Agenda Item No. 3.02



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MEMORANDUM

| То: | Climate Committee |
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| From: | CMAP Staff |
| Date: | Thursday, July 10, 2025 |
| Subject: | Transportation Resilience Improvement Plan |
| Purpose: | Update on the Transportation Resilience Improvement Plan |
| Action Requested: For information | |

CMAP seeks to update the Climate Committee on the development of the Transportation Resilience Improvement Plan (TRIP) for northeastern Illinois. Since the last update in February, staff have solicited transportation resilience projects to consider for the plan and developed a suite of strategies to advance resilience at the project- and organization-levels. At the July meeting, staff will inform the Climate Committee on the progress to date and engage in a discussion about key resilience strategies.

Resilience projects

In the spring, CMAP solicited transportation resilience projects to include in the Transportation Resilience Improvement Plan (TRIP) project list.¹ The TRIP project list will be the region's first compilation of transportation resilience projects and can help position the region to be competitive for federal investment opportunities, including the Federal Highway Administration's (FHWA) Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) Discretionary Grant Program. The purpose of the project list is to identify priority resilience investments that address the greatest vulnerabilities within transportation systems in northeastern Illinois.

A resilience project enhances the transportation system's ability to anticipate, prepare for, or adapt to conditions or withstand, respond to, or recover rapidly from disruptions, including the ability to:

- Resist hazards or withstand impacts from weather events and natural disasters.
- Reduce the magnitude or duration of impacts of a disruptive weather event or natural disaster.
- Have absorptive capacity, adaptive capacity, and recoverability to decrease project vulnerability to weather events or other natural disasters.
- Consider incorporation of natural infrastructure.

¹ More information on the project solicitation process can be found in the TRIP resilience project guidance document: https://engage.cmap.illinois.gov/25892/widgets/87452/documents/67669.

Through the solicitation process (from May 6 to June 3, 2025), CMAP received 65 submissions from 14 jurisdictions. The project team is currently evaluating all submitted projects to present to the TRIP steering committee in late July.

Resilience strategies

In addition to the project list that will be included in the TRIP, CMAP developed a list of projectand organization-level resilience strategies that transportation managers can incorporate into future project designs, planning, and decision-making. On May 20, 2025, Chicago Metropolitan Agency for Planning (CMAP) hosted a virtual stakeholder workshop to provide an overview of the resilience project submission process and gather feedback on resilience strategies being developed as part of the plan.

Project-level strategies. These include gray infrastructure, nature-based, and hybrid strategies. The purpose of the list of project-level strategies is to demonstrate a range of potential features that transportation managers can consider incorporating in future projects to increase resilience. The project-level resilience strategies are targeted at reducing impacts to flooding and extreme heat, as these are the climate hazards that were identified as posing the greatest risk to the transportation system in CMAP's Risk-based Vulnerability Assessment.

Strategies include:

- Relocate or elevate roadways
- Elevate bridges
- Install flood wall to prevent flooding of roadway
- Upgrades to or installation of stormwater management infrastructure
- Flood protection measures for transit tunnels
- Install retention/ detention ponds and bioswales
- Make ditch improvements or deepen ditches
- Install swales, ditches, and rain gardens
- Restore wetlands
- Implement natural revetments
- Reconnect floodplains
- Create high flow bypass
- Manage streams for flood mitigation: Daylight streams, revegetate riparian areas, reconfigure stream channels, place large woody debris, and implement rocky in-stream techniques
- Install geotextiles, such as green mats, on embankments
- Use permeable pavements and grass medians
- Install shade structures and shelters along sidewalks and at outdoor transit stops
- Provide shade trees along trails, sidewalks and at transit stops
- Use cool pavement technologies
- Upgrade rail to increase rail-neutral temperature

Organizational strategies. These aim to integrate resilience throughout key planning and decision-making processes. This type of integration is essential for meaningful and continued resilience progress. In addition to the priority project list and project-level resilience strategies,

CMAP and other transportation implementers can leverage organizational resilience strategies to integrate resilience throughout key planning and decision-making processes. Specifically, implementers can support broader resilience planning by integrating resilience into:

- Plans
- Policies
- Project development and design
- Performance measures
- Partner support and capacity-building efforts

Next steps

Over the summer, the project team will continue to refine the resilience strategies based on stakeholder input. The team will also draft the plan, which will be presented to the project steering committee for review in September, followed by CMAP's committees later in the fall.