

Table 4-3: 2021 Shutesbury Hazard Mitigation Prioritized Action Plan

Action Type	Action Description	Hazards Addressed	Responsible Department / Board	Estimated Cost	Potential Funding Source	Estimated Timeframe	Benefits: Society (S) Infrastructure (I) Environment (E)	Priority	Status
								2015 2021	
Critical Facilities & Infrastructure	Replace the Locks Pond Road culvert with one that would be capable of conveying the design spillway flood of the Lake Wyola Dam to increase resilience of the dam and reduce the risk of flooding during heavy precipitation events.	Hurricanes/Tropical Storms Flooding Dam Failure	Select Board, Highway Department, Conservation Commission	High	Town \$750,000, Small Bridge grant \$500,000	2021	S, I, E	2015 High 2021 High	In process.  Bids are in June 9, 2021; construction summer 2021
Critical Facilities & Infrastructure	Conduct a field inventory of culverts and bridges to rank and prioritize projects for increased flooding resiliency and storm-hardening, followed by design and implementation of priority re-sizing or replacement projects. Include the following areas of concern identified in the 2015 Hazard Mitigation Plan: Baker Road culvert, multiple culverts on Wendell Road. Green infrastructure, Low-Impact Design, and other nature-based solutions will be integrated with hard-infrastructure improvements to establish approaches that will be robust in the face of natural hazards and climate-change scenarios.	Flooding Dam Failure	Select Board, Highway Department, Conservation Commission	Medium-High	MVP, 3C Transportation funding from FRCOG	Year 1	S, I, E	2015 Medium 2021 High	
Critical Facilities & Infrastructure	Engage an engineer to modify the design of the trash rack at the sluice gate at Lake Wyola so that it does not continue to get blocked with debris and increase the potential for flooding or failure.	Dam Failure	EMD, Select Board, Highway Department, Conservation Commission, Dam Keeper	Medium	Town, MEMA/FEMA, Transportation bonds, MassDOT Chapter 90 Program, MassWorks Infrastructure Program	Year 2	S, I, E	2015 High 2021 High	Regular maintenance is done but is not a sustainable solution. Residential leaf blowing contributes to clogged rack.
Critical Facilities & Infrastructure	Coordinate with the Town of Amherst on inspections for the Atkins Reservoir dyke and dam. Consider climate change impacts, such as increased intensity and frequency of heavy precipitation events, when assessing the dam.	Flooding Dam Failure	Emergency Management Team	Low-Medium	Town, MVP	Year 1	S, I, E	2021 High	
Local Plans & Regulations	Update the Town's Master Plan to address a full range of zoning-related climate change mitigation/adaptation issues, such as limiting development in high-hazard areas, incorporating green infrastructure in new development plans, and encouraging low-impact development practices.	Multiple Hazards	Planning Board	Medium	Town, DLTA, EEA Planning Grant, MVP	Year 3	S, I, E	2021 High	Visioning process completed for several topics 3 years ago to begin an update to the 2008 Master Plan

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Education & Awareness	<b>Explore options for enhanced and effective communication with residents.</b> Utilize the Town's recently installed broadband internet, and increase transparency and awareness in Town. Make communications with residents more interactive. Pursue 100% enrollment in the Town announcement program (approximately ½ [400] households are not enrolled). Assess communications alternatives that are not reliant on electricity the way that phone (VOIP) and internet systems in the community currently are.	Multiple Hazards	Emergency Management Team	Low	Town	Year 1	S	<b>2021 High</b>	The town is currently working on this
Local Plans & Regulations	Continue to review and update land use regulations and the <b>development regulatory review process</b> to include climate resiliency provisions such as Best Management Practices for River Corridor areas (FRCOG's River Corridor Toolkit). Measures should address impervious cover, manage stormwater runoff, new development within the 100-year floodplain and River Corridor, and slope and soil stability.	Flooding	Planning Board	Low	DLTA, MVP	Year 3	S, I, E	<b>2021 High</b>	
Local Plans & Regulations	<b>Work with the Council on Aging to develop transportation planning for vulnerable populations during hazard events</b> to ensure that vulnerable groups, notably seniors, will be able to get to shelters, obtain food and medications, or receive emergency services. Focus should be on identifying vulnerable populations and providing aid during all types of climate-induced risks, such as extreme temperatures, increasingly intense storms which may make travel difficult or flooding and storm events that may leave residents unprepared, stranded, or cut off from supplies.	Multiple Hazards	Emergency Management Team	Medium	MVP	Year 1 and ongoing	S, I, E	<b>2021 High</b>	

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Local Plans & Regulations	<b>Identify vulnerable populations and foster a communications network</b> in advance of a hazard event to facilitate communication efforts and outreach to those most in need of information and assistance. Focus should be on populations that may be more vulnerable to climate-induced risks, such as extreme temperatures, may lack appropriate shelter during increasingly intense storms, or that may be unprepared if stranded or cut off from supplies due to flooding or storm events. Evaluate communication or emergency alert methods that may not require internet access, as vulnerable populations, notably seniors, may not be connected to broadband service.	Multiple Hazards	Council on Aging, Emergency Management Team	Low	MVP		S	<b>2021 High</b>	
Critical Facilities & Infrastructure	<b>Establish a designated cooling center in Town</b> and ensure that it has adequate capacity and power requirements. Assess the feasibility of establishing the new library facility as a cooling center and identify related needs during the planning stages of development. Future plans for a separate police department facility may also provide an opportunity to establish it as a designated cooling center.	Extreme Heat	Emergency Management Team	Low	MVP	Year 4	S, I	<b>2021 High</b>	
Local Plans & Regulations  Education & Awareness	<b>Conduct strategic planning to support the agricultural community</b> in the face of climate change. All of the identified hazards (heavy precipitation, drought, extreme temperatures, and extreme storm events) have the potential to significantly impact agricultural production, with corresponding threats to livelihoods. Planning should include education on adapting agricultural practices to impacts of climate change, such as longer growing seasons, extended periods of drought, and changes in overall precipitation patterns. Educate farmers and gardeners on adaptation measures, including drought resistant crops.	Multiple Hazards	Farm and Forestry Committee	Medium	MVP	Year 3	S, I, E	<b>2021 Medium</b>	

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Local Plans & Regulations  Education & Awareness	<b>Assess additional mosquito/pest control options</b> , including establishment of buffers between developed and undeveloped areas, determination of future risks due to increase in type and quantity of pests/disease vectors due to climate change, and development of an education and outreach program. Evaluate alternative methods for pest management, such as biological controls, that do not involve chemical application. Coordinate with the Board of Health to increase educational opportunities/awareness relating to pests and disease control. Conduct research on the impacts of pest management options on the environment to inform Town bylaws.	Vector-Borne Disease	Board of Health, Planning Board	Low	MVP	Year 1 and ongoing	S	<b>2021 Medium</b>	
Critical Facilities & Infrastructure	<b>Install central air conditioning</b> in the Town's elementary school and regional schools to protect children from the impacts of increasing heat as seasonal weather patterns become more unpredictable and average temperatures and days over 90 degrees F increase. <b>Explore alternative measures for addressing extreme heat conditions at the elementary school.</b> Assess the feasibility of planning for school closures and remote learning on extreme temperature days.	Extreme Heat	School Committee	Medium - High	Town, American Rescue funding	Year 1	S, I	<b>2021 Medium</b>	
Local Plans & Regulations	<b>Develop comprehensive invasive species management</b> from inventory stage through management planning and implementation to address existing invasive populations that threaten features such as open space or forests, both of which contribute to resiliency, as well as anticipate new invasives that are likely to move into the area as climates shift. Continue to manage the invasive plants in Town and explore alternative spraying options for Japanese knotweed. Assess biological control options for pests, including gypsy moths, and alternatives to spraying for invasives.	Invasive Species	Conservation Commission	Medium	MVP	Year 2	I, E	<b>2021 Medium</b>	Select Board has supported controlling Japanese Knotweed in town. Highway Dept. removed trees destroyed by Oriental Bittersweet

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Critical Facilities & Infrastructure	<p><b>Assess wells providing water for key municipal facilities</b>, including the Town Hall, elementary school, and Fire Department, to ensure reliability of water supplies.</p> <p><b>Continue efforts related to the Town’s well monitoring program</b> to observe available water quantity for private wells across Town.</p> <p><b>Conduct a feasibility assessment for dispersed municipal water supply</b> that would rely on multiple supply sources to provide public water and relieve some of the burden from residents’ need to rely on and maintain private wells at every residence.</p>	Drought	Select Board Board of Health	Medium-High	MVP, FEMA BRIC, American Rescue Plan Funds	Year 1	S, I	<b>2021 Medium</b>	
Critical Facilities & Infrastructure	<p><b>Conduct a detailed vulnerability and risk assessment of surface water supplies used for firefighting</b> by the Fire Department or Emergency Management. Individual source ponds already identified as potential water sources should be inspected, physical problems noted, and possible solutions identified.</p> <p><b>Conduct a wildfire risk assessment</b> to identify vulnerable areas and develop an action plan for the Fire Department</p> <p><b>Assess additional options for stand pipes or underground storage tanks</b> for water supply for firefighting to reduce the Fire Department’s reliance on surface water, which is vulnerable to the impacts of drought. Coordinate permitting efforts with other Town projects.</p>	Wildfire Drought	Fire Department	Medium-High	MVP, FEMA BRIC	Year 2	S, I, E	<b>2021 Medium</b>	
Critical Facilities & Infrastructure	<p><b>Establish the elementary school as an emergency shelter.</b> Acquire necessary equipment and conduct policy review to plan for how best to safely shelter adults if school is still in session to identify potential safety issues regarding schoolchildren. Assess funding for AC and equipment.</p>	Multiple Hazards	EMD	Low	MVP, Town	Year 3	S, I	<b>2021 Medium</b>	Adding AC to the current HVAC system at the school would be very expensive.

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Local Plans & Regulations  Education & Awareness	<b>Educate owners of private septic systems</b> about the importance of having systems pumped out and keeping them in good working condition in order to prevent risks to public health and the environment from systems that become overwhelmed during periods of heavy precipitation. Evaluate the possibility of developing a comprehensive Town-wide septic plan to uniformly address these concerns.	Flooding	Board of Health, Select Board	Low	MVP, Town	Year 4	S, I, E	<b>2021 Medium</b>	
Local Plans & Regulations	<b>In the planning stages for the new Town library</b> , include provisions to have the facility serve as a community cooling shelter and explore options for incorporating a community meeting room.	Extreme Heat	Library Trustees	Medium	Town, Mass Board of Library Commissioners	Year 1	S, I	<b>2021 Medium</b>	Grant application being filed in July 2021
Local Plans & Regulations	<b>Develop a comprehensive tree and forests management program</b> to identify, remove, and replace problem trees, preserve intact forests and street tree cover, provide guidance and resources for gradually moving toward more climate-resilient trees and forest communities (e.g. species that will tolerate warmer temperatures), and develop guidelines to manage conversion of forest land (e.g. solar guidelines).	Extreme Snowstorms Hurricanes/Tropical Storms Tornadoes Extreme Heat	Highway Department, Tree Warden, Conservation Commission	Medium	MVP	Year 1	S, I, E	<b>2021 Medium</b>	
Critical Facilities & Infrastructure	<b>Pursue public facilities upgrades that would increase resiliency</b> , including repairs to the roofs of the Town Hall, Fire Department, and elementary school. Continue to pursue an MSBA grant for replacement of the roof at the elementary school.	Extreme Snowstorms Hurricanes/Tropical Storms Tornadoes	School Committee	High	Mass School Building Assistance Program, Town	Year 1	S, I	<b>2021 Medium</b>	May 26, 2021 bids in for gym roof; submitting grant application in June 2021 for remainder of roof work
Critical Facilities & Infrastructure	Utilize Community Development Block Grant (CDBG) funding <b>for home rehabilitation work for low to moderate income households</b> to bring existing homes up to code and better withstand high wind events. Work with the Franklin County Housing and Redevelopment Authority (HRA) to develop and distribute a brochure to publicize the program at the Town Hall, public events, through tax mailings, and on the Town website.	Hurricanes, Tropical Storms, Severe Thunderstorms, Microbursts	Select Board	Medium - High	Town, CDBG, Franklin County HRA	Year 1 and ongoing	S, I	<b>2021 Medium - High</b>	



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Local Plans & Regulations	<b>Continue to participate in the Franklin County Regional Emergency Planning Committee (REPC)</b> , which is currently working to complete and operationalize the Debris Management Plan. Coordinate with state and regional agencies to identify a location(s) in the Town for the temporary storage of contaminated and/or hazardous flood debris.	Multiple Hazards	Highway Department, Franklin County REPC	Low	MVP, Town	Year 1 and ongoing	S, E	<b>2021 Medium</b>	EMD attends regular meetings
Critical Facilities and Infrastructure	<b>Obtain funding for a Rural Roads/Dirt Road assessment</b> to determine low maintenance, low cost climate resilient drainage solutions on the Town's gravel roads. Identify locations where nature based solutions would be most effective.	Flooding	Highway Department	Medium	Town, MVP, MassDEP 604b	Year 3	I	<b>2021 Medium</b>	
Local Plans & Regulations	<b>Establish a formal drought plan</b> to detail appropriate actions to be taken during times of extended drought, with particular attention to developing alternate water supply sources for farmers.	Drought	Farm and Forestry Committee, Water Resources Committee	Medium	MVP, Town	Year 4	S, I	<b>2021 Low</b>	
Local Plans & Regulations	When updated, digitized FEMA FIRMs become available, <b>expand and update the Vulnerability Assessment</b> for properties located within the 100-year floodplain, including information on property and crop damages, if available.	Flooding	Planning Board, Board of Assessors	Low	Town, Volunteers	Year 4	S, I	<b>2015 High</b> <b>2021 Low</b>	