

A Performance-Based Planning Framework

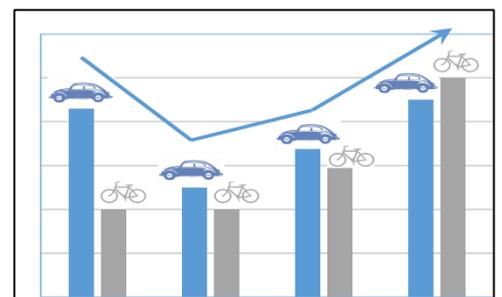
Moving Ahead for Progress in the 21st Century (MAP-21), the federal transportation authorization legislation passed in 2012, initiated a federal requirement for MPOs to incorporate the use of performance measures in their planning processes, including the LRTP. The current federal legislation – *Fixing America’s Surface Transportation* (FAST) Act, enacted in December 2015 – retains the same requirements.

Goals, Objectives and Performance Measures

The terms “goals” and “objectives” are used in many settings but have a very specific meaning in the planning profession. *Goals* are broad statements which tend to be qualitative or descriptive in nature, indicating a general direction for a plan. *Objectives* are intermediate steps that will be taken to reach a goal, and are more focused on specific actions. Goals typically have multiple objectives, each of which helps to define its intent and how the goal can be attained.

MPOs have always used goals and objectives in the development of their LRTPs and other planning activities. What is relatively new in some regions is the expanded use of *performance measures*. These help to further refine or “operationalize” objectives by providing a quantifiable way to track their progress. In long-range planning they are also used to compare current performance to the projected future.

Most MPOs already have some form of performance measurement in their LRTPs. These include common measures such as roadway level of service (a measure of how freely traffic is flowing) and volume to capacity ratio (which measures the volume of traffic relative to the number of roadway lanes). Regional travel demand models are used to generate these measures, along with the number of vehicle-miles traveled, vehicle-hours traveled, and vehicle-hours of delay. Several of these measures for the RFATS region are presented in Chapter 4, providing a comparison of how well the roadway system functions under current conditions versus the conditions that are expected by the year 2045. Proposed transportation improvements can then be evaluated in terms of how much they are expected to improve future system performance.



Performance targets can also be set to indicate the maximum or minimum value desired. For example, a city may aim to have sidewalks along at least 75% of its roads, or a transit system may set a target to have at least 90% of its buses arrive within 5 minutes of their scheduled time.

The 2045 LRTP includes performance measures that reflect the anticipated federal requirements for monitoring safety and air quality improvement, which are the measures applicable to the RFATS region based on preliminary federal guidance. These will be updated or amended if necessary after USDOT issues all final guidance to states and MPOs. SCDOT and RFATS will then work together to agree on specific target values.

Federal Planning Factors Included in the LRTP

Transportation investments that use federal funds – which includes a large portion of investments in the RFATS region – must be guided by a long range plan that addresses multiple modes of transportation and specific factors such as mobility, safety, and others. These factors, shown in **Figure 3.1**, have remained largely the same in federal legislation over the past decade.

Two additional planning factors were added by the FAST Act: first, considering the transportation system’s resiliency, i.e. its ability to withstand unexpected impacts, including stormwater impacts; and second, the ability of the transportation system to enhance travel and tourism.

Other laws that shape the LRTP include Title VI of the Civil Rights Act of 1964, the Americans with Disabilities Act of 1990, and the National Environmental Policy Act (NEPA) of 1969. Each of these laws in some way has an impact on the type, location, and design of transportation facilities and services contained in the LRTP.



Figure 3.1: Federal Metropolitan Planning Factors

Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency
Increase the safety of the transportation system for motorized and non-motorized users
Increase the security of the transportation system for motorized and non-motorized users
Increase the accessibility and mobility of people and for freight
Protect and enhance the environment , promote energy conservation , and improve quality of life ; and promote consistency between transportation improvements and State and local planned growth and economic development patterns
Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight
Promote efficient system management and operations
Emphasize the preservation of the existing transportation system
Improve transportation system resiliency and reliability and reduce or mitigate stormwater impacts on the surface transportation system.
Enhance travel and tourism .

L RTP Goals and Objectives

The goals of the 2045 LRTP, shown in **Figure 3.2**, incorporate the federal planning factors discussed above. Each goal is also accompanied by a set of objectives, many of which are oriented to key issues that have been identified through the analysis of transportation system needs and community input. **Figure 3.3** demonstrates the relationship between the goals and objectives of the 2045 LRTP and the federally required transportation planning factors.

Figure 3.2: Goals of the 2045 Long Range Transportation Plan

1	Provide Safe, Secure, Reliable Roadway Travel
2	Manage Congestion
3	Provide Mobility Choices
4	Promote Consistency of the LRTP with Other Regional Plans

Figure 3.3: Relationship of National FAST Planning Factors to 2045 LRTP Goals

FAST Planning Factor	2045 LRTP Goal(s)
Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency	1, 2
Increase the safety of the transportation system for motorized and non-motorized users	1, 3
Increase the security of the transportation system for motorized and non-motorized users	1, 4
Increase the accessibility and mobility of people and for freight	1, 2, 3
Protect and enhance the environment , promote energy conservation , and improve quality of life ; and promote consistency between transportation improvements and State and local planned growth and economic development patterns	2, 3, 4
Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight	1, 2, 3
Promote efficient system management and operations	1, 2
Emphasize the preservation of the existing transportation system	1, 4
Improve transportation system resiliency and reliability , and reduce or mitigate stormwater impacts on the surface transportation system	1, 2, 3, 4
Enhance travel and tourism	1, 3, 4

Below are specific objectives representing action steps to be taken to implement each goal of the 2045 LRTP. These objectives do not represent every possible action that could be taken; rather, they are focused to correspond to the issues most relevant to the RFATS region based on analysis, input and other local/regional plans.

Performance measures are also shown for a number of objectives. These may be monitored annually by RFATS and its partners, or at a minimum should be regularly reviewed each time the region updates its LRTP. The performance measures for safety are consistent with the new federal requirements for all MPOs.

Goal I. Provide Safe, Secure, Reliable Roadway Travel

Objectives

- 1) Protect public investment by maintaining the existing transportation system, including pavement, bridges, signal equipment and signs, transit vehicles and other transportation system components.
- 2) Provide a transportation system that enables reliable and efficient movement of passengers and freight to support the region's economic productivity.
- 3) Improve transportation safety for both motorized and non-motorized users.
 - a) Reduce crashes at key intersections.
 - b) Reduce crashes involving pedestrians and bicyclists.
- 4) Improve transportation security and the system's resiliency by developing an interconnected network that offers multiple routes and modes of travel.
- 5) Address visitor transportation needs through wayfinding, alternative modes in targeted areas, and other improvements.

Performance measures

- A. *Crash statistics for York and Lancaster counties, based on the most recent five years of data available:*
 - *Number of fatalities*
 - *Rate of fatalities per 100 million vehicle-miles traveled*
 - *Number of serious injuries*
 - *Rate of serious injuries per 100 million vehicle-miles traveled*
 - *Number of non-motorized user fatalities and serious injuries*
- B. *Annual hours of delay in the RFATS region, as estimated by the regional travel demand model.*

Goal II. Manage Congestion

Objectives

- 1) Make improvements to fully utilize capacity on the existing road network before constructing new lanes or facilities.
- 2) Give priority to projects that implement the strategies in the RFATS Congestion Management Process, including operational improvements such as traffic signal timing.
- 3) Preserve traffic capacity on major corridors through quality development practices.
 - a) Require driveway access on collector or local streets, rather than arterial routes.
 - b) Increase the level of internal circulation within and between developments by designing more interconnected road networks.

Performance measures

- A. *Travel time index for each corridor monitored through the RFATS Congestion Management Process (CMP).*
- B. *Connectivity index of new developments in RFATS communities.*

Goal III. Provide Mobility Choices

Objectives

- 1) Incorporate pedestrian and bicycle facilities in planned improvements to roads and corridors, including state and local maintenance and pavement marking projects.
- 2) Require developments to provide pedestrian and bicycle facilities and connections.
- 3) Make demand-response service and rideshare opportunities available to all citizens in the RFATS area.
- 4) Maintain and improve citizens' access to inter-city rail and bus systems.
- 5) Continue to pursue implementation of local fixed-route transit service for RFATS communities.
- 6) Promote a transportation system that includes equitable options for low-income and minority persons.

Performance measures

- A. *Percent of federal-aid roads within urban areas of RFATS that have sidewalks.*

Goal IV. Promote Consistency of the LRTP with Other Regional Plans**Objectives**

- 1) Implement strategies to improve regional air quality, including ridesharing, increasing trips made by alternative transportation, and improving traffic flow.
- 2) Implement the local land use policies needed to maximize the region's existing transportation investments and reach its long-term goals.
 - a) Encourage growth and redevelopment in existing urban areas.
 - b) Promote compact, walkable development patterns along the proposed future Bus Rapid Transit (BRT) corridor.
 - c) Reserve future rights-of-way needed for planned transportation projects, whether affected by public or private development.
- 3) Minimize environmental impacts of the transportation system.
 - a) Select, locate and design transportation system improvements so as to preserve and protect the area's natural features.
 - a) Encourage transportation projects that help mitigate the impacts of stormwater runoff.

Performance measures

- A. *Tons of NO_x (ozone) and volatile organic chemicals (VOCs) reduced by CMAQ-funded projects over a two-year and four-year period.*

Each of the transportation investments recommended in the LRTP contributes to the achievement of the goals and objectives outlined here. In many cases a proposed project or service will accomplish multiple goals and objectives. For example, expanding the sidewalk system expands the availability of transportation choices, it has environmental benefits, and it improves the safety of people walking to/from their destinations.