

Genesee Finger Lakes Regional Resilience Improvement Plan

Scope of Work

A. Objective

To develop a Resilience Improvement Plan for the Genesee-Finger Lakes Region that fulfills the Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT) program requirements under the Infrastructure Investment and Jobs Act (IIJA)/Bipartisan Infrastructure Law (BIL).

B. Background

Preparing transportation infrastructure and services to withstand the impacts of severe weather and natural disasters is a critical long-term need for the Genesee-Finger Lakes Region. Natural hazards such as floods, winter storms, and windstorms can damage or destroy transportation assets, disrupt routine services, and cause hardships for commuters, freight carriers, and other travelers, as well as strain emergency service capabilities.

During the past decade, federal transportation policy has encouraged and supported state, regional, and local efforts to enhance transportation infrastructure resilience. Executive Order 13653, issued in November 2013, was intended to coordinate federal efforts to prepare the nation for the impacts of climate change by enhancing preparedness and resilience to hazard events. Subsequent executive orders have expanded and refined these efforts into more specific areas, such as reducing greenhouse gas emissions and improving floodplain management. Federal Highway Administration (FHWA) Order 5520, issued in December 2014, established the FHWA's policy on preparing for climate change and extreme weather events. This policy called for FHWA to identify the risks of climate change and extreme weather to current and planned transportation systems and integrate consideration of these risks into its planning, operations, policies, and programs to promote preparedness and resilience, safeguard investments in transportation infrastructure and services, and ensure the safety, reliability, and sustainability of the nation's transportation systems.

In November 2021, the Infrastructure Investment and Jobs Act (IIJA), more commonly known as the Bipartisan Infrastructure Law (BIL), was enacted. Section 11405 of the BIL established a new funding program, the Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT) program, for the purpose of providing formula and grant funds to states for resilience improvements, assessing vulnerabilities to current and future weather events and natural disasters, and planning transportation improvements to address those vulnerabilities. The PROTECT program encourages states and Metropolitan Planning Organizations (MPOs) to prepare a Resilience Improvement Plan (RIP) to address surface transportation system resilience to current and future weather events and natural disasters. An RIP should identify vulnerabilities, develop proposed resilience solutions, and prioritize resilience improvements. States with a RIP can reduce the non-Federal cost share for a resiliency improvement project by up to ten percent.¹

¹ See the FHWA's PROTECT Program Guidance issued on July 29, 2022 for additional information. The non-Federal share of the project cost may be reduced by seven percent if the state has developed a RIP and prioritized the project in that RIP, and by three percent if a State RIP has been incorporated (directly or by reference) into a metropolitan transportation plan or a statewide long-range transportation plan.

The Long Range Transportation Plan (LRTP) 2045 includes a set of recommendations that establishes a regional policy of minimizing the disruptive impacts of hazard events on transportation infrastructure and services. Sustainability and Resiliency Recommendation 1 (SR-1) encourages partner agencies to “minimize anticipated hazard impacts on transportation assets and services by implementing the recommendations in the *Genesee-Finger Lakes Regional Critical Transportation Infrastructure Vulnerability Assessment*.” Subsequent recommendations include preventing hazard impacts by relocating, elevating, and limiting access to critical assets (SR-8); protecting assets by hardening them to withstand anticipated hazard impacts (SR-9); incorporating redundant elements to prevent asset and system failure from hazard impacts (SR-10); and integrating long-term recovery considerations into transportation infrastructure and service design (SR-11).

Regional stakeholders have undertaken two previous resiliency planning efforts. The aforementioned *Genesee-Finger Lakes Regional Critical Transportation Infrastructure Vulnerability Assessment*, completed in 2016, was the region’s first effort to systematically identify and rank critical transportation assets (roads, bridges, and support facilities such as highway garages and transit operations centers). A follow-on project, the *Genesee-Finger Lakes Regional Local Bridge Vulnerability Assessment*, completed in 2019, expanded resiliency planning activities to include bridges on non-federal aid eligible roads. In addition to these broad regional scale efforts, local sub-area and corridor planning projects such as the ongoing *Lakeville Corridor Strategic Plan* have integrated resiliency considerations into their scopes by considering the impacts of stormwater management and flood mitigation on transportation infrastructure.

This project will serve two purposes: 1.) to update and enhance the *Regional Critical Transportation Infrastructure Vulnerability Assessment*, and 2.) to meet the requirements of a Resiliency Improvement Plan (RIP) under the PROTECT program as discussed earlier. While MPOs are currently ineligible for formula funding under the PROTECT program unless their state has developed a statewide RIP, there is still a benefit for MPOs to develop such a plan so that they can better understand hazard concerns in their region, identify projects to enhance resiliency, support statewide resiliency planning efforts, and position them for receipt of discretionary federal-aid funds through the PROTECT program when those funds become available. It is anticipated that New York State will make formula funds available to local jurisdictions that have identified potential resiliency projects. In addition, this effort will enable regional stakeholders to consider the impacts of resiliency projects on disadvantaged populations, which was not a factor in previous resiliency planning activities. This project will be grounded in state and county All-Hazard Mitigation Plans, which provide updated information on anticipated hazard impacts and general guidance on how communities can prepare for and minimize the disruptive impacts of those hazards.

A steering committee of stakeholders from the agencies that manage transportation infrastructure and services in the region will be organized to oversee this project. A Request for Proposals (RFP) package will be prepared and consultant services will be obtained to conduct this project.

C. Tasks

1. Steering Committee: Establish a Steering Committee of representatives from stakeholder agencies, including the New York State Department of Transportation (NYSDOT); the New York State Thruway Authority (NYSTA); Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Wayne, Wyoming, and Yates Counties; the City of Rochester (COR); and Genesee Transportation Council (GTC).
2. Request for Proposals: Develop and issue a Request for Proposals (RFP). The Steering Committee will review and comment on the RFP before it is issued. The Steering Committee will evaluate consultant proposals and select a preferred consultant.
3. Critical Assets Inventory: The consultant will develop an inventory of the following critical transportation assets: roads; bridges, including all public bridges on and off federal aid roads; culverts; railroads; support facilities such as highway garages, public fleet fuel storage, salt barns, etc.; and other assets mutually identified by the steering committee and consultant.

The consultant will prepare a draft technical memorandum (Technical Memorandum 1 – *Assets Inventory*) summarizing the asset inventory development process and findings. The technical memorandum will be provided to the Steering Committee for review and comment.

4. Hazard Data Inventory: The consultant will develop an inventory of hazard extent and impact data for natural and human-caused hazards that could impact the Genesee-Finger Lakes Region. This inventory will include information on the anticipated impacts of the following natural hazards: Coastal Erosion; Earthquakes; Extreme Temperatures; Floods, including riverine, lakeshore, ice jam, dam failure, and flash flooding; Land Subsidence, Landslides, Severe Storms, including windstorms, thunderstorms, hail, and tornadoes; Severe Winter Storms, including heavy snow, blizzards, ice storms; and Wildfires.² In addition, the inventory will consider the impacts on transportation assets and services of human-caused hazards such as Utility Failures and Hazardous Materials Spills.

The consultant will prepare a draft technical memorandum (Technical Memorandum 2 – *Hazard Inventory*) summarizing the hazard inventory development process and findings. The technical memorandum will be provided to the Steering Committee for review and comment.

5. Asset Ranking: The consultant will prepare a ranking of critical transportation assets by comparing the location of assets to the anticipated hazard impacts.

The asset ranking process will consider the following factors:³

- Criticality of the asset to transportation operations;
- Sensitivity of the asset to hazard impacts;
- Exposure of the asset to hazard impacts;
- Previous hazard impacts; and

² These hazards are derived from the draft 2023 *Monroe County Hazard Mitigation Plan*.

³ Additional factors may be considered based on Steering Committee input.

- Location of the asset in a transportation disadvantaged community per the Justice40 Initiative.

The consultant will prepare a draft technical memorandum (Technical Memorandum 3 – *Asset Ranking*) summarizing the asset ranking process and findings. The technical memorandum will be provided to the Steering Committee for review and comment.

6. Develop Hazard Prevention and Mitigation Strategies: The consultant will identify hazard mitigation strategies to eliminate or reduce anticipated hazard impacts on transportation assets. Strategies will be presented in two tiers: Tier 1, General Strategies, will include overarching policy strategies to provide general guidance on hazard prevention and mitigation actions, and Tier 2, Project-Specific Strategies, will include asset-specific strategies to address unique needs for priority assets.

The consultant will prepare a draft technical memorandum (Technical Memorandum 4 – *Strategies*) summarizing the strategies development process and findings. The technical memorandum will be provided to the Steering Committee for review and comment.

7. Identify Priority Projects: Using the strategies developed in Task 6 as a guide, the consultant will work with the steering committee to identify priority projects for: New York State Department of Transportation (NYSDOT), the New York State Thruway Authority (NYSTA), the Rochester Genesee Regional Transportation Authority (RGRTA), the counties, including municipalities within them, of Genesee, Livingston, Monroe, Ontario, Orleans, Seneca Wayne, Wyoming, and Yates; and the City of Rochester (COR).

The consultant will prepare a draft technical memorandum (Technical Memorandum 5 – *Priority Projects*) summarizing the inventory development process and findings. The technical memorandum will be provided to the Steering Committee for review and comment.

8. Draft Plan: The consultant will combine the products of Tasks 3 through 7 to produce a Draft Resilience Improvement Plan for Steering Committee review.
9. Final Plan: Working with the Steering Committee, the consultant will revise and update the Draft Plan to produce a Final Resilience Improvement Plan with associated supporting materials (Executive Summary, Technical Appendices, etc.).

D. Products

1. Steering Committee Meeting materials, including agendas, presentations, handouts, and summaries, in a mutually agreed upon electronic file format.
2. Technical Memoranda 1 through 5.
3. GIS files and associated data for all maps.
4. One (1) copy of the Draft Resilience Improvement Plan in a mutually agreed upon electronic file format.
5. One (1) copy of the Final Resilience Improvement Plan and associated Executive Summary in a mutually agreed upon electronic file format.

E. Public Participation Plan

Per the GTC Public Participation Policy, this project is classified as a Technical/Data Collection Project. Accordingly, no public input activities are required or will be undertaken.

F. Schedule

1. Scope of work approved: February 2023
2. Consultant selection: May 2023
3. Data Collection and Inventory: August 2023
4. Hazard Extent Identification: October 2023
5. Asset Ranking Analysis: January 2024
6. Develop Hazard Prevention/Mitigation Strategies: March 2024
7. Identify Priority Projects: June 2024
8. Draft Report completed: August 2024
9. Final Report completed: October 2024
10. Financial closeout: December 2024

G. Project Budget

Sources of Funds		Uses of Funds	
	<u>FY 2023-24</u>		<u>FY 2023-24</u>
<u>Federal Funds</u>		<u>GTC</u>	
FHWA	\$150,000	Staff	\$0
FTA	0	Contractual	150,000
Subtotal	<u>\$150,000</u>	Subtotal	<u>\$150,000</u>
<u>Matching Funds</u>		<u>Other Agency</u>	
State (In-kind)	\$0	Staff	\$0
Local (In-kind)	0	Contractual	0
Local (Cash)	0	In-kind Exp.	0
Subtotal	<u>\$0</u>	Subtotal	<u>\$0</u>
<u>Total</u>	<u><u>\$150,000</u></u>	<u>Total</u>	<u><u>\$150,000</u></u>