







	Community Resilience Building Risk Matrix					www.CommunityResilienceBuilding.com				
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						Flooding/ Heavy Rainfall (1)	Drought (2)	Extreme Heat (3)	Wind (4)	Priority
Group	Features	Location	Ownership	V or S	Hazard	Actions			H - M - L	Short Long Ongoing
	Infrastructural									
Group 1	Drainage Infrastructure	Town-Wide	Public/Private	V/S	Rainfall/Flooding	Green Infrastructure, Low-Impact Development, Actively Promote Re-Charge (H), Continue Rain Barrel Program, Ensure MS4 Compliance, Maintenance (Especially Private Property), and support pump			1-H, 3-M	L-3, O-2
	Wastewater Treatment Plant	Medway	Public/Shared Ownership	V/S	Rainfall/Wind	I/I Program (H), Illicit Connections in 4 Communities (M)			2-H	L-2, O-2
	Medway Schools	Multiple Locations	Town	S	All	Ensure back-up generators are functioning and have sufficient capacity (H); air conditioning infrastructure - at least in certain areas (M); central air (M); white roofs, roofs at Memorial and McGovern (M); and solar parking canopies.			1-H, 2-L, 1M	L-3, S-1
	Town Water Wells	Multiple Locations	Town	V/S	Drought/Wind	Installing satellite wells (H), grey water (M), wastewater repurposing - study on greywater			1-H, 1-M	O-1, L-1
	Emergency Operations Center	Police Station	Town	S	All	Find back-up location - town hall or 2nd floor of fire station (H).			M	S
	Utilities - Electric, Gas, Communications	Town-Wide	Private/Town	V/S	All	Ongoing tree maintenance (H); working with private companies (M); cold-weather incidents for gas			1-H, 2-L	S-O, 2-L
	Excelon Power Plant - Cell Towers	Town-Wide	Private	V/S		Built-in emergency system to any new cell towers.			L	S
Group 2	Utilities - Aging Infrastructure - Stormwater, Trash, Gas, Electric,Solar, Water, and Sewer	Town-Wide	Town, Eversource and Verizon	B	Flooding/Heavy Rainfall, Wind	Underground utilities - solar and generators, grey water, sump connections, reusable bags, compostable materials/biodegradable, dam removal feasibility study.			L	O
	Roads** → Pervious vs.Impervious - (Medway "Δ")/Tanks Dams Wells/Trails Sidewalks	Village Milford	Town/Private	B	Flooding/Heavy Rainfall, Heat	Roads - pervious pavement, raise roads → Village drainage.			H	S/O
	Schools/Senior Center	Oakland	Town/Private	B	Extreme Heat	Continue emergency management procedure.			M	O
	Turf Fields /Playgrounds → Balancing Infrastructure	High School	Town	B	Extreme Heat	Public Outreach - "Flag" days.			L	O
	Waste Management	Town-Wide	Town/Private	V	Wind, Flooding/Heavy Rainfall	Sustainable recycling, town-wide compost.			L	O
	Local vs. Global Food System	Town-Wide	Town/Private	B	Flooding/Heavy	Re-use bags, compost, sustainable gardening.			L	O
Group 3	Charles River - Sanford Dam (Poor Condition, Old, Out of Design?)	River	State	V	Rainfall/Wind	Understand and prioritize needed improvements and costs. Document risks and consider removal.			H	L/O
	Charles River Pollution - Flood Plain - Pollution Control District WWTP - Back-Up Power?	Village/Street	CRPCD - Town	V/S	Rainfall/Wind/Heat	Assess wind impacts → trees. Process? Understand upgrade potential - address infiltration/inflow charging. Re-use → agriculture, industrial (Excelon), town land,, groundwater discharge.			M	L
	Drainage - Design Size, Municipal Separate Storm Sewer System	Town-Wide	Town/DPW	V/S	Rainfall	Understand what new design storms would do to system → maintenance → \$ → Staff Needs. Planning/Cons are updating to reflect NOAA Atlas/Standards. Rainbarrel program → Educate public → Assess infiltration basin retrofit.			M	O
	Town Structures* - Schools,Town Hall May be Out of Compliance	Town-Wide	Town	V/S	Rainfall/Drought/ Wind/Heat	Stormwater re-charge @ town sites, rain garden retrofit, drought-tolerant planting, roof-top solar (high school & middle school), AC in schools (solar), rain barrels/cisterns, compostable toilets, set example.			H	S
	Gas Systems - Underground, Meters at Homes. Vulnerable during Construction, Rainfall/Cold	Town-Wide	Columbia	V/S	Rainfall/Heat/Wind	Education, avoid construction in the rain, alternative public notification systems, → capture all generations → emergency response.			M	S/O
	Groundwater Wells - Private Wells	Zone 1	Town	V/S	Rainfall/Drought/ Heat/Wind	Public education for drought → on-going. CRPCD groundwater recharge → Excelon replenishment.			H	All - S/L/O

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Group 4	Power system - Transformers and Power Lines	Town-Wide. Triangle	Eversource	V	Wind (Ice & Snow)	Burying power lines in the right places (1). Raising equipment from flooding (2). Battery and solar incentives*(3). Generators for critical facilities (4). Microgrid study (5).	1-L, 2-M, 3-M, 4-H, 5-L	1-L, 2-O, 3-O, 4-S. 5-S		
	Culverts on Private Property in Remote Locations	Town-Wide, Milford & Clark Sts.	Town easement on private property.	V	Flooding/Wind	Public Outreach - education (1). Identify with Post and DPW at culvert (2). Obtain easements for maintenance and reporting culvert maintenance (3). Funding mechanisms for maintenance. (4). Town hydraulic m?(5)	1-H, 2-L, 3-M, 4-M, 5-H	1-S, 2-O, 3-O, 4-O, 5-L		
	Piped Infrastructure, Age, Size	Town-Wide/Brentwood ?	Town	V	Flooding/Wind	Homeowner Rain Garden Program (1). Stormwater utility (2). Adopt a catch basin program (3). Continue replacing pipes for future climate (4). Remove barriers to maintenance → standing order from Conservation Commission for minor repairs (5).	1-M, 2-L, 3-M, 4-H, 5-H	1-S, 2-L, 3-S, 4-O, 5-O		
	Dams - Choate → Town; Village Street → Private; Claybrook → Private; Sanford → Owner	Regional/Town	2 Town & 2 Private	V	Flooding	Study impact of climate to Choate Dam (1). Advocate to conservation commission for changes (2). Town to partner (or easement) with private dam owners on education and standards for maintenance and repair (3).	1-M, 2-H, 3-H	1-S, 2-O, 3-S		
	Evacuation Routes, Major Roads - Main Street, Village Street, Holliston, and Summer	Town	Town/State	V	Flooding	Clark Street - enlarge culvert and raise road (1). Signage (2). Public outreach (3). Add flooding to emergency plan (4)	1-H, 2-L, 3-L, 4-H	1-O, 2-S, 3-S, 4-S		
	Municipal Buildings - Town Hall, High School, School Shelters, Middle School, and VFW	Town	Town	V/S	All	RVA of town-owned buildings with cost-benefit analysis with design options (1). New emergency complex out of flooding (2).	1-M, 2-M	1-S, 2-L		
	Societal									
Group 1	Seniors/Special Needs Poulations	Senior Housing/ Spread Out	State/Private	V	Extreme Heat/Wind	Develop list of special needs population, especially those that require oxygen (H); make sure this list is updated annually*; check senior centers and schools; ensure communication to residents(L); and CPAC machines.	H, L	S-O, 1-L		
	Social Media	Instagram/Facebook/ Twitter	Town/Public	S/V	All - Misinformation	Brand the town's social media accounts so that residents go there first over other misinformation accounts(H); enlarge font of electronic messaging sign(H); more of Michael's videos (H).	H, H, H	O-S-O		
	Impatience/Instant Gratification		Public	V	All	Recogning and adapting to new forms of human behavior (M), social media helps with this; help residents understand the challenges of response time (M)	M	O		
	Community Events	Town-Wide	Town	S	All	Increase resident participation and volunteerism (H); mix public education on climate change issues and prevention strategies with other community events (M).	H, M	L, S-O		
	Affordability/Affordable Housing	Town-Wide	Town/Private	V	All	Mini-grants of low-interest loans to low-income residents for implementing climate resiliency projects (H); developing more industry/commercial businesses in town to lower taxes (L).	M, L	L, L		
	Youth Sports	Town-Wide	Town	V/S	All	Make sports more affordable to ensure participation across income levels (M); coach and player education for extreme heat and dehydration symptoms (M); make sure there is sufficient water at	M, M, M	L, L, S		
Group 2	O & M - Catch Basins/Meters/Vents	Town	State	B	Heavy Rainfall	Educate → Adopt a catch basin!	H	O		
	Educational/Public Outreach	Town	State	S	Heavy Rainfall/Extreme Heat	School presentations; flyers; green curriculum.	M	O		
	Community Responsibility/Open Spaces	Town	Town/Private	S	Heavy Rainfall/Drought	Water consumption; reuse and reduce and recycle.	H	O		
	Water Bans/Ordinances (1)	Town	State	B	Drought/Extreme Heat	Impervious tax; plastic bag bans.	M	S		
	Media*	Town	State	B	Heavy Rainfall/Drought/Extreme Heat/Wind	Positive outreach; encourage feedback/involvement → planning phase.	H	S		
	Diverse Ages/Aging Population	Town	State	B	Extreme Heat	O & M → cooling areas, cleaning → tripping prevention.	H	O		
	Canoe Launch*/Network of Recreation	Village Street	Conservation	V/S	Rainfall	Plantings/vegetation.	M	S		

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Group	Features	Location	Ownership	V or S	Hazard	Actions			H - M - L	Short Long Ongoing	
Group 3	Agricultural Community/Dwindling Workforce	Town-Wide	Private	V/S	Heat/Rainfall/Wind/Drought t	Preservation/protect land; water education; farm pond use; coordination with conservation; education → options → development rights.			M	L	
	School Community - Families, Teachers, Teachers from Out-of-Town*	Town-Wide	N/A	S	Rainfall/Drought/Wind/Heat t	Changing event times (heat); school calendar/start time; parent-teacher organizations → education on hazards; microgrids; Charles River; education → rain gardens, signs, and hazards.			M	S	
	Senior Community	Town-Wide	N/A	V	Heat/Rainfall	Microgrids/generators; locating cooling centers; solar?; watershed → education; education - hazards, who to call; building networks.			M/H	S	
	Route 109 - Commercial Center - Emergency Route	Route 109	Town/State	V/S	Rainfall/Wind	Stormwater maintenance; retrofit → green infrastructure; state coordination			H	L/O	
	N/A	N/A	N/A	N/A	N/A	N/A					
Group 4	Personal Irrigation of Lawns	Town-Wide	Private	V	Drought	Tertiary water re-use for irrigation (1); ? Education /communication (2); study to determine downstream and water quality and flow; native species education (3).			L-1, H-2, H-3	L-1. S-2. O-3	
	Public Communication of Future Needs	Town-Wide	Town	V	All	*See other strategies.			H	S	
	Elderly During Power Outages and Evacuations	Town-Wide	Town	V	Heat/Cold, Flooding, Wind	Neighborhood shelters (1); more comfortable, consider pets as part of shelter with generators.			M	O	
	Economic Impacts	Town-Wide	Town	V	All	Small business toolkit (1); resilience hub at the library (2).			H-1, H-2	S-1&2	
	Neighbor to Neighbor - Isolation - Not Knowing Neighbors	Town-Wide	Town	V/S	All	Microgrants for neighborhoods for parties to meet your neighbors (1); use NextDoor for engagement → engage on all platforms (2).			M-1. H-2	S-1, O-2	
	Communication - Cross-Generational	Town-Wide	Town	V/S	All						
	Environmental										
Group 1	Waterways	Town-Wide	Public	V/S	Rainfall/Drought	Green infrastructure to limit pollutant loading during extreme rainfall events (rain gardens) (M); install at schools to teach kids about green infrastructure (M)			M	L	
	Diseases/Illnesses ("EEE")	Town-Wide	Public	V/S	Drought/Heat	Public education adapting to EEE (M); limiting standing water (M); put public notifications in monthly or yearly letters to residents (could be expanded to many other categories (H)).*			M, M, H	O, O, O	
	Wildfires/Brush Fires	Town-Wide (More Northern)	Public	V	Drought/Extreme Heat	Maintenance of intermix areas (L); public education (L).			L, L	L, L	
	Issues with Development/Loss of Resources	Town-Wide	Private	V	All	Tree preservation or planting by-laws (M); forest master plan (M); drainage infrastructure/green infrastructure requirements (H)			M, H	S, S-O	
	Farming and Agricultural Lands	Town-Wide	Private	S/V	Drought	Study of potential contamination to farms and livestock from flooding (L); ensure animals have sufficient food and water for drought conditions L); involve agricultural committees (M).			L, L, M	L, L, S	
	Open Space/Trails	Town-Wide	Public	S	All	More open space and trails (M); maintenance (M); study to explore open space for flood storage (M).			M, M, M	O, O, L	
Group 2	Trees (Street)	Town/Private	Town/Private	B	All	Strategic planting; buy a tree; trail maintenance.			M	S/O	
	Invasive Species*	Town/Private	Town/Private	V	Heavy Rainfall/Drought	Adams Street "Boardwalk" trail -> implement 3-year plan to remove invasive species and plant with native species			H	S	
	Farmlands	Town/Private	Town/Private	B	Heavy Rainfall/Drought	Community integration; outreach/inform.			M	O	

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	Charles River Watershed	Town	Town	B	Heavy Rainfall/Drought	Regional; Charles River Climate Compact; flood storage; protect ? to Chicken Brook; lake population clean-up; dam removal.				HL
	Groundwater Resources	Private	Private	B	Heavy Rainfall/Drought	Protective zones.				ML
	Conservation/Land Use*	State/Federal	State/Federal	B	All	Eco-burials; monitor construction/redevelopment → infiltration.				HS
Group 3	Charles River - National Resource - Regional Benefit*	River	State	V/S	Rain/Drought/Wind	See dam decision - potential flood storage (may want to keep); educate →flood insurance →mitigation; ask FEMA to study future flood hazard.				HL
	Agricultural Land - Threat of Redevelopment	Town-Wide	Agricultural Commission/Private /Comm Farm/Town	V/S	Drought/Heat/Rainfall	Water re-use; agricultural practices →crops, irrigation needs; preserve land.				ML
	Town Lands/Trails - Conservation Space	Town-Wide	Town	V/S	All	Goatscaping; breakaway boardwalk → new design and construction methods.				LS
	Waterways - Hopping Brook and Chicken Brook - Tributaries to the Charles River	Town-Wide	Town	V/S	Drought/Rain/Wind	Water re-use and storage; water quality testing; beavers?				LS
	"Town Dump" - Inform - Rodents Bring Yard-Waste - Less to Runoff and Clog Drainage	Broad Street	Town	V/S	Rainfall/Heat	Educating the public; stormwater runoff handling.				MS/O
	Choate Park/Pond/Dam	Choate Park	Town	V/S	All	Trees/planting; rain garden/bio-retention.				MS/O