

Plan Assessment

Chapter 5: Plan Assessment

Performance measures and associated targets are the centerpiece of a performance-based transportation plan. Performance measures demonstrate how well a region's transportation system is meeting the goals and expectations of the region's LRTP. Measuring performance of the LRTP is a way to gauge the impacts of the decision-making process. Performance measures answer questions as to whether the transportation system is getting better or worse over time and whether transportation investments are correlated or linked to stated goals and outcomes.³⁴ Federal law requires states and MPOs to set targets in relation to the set of national performance measures.³⁵

Performance measures should be clearly defined to ensure that stakeholders and the public understand what is being measured and that they reflect the performance attributes that are of greatest value for the community. By defining specific performance measures, attention is focused on key issues of concern that can be influenced by transportation policies and investments.

One of the most important roles for performance measures is to allow the LRTP's goals and objectives to be tracked over time in order to inform the public, planners and decision-makers on the condition of the transportation system. By monitoring and reporting on these measures, stakeholders can see whether the region is moving toward the desired goals and objectives of the plan. This enables decision-makers to examine what is happening on the system and make more informed decisions. MPOs use performance measurement tools to evaluate their transportation system and guide investment decisions reflected in the region's LRTP. Performance information, together with public and stakeholder input, support decision-makers in making investment choices and trade-offs within available resources.

Currently, the NEPA MPO has a number of tools to help monitor and evaluate progress toward the vision, goals and objectives of the plan. See the following companion documents and services:

- 2013 – 2014 Comprehensive Economic Development Strategy (CEDS) Annual Performance Report for Northeastern Pennsylvania³⁶
- 2013 – 2018 CEDS Five-Year Plan for Northeastern Pennsylvania³⁷

³⁴ PennDOT: Developing Regional Long Range Plans, Resource Guidance for Pennsylvania Planning Partners (September 2010)

³⁵ http://www.fhwa.dot.gov/planning/performance_based_planning/mlrtp_guidebook/chapter06.cfm#ftn84

³⁶ <http://www.nepa-alliance.org/wp-content/uploads/2013-2014-CEDS-Annual-Report.pdf>

³⁷ <http://www.nepa-alliance.org/wp-content/uploads/CEDS-2013-Five-Year-Plan.pdf>

- Economic Impact Modeling Services³⁸
- NEPA Energy Resource Center Services³⁹
- Safe 80⁴⁰
- NEPA MPO, Public Involvement Plan (November 2015), which includes information on Environmental Justice⁴¹

a. Performance Measures Moving Forward

The recently enacted FAST Act will continue MAP-21's emphasis on a performance-based approach to transportation decision-making to support the seven national goals of the federal-aid highway program. These seven national performance goals include:

1. Safety
2. Infrastructure Condition
3. Congestion Reduction
4. System Reliability
5. Freight Movement and Economic Vitality
6. Environmental Sustainability
7. Reduced Project Delivery Delays

National performance measures and state performance targets were in the process of being developed as part of MAP-21. It is anticipated that there may be new or revised national performance measures as a result of the FAST Act. MPOs and RPOs, in coordination with PennDOT, will reflect these measures and targets in future LRTP updates. As part of this LRTP, the NEPA MPO has identified performance measures and associated targets to address these goals. Monitoring and further development of performance measures will be ongoing, and the next LRTP update (5 years) will be shaped in part by progress achieved toward these goals. The LRTP performance measures and associated targets are identified in **Table 5a.1**.

Performance measures have been established by PennDOT for pavements and bridges to provide MPOs, RPOs and PennDOT Engineering Districts with key measures to drive investment decisions in meeting PennDOT's overall asset management strategy. The consideration of these measures was included in the development of performance measures for the LRTP. PennDOT's annual update and reporting process begins on March 31 to identify conditions of the previous calendar year. A report is then prepared and distributed each year to the MPOs, RPOs and districts.

³⁸ <http://www.nepa-alliance.org/researchdata/services/>

³⁹ <http://www.nepa-alliance.org/government/energy-resource-center/>

⁴⁰ <http://www.safe80.org/>

⁴¹ <http://www.nepa-alliance.org/transportation/transportationpublic-involvement/>

Table 5a.1 includes performance measure data and targets for reducing structurally deficient (SD) bridges by deck area. **Table 5a.1** also provides the pavement—International Roughness Index (IRI) and Overall Pavement Index (OPI)—performance measure data and targets identified for the NEPA MPO. IRI is a global standard for measuring pavement smoothness. OPI, a Pennsylvania specific measure, calculates the existing performance of the pavement using inputs that include the IRI and the initial pavement distresses including cracking, edge deterioration, rutting, and other signs of deterioration that are collected as part of a video log process. Additional bridge and pavement performance measures are provided in PennDOT’s *Performance Measures Annual Report*. The NEPA MPO will work with PennDOT toward meeting targets for improving bridge conditions and pavement performance.

Performance measures associated with safety and congestion have also been added to **Table 5a.1**. The goal of the safety performance measures is a continual decline in the number of fatalities and pedestrian/bicyclist injuries on NEPA MPO roadways. A congestion performance measure is included simply to keep the focus on efforts to reduce congestion throughout the NEPA MPO Region. While congestion is not a widespread or severe problem in the region, certain corridors do experience congestion and the NEPA MPO intends to continue efforts to reduce congestion on those corridors and to ensure that other corridors do not become overburdened.

As NEPA MPO’s first LRTP, the performance measures identified in **Table 5a.1** will be further developed and refined. Future LRTP updates will consider how well the NEPA MPO has been able to address the stated performance measures and will adapt and update accordingly to pursue a continuous upward trend in achieving performance measures. Additionally, as performance measures at the federal and state level are further refined, particularly related to the FAST Act, future LRTPs will be adapted to incorporate these elements.

**Table 5a.1
NEPA LRTP Performance Measures**

Performance Measure	How	Target (2040)	Baseline (2015)	Data Source
Decrease 5-year average fatalities.	Programming of priority safety projects on the TIP.	Continued trend to decrease fatalities	72 (2010-2014)	PennDOT Bureau of Highway Safety and Traffic Operations Division
Decrease 5-year average of serious injuries.	Programming of priority safety projects on the TIP.	Continued trend to decrease serious injuries	173 (2010-2014)	PennDOT Bureau of Highway Safety and Traffic Operations Division
Decrease 5-year average pedestrian and bicycle fatalities and serious injuries.	Programming of priority safety projects on the TIP.	Continued trend to decrease pedestrian and bicycle fatalities and serious injuries	Pedestrian, 6 fatalities and 9.6 serious injuries Bicycle, 0.2 fatalities and 1.2 serious injuries (2010-2014)	PennDOT Bureau of Highway Safety and Traffic Operations Division
Reduce the number of congested corridors within the NEPA MPO Region.	Continue to program congestion management projects.	Increase number of CMAQ and congestion management projects on TIP	3 congestion management projects on TIP	NEPA MPO Region TIP and CMAQ program
Reduce the percentage of structurally deficient (SD) bridge deck area.	Continue to program priority SD bridges on the TIP.	NHS, Non-Interstate = 5.5%	21.5%	PennDOT Performance Measures Annual Report
		Non-NHS ≥ 2,000 ADT = 10.9%	30.1%	
		Non-NHS < 2,000 ADT = 12.7%	29.6%	
		Local > 20' = 15.4%	45.3%	

**Table 5a.1
NEPA LRTP Performance Measures**

Performance Measure	How	Target (2040)	Baseline (2015)	Data Source
Reduce poor IRI on roadways to meet statewide goals. *shows % of segment miles with poor IRI*	Continue to program pavement cycle and capital maintenance projects on the TIP.	NHS, Non-Interstate = 5.0%	16.1%	PennDOT Performance Measures Annual Report
		Non-NHS \geq 2,000 ADT = 1.5%	20.5%	
		Non-NHS < 2,000 ADT = 36.1%	48.8%	
Maintain % Good and Excellent OPI on roadways to meet statewide goals. *shows % of segment miles with poor OPI*	Continue to program pavement cycle and capital maintenance projects on the TIP.	NHS, Non-Interstate = 79.0%	44.9%	PennDOT Performance Measures Annual Report
		Non-NHS \geq 2,000 ADT = 91.0%	36.1%	
		Non-NHS < 2,000 ADT = 54.0%	40.2%	