Municipal Vulnerability Preparedness
Community Resilience Building Workshop

Town of East Longmeadow, MA

SUMMARY OF FINDINGS

November 19, 2019

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Prepared and Presented by

The Town of East Longmeadow selected the Pioneer Valley Planning Commission (PVPC) to as their certified CRB Provider. Staff from PVPC who worked on the project include:

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East Longmeadow Office of Planning and Community Development led the process -- Assistant Planner Bethany Yeo

This project and the following report were made possible through funding from the Massachusetts Executive Office of Energy and Environmental Affairs' Municipal Vulnerability Preparedness (MVP) Grant Program.

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https://commons.wikimedia.org/wiki/File:Town_Hall,_East_Longmeadow_MA.jpg

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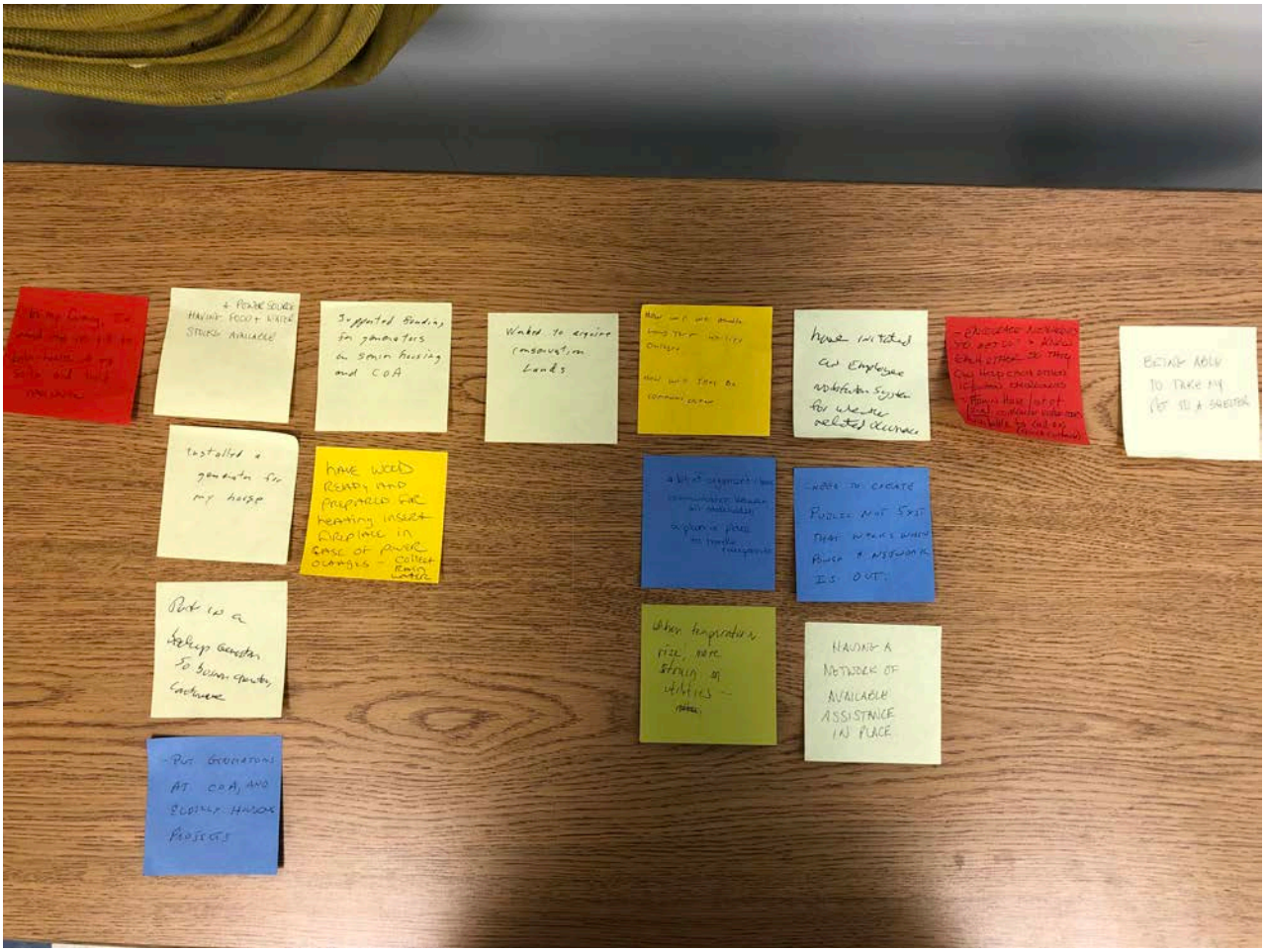
Overview

The need to increase planning for and implementation of extreme weather resilience and adaptation activities is strikingly evident around the globe: raging wildfires, severe floods, extreme drought, heat waves that kill thousands, and hurricanes, tornados and tropical storms destroying whole communities and large portions of countries; here in Massachusetts and the Pioneer Valley we have experienced an increasing number of increasingly severe climate-crisis related extreme weather, especially in 2011-2012 when we experienced five FEMA Major Disaster Declarations -winter storm, tornado, tropical storm, winter storm with extended power outage, hurricane.

East Longmeadow takes pride in the resilience we have demonstrated to date, bouncing back from the effects of the extended power outage our community experienced after the October 31, 2011 "Snowtober", and we are excited to share this Statement of Findings of our Community Resilience Building (CRB) process with our residents and the Commonwealth. In 2019, the Director of Planning and Economic Development and Assistant Planner successfully pursued and received funding from the Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA) to advance a Community Resilience Building workshop as phase one of the Town's certification under the Municipal Vulnerability Preparedness (MVP) program.

The core directive of the MVP program is to engage municipal officials and community stakeholders to facilitate the education, planning, and ultimate implementation of priority climate change adaptation actions. East Longmeadow's CRB process included two half-day highly structured tightly facilitated intensive workshops with municipal officials, business leaders, Town volunteers and Community-based organization leaders to: 1) affirm key natural hazards, 2) identify strengths and vulnerabilities in three sectors: people, environment, and physical, built and nature-based infrastructure, and 3) articulate top actions to build resilience and mitigate risk. Completion of the MVP process will enable the Town to achieve MVP certified community status from EOEEA by June of 2020 and receive preference for future state grants.

As mentioned, the October 2011 unusually early and wet snow storm left the town crippled for one week with loss of power to many facilities. The snow falling on trees still full with leaves caused branches and whole trees to fall within public rights-of-way, taking power lines and telephone poles with them, and causing residential and commercial property damage. Our Department of Public Works staff worked for three months to clean up and dispose of all the storm-related debris. We are confident that implementing the recommendations in this Strategic Resilience Action Plan will reduce the time it took us to get power back from 3 months to no more than 3 weeks in a comparable future extreme and unpredictable weather event. This plan will help us collaborate with the Commonwealth in their MVP Action grant program, and with numerous other State, Federal, regional and local initiatives to improve East Longmeadow's ability to bounce back from any negative consequences we might suffer



1 Workshop participants made note of what changes in the natural environment they had noticed over the course of their lifetime.

as a result of the increasingly unpredictable and severe weather we are experiencing. The plan also identifies actions we can take to reduce the severity of the impact of these severe weather events on our people, our environment and our physical, built and nature-based infrastructure.

In addition to working on MVP certification, the Town utilizes proactive zoning districts to protect its natural resources, such as a Floodplain Protection District, is an active member of the Connecticut Regional Stormwater Committee, has an up to date Hazard Mitigation plan, is working to update our Open Space and Recreation Plan, and aggressively seeking funds to update the Town's Master Plan.

We are pleased and proud to be taking advantage of and actively participating in Governor Baker's Municipal Vulnerability Preparedness (MVP) certification program.

Community Resilience Building Workshop

The Town of East Longmeadow engaged the Pioneer Valley Planning Commission (PVPC) to use the Nature Conservancy's "anywhere at any scale" community-driven process known as the Community

Resilience Building framework to host two 4-hour workshops on November 8 and 12, 2019. The list of workshop invitees and workshop content was guided by input from the core MVP planning team, and comprised Town elected officials, community members, business stakeholders, the State's MVP circuit rider, and was facilitated by staff from the Pioneer Valley Planning Commission (PVPC). The workshop's central objectives were to:

--Affirm community consensus of the local meaning of extreme weather and local natural and climate-related hazards;

--Identify existing and future vulnerabilities and strengths;

--Develop and prioritize actions for the Town and a broad stakeholder network;

--Identify opportunities for the community to advance actions to reduce risk and increase resilience.

In advance of the workshop, Planning and Community Development Director Brawders created an MVP survey to collect input from invited stakeholders. A copy of the survey is included in the Appendix as are survey results. In addition to serving as a means of collecting detailed input from stakeholders, the survey also educated stakeholders about Resilience and Vulnerability and the Commonwealth's MVP initiative. Approximately 14 participants from Town boards and committees, land holding corporations, community organizations, local businesses, and other interest groups

Fire Chief Morrissette reports out on the features his small group identified as assets and/or vulnerabilities for the Town of East Longmeadow.

attended the workshop, which included a combination of large group presentations, individual and small group activities. PVPC staff began the first workshop with a presentation outlining the workshop process and goals, updating participants on past and ongoing local planning efforts, and presenting new state-provided climate projection data to enable both decision-support and risk visualization. Participants then broke out into four small groups and over the course of the two workshops assumed different participatory roles and responsibilities to engage in a rich dialogue, sharing ideas and experiences to create a complete picture of East Longmeadow's strengths and vulnerabilities and then to develop and prioritize actions to build resilience and mitigate damage and destruction due to increasingly severe and unpredictable weather events.

Over the course of the workshop participants reflected on the ways they have already experienced effects of the climate crisis and shared ways their municipal departments, businesses, organizations and families and neighborhoods are changing behavior and policies and practices to better absorb stresses and maintain function in the face of external stresses imposed upon by climate change and adapt, reorganize, and evolve into more desirable configurations that improve the sustainability of the community.

East Longmeadow workshop participants learn about climate projects for the Connecticut River Valley.

Top Hazards & Vulnerable Areas

Leading up to the workshop, the core MVP planning team worked with input from Town officials, existing plans and policies to identify some of the top ongoing concerns and challenges for East Longmeadow. In order to ensure a bottom-up approach, the core Town planning team made the decision to allow the workshops' participants to identify their own top four hazards rather than pre-determining the hazards beforehand. To facilitate that process, PVPC presented a variety of past and current weather- and infrastructure-related challenges the town faces. These challenges were identified based on findings from previous planning processes such as East Longmeadow's 2016 Hazard Mitigation Plan, stakeholder input, and new climate change projections. The participants used this information to talk through the suite of priority climate hazards and negotiate common agreement on their top four hazards. For the workshop as a whole, four hazards were selected as the most pressing for the town: flooding, severe winter weather, severe storms/wind, and extreme temperatures.

Top Hazards

The top four hazards for the workshop as identified by the CRB participants were:

- **Extreme Temperatures**
- **Severe Winter Storms**
- **Extreme Temperatures**
- **Flooding**

Current Concerns & Challenges by Hazard

The Town of East Longmeadow faces multiple challenges related to the impacts of climate change and natural hazard-related weather events. In recent years, the town has experienced a series of disruptive and dangerous weather events including the severe snow storm of 2011, the 2019 October windstorm, and the localized flash flooding due to high precipitation events.

Forests and street trees, increasingly damaged by influxes of harmful pests, are vulnerable to impacts of storms with high winds and/or accumulation from freezing precipitation. Unhealthy trees and their limbs are more likely to be brought down by the weight of snow, ice, or water and under the force of wind, increasing the risks of prolonged power outages and hazards to residents and infrastructure. The magnitude and intensity of these events over the course of just a few years has increased awareness of natural hazards along with climate change and motivated communities like East Longmeadow to comprehensively improve resilience at the individual and municipal level.

East Longmeadow's MVP workshop participants were generally in agreement that the town and region are experiencing more intense and frequent storm events, the impacts of which affect the daily activities of all residents. There was also common concern about the challenges of being prepared for future severe weather events, including the ability to shelter residents close to home; the resilience of the transportation network to changing weather and temperature fluctuations and the need for the system to remain operational for

emergency travel, at a minimum; and the desire to ensure aging residents are able to access the resources they need in the face of extreme weather. Furthermore, participants established a common directive to improve the efficiency and efficacy of communication systems throughout the town, both in times of emergency and in day-to-day operations.

Areas of Concern

Infrastructure: pole-based electricity and communication lines, town and state-owned roads

Drinking, Storm, and Wastewater Infrastructure: dams, culverts, and bridges, sewage pump stations, drinking water, and stormwater infrastructure

Natural Resources: food systems, invasive species, habitat change, erosion, management and/or loss of open space and farmland

Social Vulnerabilities: changing age-related demographics, residents with limited mobility, residents with limited English language capacity, low-to-moderate income populations, emergency shelter network, emergency communications platform (Rave)

Built Environment: older/energy inefficient housing stock, lack of affordable housing

Specific Categories of Concerns & Challenges

Transportation Infrastructure: The specific issues identified within East Longmeadow's roadway network were two-fold: infrastructure maintenance and culvert functionality. Road passability is important for residents who may need to evacuate or travel in case of emergency, and it was noted the town includes many roadways with only one access point which, should they ever be blocked by flood or debris, could trap residents. Undersized culverts and storm sewer systems, contribute to local street flooding on Elm and North Main Streets.

Electrical Distribution System: Electricity is one of the most critical pieces of infrastructure in modern societies, and electrical service outages in East Longmeadow can be caused and exacerbated by the hazards prioritized during the MVP process. One stakeholder lifted up the fact that East Longmeadow is at the end of National Grid's line, so when the main line is compromised in a neighboring community, East Longmeadow is likely to also be affected. Workshop participants identified the need to research and understand how battery storage capacity for electricity generated from renewable resources can enhance East Longmeadow's resilience.

Communication Networks: In addition to equipment and infrastructure challenges, workshop participants noted a need to increase education about and sign ups of the existing emergency communication system, Rave—a reverse 911 system that distributes information to all residents who sign up for alerts. It is important to note that the system can only help those residents who know about it and sign up, and participants affirmed the need to make sure it is easy as possible to sign up, including through the Town's website. Participants also expressed concern over possible social isolation for people living alone, experiencing English language barriers, and/or living in poverty, and the need to conduct more outreach to these groups

when preparing for a winter storm or other emergencies that can result in power outages.

Small group participants identify features which contribute to the town's strengths and/or vulnerabilities on their working base maps.

Vulnerable Populations: According to the American Community Survey 2013-17 estimates, over 8% of East Longmeadow's population aged five years and older speak a language other than English at home. [1] ESL populations can be especially vulnerable in times of emergency due to linguistic challenges in outreach and perhaps different cultural norms in responding to weather- or emergency-related events.

Just over 4.5% of the total population lives in poverty, roughly equivalent to the percent of seniors in poverty but less than the number of youth less than 18 years of age, which is estimated at 7.6%.[2] The number of low income residents (measured by 200% of the poverty level) is significantly higher than the number of poverty-level residents, with 17% of the average population measuring as low income and 19% and 20% of the youth and senior populations, respectively.[3] Poverty-level and low-income residents may lack the financial capacity to evacuate in an emergency or keep up with day-to-day costs of living when weather disrupts the local economy.

Twenty-one percent of East Longmeadow's population is aged 65 years or older; the greatest concerns with this population are isolation, power outages, and prolonged exposure to extreme cold or heat. Power outages, especially when concurrent with extreme temperatures, leave the elderly and medically vulnerable populations at extremely high risk. Approximately 33% of East Longmeadow's seniors live alone[4], and workshop attendees wanted to ensure that emergency response teams would know who these seniors are and where they are located for emergency check-ins. Almost 37% of the senior population self-reports as having one or more disabilities (visual, ambulatory, self-care, cognitive,

[1] American Community Survey 2013-17 estimates, table DP02
[2] American Community Survey 2013-17 estimates, table DP03
[3] American Community Survey 2013-17 estimates, table B17024
[4] American Community Survey 2013-17 estimates, table S1101

independent-living, or hearing), as does nearly 13% of the overall population.[5]

Stormwater and Drinking Water Resources: The town is subject to EPA's Municipal Small Storm Sewer System (MS4) regulations, and is required to regulate and manage stormwater runoff for pollution and erosion control. In July of 2018, an updated MS4 permit came into effect with significant additional requirements for controlling the quality and quantity of stormwater runoff within the town. Participants identified a desire to research and understand how the Town could effectively integrate the use of Low Impact Development (LID) and green infrastructure (GI) techniques within Town practices and bylaws that govern development.

While the town relies on Springfield Water and Sewer Commission (SWSC) to supply drinking water, participants indicated that they were supportive of identifying and supporting locally-controlled back-up supplies. Existing infrastructure includes an aged water storage tank on Prospect Street, which has been used as a frame to mount all sorts of communications equipment in the past, and which may be vulnerable to high winds. One small group wanted to make infrastructure improvements to that water supply tank and look into former public well locations as a potential future drinking water resilience resource to reduce vulnerability to loss of SWSC lines.

Dams: East Longmeadow has a legacy of agricultural mills, powered by the many streams and rivers that wind throughout the town. Beyond the typical concerns over the maintenance of these aging structures, the existing spillways and other dam related infrastructure may not be sized appropriately to meet the demands of the larger, more frequent storms the town is already experiencing.

The Jawbuck Reservoir Dam is town-owned and does not currently serve a function as the reservoir is no longer used for irrigation purposes. Knowledgeable participants noted that the dam is often spilling over and faces a great amount of pressure from the reservoir behind it. There are 5 dams on public property according to DCR, although according the 2016 Hazard Mitigation Plan Blue Bird Acres Dam has been removed. Wetstone Pond #1 Dam (JSTW Limited Partnership) is low hazard dam in fair condition, and Wetstone Tobacco Company #3 Dam (owned by Town of E Longmeadow) is a low hazard dam in poor condition. Participants did not otherwise know about the hazard rating or condition of any of these dams.

Participant George Kingston reports on the resilience features his small group identified in town.

[5] American Community Survey 2013-17 estimates, table DP02

Current Strengths & Assets

As a result of East Longmeadow's broad experience with extreme weather and the impacts of climate change, workshop participants were quick to point out their communities' strengths in responding to the challenges identified above. Reinforcing and expanding upon these strengths and community assets to increase resiliency against the impacts of climate change is a common theme throughout the proposed actions in this report.

Some of the key strengths discussed included:

- An abundance of natural resources, including ponds, streams, rivers, and wetlands, that provide for environmental health, biodiversity, and recreational opportunities.
- Knowledgeable and dedicated professional municipal staff that is proactive and forward thinking.
- Active Senior Center and Council on Aging that provides resources and strong programming.
- An abundance of open space and farmland, which may be under threat of development but which currently adds to the town character and resilience.
- A large amount of canopy cover, which adds to resilience and town character.
- The town has its own local emergency shelter, the high school.

Top Recommendations to Improve Resilience

Workshop participants identified 55 actions that the Town of East Longmeadow, in collaboration with neighboring municipalities, regional partners, and state agencies, should consider acting upon to improve the Town's resilience to climate change impacts. These nine actions were assembled with like actions from the other small groups, resulting in the eight priority actions listed below (in no specific order). The three highest priority actions, as subsequently voted on by the large group, are shown in bold green.

- **Update, based on new climate data and municipal experience, the existing town-wide inventory and condition assessment of culverts and prioritize maintenance, repair, and replacement for future investment and upgrade to North Atlantic Aquatic Connectivity Collaborative (NAACC) standards while also researching and understanding how nature based solutions such as rain gardens and permeable pavement can be integrated to reduce the strength and volume of water entering into and passing through the culverts, improving their functionality and possible mitigating some expensive replacements.**

- Conduct a town-wide drinking water study to identify all threats to the water supply, especially those caused or exacerbated by the climate crisis and articulate actions needed to protect and maintain the Town's water supply and access into the future. This could be a good

regional project.

- Research and understand the Town's vulnerability to extended power outages and work with National Grid and the Commonwealth and key businesses, such as Big Y to improve the resilience of the electrical grid by researching the utility of a clean energy generated micro-grid and/or distributed generation system for a subset of critical buildings and services in the extent of extended power outages, expanding back-up power and improving maintenance.

- **Conduct a town-wide inventory of public trees and identify those in need of maintenance or removal given the new pests and diseases affecting trees due to the climate crisis and our changing temperatures, and create a community resilient tree management plan, and seek funding to implement it, possibly in collaboration with surrounding communities. Work to identify new climate appropriate trees for various uses in the community and educate people and organizations about the new trees.**

- Conduct a Housing Needs Assessment, and/or secure funding for a Master Plan that would include a Housing chapter with the goal of assuring a variety of housing choices for the aging population of the community that may need/want to down-size but still stay in the community while also emphasizing the need for energy efficient construction, prioritization of electricity for heating (as the Commonwealth has pledged to de-carbonize the electrical grid) and use of renewables for energy generation.

- **Conduct an outreach and communication campaign to achieve 100% participation in the Rave emergency communication system, taking advantage of the opportunity to communicate with all Town residents about the actions the Town is taking to build resilience and to nurture and support people's feelings of belonging to the community by signing up for Reverse 911.**

- Conduct energy efficiency audits and improvements on Town Hall, first by requesting no cost energy efficiency audits available from the utilities and implementing all the subsidized work possible to reduce energy use and then research the feasibility of installing solar power or some other renewable energy source combined with battery storage.

- Collaborate with the Department of Conservation and Recreation (DCR) and the Office of Dam Safety to secure funding to conduct a dam removal study for Jawbuck Dam and conduct outreach to owners of privately-owned dams to understand safety and maintenance concerns.

All actions recommended during the CRB workshop were shared with the public at a Public Listening Session (PLS) on May 20,

2020 from 6-7 pm. Residents were provided an opportunity to Listen to a description of the Town's MVP workshop process via a webinar—mandated due to COVID-19 precautions. We had one participant during the live presentation who shared these comments:

First, I am very concerned about the state of our town culverts and particularly major work and repairs such as the one currently before the Conservation Commission. Which part of town government is responsible for assuring that NAACC standards are being met?

Secondly, I am extremely concerned about our town drinking water and would like to be informed of what is being done to improve it.

Also, no one I know, including me until now, is aware of the smart 911, many elders do not have access to the internet and more information needs to be sent out to be sure they can sign into this system! If I can assist in any way with this, please let me know.

Thank you and the others for presenting this information.

In addition 27 people completed the on-line survey asking residents to rank the proposed MVP actions. Results of the survey are included at the end of this report.

Action Implementation Design

Once participants at the CRB Workshop voted on the top priority actions, each team was asked to select one action and begin to develop an implementation plan. For each action, the small groups filled out an Action Implementation Design worksheet, providing information on the lead agency/ department for implementation, the partners that would need to be involved for successful project completion, an estimated cost for the project, known or potential funding sources, and implementation milestones. This exercise was a tool for East Longmeadow decision makers to get a head start on the thought process that would be required to apply for an MVP Action Grant. The completed Action Implementation Design worksheets are provided in Appendix C.

A full list of the final recommendations from the CRB Workshop, organized by high, medium, and low priority, follows on the next few pages. The actions shown in bold were selected by the workshop participants as either a top priority, or as part of an expanded top priority project design.

In addition to the actions identified at the CRB Workshop and Public Listening Session, the town solicited comments on the draft Summary of Findings Report from various town and public partners but none were received.

Please note that within each category, the actions are not in any specific order.

Infrastructure	Society	Environment		High Priority Actions[6]
	X		1	Identify where vulnerable residents live for check-ins, and partner with the Council on Aging and utilities as necessary to complete this list.
	X		**2**	**Complete a Housing Needs Assessment.**
	X		3	Ensure sign-up for Rave Reverse 911 communications system is easily accessible (i.e., not buried on the Town website) and sign-up information is sent in the mail and posted in relevant locations such as medical offices, places of worship, public gathering spaces, etc.
	X		4	Understand Rave's ability to circumvent permissions and contact all registered numbers in case of emergency.
	X		**5**	**Conduct an outreach campaign to achieve 100% participation for Rave.**
	X		6	Purchase additional ambulances for improved response time.
X	X	X	7	Improve drainage and identify areas at high risk for mosquito gestation; increase public awareness around mosquitos and vector-borne disease.
X	X		8	To hold on to staff institutional knowledge, create a manual for each building/department that is continually updated.
X			9	Become a DOER certified Green Community.
X			**10**	**Complete an energy efficiency audit on town hall and make required improvements; complete a planning and feasibility study for building a microgrid for town facilities; install behind-the-meter solar on all public buildings, create a microgrid, install battery storage at Town Hall to provide emergency power and maybe at the library.**
X	**X**		**11**	**Continue discussions with National Grid on resiliency and responsiveness.**
X	X		12	Encourage businesses to practice good maintenance policies for their back-up generators/institute emergency plans, using Town policy as a model.
X		**X**	**13**	**Conduct culvert assessment and prioritization plan to NAACC standards, to follow up with grant applications for culvert action.**
X			14	Conduct a road conditions assessment and inventory and subsequent maintenance/improvement plan for upkeep.

[6] Actions in **BOLD** were identified by MVP workshop participants as top priorities

X			15	Engage with an engineer consultant to update the road master plan and standard details.
X		**X**	**16**	**Conduct a dam removal study for Jawbuck Dam (town-owned) and outreach to private dam owners to understand maintenance and safety concerns.**
X		X	17	Conduct an alternatives and cost analysis for redesigning the manual outfall at the Heritage Park Lake outfall.
X		X	18	Update stormwater management bylaw to MS4 Permit standards.
X		X	19	Consider revising zoning, subdivision, stormwater management bylaws to include low impact development/GI techniques.
X		X	20	Conduct a parking inventory to identify under- and over-utilized spaces and options to consolidate to reduce impervious cover.
X			21	Make infrastructure improvements to water supply system. Look into former public well locations as a potential future drinking water resilience resource to reduce vulnerability to loss of SWSC lines.
X	X	X	22	Complete the Master Plan update, and then update zoning and subdivision regulations to include a lookback provision, LID requirements, incentives for cluster/open space residential development, and put responsibility on developers to prove that they won't disturb or displace critical habitats or species. Conduct a concerted outreach effort to local developers and attorneys to explain the new changes in regulations and policy, etc.
X		X	23	Conduct a comprehensive zoning review to incorporate appropriate natural resource protection methods.
	X	X	25	Create a town tree committee and develop a long-term planting plan. Collaborate with Springfield's new nursery.
	X	X	26	Create a new "Green Committee" to work on trails and open space, host events to promote sense of place and teach wayfinding.
	X	X	27	Enhance police enforcement of highly-traversed lands, including lands prone to illegal dirt bike use.

Infrastructure	**Society**	**Environment**		**Medium Priority Actions**
	X		28	Continue to work towards Age-Friendly Community (AARP) and Dementia-Friendly Community (Mass Councils on Aging) status.
	X		29	Conduct a rebranding/education and outreach campaign targeted to East Longmeadow residents regarding who needs "affordable housing."

	X		30	Investigate alternative options for emergency communications (instead of Rave) when the power is out/landlines unavailable, such as using a signboard or sending text message.
	X		31	Explore alternative Reverse 911 systems to Rave, and choose the best option suited to the town's needs and abilities.
	X		32	Conduct outreach and education about how to prepare for sheltering in place.
	X		33	When exploring options for emergency communication systems, consider language capabilities.
	X		34	Keep non-English speaking populations in mind when designing town-wide outreach and educational campaigns.
X	X		35	Expand back-up power for Town Hall and explore expansion of back-up power for all other town-owned buildings.
	X		36	Develop codes/regulations to require use and maintenance of back-up power options for Day and Critical Care facilities.
X	X		37	Inventory specific areas with only one access point, including number of roads, number of households on each road, number of business on each road, and potential blockage-creating hazards.
X		X	38	Conduct a feasibility study for green infrastructure at Center Fields and Shaker Road, including the option of removal of fire ponds.
X		**X**	**39**	**Conduct a town-wide drinking water study to identify supplemental water supply, then take action to preserve/conserve that source/supply.**
X		X	40	Enforce current stormwater/development standards.
		X	41	Preserve existing open/public green spaces.
X	X	X	42	Revisit the feasibility of adopting Open Space Residential Develop/Cluster Development Zoning.
		X	43	Create priority list of lands for protection - local woodland protection to improve water quality and preserve good farm soils.
X		X	44	Develop a robust solar bylaw that includes environmentally responsible land use practices.
		X	**45**	**Conduct a community forest and hazard tree inventory and master plan, including feasibility of sustainable forestry of town-owned wooded parcels.**
	X	X	46	Educate private landowners regarding care/maintenance of hazard trees on own property (and consider partnership with local schools).
	X	X	47	Allocate more resources to better management of public lands, including an awareness and marketing campaign to increase knowledge and use of these parcels.

Infrastructure	Society	Environment		Low Priority Actions
X		X	48	Explore potential for expanding solar storage/distribution.
		X	49	Explore beaver control options and monitor water levels.
		X	50	Look into benefits of becoming a right-to-farm community.
X	X		51	Department heads should implement succession plans and encourage mentoring of new staff by veteran staff.

Note: In most cases, actions are presented in the table above as written by CRB Workshop participants. Where proposed actions in their original form lacked clarity or detail, the project team expanded upon the action in order to promote project-readiness.

Workshop Participants

Approximately 14 participants from Town departments, committees and boards, large land owners, community organizations, and businesses were in attendance at the MVP workshop. The participant check-in list is provided in Appendix C.

In addition to the people who were able to participate in the in-person CRB workshops, the Town also surveyed key stakeholders and results of the surveys was integrated into the Town's MVP process.

Citation

East Longmeadow (2019) Community Resilience Building Workshop Summary of Findings. Pioneer Valley Planning Commission. East Longmeadow, Massachusetts.

MVP Working Group

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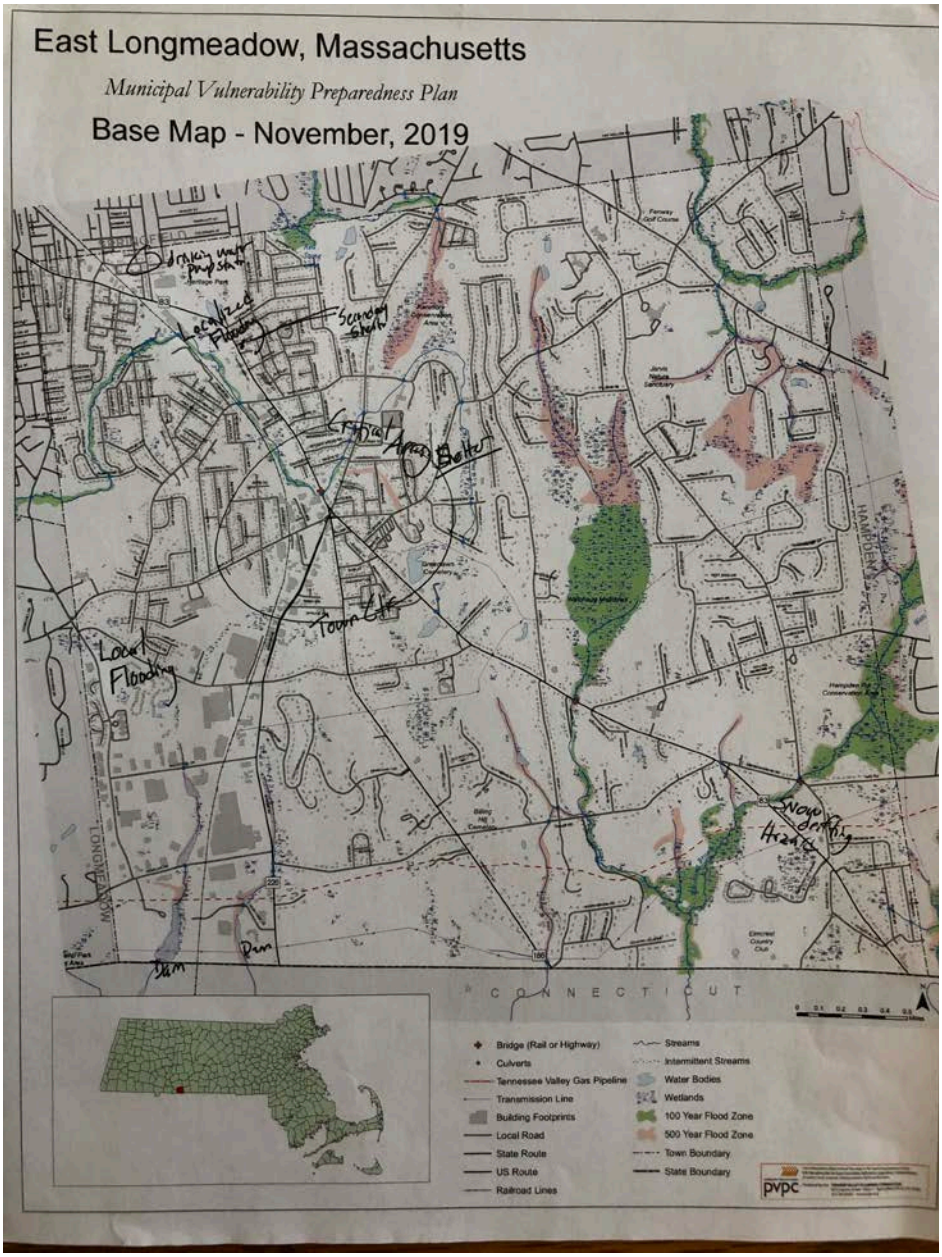
Acknowledgements

Special thanks to the Town of East Longmeadow staff for their willingness to enhance this process, and to the Fire Station and East Longmeadow Public Library and the Fire Station for providing the facilities to convene. This project was made possible through funding from the Massachusetts Executive Office of Energy and Environmental Affairs.

Workshop Basemap with Participatory Mapping Results



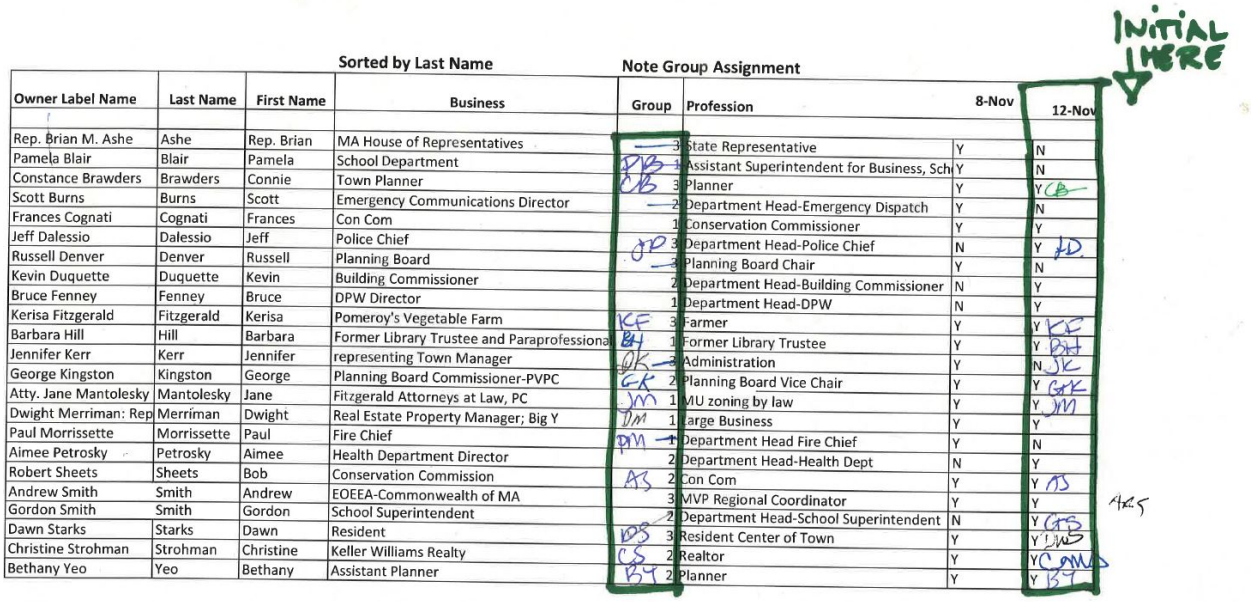
Meeting Handouts/Resources

Agenda

	Time	Activity
Day 1	10:00 a.m.	Introductions, workshop overview and background information on past and present climate issues, planning initiatives and efforts
	11:25 a.m.	Break
	11:45 a.m.	Convene Small Groups - Small Group orientation - Select top hazards
	12:00 p.m.	Lunch
	12:30	Small Group Work - Identify strengths and vulnerabilities, locate on base map
		- Small group report out
	1:20 p.m.	Next Steps and Closing Remarks
Day 2	12:00 p.m.	Registration and Lunch
	12:30 p.m.	Small groups reconvene - Identify actions to reduce vulnerability to hazards identified - Select Top Priority Actions
	1:45 p.m.	Report Out and Vote on Top Priorities
	2:30 p.m.	Break
	2:45 p.m.	Implementation Design Exercise and Report Out
	4:00 p.m.	Wrap-up and Next Steps

Workshop Agenda

Sign-in Sheet



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Sorted by Last Name — Note Group Assignment

Owner Label Name	Last Name	First Name	Business	Group	Profession	8-Nov	12-Nov
Rep. Brian M. Ashe	Ashe	Rep. Brian	MA House of Representatives	3	State Representative	Y	N
Pamela Blair	Blair	Pamela	School Department	1	Assistant Superintendent for Business, Sch	Y	N
Constance Brawders	Brawders	Connie	Town Planner	3	Planner	Y	Y CB
Scott Burns	Burns	Scott	Emergency Communications Director	2	Department Head-Emergency Dispatch	Y	N
Frances Cognati	Cognati	Frances	Con Com	1	Conservation Commissioner	Y	Y
Jeff Dalessio	Dalessio	Jeff	Police Chief	3	Department Head-Police Chief	N	Y JD
Russell Denver	Denver	Russell	Planning Board	3	Planning Board Chair	Y	N
Kevin Duquette	Duquette	Kevin	Building Commissioner	2	Department Head-Building Commissioner	N	Y
Bruce Fenney	Fenney	Bruce	DPW Director	1	Department Head-DPW	N	Y
Kerisa Fitzgerald	Fitzgerald	Kerisa	Pomeroy's Vegetable Farm	3	Farmer	Y	Y KF
Barbara Hill	Hill	Barbara	Former Library Trustee and Paraprofessional	1	Former Library Trustee	Y	Y BH
Jennifer Kerr	Kerr	Jennifer	representing Town Manager	3	Administration	Y	N JK
George Kingston	Kingston	George	Planning Board Commissioner-PVPC	2	Planning Board Vice Chair	Y	Y GK
Atty. Jane Mantolesky	Mantolesky	Jane	Fitzgerald Attorneys at Law, PC	1	MU zoning by law	Y	Y JM
Dwight Merriman: Rep	Merriman	Dwight	Real Estate Property Manager; Big Y	1	Large Business	Y	Y
Paul Morrissette	Morrissette	Paul	Fire Chief	1	Department Head Fire Chief	Y	N
Aimee Petrosky	Petrosky	Aimee	Health Department Director	2	Department Head-Health Dept	N	Y
Robert Sheets	Sheets	Bob	Conservation Commission	2	Con Com	Y	Y AS
Andrew Smith	Smith	Andrew	EOEEA-Commonwealth of MA	3	MVP Regional Coordinator	Y	Y
Gordon Smith	Smith	Gordon	School Superintendent	2	Department Head-School Superintendent	N	Y GS
Dawn Starks	Starks	Dawn	Resident	3	Resident Center of Town	Y	Y DS
Christine Strohman	Strohman	Christine	Keller Williams Realty	2	Realtor	Y	Y CS
Bethany Yeo	Yeo	Bethany	Assistant Planner	2	Planner	Y	Y BY

AxS

Social Vulnerability Infographics

EAST LONGMEADOW
SOCIAL VULNERABILITY

Social factors, such as age, race and ethnicity, and socio-economic status, can increase vulnerability to the impacts of climate change. These factors can increase exposure to dangerous environmental conditions, and/or make it more difficult for individuals to take precautions against extreme events or access help before, during, and after those events.

WHO'S MOST AT RISK FROM CLIMATE IMPACTS?

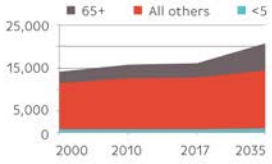
The old, the young, and those with preexisting health conditions. *These people may be more physically vulnerable to the health impacts of extreme temperatures and poor air quality, and/or require assistance for medical services, during power outages, and to meet daily needs.*

The marginalized, including low-income residents, residents who speak English as a second language, residents who identify with minority racial and/or ethnic groups, socially and/or physically isolated residents. *Low income people can have more difficulty evacuating before and recovering after extreme weather events, and may lack the ability to secure adequate provisions and meet medical needs. Social isolation, as can come from linguistic isolation and/or living alone, can limit access to critical information and social support systems.*

Those who live and/or work in particularly vulnerable locations, such as areas prone to flooding or urban heat islands, and those who work outside. *People subjected to repeated environmental or weather-related stress may face health and financial risks.*

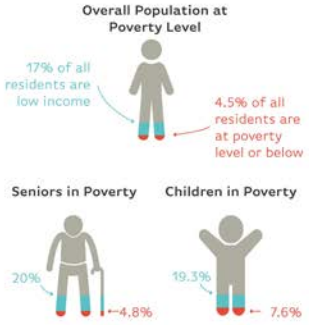
RECENT & PROJECTED POPULATION BY AGE

East Longmeadow's population is predicted to grow, with the senior segment (65+) growing at the fastest rate.



RESIDENTS IN POVERTY

In 2019, a four-person household earning less than $25,750 is considered below poverty level. The low income threshold is considered to be 200% of the poverty line, or approximately $51,500 for a family of four.

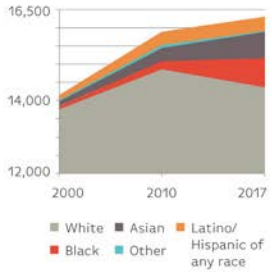


ADULTS LIVING ALONE

In East Longmeadow, 26.4% of households are comprised of adults living alone. 16.7% of households are seniors (65+) living alone, which also makes up about one-third of the senior population over all.

POPULATION BY RACIAL/ETHNIC IDENTITY

East Longmeadow is becoming more diverse, with non-white populations comprising 2.1% of the population in 2000 to 10.7% in 2017. The Hispanic/Latino (of any race) population grew from <1% of the population to over 2%.



COST-BURDENED HOUSEHOLDS

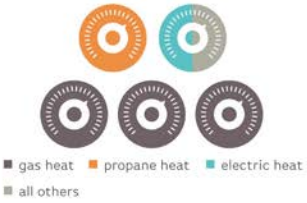
HUD defines cost-burdened families as those who pay more than 30% of their income for housing and may have difficulty affording necessities such as food, clothing, transportation, and medical care. About 12% of households in East Longmeadow are renters.

Just under half of renters (47%) in East Longmeadow are cost-burdened

One-quarter of homeowners are cost-burdened

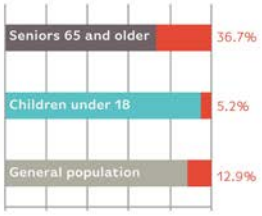
HOME HEATING

The majority of East Longmeadow households heat with gas (63%), with propane (21.5%) and electric (9%) heating one-third of households combined. With so many households reliant on one utility, is important to ensure that the Town's gas infrastructure is resilient and protected.



RATES OF DISABILITY BY POPULATION SEGMENT

The Census defines disabilities as reports of one of the following six disabilities: hearing, visual, cognitive, ambulatory, self-care, or independent living.

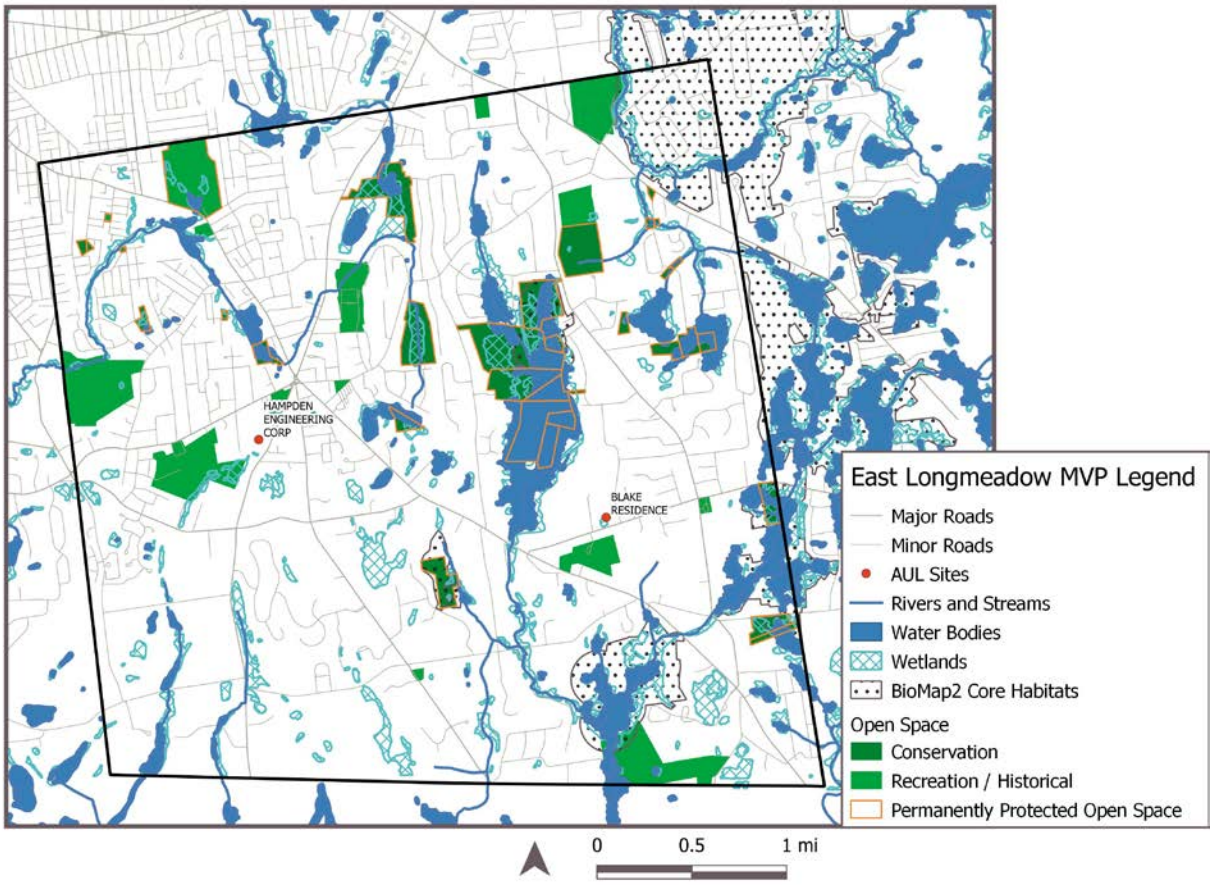


DIGITAL COMMUNICATION

17% of households do not have a broadband Internet connection and 12.7% do not have a computer at all, potentially inhibiting communication.

Created by Pioneer Valley Planning Commission in 2019 for the Town of East Longmeadow Municipal Vulnerability Preparedness Community Resilience Building Workshop. Sources: American FactFinder Census Tables DP02, DP03, S1101, B17024, S2506, B25070, B25040; MLRI 2019 Federal Poverty Level Guidelines (January 2019). The data presented in poster is for illustrative purposes only and may not be depicted with consideration to margin of error.

Natural Resources Mapping



Action Implementation Design Worksheets

Municipal Vulnerability Preparedness

Action Implementation Design

COMMUNITY ACTION

Engineering assessment of all town culverts which prioritizes action items and considers future precipitation patterns and nature-based water management strategies.

Lead Implementing Agency/ Department (Emergency Manager, Select Board, DPW, Fire Chief, Finance Committee, Planning Board, etc.)

DPW

Partners (Neighboring municipalities, State actors, local non-profits and land trusts, community groups, etc.)

Conservation
Planning Board
PVPC
Springfield (+ other downstream communities)
Westfield, CT

Cost (Dollar estimate, or Low: < $50,000, Medium: $50,000 – $100,000, High: > $100,000)

$100,000 - $150,000

Funding Sources (Capital Improvement Plan, Staff Time, Chapter 90, Hazard Mitigation Grant Program (HMGP), other grants, etc.)

MVP, MassDEP, EPA, MassDOT, DER

Implementation Milestones

Examples:
1. Create and convene a committee to oversee progress;
2. Dissiminate 300 information packets to raise awareness about the initiative;
3. Apply for a grant to fund more robust public outreach, education, and awareness campaign.

1) Create committee to oversee engineer selection
2) Put out RFP + develop scope of work
3) Select Engineer
4) Provide support + background as needed, historical data, etc.
5) Prioritize action items + figure out next steps for implementation

Note: Cost estimates take into account the following resources:
- Town staff time for grant application and administration (at a rate of $25 per hour)
- Consultant design and construction cost (based on estimates for projects obtained from town and general knowledge of previous work in town)
- Town staff time for construction, maintenance, and operation activities (at a rate of $25 per hour)

Municipal Vulnerability Preparedness

Action Implementation Design

COMMUNITY ACTION

Conduct an outreach and communication campaign to achieve 100% participation in the emergency communication system. Implement an opt-in override for certain emergencies, including climate driven events such as extreme weather.

Lead Implementing Agency/ Department (Emergency Manager, Select Board, DPW, Fire Chief, Finance Committee, Planning Board, etc.)

Emergency Manager.

Partners (Neighboring municipalities, State actors, local non-profits and land trusts, community groups, etc.)

IT Department, Council on Aging, School Department, ELCAT Residential medical facilities, agencies managing group homes [CHD, etc.] & community based organizations

Cost (Dollar estimate, or Low: < $50,000, Medium: $50,000 – $100,000, High: > $100,000)

Low

Funding Sources (Capital Improvement Plan, Staff Time, Chapter 90, Hazard Mitigation Grant Program (HMGP), other grants, etc.)

HMGP, Staff Time, MVP Action Grant, Tufts Health Plan Foundation, Hospital Community Benefits Grants, PPH-CHI Funds

Implementation Milestones

Examples:
1. Create and convene a committee to oversee progress;
2. Dissiminate 300 information packets to raise awareness about the initiative;
3. Apply for a grant to fund more robust public outreach, education, and awareness campaign.

1. Create a committee under the lead of the Emergency Director
2. Identify funding sources
2a. Evaluate software capabilities.
3. Create a baseline of current participation
4. Identify target populations.
5. Design and conduct an outcteach and education campaing including training on the use of the system
6. Monitor sign up rates and participation

Note: Cost estimates take into account the following resources:
- Town staff time for grant application and administration (at a rate of $25 per hour)
- Consultant design and construction cost (based on estimates for projects obtained from town and general knowledge of previous work in town)
- Town staff time for construction, maintenance, and operation activities (at a rate of $25 per hour)

possibly + lead Greeby plan selective to a town to utilize as a cutting funding source

Municipal Vulnerability Preparedness

Action Implementation Design

(See Weston MA operation)

COMMUNITY ACTION

We propose to conduct a town-wide tree inventory and management plan. The town has a robust tree canopy, but have noticed trees being vulnerable to climate-related events. Trees have been falling (due to saturated ground water, etc.) rotting, dying from disease, breaking from wind or dry rot, etc. This plan would identify areas of concern (including single access ~~entrance~~ neighborhoods - our off from emergency access vehicles), vulnerable trees species, etc. The plan would identify resilient tree species for replanting plans and identify appropriate places for replanting. We could also survey our town's tree canopy to understand what we have. (Tree)

Lead Implementing Agency/ Department (Emergency Manager, Select Board, DPW, Fire Chief, Finance Committee, Planning Board, etc.)

East Longmeadow Department of Public Works / Conservation Commission

Partners (Neighboring municipalities, State actors, local non-profits and land trusts, community groups, etc.)

East Longmeadow 'Green Committee', Dept. Conservation Recreation - Servic Forester U.S. Forest Service, City of Springfield - Parks Dept., local land trust, Mass Audubon The Nature Conservancy, town residents, ~~Mass Wildlife~~ Mass Wildlife

Cost (Dollar estimate, or Low: < $50,000, Medium: $50,000 – $100,000, High: > $100,000)

$75,000

Funding Sources (Capital Improvement Plan, Staff Time, Chapter 90, Hazard Mitigation ~~Grant Program (HMGP), other grants~~, etc.)

MVP Action Grant Community Preservation Act $ DCR Urban Forestry grants DPW operating budget National Grid

Implementation Milestones

Examples:
1. Create and convene a committee to oversee progress;
2. Dissiminate 300 information packets to raise awareness about the initiative;
3. Apply for a grant to fund more robust public outreach, education, and awareness campaign.

1. Create steering committee to apply
2. Apply + get awarded grant(s)
3. Hire a professional tree consultant to conduct inventory within 9-10 months
4. Dissiminate info to residents
5. Taking results to update possibly revise by-laws

Note: Cost estimates take into account the following resources:
- Town staff time for grant application and administration (at a rate of $25 per hour)
- Consultant design and construction cost (based on estimates for projects obtained from town and general knowledge of previous work in town)
- Town staff time for construction, maintenance, and operation activities (at a rate of $25 per hour)

On-line Survey Results

3. Please rank the following priority projects to indicate the most important actions that East Longmeadow should take to address climate resilience.

Item	Overall Rank	Rank Distribution	Score	No. of Rankings
Conduct a town-wide drinking water study to identify supplemental water supply, then take action to preserve/conserve that source/supply.	1		171	27
Conduct an outreach campaign to achieve 100% participation for Rave-reverse 911 communication to residents in case of emergency.	2		135	27
Continue discussions with National Grid on resiliency and responsiveness.	3		133	28
Complete an energy efficiency audit on town hall and make required improvements; complete a planning and feasibility study for building a microgrid for town facilities; install behind-the-meter solar on all public buildings, create a microgrid, install battery storage at Town Hall to provide emergency power and maybe at the library.	4		127	27
Complete a Housing Needs Assessment	5		123	28
Conduct a community forest and hazard tree inventory and master plan, including feasibility of sustainable forestry of town-owned wooded parcels	6		109	28
Conduct culvert assessment and prioritization plan to NAACC standards, to follow up with grant applications for culvert action.	7		98	27
Conduct a dam removal study for Jawbuck Dam (town-owned) and outreach to private dam owners to understand maintenance and safety concerns.	8		92	28

4. If you would like to submit your own suggestion for an action the Town can take to reduce vulnerability to the impacts of climate change that was not included in the list above, please do so here.