

5.3 Resilience Planning Factor

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ACTION REQUESTED: Discussion

Current green infrastructure factor

A project receives half of the points in this category if the project sponsor has adopted green infrastructure policies, and the other half if the project contains green infrastructure components such as bioswales, infiltration trenches, permeable pavements, and vegetated filter strips.

Bicycle/pedestrian barrier elimination, grade crossings, road expansion, road reconstruction, transit station, and truck routes can receive a total of 5 points in this category (2.5 from policies, 2.5 from project elements).

Bridge reconstructions, bus speed improvements, and safety projects are ineligible to receive any green infrastructure points.

Comments received

Shift from equally weighting policy and elements to focus more on elements and long-term sustainability of projects.

Incorporate resilience into the overall scoring methodology.

Proposed changes

1. Create new resilience planning factor to replace green infrastructure.
2. Discuss adding safety projects as eligible to receive resilience points.

Resilience definition: the ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions.¹

¹Federal Highway Administration

Resilience elements

Eligible resilience elements allow a project to:

- Better anticipate, prepare for, and adapt to changing conditions and to withstand and respond to disruptions; and be better able to continue to serve the primary function of the project during and after weather events and natural disasters for the expected life of the project.
- Reduce the magnitude and duration of impacts of current and future weather events and natural disasters to a project or have the absorptive capacity, adaptive capacity, and recoverability to decrease project vulnerability to current and future weather events or natural disasters.

Proposed elements

Short-term focus on flood mitigation and stormwater management.

Eligible:

- Stormwater storage using green infrastructure, incl. permeable surfaces
- Flood control improvements to protect flood-prone surface transportation assets
- ITS: weather responsive traffic management strategies

Eligible when design standard is exceeded:

- Stormwater storage using gray infrastructure (e.g., in-line detention, dry basin)
- Compensatory storage
- Drainage structure upgrade (size or number of culverts or catch basins, upgrade storm sewer, sewer separation, install/repair pump station)
- Roadway relocation or elevation above flood level

Proposed policies

Resilience policies require transportation infrastructure to be planned, designed, operated, and maintained to:

- Better anticipate, prepare for, and adapt to changing conditions and to withstand and respond to disruptions; and be better able to continue to serve the primary function during and after weather events and natural disasters for the expected life of the project.
- Reduce the magnitude and duration of impacts of current and future weather events and natural disasters or have the absorptive capacity, adaptive capacity, and recoverability to decrease transportation infrastructure vulnerability to current and future weather events or natural disasters.

Proposed scoring

Change from equal weight for policy and elements to 20% of points for policy (1 pt) and up to 80% of points for elements (4 pts).

Proposed scoring

Eligible element addresses climate vulnerability (e.g., flooding) and enables facility to function in such a condition (+2 pts)

Uses green infrastructure (+2 pts)

Sponsor adopted resilience policy or project implements resilience plan (+1 pt)

Proposed changes

Examples:

Gray infrastructure in flood-prone area (2 pts), w/ policy (3 pts)

Green infrastructure (2 pts), with policy (3 pts)

Green infrastructure in flood-prone area ($2+2=4$ pts), w/ policy (5 pts)

Green & gray infrastructure in flood-prone area (4 pts), w/ policy (5 pts)

Next cycle

Revise based on regional transportation vulnerability assessment and resilience plan:

- Data on asset vulnerability and criticality to inform resilience element score
- Policy direction to inform policy score
- Potential for new resilience project type