

Community Resilience Building Risk Matrix



www.CommunityResilienceBuilding.org

Top Priority Hazards										
H - M - L priority for action over the Short or Long term				Recommendations	Severe thunderstorms, wind, microbursts	Flooding	Invasive species	Man-made Hazards	Priority	Time
V = Vulnerability	S = Strength	V or S	H - M - L						Short	Long
Features	Location	Owner-ship	V or S							
Infrastructural										
Fire stations	Water Street	Town	S/V	Hire a consultant to design a new Fire Station for Town Center that can serve as a public safety complex and as a central storage location for shared emergency equipment. The new station should be built outside of the floodplain, have greater access to emergency routes, and have solar power + battery backup to ensure energy resilience during a hazard event.	X	X		X	H	S
	Millyard Street/Tully Hill	Town	S/V		X	X		X	H	S
Culverts	Town-wide	Town	V	Develop a culvert management plan that identifies the locations of culverts in Town, existing and potential issues and the extent of flooding caused at each location, and possible solutions. The plan should prioritize projects in the locations that require intervention, including South Park, Town Farm Road, and West River Street.	X	X		X	H	O
Bridges	Town-wide	Town/State	V	Fix and upgrade bridges throughout Town, especially those that are on emergency access routes routinely used by responders.	X	X		X	H	O
Wastewater treatment plant	West Main Street	Town	V	Hire a consultant to determine appropriate flood proofing measures for the wastewater treatment plant, which is located within the floodplain.	X	X		X	H	S
DPW Equipment	Town-wide	Town	S/V	Continue to prioritize and replace DPW equipment.	X	X			H	O
Mill buildings	Town-wide	Town	V	Promote the redevelopment of mill buildings throughout Town. Review bylaws and develop (if necessary) new bylaws to ensure any changes will be resilient and account for climate change impacts.	X	X		X	L	L
Sheltering resources	Town-wide	Town	S/V	Develop a contingency plan for the Town's designated emergency shelters and disseminate this information to appropriate Town departments, as well as Town residents. When evaluating facilities as options for public shelters, assess vulnerability to severe hazards and determine any necessary retrofitting measures. Ensure that current shelters have access routes. Complete a reuse study of the Butterfield School, which could potentially be used as a shelter. Potentially work with farmers to coordinate sheltering plans. Obtain input from the Agricultural Sector on emergency planning.	X	X		X	H	O
Drainage structures	Town-wide	Town	V	Identify funding to pay for catch basin cleanouts. Conduct a Town-wide assessment of drainage structures and drainage driven flood issues to determine where upgrades should be made, especially in the downtown area. Pursue funding for final design, construction documents and implementation of stormwater BMPs identified in the FRCOG's <i>Franklin County Stormwater Pilot Project for the Town of Orange</i> .	X	X		X	H/M	L
Dams	Town-wide	Town/Private	V	Update dam inspections and update internal processes for tracking status & conditions. Ensure contact information for private dam owners is up to date. The Vorces Pond dam and the Orange Water District Reservoir dam are no longer being used for water supply purposes and could be removed.	X	X			L	O
Mobile storage	Town-wide	Town	S/V	Continue to identify possible storage locations for emergency equipment that can be shared by Town Officials.				X	H	L
Backup generators	Town-wide	Private	S/V	Develop a public education program on proper backup generator use to prevent residents from backfeeding power onto the Town's electrical grid. Additionally, the water department is in need of a backup generator for well #3.	X			X	H	S
Building and parcel assessment	Town-wide	Town	S	Assess & inventory Town owned buildings and parcels to determine which could be repurposed.				X	L	O
Tree hazards	Town-wide	Town/Private	V	Identify high priority areas for tree pruning and work with the utility company or the Tree Warden to prioritize and implement necessary pruning.	X			X	L	S
Water Main Crossings	Millers River	Town	V	Secure funding to replace the western-most water main crossing the Millers River. The replacement is needed in order to mitigate the potential of the pipe being destroyed by flooding. Design work for this project is already underway.		X		X	L	O
Societal										
Code Red emergency contact system	Town-wide	Town	S	Continue to raise awareness about the Code Red system and get more residents to sign up for the program through social media posts, the Town Website, public notices, and other outreach materials.	X	X		X	H	O
Emergency planning public education	Town-wide	Town	S/V	Continue to educate the public on emergency plans, such as sheltering in place. Additionally, establish a Village Neighbor Network to help address access issues in isolated neighborhoods.	X	X		X	H	O
Village planning initiative	Town-wide/North Orange + Tully Neighborhoods	Town	S	Develop a village planning initiative to address access and communication issues in isolated neighborhoods, in tandem with the action item above. See information about ongoing work with this group in the Appendix.	X	X		X	L	O
Public information outreach	Town-wide	Town	S	Continue public information outreach initiatives to educate residents about the value of land use vs. economic development. This could also be incorporated into the elementary science curriculum.				X	L	O
Evacuation planning & communications	Town-wide	Town	S/V	Develop a residential brochure to educate residents on evacuation routes and how to communicate with neighbors during emergencies.	X	X		X	L	O
Local interfaith groups	Town-wide	Public/Private	S	Work with local interfaith groups to develop a comprehensive sheltering plan that can cover residents on both sides of the Millers River.	X	X		X		
Access to local food	Town-wide	N/A	S		X	X		X	H	O

	Town-wide	N/A	S	Promote access to healthy, local food for residents through education and outreach about programs such as SNAP/Healthy Incentives, Farm to School, food pantries and community meals, elder food and wellness programs, and Food as Medicine programs. Seek sources for funds and technical assistance, and help to strengthen collaborations that increase food access for community members.	X	X			X	H	O
Access to local food	Town-wide	N/A	S	Support Orange-based food businesses, groups, and organizations that are part of the local food system, such as farms, food cooperatives, farmers markets, and food entrepreneurs; and community based organizations that promote fresh food and food access. Seek sources for, and include such entities in funding and other opportunities that strengthen local food resilience.	X	X			X	H	
	Town-wide	N/A	S	Conduct a Community Food Assessment or periodically build on existing formal and informal assessments to identify vulnerabilities in the Town's local food distribution system and develop recommendations to minimize disruptions to food access.	X	X	X		X	H	
	Regional/ Town-wide	Private	V	Join the Pioneer Valley Mosquito Control District, which is currently under-development, for the sole and primary purpose of access to trapping, testing, and educational programming. If, in the future state-wide control protocol (such as spraying) is proposed, the Town will engage in a process for exclusion and/or ensure any proposed action excludes and protects natural ecosystems, watersheds, farmland, and population centers.			X			M	S
Environmental											
Inventory farm land	Town-wide	Private	S	Assess farmland parcels throughout Town that could be conserved, using information from Mount Grace Land Trust's Farmland Inventory for Orange. Use the suggested criteria included in the Inventory when selecting farmland to conserve.	X	X			X	M	O
Protected open space	Town-wide	Public/Private	S	Develop a better understanding of protected open spaces in Orange. Evaluate how land can be used to develop resiliency, including but not limited to strategies for carbon sequestration, erosion reduction, water conservation, habitat protection, and production of local food.	X	X	X		X	M	L
Climate Resilient Farms	Town-Wide	Private	S/V	Assist farms with assessing and prioritizing climate resiliency options to protect crops, farm fields, and farm workers from extreme weather such as greenhouses, irrigation systems, and innovative drainage solutions, and identify funding for implementation.	X	X	X			M	O
Insects and pests on farms	Town-wide	Public/Private	V	Promote biological and integrated pest management strategies and other strategies to assist farmers with climate adaptation, along with related support. Determine where urban gardens and pollinator habitats could be installed.			X			M	O
Lyme disease	Regional	Town	V	Conduct public education and outreach about Lyme disease.			X			M	O
Town/State Forests	Town-wide	Public/Private	S/V	Continue to coordinate access for fires on State owned property to ensure responses can be completed in a timely manner. Identify Town owned forested areas that are at high risk for wildfires and implement climate resilient forest management practices that reduce the risk of fire hazards (such as the removal of slash).	X		X	X		L	O