

# Building a Resilient Transportation System for the National Capital Region



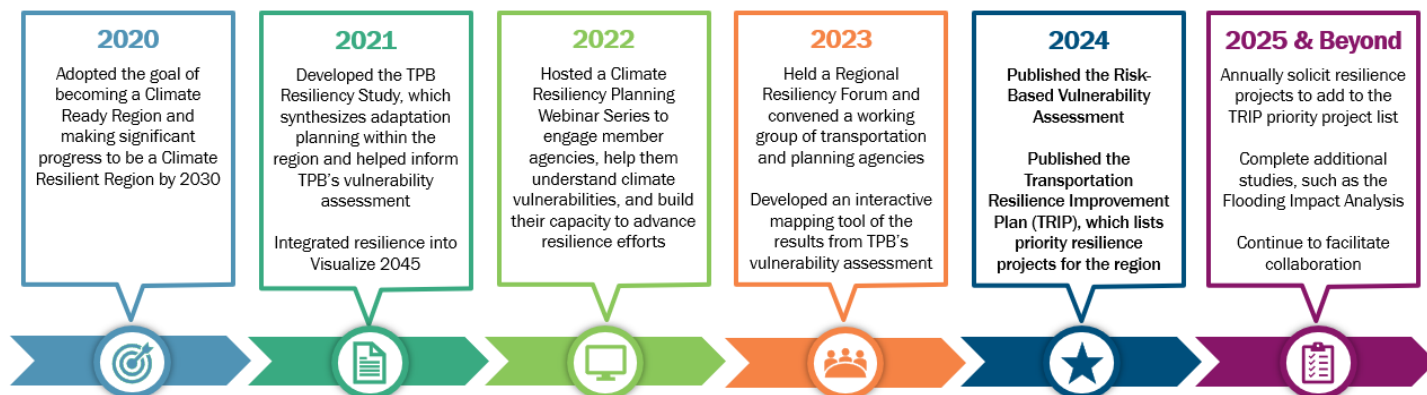
National Capital Region  
Transportation Planning Board

## TPB's Regional Approach to Transportation Resilience

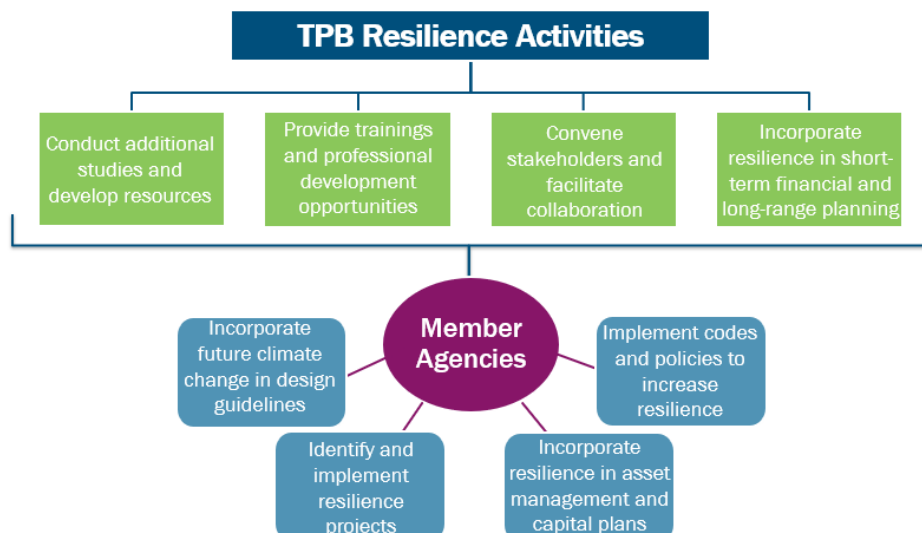
Metropolitan Washington is already adversely affected by extreme weather events, from heat waves to blizzards to severe coastal storms and flooding, and the frequency and severity of significant weather events will increase in the future due to climate change. The Transportation Planning Board (TPB) continued to address this reality by developing a 2024 Transportation Resilience Improvement Plan (TRIP) in coordination with member agencies to help **improve the preparedness and resilience of the region's transportation system to the impacts of climate change.**

TPB defines resilience as the ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions. The TRIP builds on the strong foundation of transportation resilience work in the region by further assessing transportation system vulnerabilities and identifying priority resilience investments.

### TPB's Road to Resilience



The TPB and its member agencies serve essential roles in advancing resilience across the National Capital Region. Continued collaboration and coordination between the TPB and its member agencies will be vital for achieving the goal of making significant progress to be a Climate Resilient Region by 2030.



## Reducing Climate Impacts

In 2024, TPB's member agencies identified 34 priority resilience projects to reduce climate impacts to transportation infrastructure and help maintain service operations during extreme weather events.



### Extreme Heat

Extreme heat can reduce the number of active transportation users and temperatures above 85°F may cause rail lines to buckle and become misshapen.

Priority resilience projects include:

- Improving chilled water piping
- Replacing aging shade structures
- Upgrading fans and cooling systems



### Temporary Flooding

Annual precipitation in the region has been increasing since 1961, with more extreme recent storms causing temporary flooding.

Priority resilience projects include:

- Installing temporary flood barriers
- Upgrading stormwater systems with gray and green infrastructure
- Improving stream areas



### Extreme Wind

High winds can down trees and powerlines, blocking roads and causing blackouts, and forcing rail lines to suspend services.

Priority resilience projects include:

- Developing evacuation plans
- Removing trees that are unhealthy, dead, or dangerous



### Extreme Winter Conditions

Severe winter storms can delay and suspend public transit services in the region.

Priority resilience projects include:

- Developing evacuation plans
- Removing trees that are unhealthy, dead, or dangerous

## Continued Investment in Transportation Resilience

The TPB will annually collect resilience project submissions to help member agencies identify eligible resilience projects for **federal funding programs**, such as [FHWA's Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation \(PROTECT\) Discretionary Grant program](#) and [FEMA's Building Resilient Infrastructure and Communities \(BRIC\) program](#).

Read TPB's [Resilience Project Guidance](#) for more information.