PM2 & PM3 PERFORMANCE MEASURES SNHPC 2023

Southern New Hampshire Planning Commission
Metropolitan Planning Organization
January 24, 2023

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SNHPC

PM2: PAVEMENT & BRIDGE PERFORMANCE MEASURES

PM2: Pavement & Bridge Performance Measures

FAST Act requires DOTs to measure and report performance in the following areas:

- Safety
- **Pavement and bridge**
- System performance/ congestion
- Freight movement, and
- Congestion mitigation and air quality (CMAQ).

Background Info – Federal Legislation and Pavement & Bridge Performance

What are the six Federally-required measures?

1. **Interstate: Good Condition**

   % of Interstate lane-miles in good condition

2. **Interstate: Poor Condition**

   % of Interstate lane-miles in poor condition

3. **Non-Interstate NHS: Good Condition**

   % of non-Interstate National Highway System (NHS) lane-miles in good condition

4. **Non-Interstate NH: Poor Condition**

   % of non-Interstate NHS lane-miles in poor condition

5. **NHS Bridges*: Good Condition**

   % of NHS deck area in good condition

6. **NHS Bridges: Poor Condition**

   % of NHS deck area in poor condition.

* Federal definition of bridges, Span 20 feet or more

Federal Legislation and State-level Pavement & Bridge Performance Targets

States set pavement & bridge performance targets:

MPOs including SNHPC are allowed the flexibility to set their own pavement & bridge targets

OR

MPOs may support the State-level performance targets

For 2023 SNHPC Recommends:

Support State Targets FOR 2022-2026

SNHPC Pavement & Bridge Performance Measures (PM2)

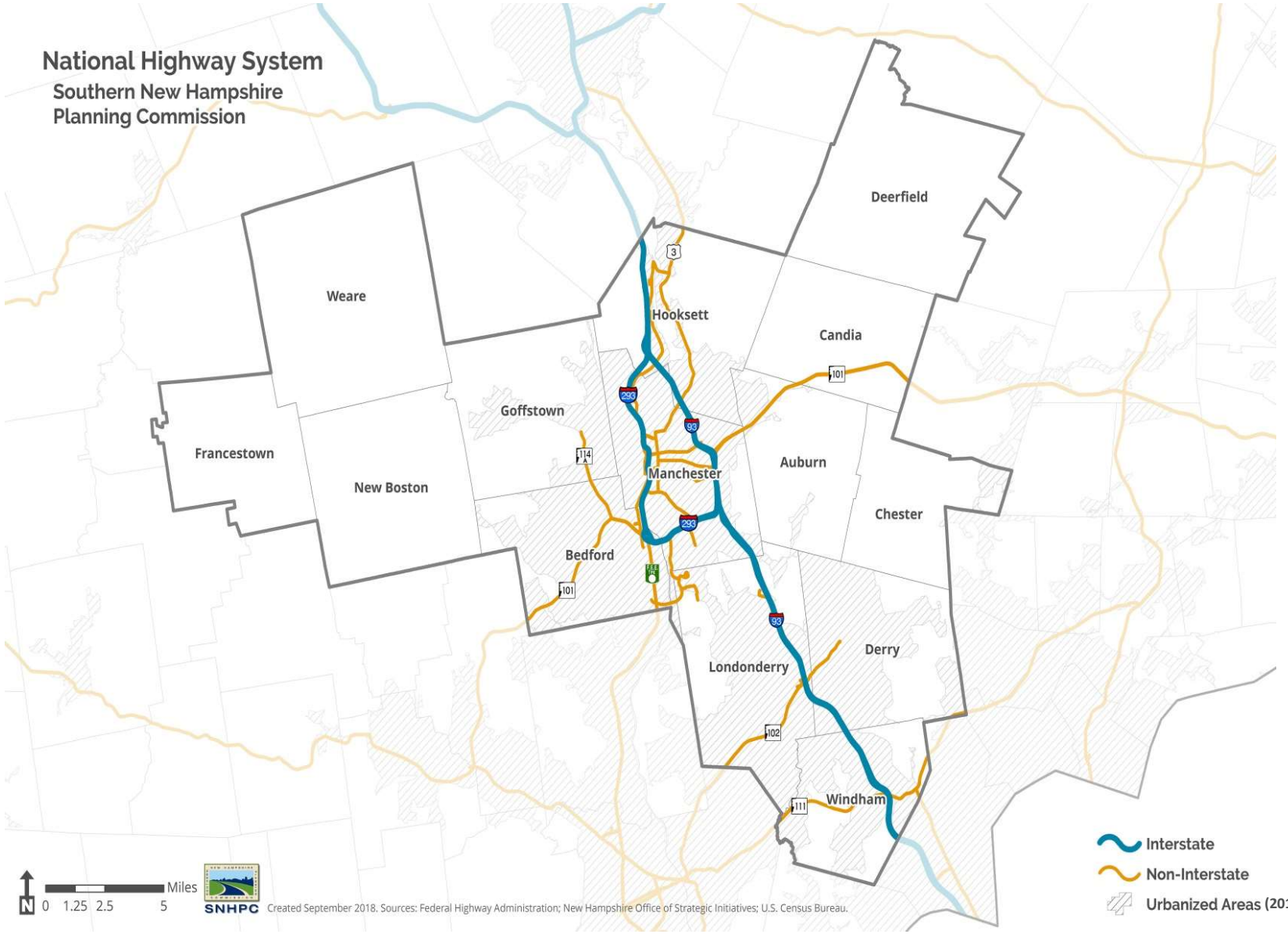
NHDOT PM2 Targets

NHDOT Pavement Condition Targets 2022-2026

	Good				Poor			
% of Lane-Miles	Base	2-Year	4-Year	State-of-Good-Repair	Base	2-Year	4-Year	State-of-Good-Repair
Interstate	63.8%	57.0%	57.0%	57.0%	0.0%	0.5%	0.5%	0.5%
Non-Interstate NHS	39.4%	35.0%	35.0%	35.0%	3.6%	7.0%	7.0%	5.0%

NHDOT Bridge Condition Targets 2022-2026

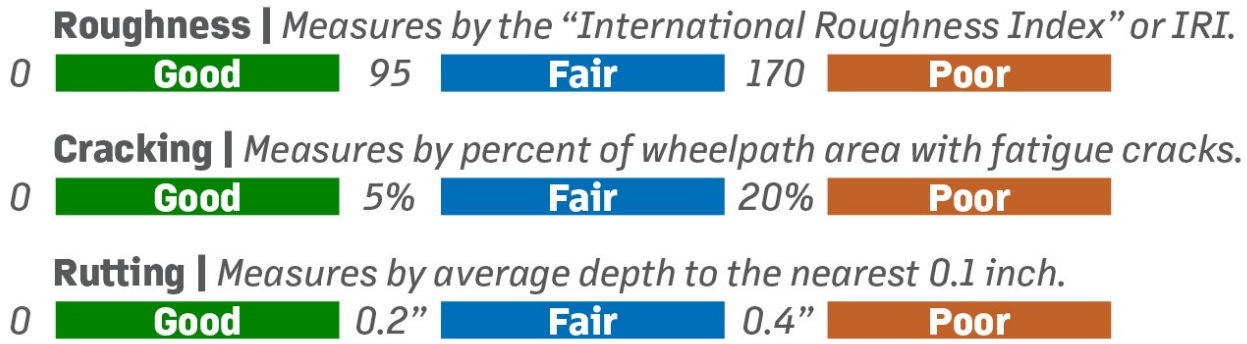
	Good				Poor			
% of Deck Area	Base	2-Year	4-Year	State-of-Good-Repair	Base	2-Year	4-Year	State-of-Good-Repair
NHS	58.4%	57.0%	57.0%	39.4%	4.3%	5.0%	5.0%	5.0%


National Highway System
Southern New Hampshire
Planning Commission
Deerfield
Weare
Hooksett
Candia
Goffstown
Francestown
New Boston
Auburn
Manchester
Chester
Bedford
Londonderry
Derry
Windham
3
101
293
93
114
A
Miles
0 1.25 2.5 5
N
SNHPC
Created September 2018. Sources: Federal Highway Administration; New Hampshire Office of Strategic Initiatives; U.S. Census Bureau.
Interstate
Non-Interstate
Urbanized Areas (2010)

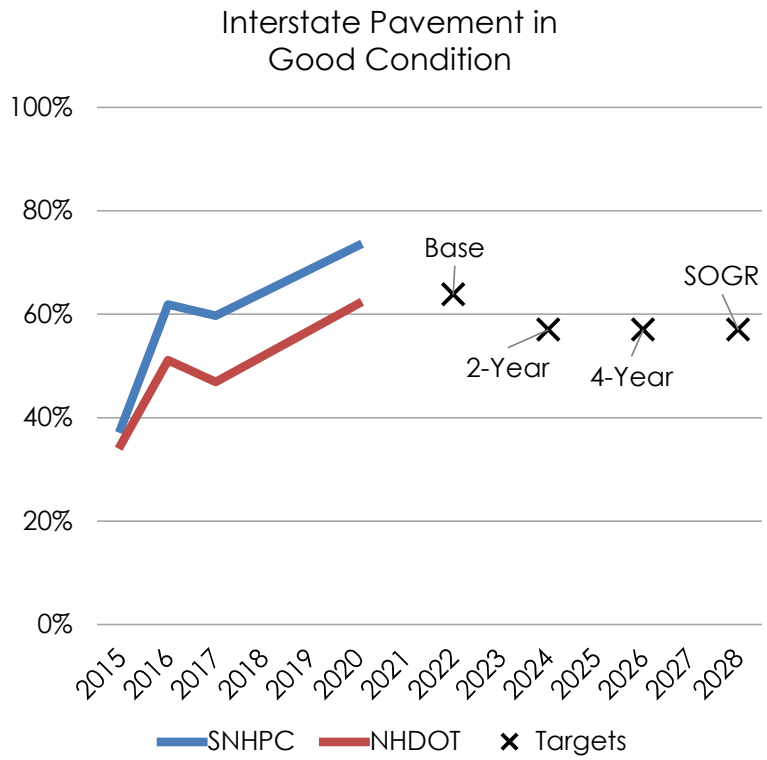
What Determines Pavement's Condition?

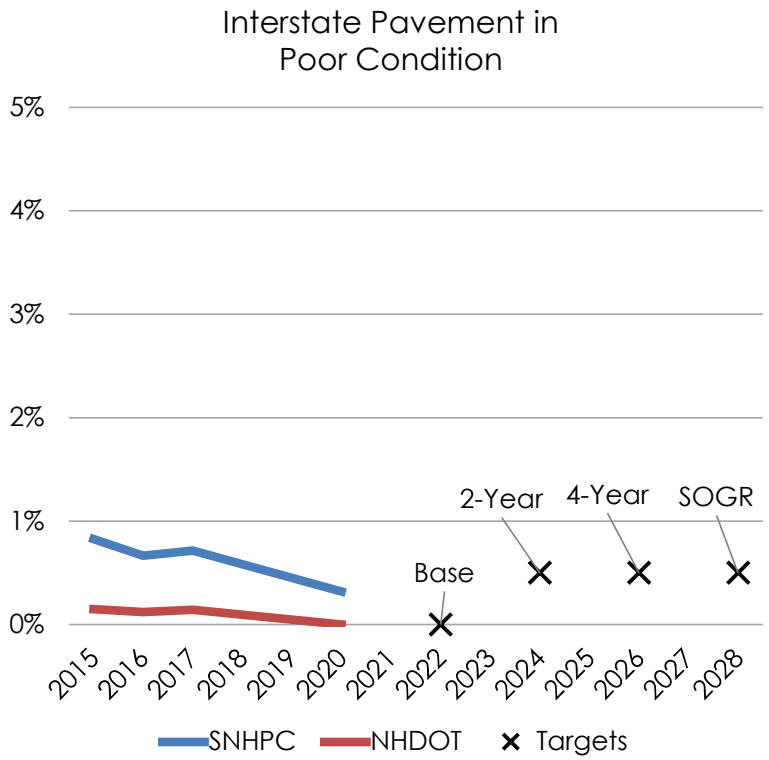
Pavement condition is determined by three distresses: roughness, cracking, and rutting

- 3 good scores = pavement in good condition
- 2 or more poor scores = pavement in poor condition
- all other scenarios = pavement in fair condition

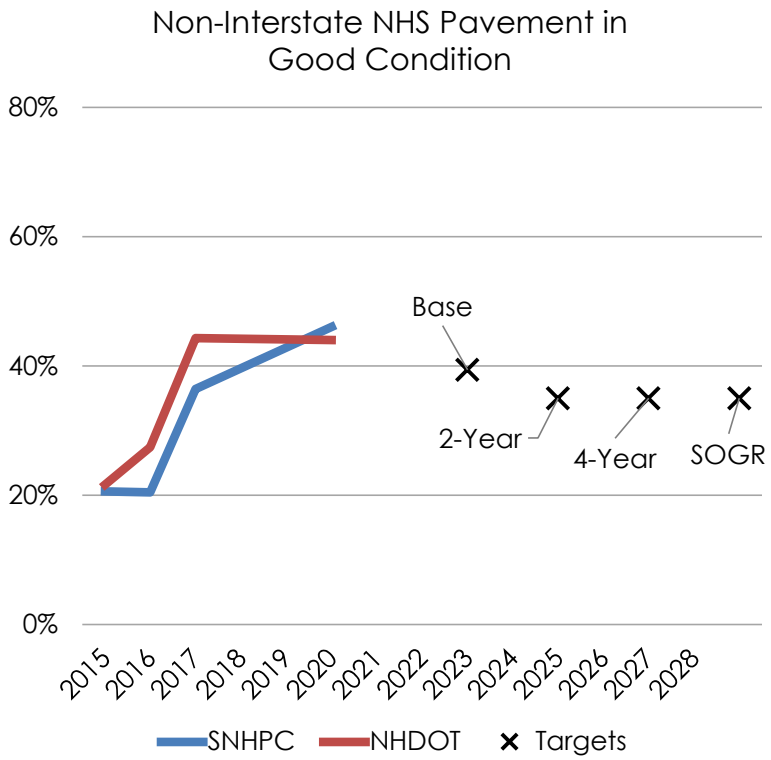


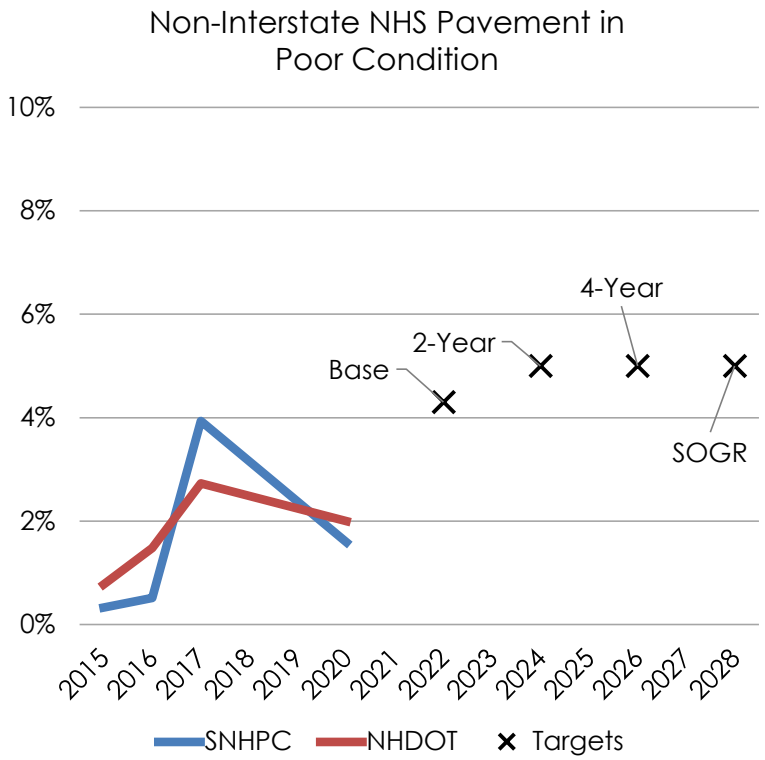
Interstate


Interstate Pavement in Good Condition
100%
80%
60%
40%
20%
0%
Base
2-Year
4-Year
SOGR
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
SNHPC
NHDOT
Targets


Interstate Pavement in Poor Condition
5%
4%
3%
2%
1%
0%
2-Year
4-Year
SOGR
Base
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
SNHPC
NHDOT
Targets

Non-Interstate National Highway System (NHS)



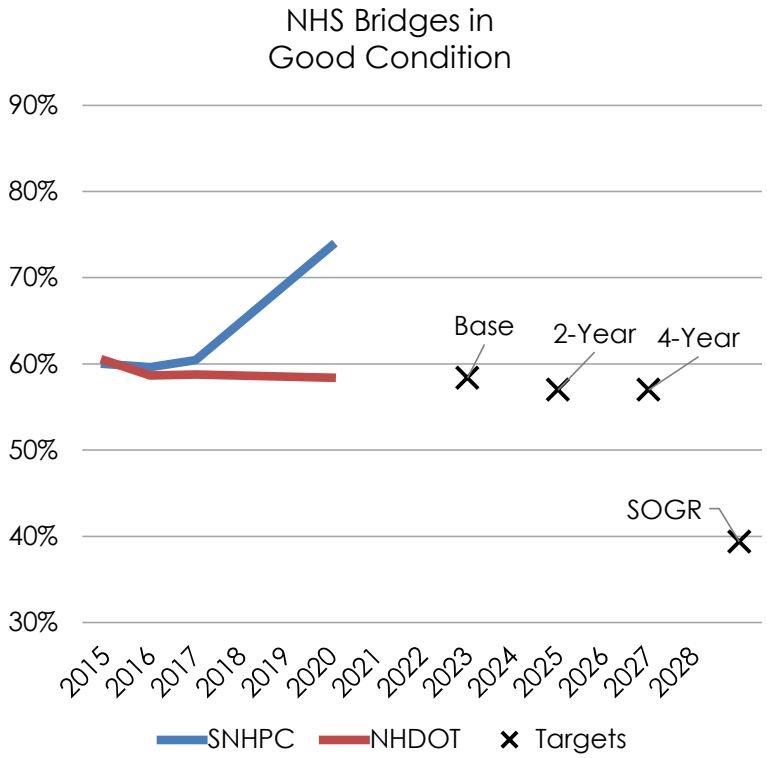


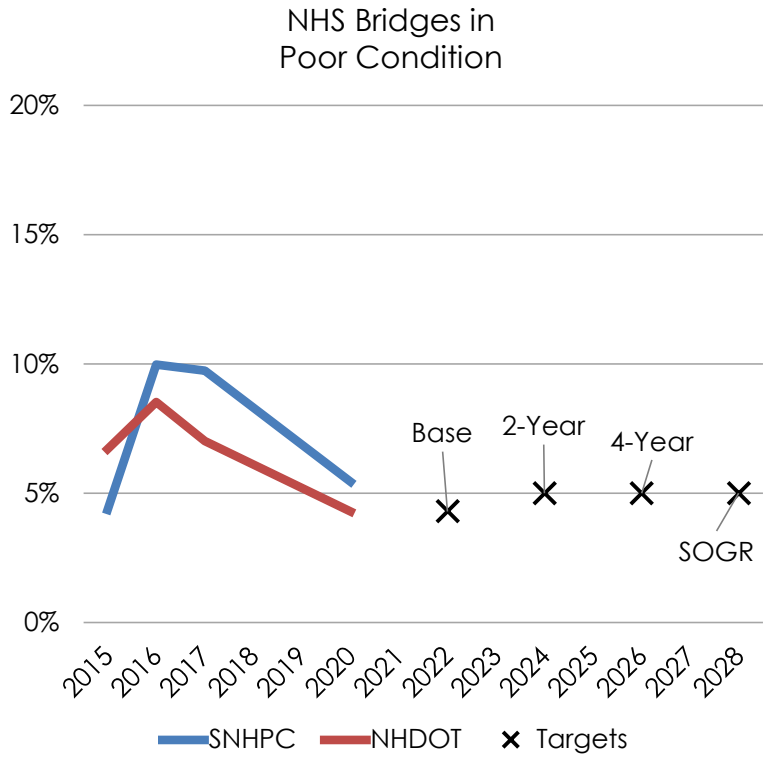
What Determines a Bridge's Condition?

Overall bridge condition is determined by the percentage of the deck area for bridges on the National Highway System based on a 0 to 9 score.

SCORE	NAME	
9	Good	Pristine condition.
8		No problems noted.
7		Insubstantial flaws.
6	Fair	Minor deterioration.
5		Elements sound, some defects.
4	Poor	Advanced defects.
3		Local failures, cracking begins.
2		Support failure, closure possible.
1		Elements moving, bridge closed.
0		Out of service, beyond repair.

National Highway System (NHS) Bridges





Recommended: Support State 4-Year Pavement & Bridge Targets

NHDOT Pavement Condition Targets 2022-2026

	Good				Poor			
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NHDOT Bridge Condition Targets 2022-2026

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PM3: SYSTEM PERFORMANCE, FREIGHT MOVEMENT, CONGESTION MITIGATION AND AIR QUALITY (CMAQ) IMPROVEMENT PERFORMANCE MEASURES

PM3: System Performance, Freight, & CMAQ

FAST Act requires DOTs to measure and report performance in the following areas:

- Safety
- Pavement and bridge
- **System performance/ congestion**
- **Freight movement, and**
- **Congestion mitigation and air quality (CMAQ).**

Background Info – Federal Legislation and System Performance, Freight, & CMAQ

What are the six Federally-required measures?

SNHPC is not required to adopt measures 4-6 as the Manchester urban area has a population less than 200,000 and is no longer a carbon monoxide limited maintenance area

1. **Interstate Travel Time Reliability Measure**

   % of person-miles traveled on the Interstate that are reliable

2. **Non-Interstate Travel Time Reliability Measure**

   % of person-miles traveled on the non-Interstate National Highway System (NHS) that are reliable

3. **Freight Reliability Measure**

   Truck travel time reliability (TTTR) index

4. ~~**Peak Hour Excessive Delay (PHED) Measure**~~

5. ~~**Non-Single Occupancy Vehicle Travel (SOV) Measure**~~

6. ~~**Emissions Measure**~~

Federal Legislation and State-level System & Freight Performance Targets

States set system & freight performance targets:

MPOs including SNHPC are allowed the flexibility to set their own system & freight targets

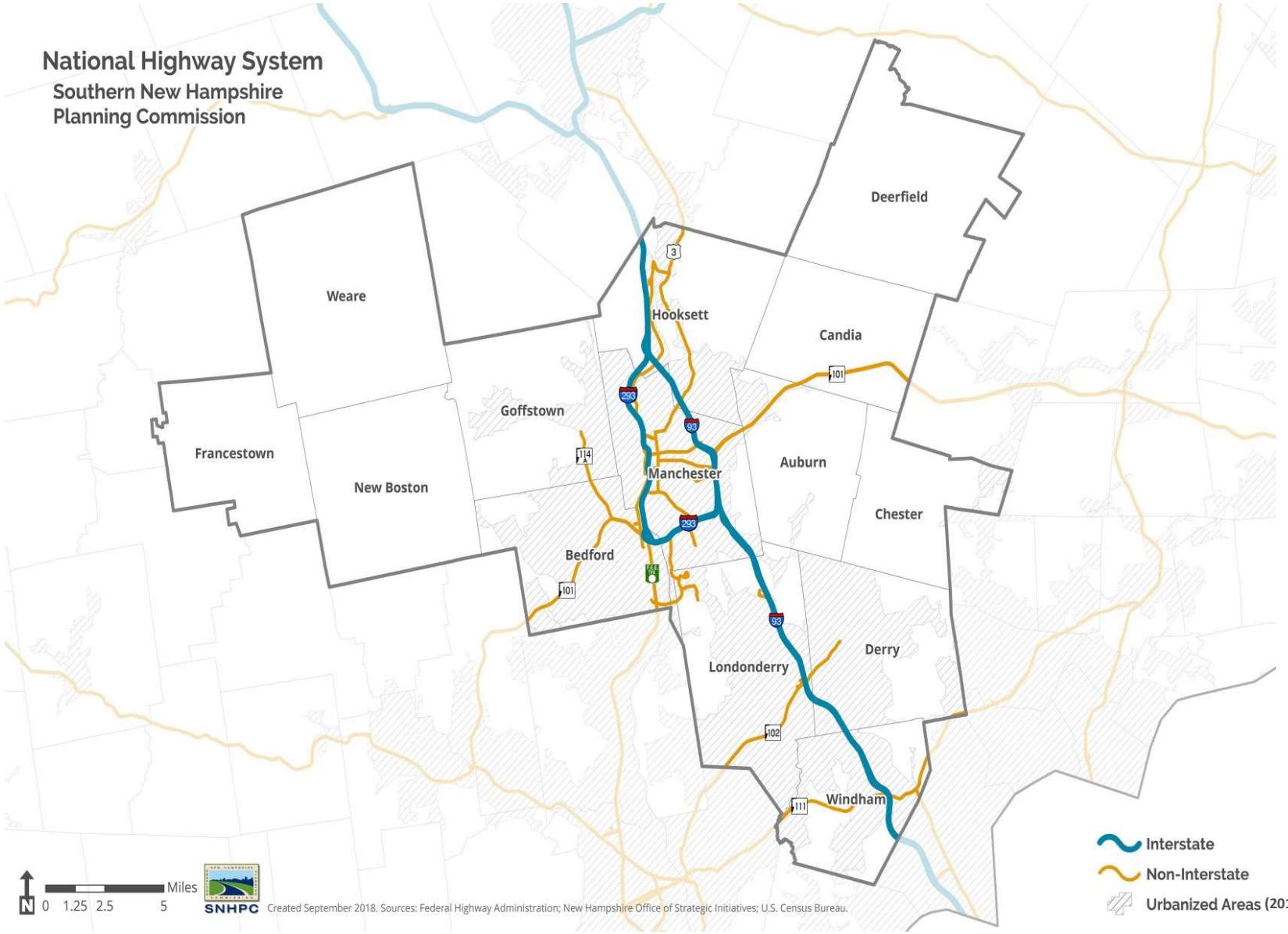
OR

MPOs may support the State-level performance targets

For 2023 SNHPC Recommends:

Support State Targets FOR 2023

SNHPC System & Freight Performance Measures (PM3)


National Highway System
Southern New Hampshire
Planning Commission
Deerfield
Weare
Hooksett
Candia
Goffstown
Francestown
New Boston
Auburn
Manchester
Chester
Bedford
Londonderry
Derry
Windham
3
101
293
93
114
A
Miles
0 1.25 2.5 5
N
SNHPC
Created September 2018. Sources: Federal Highway Administration; New Hampshire Office of Strategic Initiatives; U.S. Census Bureau.
Interstate
Non-Interstate
Urbanized Areas (2010)

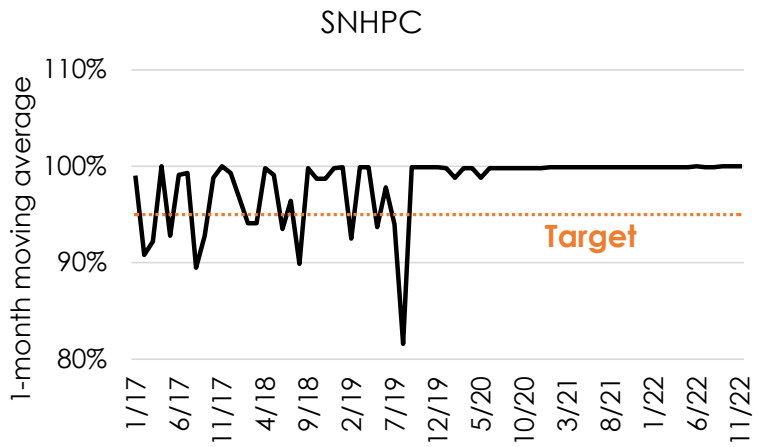
NHDOT's System & Freight Performance Targets

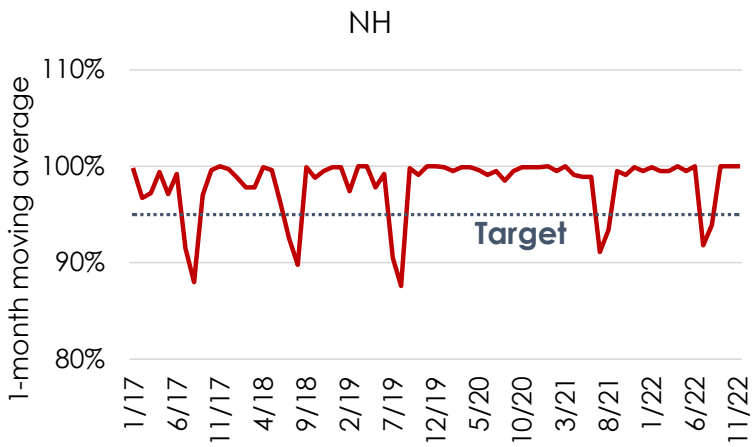
NHDOT System & Freight Performance Targets

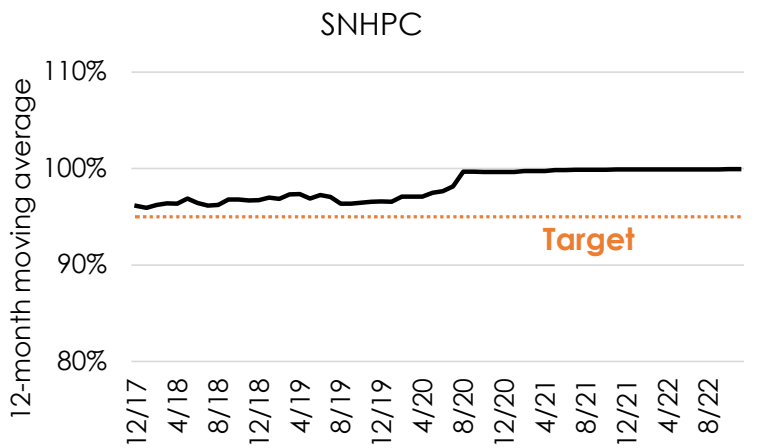
		Base Line	2-Year Target	4-Year Target
% of the Person-Miles Traveled on the Interstate That Are Reliable	At this % or better	99.5%	95.0%	95.0%
% of the Person-Miles Traveled on the Non-Interstate NHS That Are Reliable	At this % or better	96.3%	85.0%	85.0%
Interstate Truck Travel Time Reliability (TTTR) Index	This threshold or lower	1.29	1.50	1.50

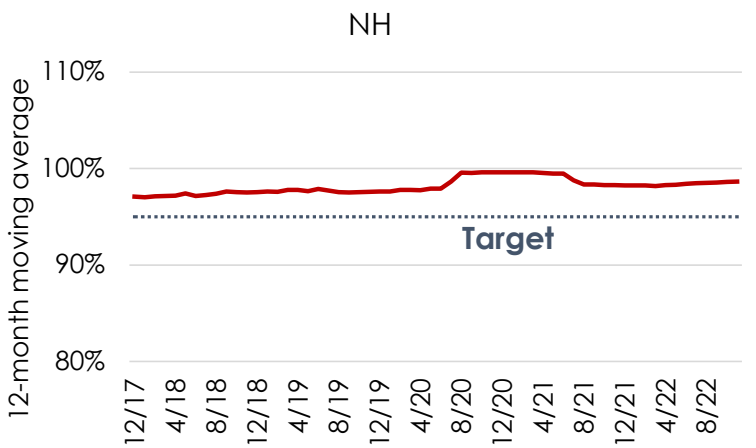
% of the Person-Miles Traveled on the Interstate That Are Reliable

At or Above the Target



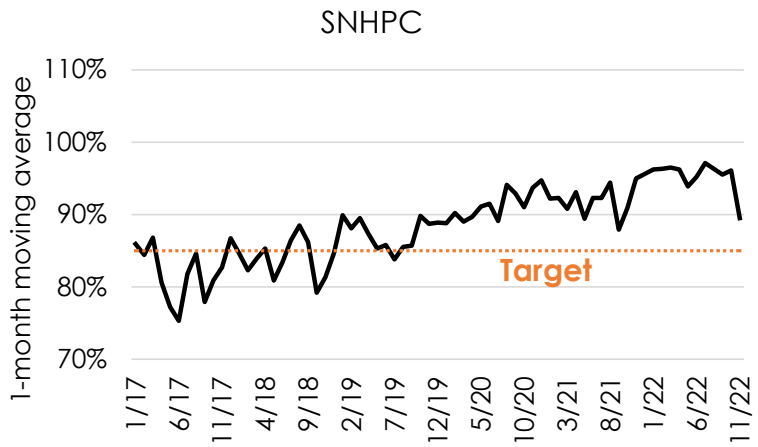


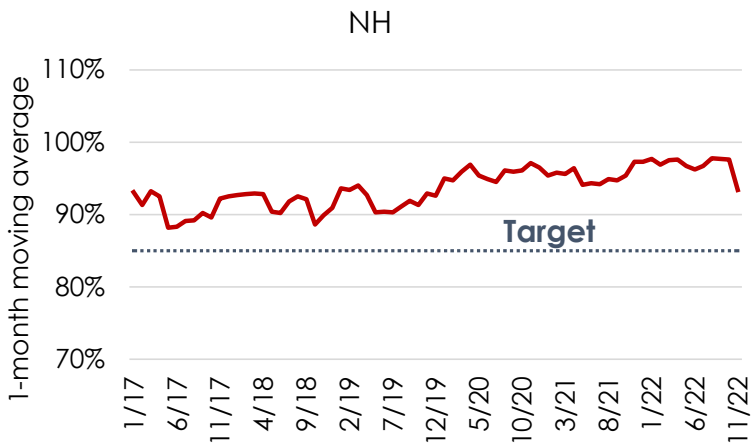


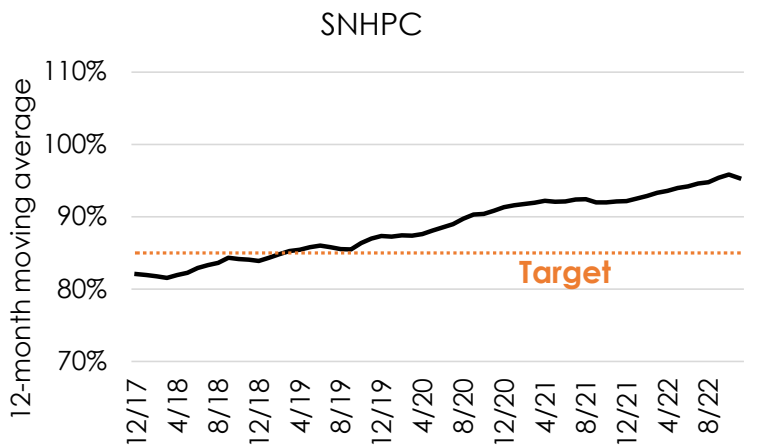


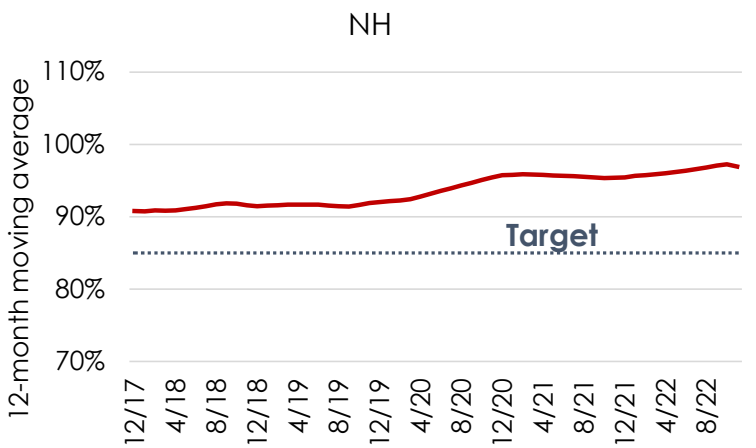
% of the Person-Miles Traveled on the Non-Interstate NHS That Are Reliable

At or Above the Target



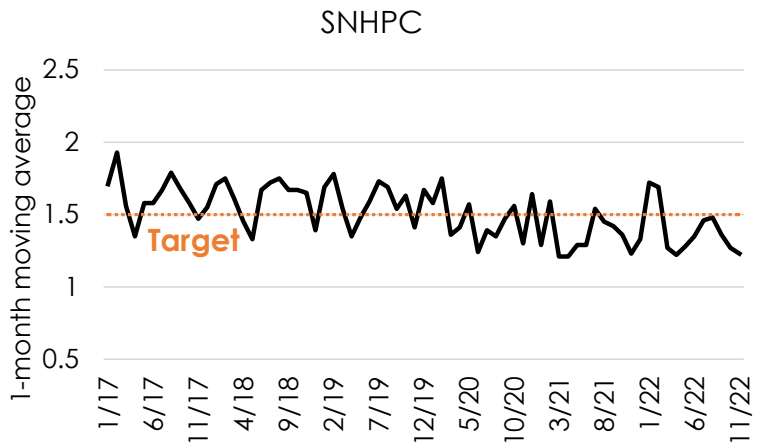


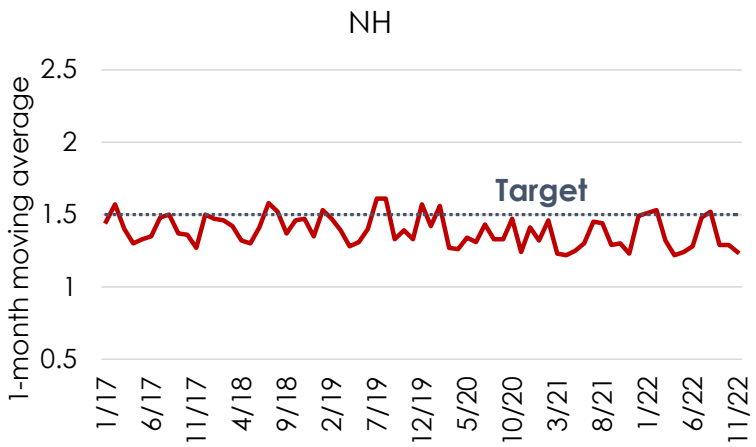


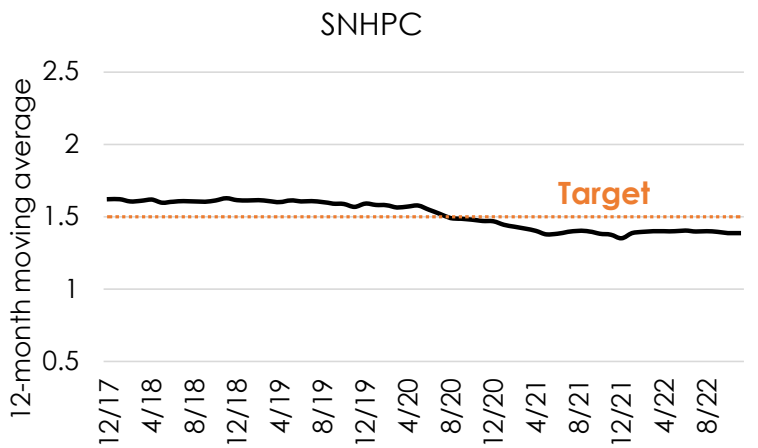


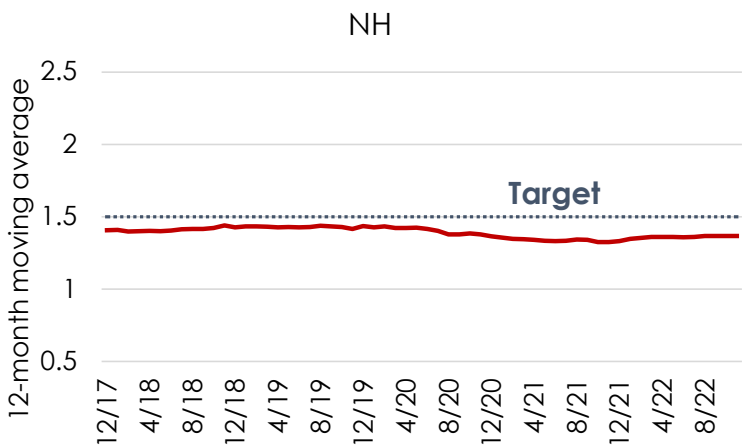
Interstate Truck Travel Time Reliability (TTTR) Index

At or Below the Target



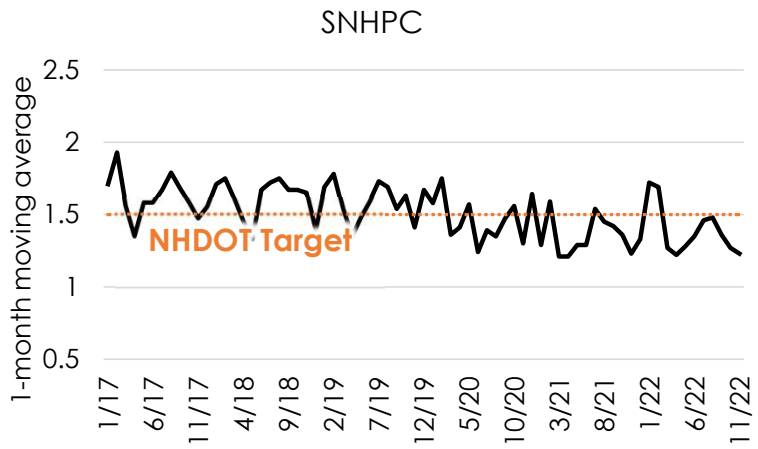


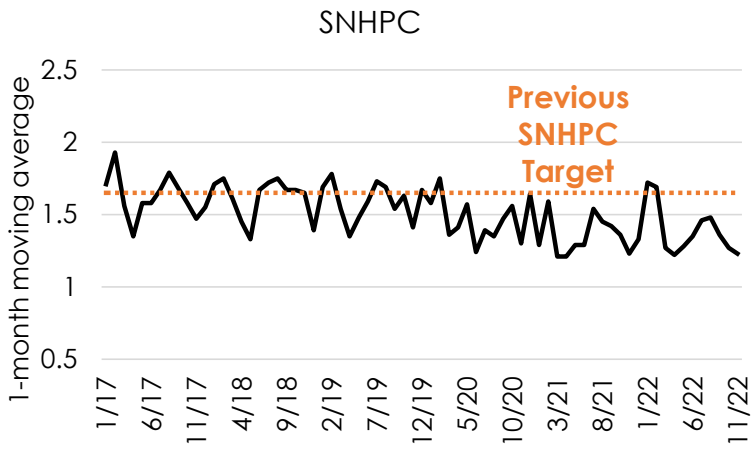


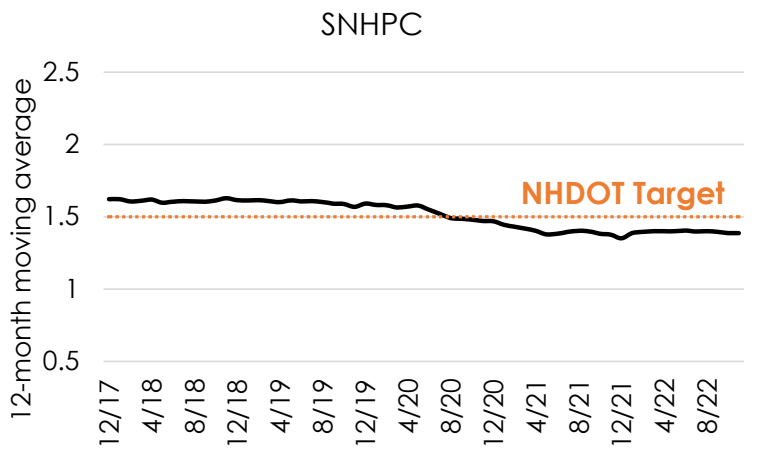


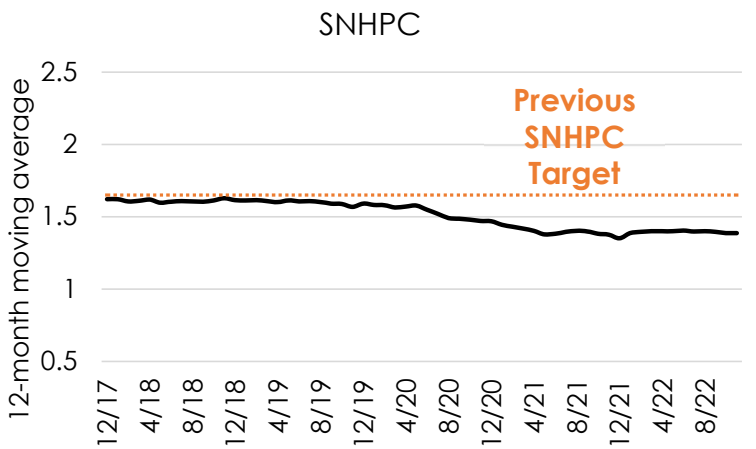
Adopt NHDOT TTTR Target?

At or Below the Target









Recommended: Support State 4-Year System & Freight Performance Targets

NHDOT System & Freight Performance Targets

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Questions?

SNHPC