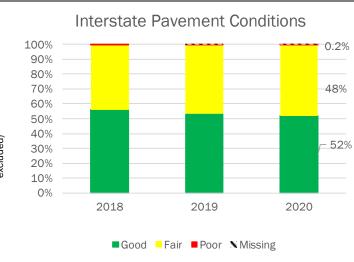
The Federal Highway Administration has established measures for state departments of transportation to use to assess the condition of pavements on the National Highway System (NHS), bridges carrying the NHS which includes on-and off-ramps connected to the NHS, and pavements on the Interstate System.

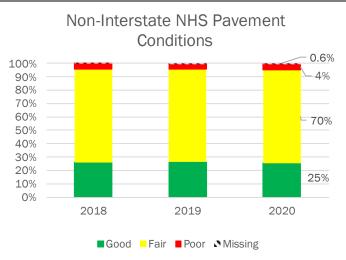
(Sections with Bridges, ramps, non-mainline, non-inventory direction, planned/unbuilt, unpaved and 'other' pavement types

Pavement Conditions (by lane mile)

NHS Bridges (by square meters of deck area)

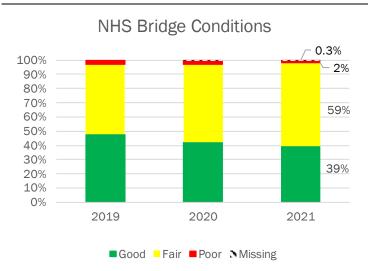
Interstate lane miles owned by the corresponding

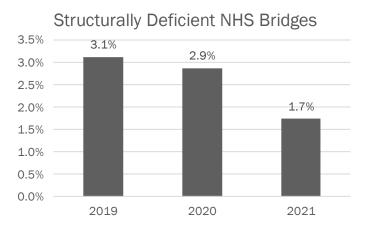




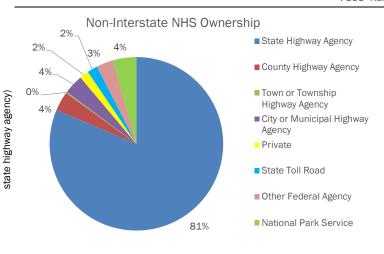
1652.9 Interstate Lane Miles

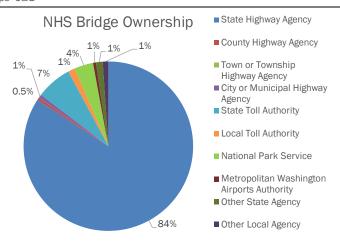
4660.3 Non-Interstate NHS Lane Miles





Largest Structurally Deficient Bridges (by deck area): H Street at Washington Terminal Yard, T. Roosevelt Bridge Over Potomac River, King Street At Route
I-395 Ramps C&G





Total = 1448; weighted by deck area



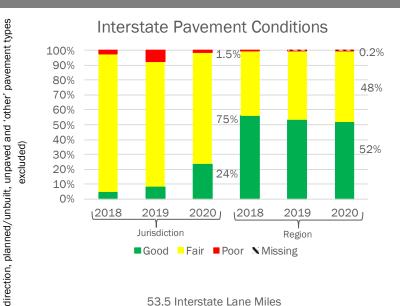
(Sections with Bridges, ramps, non-mainline, non-inventory Pavement Conditions (by lane mile)

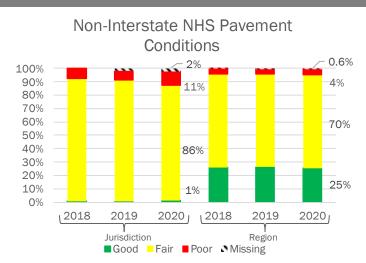
(Includes: 145 Bridges and 0 Culverts;

6 Structurally Deficient)

District of Columbia

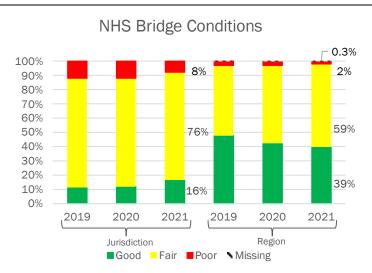
The Federal Highway Administration has established measures for state departments of transportation to use to assess the condition of pavements on the National Highway System (NHS), bridges carrying the NHS which includes on-and off-ramps connected to the NHS, and pavements on the Interstate System.

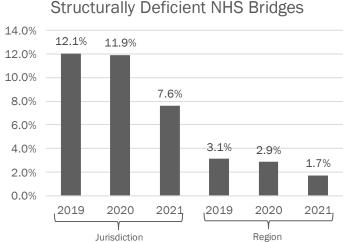




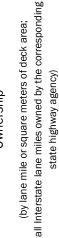
53.5 Interstate Lane Miles

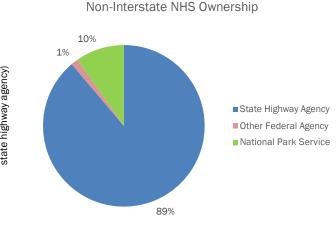
472.5 Non-Interstate NHS Lane Miles

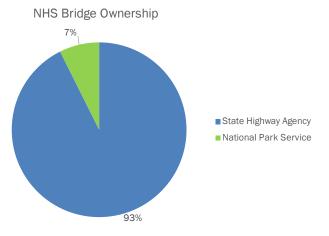




Largest Structurally Deficient Bridges (by deck area): H Street at Washington Terminal Yard, T. Roosevelt Bridge Over Potomac River, Anacostia Freeway at Suitland Pkwy S.E.





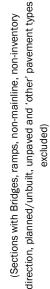


Total = 145; weighted by deck area

Suburban Maryland

Charles County, Frederick County, Montgomery County, Prince George's County

The Federal Highway Administration has established measures for state departments of transportation to use to assess the condition of pavements on the National Highway System (NHS), bridges carrying the NHS which includes on-and off-ramps connected to the NHS, and pavements on the Interstate System.

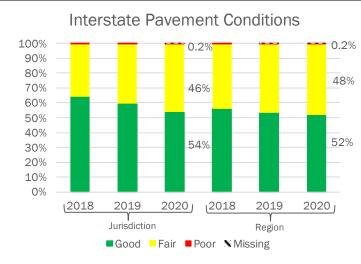


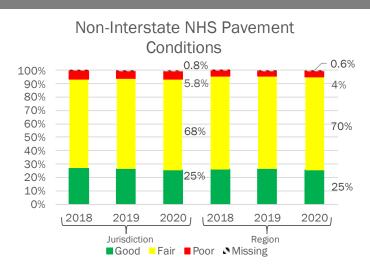
Pavement Conditions (by lane mile)

NHS Bridges (by square meters of deck area)

(Includes: 481 Bridges and 108 Culverts;

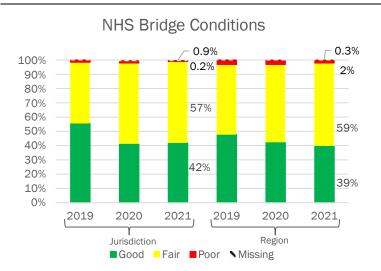
Structurally Deficient)

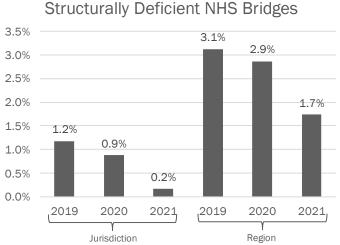




863.8 Interstate Lane Miles

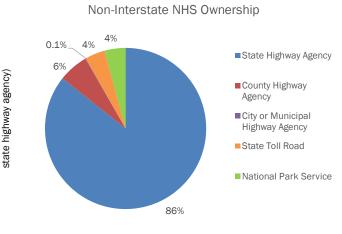
2270.0 Non-Interstate NHS Lane Miles

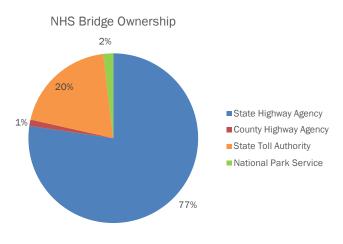




Largest Structurally Deficient Bridges (by deck area): Us 15 NBR at MD 77 Hunting Creek, MD 4 WBR at MD 717



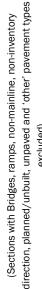




Total = 589; weighted by deck area

Charles County

The Federal Highway Administration has established measures for state departments of transportation to use to assess the condition of pavements on the National Highway System (NHS), bridges carrying the NHS which includes on-and off-ramps connected to the NHS, and pavements on the Interstate System.

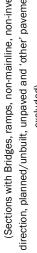


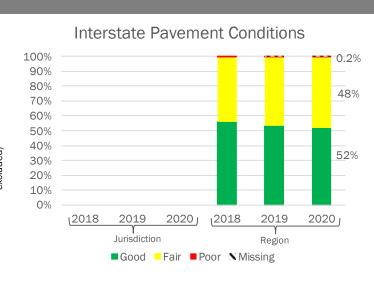
Pavement Conditions (by lane mile)

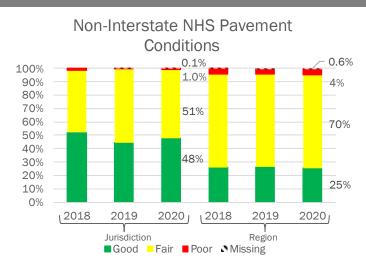
NHS Bridge Conditions (by square meters of deck area)

(Includes: 9 Bridges and 3 Culverts;

O Structurally Deficient)

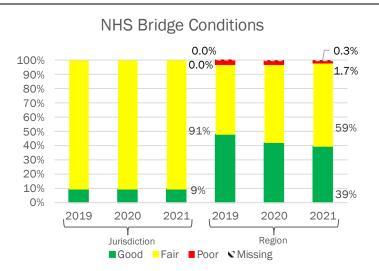


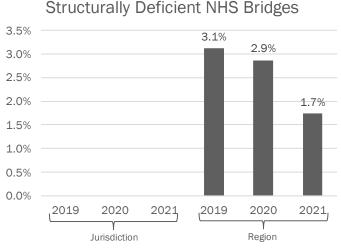




O Interstate Lane Miles

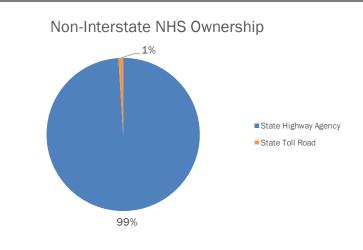
225.6 Non-Interstate NHS Lane Miles

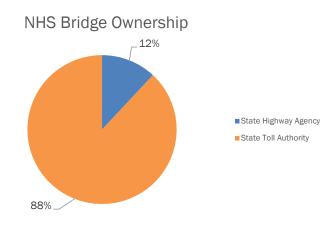




Largest Structurally Deficient Bridges (by deck area): N/A

all Interstate lane miles owned by the corresponding (by lane mile or square meters of deck area; state highway agency) Ownership

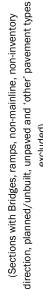




Total = 12; weighted by deck area

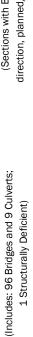
Frederick County

The Federal Highway Administration has established measures for state departments of transportation to use to assess the condition of pavements on the National Highway System (NHS), bridges carrying the NHS which includes on-and off-ramps connected to the NHS, and pavements on the Interstate System.

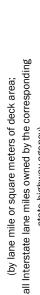


Pavement Conditions (by lane mile)

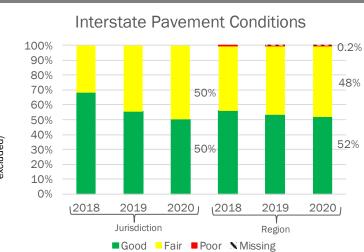


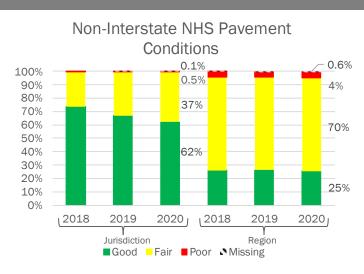


NHS Bridge Conditions (by square meters of deck area)



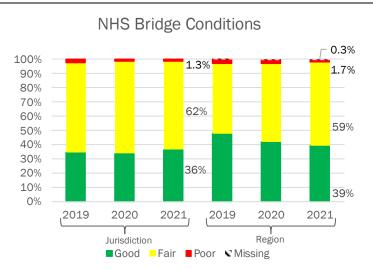
Ownership

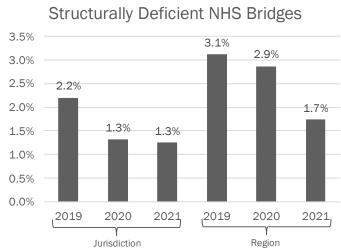




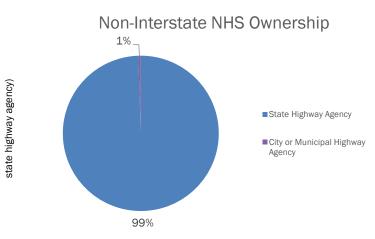
192.6 Interstate Lane Miles

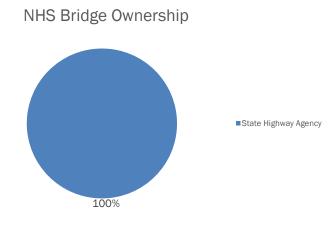
210.4 Non-Interstate NHS Lane Miles





Largest Structurally Deficient Bridges (by deck area): Us 15 Nbr At MD 77 Hunting Creek

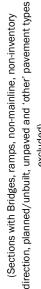




Total = 105; weighted by deck area

Montgomery County

The Federal Highway Administration has established measures for state departments of transportation to use to assess the condition of pavements on the National Highway System (NHS), bridges carrying the NHS which includes on-and off-ramps connected to the NHS, and pavements on the Interstate System.

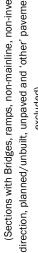


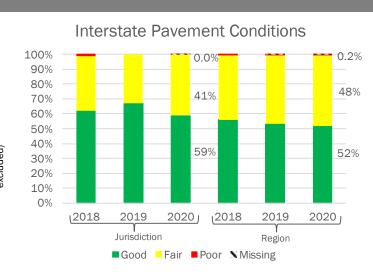
Pavement Conditions (by lane mile)

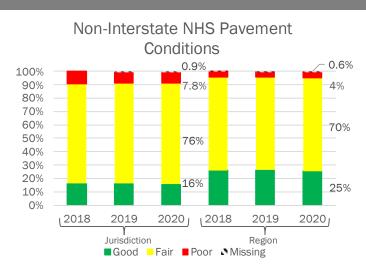
NHS Bridge Conditions (by square meters of deck area)

(Includes: 162 Bridges and 31 Culverts;

O Structurally Deficient

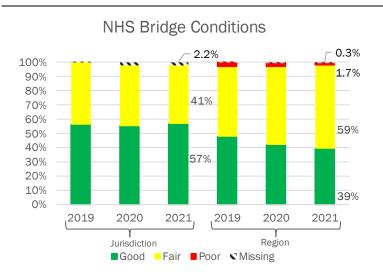


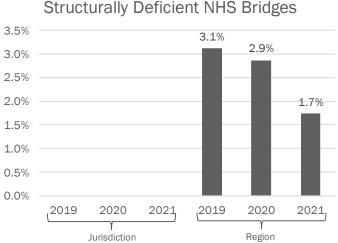




310.2 Interstate Lane Miles

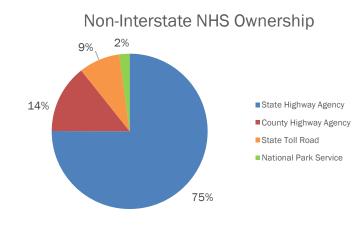
891.8 Non-Interstate NHS Lane Miles

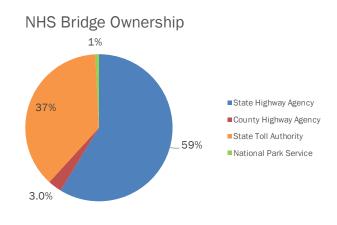




Largest Structurally Deficient Bridges (by deck area): N/A







Total = 193; weighted by deck area

direction, planned/unbuilt, unpaved and 'other' pavement types (Sections with Bridges, ramps, non-mainline, non-inventory

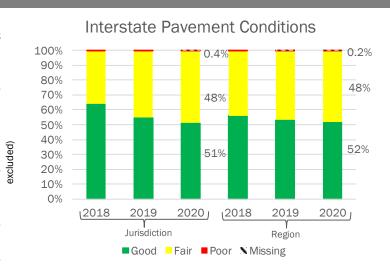
Pavement Conditions (by lane mile)

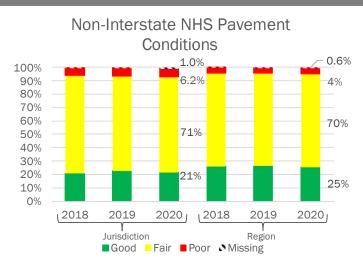
1 Structurally Deficient

all Interstate lane miles owned by the corresponding

Prince George's County

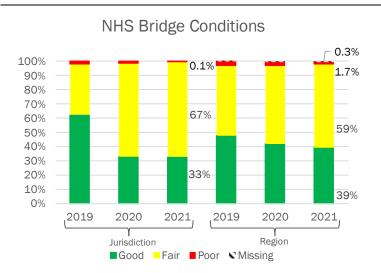
The Federal Highway Administration has established measures for state departments of transportation to use to assess the condition of pavements on the National Highway System (NHS), bridges carrying the NHS which includes on-and off-ramps connected to the NHS, and pavements on the Interstate System.

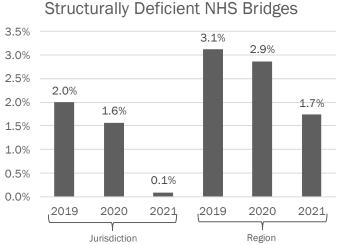




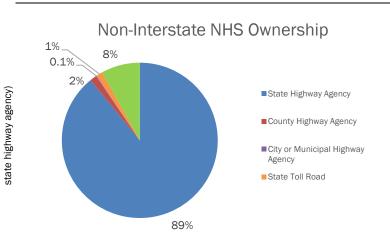
361.0 Interstate Lane Miles

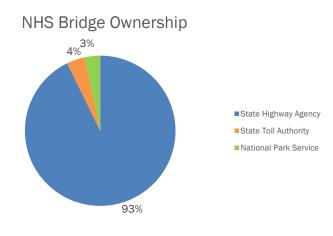
942.2 Non-Interstate NHS Lane Miles





Largest Structurally Deficient Bridges (by deck area): MD 4 WBR at MD 717

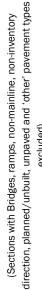




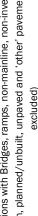
Total = 279; weighted by deck area

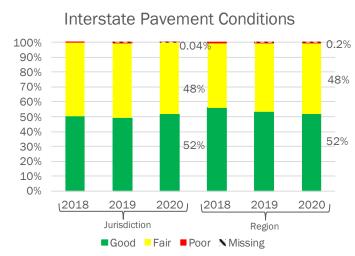
Northern Virginia

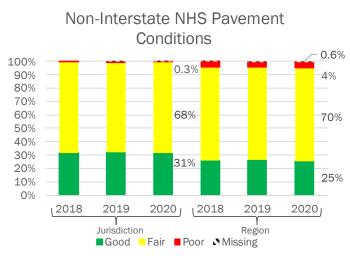
The Federal Highway Administration has established measures for state departments of transportation to use to assess the condition of pavements on the National Highway System (NHS), bridges carrying the NHS which includes on-and off-ramps connected to the NHS, and pavements on the Interstate System.



Pavement Conditions

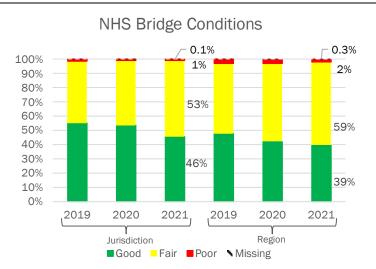


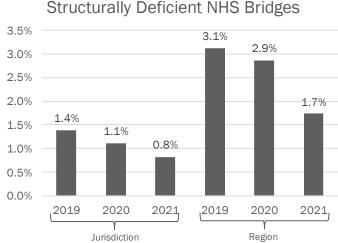




735.6 Interstate Lane Miles

1917.8 Non-Interstate NHS Lane Miles



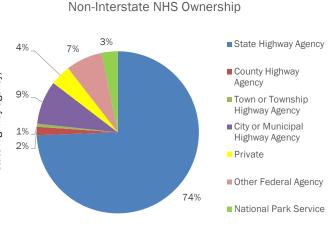


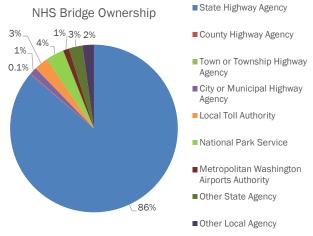
Largest Structurally Deficient Bridges (by deck area): King Street at I-395 Ramps C&G, Duke Street at I-395, Centreville Road at Bull Run



(Includes: 599 Bridges and 115 Culverts; 7 Structurally Deficient)

NHS Bridges (by square meters of deck area)

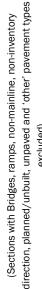




Total = 714; weighted by deck area

City of Alexandria

The Federal Highway Administration has established measures for state departments of transportation to use to assess the condition of pavements on the National Highway System (NHS), bridges carrying the NHS which includes on-and off-ramps connected to the NHS, and pavements on the Interstate System.



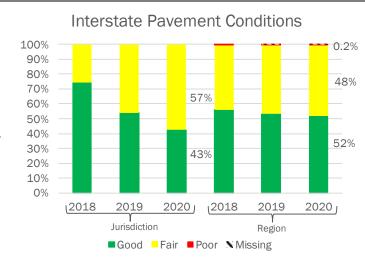
Pavement Conditions (by lane mile)

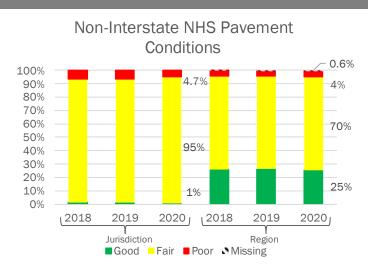
NHS Bridge Conditions (by square meters of deck area)

(Includes: 37 Bridges and 2 Culverts;

2 Structurally Deficient)

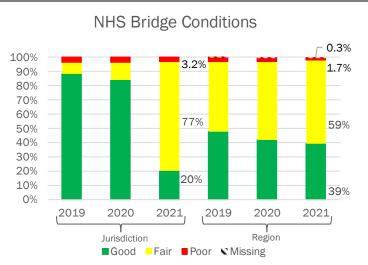


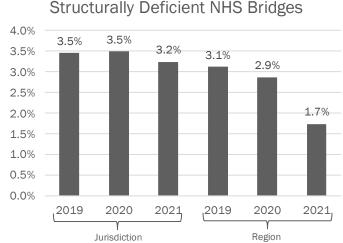




33.3 Interstate Lane Miles

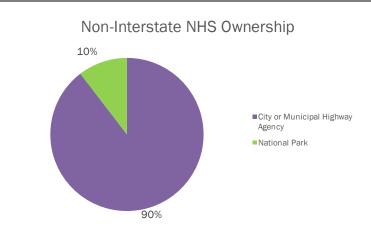
72.8 Non-Interstate NHS Lane Miles

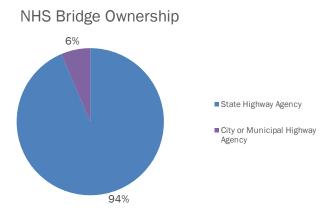




Largest Structurally Deficient Bridges (by deck area): King Street At Route I-395 Ramps C&G, Duke Street At Route I-395







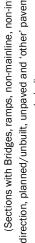
Total = 39; weighted by deck area

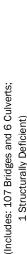
Arlington County

The Federal Highway Administration has established measures for state departments of transportation to use to assess the condition of pavements on the National Highway System (NHS), bridges carrying the NHS which includes on-and off-ramps connected to the NHS, and pavements on the Interstate System.

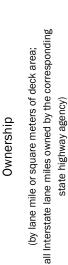


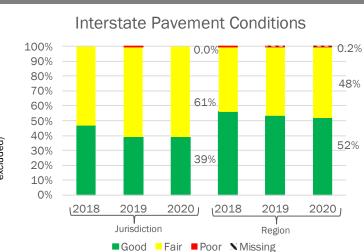
Pavement Conditions (by lane mile)

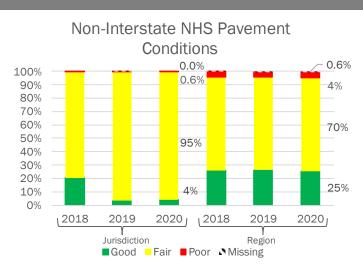




NHS Bridge Conditions (by square meters of deck area)

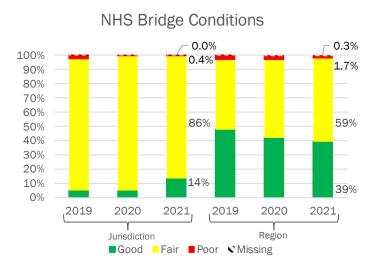


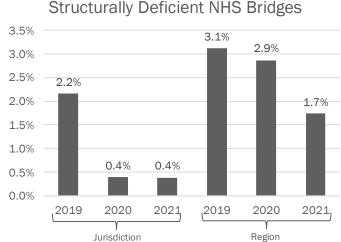




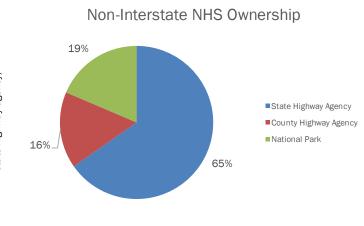
59.9 Interstate Lane Miles

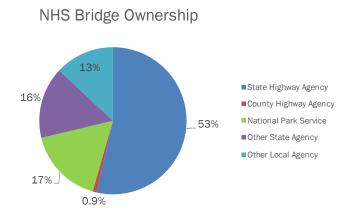
198.4 Non-Interstate NHS Lane Miles





Largest Structurally Deficient Bridges (by deck area): North Glebe Road at Pimmit Run





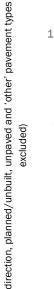
Total = 113; weighted by deck area

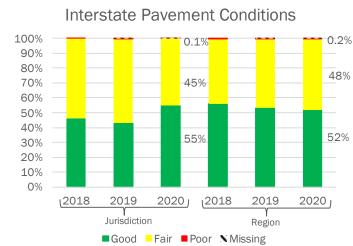
(Sections with Bridges, ramps, non-mainline, non-inventory

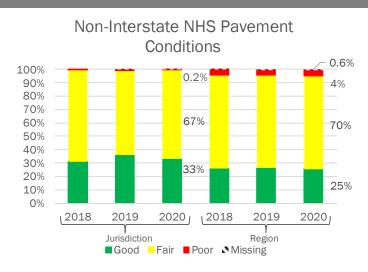
Pavement Conditions (by lane mile)

Fairfax County (including City of Falls Church and City of Fairfax)

The Federal Highway Administration has established measures for state departments of transportation to use to assess the condition of pavements on the National Highway System (NHS), bridges carrying the NHS which includes on-and off-ramps connected to the NHS, and pavements on the Interstate System.

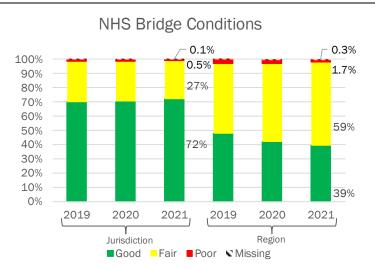


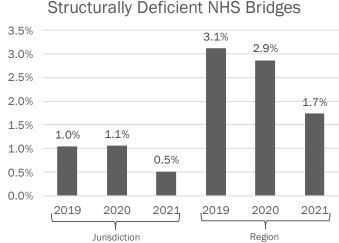




433.4 Interstate Lane Miles

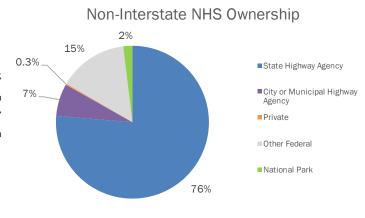
909.9 Non-Interstate NHS Lane Miles

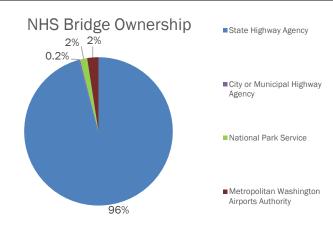




Largest Structurally Deficient Bridges (by deck area): Centreville Road At Bull Run, Chainbridge Road NB At Leesburg Pike, Lee Jackson MEM HY at I-66 (Ramp B)



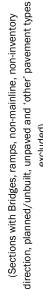




Total = 342; weighted by deck area

Fauquier County (Urbanized Area)

The Federal Highway Administration has established measures for state departments of transportation to use to assess the condition of pavements on the National Highway System (NHS), bridges carrying the NHS which includes on-and off-ramps connected to the NHS, and pavements on the Interstate System.

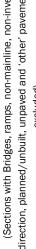


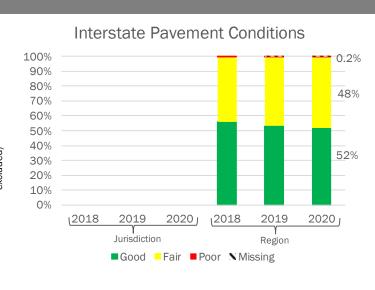
Pavement Conditions (by lane mile)

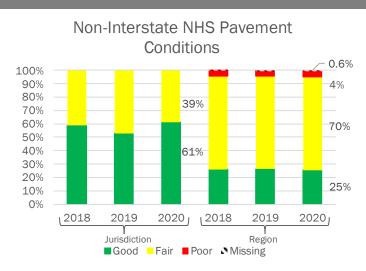
NHS Bridge Conditions (by square meters of deck area)

(Includes: 10 Bridges and 9 Culverts;

O Structurally Deficient)

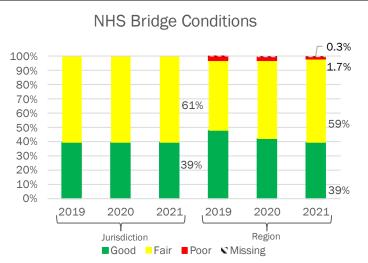


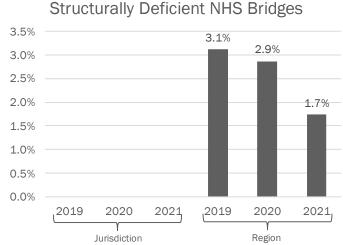




O Interstate Lane Miles

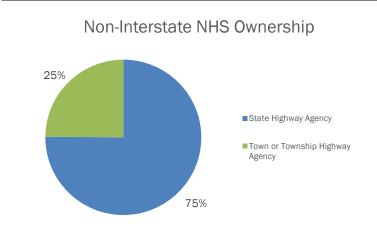
47.6 Non-Interstate NHS Lane Miles

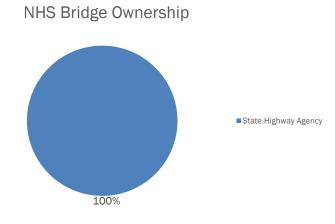




Largest Structurally Deficient Bridges (by deck area): N/A

all Interstate lane miles owned by the corresponding (by lane mile or square meters of deck area; state highway agency) Ownership

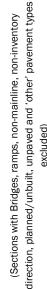




Total = 19; weighted by deck area

Loudoun County

The Federal Highway Administration has established measures for state departments of transportation to use to assess the condition of pavements on the National Highway System (NHS), bridges carrying the NHS which includes on-and off-ramps connected to the NHS, and pavements on the Interstate System.

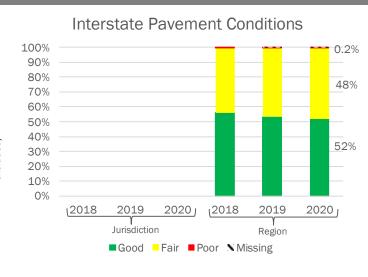


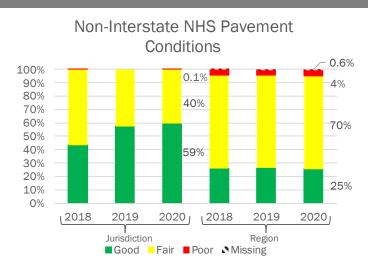
Pavement Conditions (by lane mile)

NHS Bridge Conditions (by square meters of deck area)

(Includes: 64 Bridges and 23 Culverts;

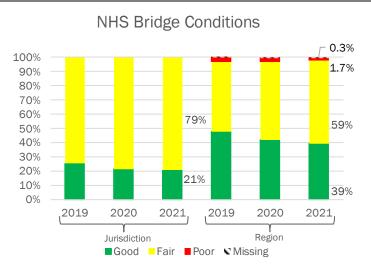
O Structurally Deficient)

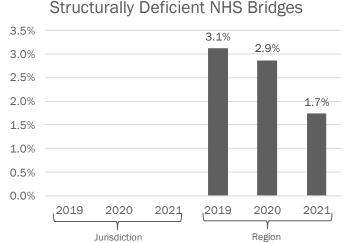




O Interstate Lane Miles

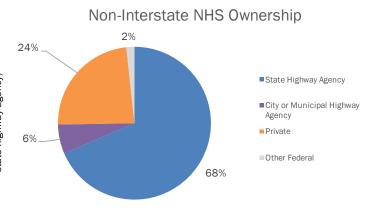
323.6 Non-Interstate NHS Lane Miles

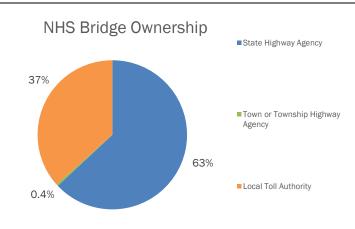




Largest Structurally Deficient Bridges (by deck area): N/A



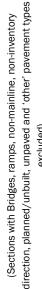




Total = 87; weighted by deck area

Prince William County (including City of Manassas and City of Manassas Park)

The Federal Highway Administration has established measures for state departments of transportation to use to assess the condition of pavements on the National Highway System (NHS), bridges carrying the NHS which includes on-and off-ramps connected to the NHS, and pavements on the Interstate System.

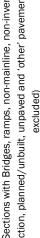


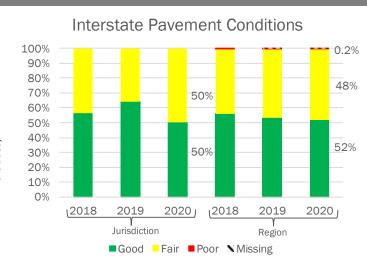
Pavement Conditions (by lane mile)

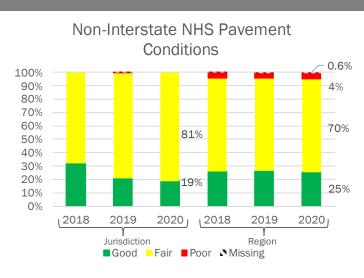
NHS Bridge Conditions (by square meters of deck area)

(Includes: 91 Bridges and 23 Culverts;

O Structurally Deficient)

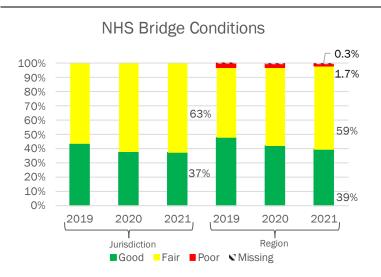


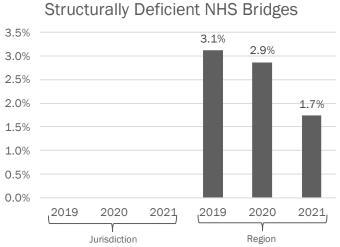




208.9 Interstate Lane Miles

365.5 Non-Interstate NHS Lane Miles





Largest Structurally Deficient Bridges (by deck area): N/A

all Interstate lane miles owned by the corresponding (by lane mile or square meters of deck area; state highway agency) Ownership

