

Downtown Mystic Resiliency and Sustainability Plan **High Priority Resilience Action Recommendations**

The Town of Groton partnered with GZA GeoEnvironmental, Inc. to develop the *Downtown Mystic Resiliency and Sustainability Plan*, which was finalized in January 2024. The plan assessed the study area's vulnerability to flooding (both coastal and precipitation-induced) and extreme heat and made resiliency action recommendations to reduce risk and build resilience. The community was engaged throughout the plan development process and community input contributed to the project team's understanding of the climate hazards in the study area as well as the creation of the resilience recommendations. The full plan as well as meeting recordings and survey results are available online at <https://www.greatergroton.com/downtown-mystic-resiliency-sustainability-plan>.

The plan's recommendations were organized into three categories: high priority recommendations, best practices for property owners, and low priority recommendations. The high priority recommendations are listed below with brief descriptions; full descriptions are available in Chapter 6 of the final report.

1. Install backflow preventers on stormwater outfalls

There are 20 stormwater outfalls within the study area. When the Mystic River rises, water appears to be entering the stormwater drainage system through several of these outfalls, causing flooding.

2. Develop an approach to elevate low-lying roadways

Raising low-lying roadways, such as portions of Gravel, Pearl, and Water Streets, could help alleviate flooding from small events. A feasibility analysis would need to be conducted to ensure net benefit, gain community input, and develop an approach to modify connections with driveways, parking lots, and intersecting roads.

3. Evaluate Pearl Street stormwater improvement alternatives

A detailed hydrological and hydraulic study is needed to evaluate options to improve and/or expand the Pearl Street stormwater drainage system.

4. Reduce pressure on the Pearl Street stormwater system through installation of green infrastructure in the upper watershed

An estimated 44 acres of land drain into the Pearl Street stormwater system; green infrastructure may be the most cost-effective way to reduce the amount of water entering the system from the upper watershed.

a. Perform green infrastructure education/outreach to private landowners

Encouraging the use of green infrastructure on private property in the upper sections of the drainage area could capture stormwater flows before they enter the system.

b. Implement green infrastructure at Mystic Academy Park and Town-owned rights-of-ways

Installing green infrastructure on Town-owned and managed lands in the drainage area could also help reduce the stormwater draining into Pearl Street.

5. Evaluate the feasibility of adopting a stormwater authority

A stormwater authority could be one of the mechanisms through which funding to support resiliency actions is collected.

6. Pursue partnership opportunities with the State Department of Transportation to assess state-owned stormwater infrastructure

West Main Street is a state-owned road and there are both water quality and quantity concerns with its stormwater discharge. Partnering with the state to evaluate improvement opportunities could address these issues.

7. Stockpile materials and procure sump pumps, generators, etc. for responding to flooding

Providing flood recovery equipment to residents and business owners could help them bounce back more quickly from storm events; this was flagged as a need because not all property owners have the space to store this type of equipment.

8. Increase shade through additional tree cover or canopies

Planting trees could help reduce heat island effects as well as reduce runoff quantity and improve water quality. Canopies could help create shade in space-constrained areas.

9. Strengthen building standards

The Town of Groton Zoning Regulations are robust when it comes to construction in flood hazard areas, but changes could be enacted to further strengthen them.

10. Dry floodproof Gravel Street pump station

The pump station's resiliency was evaluated as part of a separate Public Works project. The floodproofing recommendations made through that effort should be implemented.

11. Implement temporary, pop-up cooling measures

Tents, umbrellas, and misting stations can be used to provide important cooling resources during public events if heat advisory or excessive heat warnings have been issued.

12. Increase reach of, and public participation in, emergency warning systems

The Town should run a public outreach campaign to encourage enrollment in the CT Alerts System. Flood signage should also be used in areas that are routinely inundated, such as Gravel, Pearl, and Water Streets.

13. Assist local business owners with resiliency planning

Mystic's success as a tourism destination is heavily reliant on the strength of its small business community. Resources and capacity should be provided to directly support local business resilience-building.

14. Develop a post-disaster response / recovery plan

Post-disaster response and recovery planning can help ease decision-making in the

aftermath of catastrophic events.

15. Partner with CIRCA for a heat study

Having an on-the-ground study would provide valuable data to help inform heat education and outreach campaigns as well as preparation and response strategies.

16. Study the potential for low elevation flood walls

Low elevation flood walls may help alleviate risk from small-magnitude storms and should be considered as part of roadway elevation feasibility analyses.