

Community Resilience Building Risk Matrix
Boxborough, Massachusetts
www.CommunityResilienceBuilding.org
H-M-L priority for action over the Short or Long term (and Ongoing)

V = Vulnerability **S** = Strength

Features	Location	Ownership	V or S	Top Priority Hazards			Priority	Time					
				Strong Storms	Flooding	Extreme Temperatures / Drought							
INFRASTRUCTURE													
Road flooding due to low-point in road, proximity to surface waters/wetlands/floodplain, or beaver activity in wetlands. (Note: Study is currently underway to assess and prioritize catch basins for retrofits - recommendations from this report will likely include some of the infrastructure at the flooding sites listed here)													
Route 111 (key transportation corridor)	State	V											
Littlefield Rd. near Central St.	Town	V											
Depot Rd. near Wildlife Management Area	Town	V											
Depot Rd. near Liberty Square Rd.	Town	V											
Davidson Rd.	Town	V											
Burroughs Rd. near Wolf Swamp	Town	V											
Sargent Rd.	Town	V											
Hill Rd. and Cunningham Rd.	Town	V											
Fire station in floodplain and has potential to flood.	Fire Station, Rt. 111	Town	V	A study has been conducted to develop a new Public Safety Building (police and fire departments), including the potential of relocation (\$24 million, \$15 million for fire station alone)									
Road flooding may limit access to waste disposal facilities (one access road)	Transfer station	Town	V										
Water level and water quality (iron content; Swanson Rd. salt storage impacts) of drinking water in private wells - significant area of town is on private wells and vulnerable to drought and flood impacts	Town-wide	Private	V										
New town facility building	DPW	Town	S	Assess opportunities for increased energy efficiency (LED lighting, solar panels, etc.)...this type of assessment should include all Town facilities (build off previous study)									
Need to further assess locations for siting solar power (e.g., library parking lot; Blanchard Memorial School (regional school district; commercial sites like Cisco)													
SOCIAL													
Public alert system is updated and works well but may not be available to all populations (e.g., renters, people without landlines)	Town-wide	Town	V/S										
Lack of/inadequate air conditioning (AC) in private homes/condos/apts. (e.g. Codman Hill condos/apts., Rt. 111 apartments)	Town-wide	Private	V										
Increase in ice storms may lead to decline in personal safety (e.g., driving, walking)	Town-wide	Town	V										
Lack of generator at key town facilities. Library could be used as cooling/warming station if it had a backup generator. DPW power is through Town Hall - loss of power would put critical Town emergency services at risk.	Town Hall, Sargent Memorial Library, DPW	Town	V										
Warmer climate and subsequent decline in air quality may impact residents with respiratory illnesses.	Town-wide	Town	V										
Warmer climate and increased rainfall will increase mosquito breeding, length of mosquito season, and associated human health impacts. Increases in other insect-related issues such as illness from ticks.	Town-wide	Town	V										
Need to better understand and address potential climate change impacts to 8% of town population below the poverty level.													
ENVIRONMENTAL													
Reduction of greenhouse gas emission from town-owned vehicles	Town-wide	Town	V/S	Convert town-owned vehicles to electric or hybrid vehicles where appropriate (e.g., school buses, police vehicles, Building Inspector, Planning, some DPW vehicles (must meet fuel efficiency code criteria - except for public safety vehicles=strength)									
Reduction of greenhouse gas emissions from town-owned facilities	Town-wide	Town/Private	V	Review potential locations for solar installations (e.g., Sargent Memorial Library, Blanchard Memorial Elementary School (regional), commercial buildings and parking lots)									
Increase in invasive species (e.g., garlic mustard, purple loosestrife, Japanese knotweed, bittersweet)	Town-wide	Town	V										
Increased health risks from insects (ticks, mosquitos) may lead to loss of habitat and pollinators with increased use of insecticides	Town-wide	Town	V										
Agriculture in Town at risk due to increase in extreme weather and drought	Town-wide	Private	V										
Key undeveloped lands (e.g., Hager Land drumlin, upland sites, future wellhead sites) located throughout town	Town-wide	Town	V	Identify future land protection/land acquisition priorities to incorporate climate change resiliency (e.g., conservation area between Sargent Rd./Depot Rd. helps to naturally mitigate floods); Cisco/Harvard Sportsman Club has only partial protection and opportunities for increased protection, including unique grasslands habitat at heightened risk of impacts related to drought/extreme temperatures.									
Lands have been prioritized for conservation in the 2030 Master Plan	Town-wide	Town	S	Identify key parcels for future water supply development									
Multiple opportunities for conservation and for the installation of nature-based solutions (e.g. Harvard Sportsmen's Club, Cisco property)	Town-wide	Town/Private	S										
Three energy audits have been conducted for Boxborough	Town-wide	Town	S										
Forests in Town provide natural air quality protection	Town-wide	Town	S	Assess opportunities for additional tree planting, buffer zone improvements, reforestation, etc.									
Electric charging station to be installed at Sargent Memorial Library	Sargent Memorial Library	Town	S										