



## PLAN ASSESSMENT

### A. Performance Measures

Performance measures and associated targets are the focal point 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.<sup>40</sup> Federal law requires states and MPOs to set targets in relation to the set of national performance measures.<sup>41</sup>

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 SEDA-COG 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:

- 2015 SEDA-COG MPO Regional Performance Measures Report<sup>42</sup> (see **Appendix G**)
- 2015 SEDA-COG Comprehensive Economic Development Strategy (CEDS) Five Year Update<sup>43</sup>
- SEDA-COG Energy Resource Center Services<sup>44</sup>
- 2014 SEDA-COG MPO Public Participation Plan<sup>45</sup>
- 2014 PennDOT Bridge and Pavement Performance Measures Reports (see **Appendix H**)

Since 2011, the SEDA-COG MPO has prepared annual evaluations of transportation system trends and other planning program performance measures. While many of the measures are similar to those

<sup>40</sup>PennDOT: Developing Regional Long Range Plans, Resource Guidance for Pennsylvania Planning Partners, September 2010, <http://www.dot.state.pa.us/public/Bureaus/Cpdm/FinalLRTPGuide.pdf>.

<sup>41</sup> FHWA Performance-Based Planning Guidebook, September 2013, [http://www.fhwa.dot.gov/planning/performance\\_based\\_planning/mlrtp\\_guidebook/chapter06.cfm#ftn84](http://www.fhwa.dot.gov/planning/performance_based_planning/mlrtp_guidebook/chapter06.cfm#ftn84).

<sup>42</sup> [http://www.seda-cog.org/transportation/Documents/Performance%20Measures%20Report\\_2014](http://www.seda-cog.org/transportation/Documents/Performance%20Measures%20Report_2014). [http://www.seda-cog.org/transportation/Documents/Performance%20Measures%20Report\\_2015.pdf](http://www.seda-cog.org/transportation/Documents/Performance%20Measures%20Report_2015.pdf).

<sup>43</sup> SEDA-COG Comprehensive Economic Development Strategy (CEDS), Five-Year Update, <http://www.seda-cog.org/SiteCollectionDocuments/5-Year%202015%20CEDS%20FINAL.pdf>.

<sup>44</sup> SEDA-COG Energy Resource Center, <http://erc.sedacog.org/>.

<sup>45</sup> SEDA-COG MPO Public Participation Plan, December 2014, [http://www.seda-cog.org/transportation/Documents/SEDA-COG%20PPP%20\(2014-12-11\)%20FINAL\\_REV\\_ALL.pdf](http://www.seda-cog.org/transportation/Documents/SEDA-COG%20PPP%20(2014-12-11)%20FINAL_REV_ALL.pdf).



required by FHWA and tracked by PennDOT, the SEDA-COG MPO looks at different aspects of the more broadly reported measures. The 2015 report is provided in **Appendix G**.

The recently enacted FAST Act continues 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 developed as part of MAP-21. Final federal rulemaking for the Safety performance measure had been completed prior to completion of this LRTP. Final federal rulemaking for the Pavement and Bridge Infrastructure Condition performance measures is expected in September 2016. The FAST Act sustains the performance based approach, and it is anticipated that rulemaking will continue to emerge for the other performance goals listed above.

The PA Planning Partners, in coordination with PennDOT, are responsible for reflecting these measures and targets in future LRTP updates. Therefore, as part of this LRTP, the SEDA-COG 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 SEDA-COG MPO LRTP performance measures and associated targets are identified in **Table 38**.

- The goal of the safety performance measures is a continual decline in the number of fatalities, serious injuries, and pedestrian/bicyclist injuries on the MPO's roadways.
- Performance measures for pavements and bridges provide 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.
- Performance measures and targets are defined for reducing structurally deficient (SD) bridges by count (as % of total) and deck area, along with International Roughness Index (IRI) and Overall Pavement Index (OPI) for pavements. Additional bridge and pavement performance measures are included in PennDOT's Performance Measures Annual Report, which are provided in **Appendix H**. The SEDA-COG MPO will work with PennDOT toward meeting targets for improving bridge conditions and pavement performance.



**Table 38. SEDA-COG MPO Long Range Transportation Plan Performance Measures**

Performance Measure	Strategy	Target (2015/Long Range)		Baseline	Data Source
<b>HIGHWAY SAFETY</b>					
Decrease 5-year average of fatalities.	Programming of priority safety projects on the TIP.	Continued trend to decrease fatalities		255 total fatalities <b>51.0 per year</b>	PA Crash Information Tool 2011-2015
Decrease 5-year average of serious injuries.	Programming of priority safety projects on the TIP.	Continued trend to decrease serious injuries		522 total major injuries <b>104.4 per year</b>	PA Crash Information Tool 2011-2015
Decrease 5-year average of 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		35 pedestrian fatalities 3 bicycle fatalities 60 pedestrian serious injuries 12 bicycle major injuries 110 total fatal & serious Injuries <b>22.0 per year</b>	PA Crash Information Tool 2011-2015
<b>BRIDGES</b>					
Reduce the number of structurally deficient (SD) bridges (by % of total)	Continue to program SD bridges on the TIP, with emphasis on locals. Sustain Local Bridge Sub-Committee effort.	NHS, Non-Interstate	4.0%	6.5%	PennDOT Performance Measures Annual Report 2014
		Non-NHS ≥ 2,000 ADT	8.1%	11.6%	
		Non-NHS < 2,000 ADT	8.9%	8.5%	
		Local > 20'	12.8%	29.6%	
Reduce the percentage of structurally deficient (SD) bridge deck area.	Continue to program SD bridges on the TIP, with emphasis on locals. Sustain Local Bridge Sub-Committee effort.	NHS, Non-Interstate	3.7%	5.3%	PennDOT Performance Measures Annual Report 2014
		Non-NHS ≥ 2,000 ADT	5.4%	7.2%	
		Non-NHS < 2,000 ADT	9.6%	6.7%	
		Local > 20'	11.8%	27.5%	
<b>PAVEMENT</b>					
Reduce or maintain poor IRI on roadways to meet statewide goals.	Continue to program pavement cycle and capital maintenance projects on the TIP.	NHS, Non-Interstate	2.5%	2.5%	PennDOT Performance Measures Annual Report 2014
		Non-NHS ≥ 2,000 ADT	2.2%	2.4%	
		Non-NHS < 2,000 ADT	21.8%	23.7%	
Maintain % Good and Excellent OPI on roadways to meet statewide goals.	Strategize pavement projects to address IRI and OPI concurrently on lower level systems.	NHS, Non-Interstate	90.6%	90.7%	PennDOT Performance Measures Annual Report 2014
		Non-NHS ≥ 2,000 ADT	91.0%	77.1%	
		Non-NHS < 2,000 ADT	79.4%	75.0%	

Note: The "Long Range" and "2015" targets from PennDOT Performance Measures Reports are identical. No specific date is used to define "Long Range".



The performance measures identified will be evaluated, developed, and further refined in future LRTP updates. Such an evaluation will serve as checkpoints on how well the SEDA-COG MPO is addressing the performance measures, in pursuit of ongoing patterns of improvement and, ultimately, a transportation system that has reached a steady state of good condition. The development of new performance measures is expected through the ongoing federal rulemaking process. When this occurs, the MPO will receive guidance from PennDOT about the measure and its associated targets that will contribute to the Pennsylvania goals.

**B. Plan Expenditures and the Scorecard of Influence**

The 2017 TIP/TYP expenditures for the 2017-2029 period were expressed as a percentage of the base revenue allocation of flexible funds (NHPP, STP, State Highway, and State Bridge) and compared to the PennDOT guidance provided in the Scorecard of Influence. The SEDA-COG MPO program achieves and exceeds the guidelines for the Bridge and Highway Reconstruction/Full-Rehabilitation categories, as shown in **Table 39**. The guideline placed no limitation on spending for capacity-adding projects.

**Table 39. Plan Expenditures vs. Scorecard of Influence Required Investment Levels**

	Spending	Flexible Funds*	% Flexible Funds	Guideline
<b>Bridges</b>	\$260,821,444	\$592,236,000	44%	40%
<b>Highway Reconstruction/ Full-Rehabilitation</b>	\$312,636,533		53%	12%

Notes:

\* The dollar value of Flexible Funds shown in the table was calculated to exclude dollars spent on the CSVT project.

**C. Air Quality Conformity**

None of the counties within the SEDA-COG MPO are designated as non-attainment according to the Environmental Protection Agency (EPA) established health-based standards for six criteria air pollutants, referred to as the National Ambient Air Quality Standards (NAAQS). Therefore, air quality conformity analysis of the projects with the LRTP is not required.

**D. Environmental Justice Equity Analysis**

For the purposes of long-range transportation planning, MPOs must specifically address Environmental Justice (EJ) in the process of developing and advancing transportation programs and projects. The foundation of EJ was established in Title VI of the Civil Rights Acts of 1964 to ensure the fair treatment and meaningful involvement of all people regardless of race, color, national origin or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies.



The three main EJ objectives are:

- To identify, address, minimize, mitigate, and (preferably) avoid disproportionately high and adverse human health and environmental effects resulting from the program of transportation projects, particularly social and economic effects, on minority and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process. This objective is met by providing public involvement opportunities and dissemination of information, including meaningful access to public information concerning human health or environmental impacts. In addition, solicitation of input from affected minority and low-income populations is required when considering alternatives during the planning and development of transportation infrastructure investments.
- To ensure that no person—particularly those of minority or low-income populations—is excluded from participating in, denied the benefits of, or in any other way subjected to discrimination under any program or activity receiving federal assistance.

In order to show that the LRTP meets these objectives, an Equity Analysis—a.k.a., “Benefits and Burdens Analysis”—was prepared to show the potential benefit and/or burden on the EJ populations. Complete documentation of the analysis, which summarizes the evaluations and outcomes that were completed in compliance with the EJ policy, is provided in **Appendix I**.