

OM-10: Highway Infrastructure Preservation and Maintenance

1-15 points

Goal: Make highway infrastructure (paved roadway surfaces, bridges, tunnels, roadsides, and their appurtenance facilities) last longer and perform better by undertaking preservation and maintenance on them.



Sustainability Linkage

Infrastructure preservation and maintenance activities support all of the triple bottom line principles by better leveraging funds, improving system quality and customer satisfaction, and more effectively maintaining assets, which reduces cost and the environmental footprint.

Background and Scoring Requirements

Background

Preservation and maintenance activities for pavements, bridges, and their appurtenant facilities should be generated from a Pavement Management System (PMS, see OM-07) and a Bridge Management System (BMS, see OM-08), in conjunction with a Maintenance Management System (MMS, OM-09). These Management Systems feed into an Asset Management Plan that assists in applying the right treatment to the right infrastructure element at the right time to optimize performance.

The organization and operation of preservation and maintenance functions within different agencies are unique. As a result, for example, the Road Maintenance Plan (RMP) discussed in this criterion or the Traffic Control Maintenance Plan (TCMP) discussed in OM-11 may be multiple documents that cover different assets, functions, or geographies. For the purposes of this tool, the user should score the RMP, including all relevant documents necessary to cover the assets and functions discussed in each criterion and scoring requirement.

Scoring Requirements

Requirement OM-10.1

1-4 points. Develop a Road Maintenance Plan

Develop and implement an RMP that covers highway infrastructure systems and includes the four core assets listed below and their appurtenant facilities. The RMP refers to document(s) that address, at a minimum, strategies, responsible parties/organizations, inventory of assets, standards, schedule, methods/standard operating procedure (SOP) to be used, and funding sources. The RMP should include preservation and maintenance (including repair, cleaning, and litter control) activities for the following infrastructure systems.

Core assets that must be included:

- Pavements
- Bridges and Tunnels
- Stormwater system, including LID features
- Other infrastructure facility elements

Additional assets that may be included:

- Shoulders and sidewalks
- Slopes, rock-fall, and slope protection
- Vegetation
- Accessory facilities to the assets listed above

One of the following scores applies:

0 points. The agency does not have an RMP that covers the four core systems listed above.

1 point. The agency has an RMP consisting of multiple documents that covers the core assets only.

2 points. The agency has an RMP consisting of multiple documents that covers the core assets and at least two additional assets noted above, or the agency has a consolidated RMP that covers the core assets only.

3 points. The agency has an RMP consisting of multiple documents that covers the core assets and all of the additional assets noted above, or the agency has a consolidated RMP that covers the core assets and at least two of the additional assets noted above.

4 points. The agency has a consolidated RMP that covers the core assets and all of the additional assets noted above.

Requirement OM-10.2

2-7 points. Sustainable Maintenance and Operations

Scoring is based on the following, cumulative requirements.

- **Requirement OM-10.2a**

3 points. Fund RMP Activities

For the fiscal year evaluated, appropriate funding is allocated to accomplish all preventative maintenance, routine maintenance and repair activities included in the RMP and annual work plan.

- **Requirement OM-10.2b**

2 points. RMP Highlights Activities that Contribute to Sustainability during Maintenance & Operations

The RMP specifically addresses sustainability and highlights procedures, specifications, and activities that contribute to sustainability during preservation and maintenance activities. For example, non-idling procedures could be included in standard operating procedures for maintenance crews.

- **Requirement OM-10.2c**

2 points. RMP Includes Activities that Contribute to Sustainability of Infrastructure Assets

The RMP specifically addresses sustainability and includes procedures, specifications, or measures that contribute to the sustainability of infrastructure assets. For example, a standard operating procedure could require that drainage grates within pedestrian/bicycling limits and with existing openings parallel to the traveled way be replaced with reticuline grates that will not catch wheelchair or bicycle tires.

Requirement OM-10.3

2 or 4 points. Include Performance Measures, Monitor, and Demonstrate Progress

To earn credit for this scoring requirement, the agency must have a Road Maintenance Plan as described in scoring requirement OM-10.1. Scoring is based on the following, cumulative requirements. The first requirement must be accomplished to earn the second.

- **Requirement OM-10.3a**

- 2 points. Include Performance Measures**

- Plan includes performance measures that can be used to monitor the effects of plan implementation on highway preservation and maintenance. Metrics should focus on preventative maintenance, routine maintenance, and repairs and should be aligned with the agency's sustainability goals. These can be assigned to individual roadways or the aggregated network. Measures could be based on condition of infrastructure, functionality of drainage systems, effluent water quality, presence of noxious weeds or obstructive vegetation, and other relevant parameters. Measures could be qualitative and/or quantitative.

- **Requirement OM-10.3b**

- 2 additional points. Monitor Progress and Demonstrate Sustainable Outcomes**

- Monitor progress towards goals for at least one year after performance metrics in OM-10.3a are established and how measurable advancement towards stated goals.

Resources

None referenced.

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. A list of each item that addresses responsible parties, schedule, methods, standard operating procedure (SOP), and funding sources.
2. If performance is measured, a chart, table, or spreadsheet that summarizes system performance.
3. Document goals for the maintenance plan, including quantifiable objectives and timeframes. If progress is monitored, a chart, table, or spreadsheet progression towards the above goal over time.