

Implementation Strategies and Performance Measures

A new and critical element of LRTP 2044 is the inclusion of implementation strategies and performance measures. The inclusion of implementation strategies and performance measures is a result of the evolving focus of federal transportation legislation.

The cornerstone of the federal Moving Ahead for Progress in the 21st Century (MAP-21) legislation is the transition to a performance and outcome-based approach to transportation planning and programming of funding. MAP-21 requires states to invest resources in projects that meet individual targets that in turn, collectively make progress toward national goals.

MAP-21 establishes national performance goals for federal highway programs:

- **Safety** — *To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.*
- **Infrastructure condition** — *To maintain the highway infrastructure asset system in a state of good repair.*
- **Congestion reduction** — *To achieve a significant reduction in congestion on the NHS.*
- **System reliability** — *To improve the efficiency of the surface transportation system.*
- **Freight movement and economic vitality** — *To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.*
- **Environmental sustainability** — *To enhance the performance of the transportation system while protecting and enhancing the natural environment.*
- **Reduced project delivery delays** — *To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.*

At the time the LRTP 2044 was adopted, final rulemaking was still underway for MAP-21. The rulemaking will ultimately set forth the performance measures, targets and overall parameters that move toward meeting the above goals. Until rulemaking is complete, the CCMPO utilized the most recent and readily available information about anticipated performance measures for MAP-21 to develop implementation strategies and performance measures for the LRTP 2044.

In addition, the five core questions that the CCMPO looks to answer when making programmatic and policy decisions were used as the framework for implementation strategies and performance measures.

1. *Is the Centre County transportation system getting safer?*
2. *Is the Centre County transportation system in a state of good repair?*
3. *Does the Centre County transportation system have adequate capacity?*

4. *Does the Centre County transportation system have an adequate mix of modes?*
5. *Does Centre County's transportation system support existing and future community and economic development needs?*

When developing implementation strategies and performance measures, the CCMPO considered the following practical issues:

Implementation Strategies:

- Are the strategies understandable?
- Is there a direct correlation between the strategies, Performance Measures, and LRTP Goals and Objectives?
- Do the strategies lead to actionable Plans, Programs or Policies?
- Are the strategies realistic, without overreaching?
- What is an appropriate time frame for implementing the strategies?
 - ✓ Time frames were identified as Existing, Short-Term (within the five-year life of the LRTP) and Long-Term (beyond the five-year life of the LRTP)

Performance Measures:

- Are the measures understandable?
- Are the measures quantifiable?
- Is there a correlation between MPO programmatic decisions and what is being measured?
- Are there data sets readily accessible for the measures?

The CCMPO acknowledged that the implementation strategies and performance measures will need to change over time in response to MAP-21 final rulemaking, legislation that succeeds MAP-21, new technology and data streams, and changes in Centre County's transportation needs.

The CCMPO adopted the following implementation strategies for LRTP 2044 to provide a series of short and long term plans, programs and policies that help answer the five core questions and to achieve the goals and objectives in the Plan.

In addition, the CCMPO adopted the performance measures below to provide a periodic report card of the effectiveness of programmatic and policy decisions in meeting the goals and objectives in the Plan.

Implementation Strategies					Centre County LRTP Goals Addressed							
Key Questions	Implementation Strategies	Status	Primary Responsibility	Time Frame	Safety & Security	Preservation	Management & Operations	Integration & Connectivity	Accessibility & Mobility	Consistency with Planned Growth Areas	Environment & Air Quality	Economic Vitality
Is the Centre County transportation system getting safer?	Use the TIP process to program projects that improve safety and security across all transportation modes	Existing	MPO, PennDOT	Biannual	X		X					
	Advocate for a flexible and multi-modal funding allocation dedicated to safety and security improvements at existing and potential crash locations	Existing	MPO	Biannual	X							
	Conduct safety reviews with PennDOT on corridors, subareas and sites across all transportation modes	Existing	MPO, PennDOT	Biannual	X							
	Conduct safety field views on identified and potential crash areas	Existing	MPO, PennDOT, Municipalities	Biannual	X							
	Host a Centre County Transportation Safety Summit during each LRTP development cycle	New	MPO	Short Term	X							
	Develop an Access Management Plan/Policies	New	MPO	Long Term	X	X	X	X	X	X	X	X
Is the Centre County transportation system in a state of good repair?	Utilize the TIP process to plan and program highway/bridge preventative maintenance projects	Existing	MPO, PennDOT	Biannual		X						
	Utilize the TIP process to plan and program public transportation vehicle maintenance and replacement projects	Existing	MPO, PennDOT, CATA, CCOT	Biannual		X						
	Advocate for adequate/flexible transportation infrastructure funding for use on the municipally owned road and bridge network	Existing	MPO	Biannual		X						
	Monitor systemwide pavement and bridge conditions	Existing	MPO, PennDOT, Municipalities	Biannual		X						
	Monitor age and condition ratings of CATA/CCOT fleets	Existing	MPO, CATA, CCOT	Biannual		X						
	Define a Centre County specific Core Transportation System	New	MPO	Short Term	X	X	X	X	X	X	X	X
Does the Centre County transportation system have adequate capacity?	Use the TIP process to program projects that ensure that the local public transportation system provides efficient, effective and safe service to as much of the county's population as possible	Existing	MPO, PennDOT, CATA, CCOT	Biannual	X		X	X	X			
	Use the TIP process to program projects that aid to reduce traffic congestion and improve levels of service on corridors and at intersections	Existing	MPO, PennDOT	Biannual	X	X	X	X				X
	Advocate for adequate and fair funding formulas that address both capital and operating expenses for public transportation operations	Existing	MPO, CATA, CCOT	Biannual			X	X	X			
	Monitor the Volume/Capacity ratio and Level of Service on NHPP system	New	MPO	Biannual	X	X	X	X				X
	Monitor CATA/CCOT ridership and service frequency data	Existing/New	MPO, CATA, CCOT	Annual			X	X	X			
	Develop a Travel Demand Management Plan/Policies	New	MPO	Long Term	X	X	X	X	X	X	X	X
Does the Centre County transportation system have an adequate mix of modes?	Use the TIP process to program amenities or projects that provide the public a variety of travel options	Existing	MPO, PennDOT	Biannual				X	X	X	X	
	Monitor mode share data	New	MPO	Short Term				X	X			
	Conduct an inventory of missing links in the bicycle and pedestrian systems	New	MPO	Short Term				X	X	X		X
	Develop a Complete Streets Plan/Policies	New	MPO	Short Term	X	X	X	X	X	X		X
	Develop sample regulations/ordinances that seek inclusion of sidewalks, transit amenities (stops, pull-offs, shelters) and bicycle facilities (travel lanes, racks) in land development projects where appropriate	New	MPO, CATA, CCOT	Short Term				X	X	X		X
	Perform a countywide Park and Ride study	New	MPO, CATA, CCOT	Long Term				X	X	X		
Does Centre County's transportation system support existing and future community and economic development needs?	Pursue opportunities to link transit to other transportation providers such as taxis, intercity buses and human service transportation providers.	Existing/New	MPO, CATA, CCOT	Long Term				X	X			
	Use the TIP process to program projects that support existing and potential growth areas and/or enhance economic development opportunities	Existing	MPO, PennDOT	Biannual	X	X	X	X	X	X	X	X
	Conduct periodic reviews of the latest municipal/regional/county/state planning documents to ensure consistency with project planning	Existing	MPO	Short Term						X	X	
	Conduct a pilot program that involves PennDOT, MPO and federal and state environmental resource agency personnel in a select number of project field views to further enhance the Linking Planning & NEPA process	New	MPO, PennDOT, Municipalities	Short Term	X					X	X	
	Survey air, rail and key local freight companies as to their specific needs/concerns related to existing system	New	MPO	Short Term	X			X	X	X		X
	Inventory existing restrictions (weight & height limits, closures, bottlenecks) within core system and associated feeder systems	New	MPO, PennDOT	Short Term	X	X	X	X	X	X		X
	Pursue grant and other funding opportunities that promote improved air quality and energy conservation through transportation initiatives	New	MPO	Long Term							X	
	Monitor emerging transportation technologies (Ex. smart cars, autonomous vehicles, etc) and advocate for inclusion of technology infrastructure (i.e. conduit for fiber) as part of project development	New	MPO	Long Term			X	X	X	X		X
	Develop a local Environmental Resource Advisory Committee comprised of county specific agricultural, environmental, cultural & historic resource organizations to collaborate with the MPO on avoidance, minimizing impacts and mitigation measures	New	MPO	Long Term	X					X	X	
Develop a local Freight Advisory Committee comprised of Centre County specific trucking, rail and air industry representatives to aid MPO in identifying issues and potential projects	New	MPO	Long Term	X			X	X	X		X	
Develop a local Environmental Justice/Title VI Non-Discrimination Advisory Committee comprised of Centre County specific representatives/organizations to aid the MPO in ensuring that population needs/issues are adequately addressed	New	MPO	Long Term			X	X	X				

Short Term - within the 5 year life of the LRTP
Long Term - beyond the 5 year life of the LRTP

Key Questions	Performance Measures	Mode	Desired Trend	Time Frame
Is the Centre County transportation system getting safer?	Total Crashes or Crash Rate (crashes per million miles traveled)	All modes	Decreasing	Annual
	Total Fatalities and Fatality Rate (fatalities per million miles traveled)	All modes	Decreasing	Annual
	Total Serious Injuries and Serious Injury Rate (Serious Injuries per million miles traveled)	All modes	Decreasing	Annual
	Miles between preventable crashes	Public Transportation	Increasing	Annual
	Percentage of Interstate and Non-Interstate on the NHPP system with pavement in good condition/poor condition	Highways	Increasing/Decreasing	Short Term
	Lane miles of roadway identified as deficient from the pavement inventory	Highways	Decreasing	Short Term
	Percentage of NHPP system bridges in good condition/poor condition	Bridges	Increasing/Decreasing	Short Term
	Number of structurally deficient bridges (state and local)	Bridges	Decreasing	Short Term
	Fleet Age	Public Transportation	Stable/Decreasing	Annual
	Condition (scale of 1-5) from PennDOT Capital Planning Tool	Public Transportation	Stable/Improving condition ratings	Annual
Is the Centre County transportation system in a state of good repair?	Volume/Capacity ratio on NHPP system	Highways	Stable/Decreasing	Biannual
	Level of Service on NHPP system	Highways	Stable/Improving	Biannual
	Load Factor (Passenger Miles/Vehicle Revenue Miles)	Public Transportation	Stable	Annual
	Fleet Size	Public Transportation	Stable/Increasing	Annual
	Spare ratio	Public Transportation	Stable/Increasing	Annual
	Mode share	All modes	Increasing mode share amongst	Short Term
	Miles of multi-use trails and bicycle lanes within Centre County	Bicycle and Pedestrian	Increasing	Short Term
	Number of Park and Ride parking spaces within Centre County	Public Transportation	Increasing	Short Term
	Number of key stakeholders (air, rail and freight companies) interviewed	All modes	Increasing	Short Term
	Number of restrictions/barriers impacting mobility of people and/or freight within core system and associated feeder systems	All modes	Decreasing	Short Term
Does the Centre County transportation system have an adequate mix of modes?	Amount of grant & spike funding (beyond base allocation) received by CCMPO	All modes	Increasing	Short Term
Does Centre County's transportation system support existing and future community and economic development needs?				
Short Term - within the 5 year life of the L RTP				
Long Term - beyond the 5 year life of the L RTP				