

SPR-14: Transportation Systems Management and Operations

For Regions

1-15 points

Goal: Optimize the efficiency of the existing transportation system.

Sustainability Linkage

Improving the efficiency of the existing transportation system supports all of the triple bottom line principles by improving mobility and reliability and reducing funding needs, congestion, and resource consumption. Optimizing the use of the existing transportation system also has safety benefits, because traffic flow is smoothed, often leading to less crashes.



Background and Scoring Requirements

Background

This criterion relates to SPR-09 Travel Demand Management; while both can help to mitigate congestion, SPR-09 focuses primarily on reducing travel demand and SPR-14 focuses on optimizing the use of the existing transportation system.

The intent of the Transportation Systems Management and Operations (TSMO) criterion is to encourage active management of the transportation system and to implement these strategies in lieu of, or strategically in conjunction with, capacity expansion. Common types of TSMO strategies include, but are not limited to:

1. Intelligent Transportation Systems (traveler information, transit signal priority, ramp metering)
2. Active Traffic Management (adaptive signal control, real-time message boards, variable speed displays, dynamic lane assignment)
3. Incident Management (collision notification and avoidance, emergency service patrols)
4. Event Management
5. Road Weather Management

These strategies can help to increase the efficiency of the system by shifting travel demand to off-peak periods and less congested facilities, optimizing travel speeds for fuel efficiency, and utilizing existing capacity to the greatest extent possible. Additional TSMO strategies can be found in OM-13: Transportation Management and Operations and PD-14: ITS for System Operations.

Scoring Requirements

Requirement SPR-14.1

1-2 points. Develop and Adopt TSMO Goals and Objectives

Scoring for this requirement is based on the following, cumulative requirements. The first requirement must be accomplished to earn the second.

- **Requirement SPR-14.1a**

1 point. Develop TSMO Goals and Objectives

The agency has developed clearly defined TSMO goals, and objectives for improving the efficiency and safety of the transportation system within its jurisdiction. The goals and objectives are incorporated into TSMO

policies and the LRTP and encourage transportation investments that support and enhance long-term Transportation Systems Management and Operations.

- **Requirement SPR-14.1b**

1 additional point. TSMO Goals and Objectives Consistent with Planning Documents

The TSMO, goals and objectives are also consistent with or surpass relevant local, state and/or metropolitan goals and objectives for improving transportation system efficiency and safety.

Requirement SPR-14.2

1-4 points. Develop a Plan for TSMO Strategies

Scoring for this requirement is based on the following, cumulative requirements:

- **Requirement SPR-14.2a**

1 point. Include TSMO Strategies

TSMO strategies are included in the LRTP and TIP, or other planning documents, as appropriate.

- **Requirement SPR-14.2b**

1 point. Include Discussion of Impacts of TSMO Strategies

The LRTP, or equivalent, includes a discussion of the impacts of including TSMO strategies.

- **Requirement SPR-14.2c**

2 points. Consider and Prioritize TSMO Strategies

The TSMO strategies are considered and prioritized in the LRTP and TIP, or other planning documents.

Where appropriate, these strategies are considered in lieu of, or strategically in conjunction with, capacity expansion.

Requirement SPR-14.3

2 or 4 points. Support or Implement TSMO Strategies

One of the following scores applies:

- **0 points.** TSMO strategies are not being implemented or funded by the agency.
- **2 point.** Some, but not all, TSMO strategies identified as priorities are being implemented by the agency or funded through inclusion in the transportation improvement program (TIP)
- **4 points.** All of the TSMO strategies identified as priorities are being implemented by the agency or funded through inclusion in the transportation improvement program (TIP).

Requirement SPR-14.4

2 points. Develop Performance Measures

The agency includes sustainability-related TSMO performance measures in planning documents. Examples of performance measures can be found in [NCHRP Report 708: A Guidebook for Sustainability Performance Measurement for Transportation Agencies](#)¹.

Requirement SPR-14.5

3 points. Monitor Progress and Demonstrate Sustainable Outcomes

Monitor progress towards goals for at least one year after goal establishment using the performance measures established in SPR-14.3 and show measurable advancement towards stated goals.

Resources

The following resources are referenced in this criterion and consolidated here:

1. NCHRP, *Report 708: A Guidebook for Sustainability Performance Measurement for Transportation Agencies* at http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_708.pdf

Scoring Sources

The program is considered to have met this criterion if the requirements above can be reasonably substantiated through the existence of one or more of the following documentation sources (or equal where not available):

1. Agency transportation plans that include a TSMO component (either integrated throughout or called out separately).
2. A TIP that includes a list of implementable TSMO strategies and technologies that are applicable to the system.
3. Plan and project selection documents showing early consideration of operational strategies and projects, such as the congestion management process for MPOs with populations over 200,000.
4. An annual or periodically updated report of progress, which includes the results from ongoing monitoring of the agency's progress towards meeting its TSMO goals and objectives over time.