



**SPECIAL ISSUE**

**MUNICIPAL  
VULNERABILITY  
PREPAREDNESS  
TOGETHER**

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Rhodes Building  
351 Amherst Road  
Pelham, MA 01002

# The Story of a Climate Grant

Thanks to the volunteer efforts of fellow Pelhamites, Pelham is now winning grants to help build a more climate resilient town.

**1** Pelham applies for the Municipal Vulnerability Preparedness program grant and Pelham is awarded **\$15,000**.

**2** The **\$15,000 MVP grant** funds the MVP Community Resilience Building workshop, report and mailings. During the April 21 workshop, volunteers and town officials come together as a team to identify climate resiliency issues facing our town.

**3** The results from the MVP Workshop are used to apply for the MVP Action Grant, and Pelham wins **\$137,250** to begin addressing resiliency in three key identified areas: **Community, Campus, and Roadways**.

## MVP ACTION GRANTS

Having passed the first two grant hurdles, Pelham is now 1 of a group of only 82 MA communities currently eligible for MVP grants.

Governor Baker's MVP grants did not fund solar solutions.

## What's Next? Would you like to help?

Explore this report today, and use the included postcard to let us know how you would like to be part of a new team of Pelham residents getting ready for the next 275 years. *You can read the full CRB report on the town website.*

# STARTING THE CONVERSATION

**Read here about the work underway and some ideas about how to improve resiliency together as a community. Consider what you would like to see addressed and how you might want to get involved!**

The need for municipalities, regional planning organizations, the state and federal agencies to increase resilience and adapt to extreme weather events and mounting natural hazards is strikingly evident in the Pioneer Valley Town of Pelham. Recent events such as the 2016 drought, extreme cold spells in the winter of 2017-2018, and Tropical Storm Irene and Hurricane Sandy before that have reinforced this urgency and compelled communities like the Town of Pelham to proactively plan and mitigate potential risks through a community driven process. Ultimately, the commendable leadership demonstrated by Pelham's efforts will reduce the exposure and vulnerability of Pelham's citizens, infrastructure and ecosystems and serve as a model for communities across the Pioneer Valley, Massachusetts, New England, and the Nation.

## Workshop Participants:

**Rick Adamcek** Superintendent, Pelham Public Works; **Roger Conant** Pelham Community Garden Committee; **Alexandra Davis** Smith College; **Lisa Desjarlais** Principal, Pelham Elementary; **Caitlin Dragun-Bianchi** Pelham Energy Committee; **Judy Eiseman** Pelham Planning Board; **Peter Hepler** Biologist, Local Farmer; **Gale Hubley** Trustee, Pelham Library; **Abbie Jenks** Pelham Planning Board, Community Garden Committee; **Jodi Levine** Director, Pelham Library; **Tilman Lukas** Pelham Housing Committee, Conservation Commission; **Dana MacDonald** Pelham Conservation Commission, Community Preservation Committee; **Karl Martini** Pelham Historical Commission; **Alisa Pearson** Pelham Board of Selectman; **Bill Pula** Pelham Board of Health; **Cyd Reiman** Pelham Community Preservation Committee, Community Garden Committee; **Stan Swiercz** Pelham Energy Committee; **Gary Thomann** Chief, Pelham Police Department; **John Trickey** Pelham Finance Committee; **Isa Wang** Co-Owner, Bower Studio; **David Waskiewicz** Pelham Building Inspector.

# COMMUNITY RESILIENCE BUILDING WORKSHOP.



Working with the Pioneer Valley Planning Commission, the Town of Pelham employed a unique “anywhere at any scale”, community-driven process known as the Community Resilience Building Workshop *CommunityResilienceBuilding.com*. The CRB Risk Matrix was integrated into the workshop process alongside new state-provided climate projection data to provide both decision-support and risk visualization for the Town of Pelham.

Once split into small groups, each group was asked to select 4 of the 6 top hazards to use in developing the CRB Risk Matrix. Drought, severe storms, and high winds were chosen by all three groups. While flooding was not chosen as a stand-alone category, participants considered flood issues as secondary impacts under the severe storms and severe winter storms categories. Extreme temperature was chosen by two teams. According to the participants, these hazards have direct and increasing impacts on Pelham residents and town resources, including natural areas, buildings, roadways, drinking and wastewater systems, and other critical infrastructure.

Participants were asked: “What does Climate Vulnerability Preparedness look like to you?” Woven throughout this report are participant responses.

*“Able to weather disasters and long-term emergencies with joy, grace, and safety.”*

Many thanks to the MVP leadership team led by Karen Ribeiro, Stan Swiercz, Abbie Jenks, Caitlin Dragun-Bianchi and Rick Adamcek.

## The workshop’s central objectives were to:

- Define top local natural and climate-related hazards of concern
- Identify existing and future strengths and vulnerabilities
- Develop prioritized actions for the Community
- Identify immediate opportunities to collaboratively advance actions to increase resilience

## Top 3 hazards:

- Extreme Temperatures
- **Drought**
- Flooding
- Severe Winter Weather
- **Severe Storms**
- **High Winds**



Each small group presented its three top priority actions to the large group. These actions were grouped with like actions from other small groups, and then voted on by the large group.

## Most of the strengths identified by Pelham’s MVP participants fell into the environmental and societal categories:

- Actively protected forestry and conservation lands
- Bylaws to protect critical ecosystems and drinking water resources
- A strong town culture of support and helping one another
- Active town committees, as well as a strong sense of community surrounding the elementary school
- Existing reverse 911 systems
- Highway and public safety equipment
- Potential for the town campus to serve as an emergency shelter



ABOVE: Participants split into three small groups to complete their CRB Risk Matrices.

## Current strengths and assets:

Many things that were considered challenges were also strengths in some respects. For example, having a small group of committed residents running the Town was seen as strength, but will be a challenge as the town's volunteers continue to age. Some of the key strengths discussed included:

- **Existing social networks:** The elementary school provides a robust social network for families with students in K-6 and the school principal and PTO have a good working relationship and willingness to take up wider community projects. The library also puts on a lot of programming that brings community members together.
- **High level of education**
- **Pelham's conservation areas and community forest.** The biggest strength is the amount of protected open space and how forest land development is controlled and managed.
- **Public safety, emergency management and preparedness:** Current/existing long term planning around replacing police, fire and DPW equipment has led to these departments having the high quality tools that they need to do their job.
- **A history of working with their neighboring communities to share services that their town doesn't need full time.** Pelham is currently part of the Quabbin Health District, shares middle and high schools with Amherst, gets water and sewer through Amherst and share an assessor.
- **Strong volunteer base:** This includes a marked longevity of town board members and officials. However, one younger, relatively new Pelham resident in the MVP workshop group felt left out by all the older people who have been consistently running the town for 40 years.
- **Small town, 'look after one another' feeling**
- **Long history of thoughtful planning.** A review of the relevant planning documents in Pelham showed that over the years, planning processes and their final products have built upon one another and the Town has worked towards implementing many of the key actions.

## Pelham is already on the path to Climate RESILIENCE:

In 2016, Pelham completed a Natural Hazard Mitigation Plan and in 2017 unanimously passed a Climate Change Resolution at Town Meeting, calling on elected and appointed officials to implement measures that conserve vital water and energy resources, and minimize carbon emissions.

### SOLARIZE HOT WATER PROGRAM Low Cost, Low Carbon: 80% Savings

Would you like to save money and reduce your greenhouse gas emissions by heating your water with the Sun? You can.

**This summer**, the Solarize Hot Water Western Massachusetts program offers the opportunity to install solar hot water on your home with incentives covering 80% of the cost for an after-incentive cost of \$2,000 or less.

*This program is supported by a grant from the Massachusetts Clean Energy Center (MassCEC) in partnership with the Hampshire Council of Governments (HCG), Spartan Solar of Greenfield, and the Pelham Energy Committee.*

**Questions? Contact EC Chair: [stanswiercz@comcast.net](mailto:stanswiercz@comcast.net)**

Pelham Spring 2018 Town Meeting voted to develop Community Choice Energy, or CCE, together with Amherst and Northampton. The main objective of CCE will be to reduce greenhouse gas emissions through the purchase of electricity from green renewable sources, energy efficiency, and the development of local renewable distributed energy resources.

### LOCAL FOOD IS HERE: PELHAM HAS A COMMUNITY GARDEN

Meet the Committee on page 7

# RESILIENT COMMUNITIES.

While the Town has active participation in its boards and commissions, the population of residents in government service and volunteer boards is aging, and younger people face barriers to getting involved. These barriers may be exacerbated by the Town's difficulty in communicating effectively with its residents. The aging population, while actively serving as volunteers and sources of local knowledge, are also more vulnerable to physical isolation in the event of a weather emergency, as not all elderly have access to a vehicle or are comfortable using digital technologies. Elderly residents are more vulnerable to extreme heat and cold, which highlights the need for adequate heating and cooling centers to be operational in town, and for the existence and availability of those resources to be effectively communicated to residents in need.

## Want to Help Create a New Resident Welcome Packet?

Let's create a new resident welcome packet so that newcomers feel welcome and able to get involved in Town activities and events. This will help support Pelham's small town, 'look after one another' feeling.

Please use the postcard to tell the Town you are interested!



## Local Communication

All of the concerns present in Pelham are further exacerbated by ongoing engagement and communication issues in town. Like many small towns in Massachusetts, Pelham is run by a core team of dedicated volunteers; many have played a role in the local town government for the past decades. These dedicated volunteers are considered a great asset to the Town. The core team and workshop participants, however, have noted that it can be extremely challenging to engage the average resident in town matters. Many people are engaged with the Town during the short window of time that their children attend the local elementary school, but this engagement diminishes when the child moves on to the regional middle school. Social capital is a key component to ensuring that a community is resilient and many believe that the Town will be better suited to respond in time of emergencies if community building and stronger networks of communication are put in place beforehand.

## A Better Connected Pelham

The need to develop social capital and the lines of communication between the Town and its residents was a top recommendation out of the CRB workshop. By undertaking an extensive community building process, where neighbors have the opportunity to interact not only with the Town, but with one another, the town will be better able to rely on these newly formed networks in times of need. Potential actions to help improve communication and build community in Pelham include:

- Improve communication, beyond just emergency alerts. This includes **creating a digital town calendar** that highlights all of the events happening in town—not just board meetings—and creating a mechanism for connecting people.
- Create a comprehensive **resident-based Public Information Campaign** to reduce personal, family vulnerability and efficiently share resources pertaining to climate mitigation.
- **Connect people**, including from one individual to another (especially seniors who might be isolated), within neighborhoods, and through the various groups operating in Town. This effort may also be linked to the proposed emergency sheltering and operations plan, described above.
- Develop a **Neighbor to Neighbor Campaign** involving civic groups.

*“Sharing resources with others in my community.”*

# RESILIENT CAMPUS.

The lack of sheltering capabilities in town surfaced as an area of concern for the MVP leadership team and during the hazard mitigation planning process. Currently, the Town has agreements in place with UMass-Amherst and Belchertown if the need for long term sheltering is necessary. The Public Safety Complex has a generator in place that will allow for continued operations at the facility and can function as a warming and cooling center in the event of extreme weather. The Public Safety Complex currently does not have the supplies in place to be a full scale shelter and there are concerns that even if the equipment were in place, there would not be enough skilled volunteers to staff the shelter.

## Pickling and Canning, a Tool for Building Resilience

Community events can facilitate community building and enhance resiliency. One idea of particular interest is establishing a food pantry that is replenished through regular pantry parties. The pantry parties, which would bring residents together to preserve locally harvested fruits and vegetables and share a meal, would advance multiple key objectives in town including community building, the sharing of resources and, by stocking a pantry in the Town Campus, would enhance the Town's ability to provide food to displaced residents when needed. In order to do this effectively and safely, the Town needs to create a food-safety kitchen. Initial discussions suggest that the Community Hall might be the best location in Town to create this space.



*“Having water and heat available during all weather events.”*

## A Safe Haven

Creating a safe haven on the “Town Campus” could provide energy, water, and food needs for people. In order to succeed in creating this sustainable campus, the following must be considered:

- Equip public buildings with solar back-up power and energy storage batteries in order for critical facilities to provide continuous operation during an extended grid outage where access to fossil fuel is uncertain.
- Upgrade HVAC system in the Public Safety building and library to meet the needs of emergency sheltering.
- Conduct a feasibility study on how to make the library, school, and public safety buildings (the “Town Campus”) into a fully operational long-term emergency shelter, and/or shorter term warming and cooling center.
- Create an emergency sheltering and operations plan that would model how to account for all of Pelham’s roughly 1,300 residents. Part of the planning process would include identifying vulnerable populations to ensure all members of vulnerable groups are accounted for/checked in on during an emergency.
- Create a community food pantry that is partially stocked with preserved produce from community gardens that is canned during community-wide pantry parties.

## New Pavillion, Solar Ready for Gatherings

Pelham neighbors used to meet and swim by the dam and people still miss that place to meet and mingle, so residents are working to find more ways to connect: **Coming soon:** Approved by Spring 2018 Town Meeting, look for a new place to get out of the sun and meet on the “Town Campus” by the Pelham Elementary School.

# RESILIENT ROADWAYS.

A number of town roads and culverts experience localized flooding and impassibility during heavy rainstorms. Residents may become stranded without notification when roads are closed for safety purposes until waters recede.

In the Town's Hazard Mitigation Planning process, it was noted that undersized and/or blocked culverts have caused localized flooding of roadways in town. This information was reaffirmed during the workshop process. Many participants began the workshop confident that flooding was not an issue in Pelham, but later when asked to identify vulnerable features in town, pointed out a number of problem culverts where flooding does occur regularly, and other locations where roadway flooding cut off access to some residential areas from the rest of the town.

Due to its historic development patterns and vast conservation and watershed protection lands, Pelham's residential development is quite dispersed throughout town. In the event that sheltering is required, Pelham's residents need to travel to neighboring towns to seek safety. Thus, the need for roads that are safe, passable and designed to withstand the higher amounts of rain and snowfall that are projected toward the middle and second half of this century is extremely important. To ensure that Pelham's roads are resilient, the following is needed:

- Conduct a town-wide culvert assessment to identify vulnerable culverts in need of repair or replacement, as well as other top priorities for investment and upgrading built infrastructure
- Identify areas where erosion is an issue.
- Determine costs to implement improvements.
- Pursue funding to implement the resources needed.

PHOTO COURTESY MASSACHUSETTS DIVISION OF ECOLOGICAL RESTORATION.



Culvert washout at Walker Brook in Becket, Massachusetts.

## Climate Action Now!

### Climate Action Energy Independence

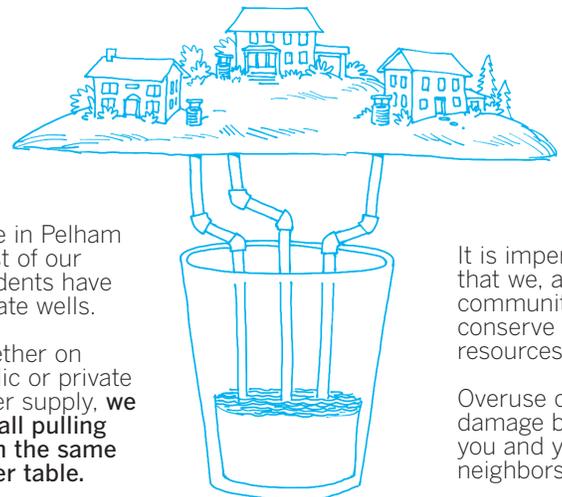
The Town of Pelham has an active Energy Committee in town that is tasked with working to reduce municipal energy usage per the Green Communities program. Due to the recent storms that have left Pelham without power for extended periods of time and a desire to be more sustainable, the Energy Committee has also started to think about how the Town might be able to create local power sources that could help residents "weather" future storms and help reduce their contributions to climate change. The desire to be energy independent goes beyond ensuring that the Town buildings have renewable energy that can function when the grid is down, but also seeks to ensure that residents have this built in resiliency.

### Climate Action Soil and Water Testing

Workshop participants wondered if Pelham could create a program providing soil and water testing and collection, and were interested in exploring ways of providing subsidies to improve individual residential well care and to help acquire individual residential hand pumps.



ART. CREATED AND DONATED FOR PELHAM BY FRED ZINN



Here in Pelham most of our residents have private wells.

Whether on public or private water supply, **we are all pulling from the same water table.**

It is imperative that we, as a community, conserve our resources.

Overuse could damage both you and your neighbors.

#### STEPS YOU CAN TAKE TO HELP CONSERVE WATER:

Wash dishes by hand, flush less, don't wash your car, shorter showers, water plants with with a handheld sprinkler.

# Climate Action

## Meet the Pelham Community Garden Committee

"Membership on Community Garden Committee is fun and rewarding. The members are wonderful collaborators and great gardeners. The installation of the pollinator garden has taught me a huge amount about pollinators and how to support them". **HEIDI DOLLARD**

"I love being part of the Community Garden Committee! I value our work together to create a healthy place for gathering, working and playing collectively. It brings together two of the things I value most: creating a sense of place and community and working with the natural world. We are creating a space in Pelham where beauty and a healthy ecosystem exists. Come by to visit!"  
**ABBIE JENKS**

"Where my food comes from is important to me. Eating local or wild meat, veggies, and fruit that is locally grown ....this is how I like to eat. Part of that plan is growing my own food. Then there is making pickles, canning tomatoes, freezing greens...I enjoy the feeling of being somewhat self-sufficient.

The Community Garden provides the space for people to grow their own food and to connect with Nature and others in the community." **CYD REIMAN**

"I am part of the Community Garden Committee because I think it is important to work to create opportunities for community, especially in small towns, and for people to have a chance to grow plants. Our pollinator garden has also been an exciting project that is designed to support pollinators and provide beauty and education for all who pass by. Finally I enjoy working with these fun, hard-working committee members."  
**SUE TIPPETT**

"I've been living in Pelham for 24 years and love the beauty of this place. I am fortunate to have a large sunny yard that keeps me busy gardening. I thought it would be great to offer a Community Garden space to those in the area who long to garden, and cannot at the place they live. As a very organized person, my roles as secretary and treasurer of the Community Garden Committee suit

me well. We are a group of seven committed folks who work so well together! It's truly been a pleasure to be a part of this group- who have accomplished so much in just three years." **WENDI WEINBERG**



# Climate Action

## Invasive Species and Forestry Practices in Forested Lands

Pelham's landscape is defined by its heavily forested lands. This forested land is particularly susceptible to the introduction and damage from invasive species and pests that could be introduced to the area as the climate changes. Pests of particular concern include the woolly adelgid, emerald ash borer, red pine scale and purple loosestrife.

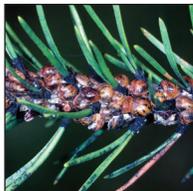
Pelham's woodlands are actively forested, and watershed protection lands aren't necessarily protected from this activity. The resource extraction process can have negative impact on the land (for example, large vehicles can degrade the stream banks as they log the area). Many of the active forestry lands in Pelham are registered through the Chapter 61 program and therefore have active management plans in place that are administered by the Conservation Commission. Given the nature of volunteer boards, follow up on adherence to the management plans can be a problem.

Pelham has taken recent steps to model what sustainable forestry can look like. In 2016, the Town voted to preserve 185 acres of land in town as a community forest and have partnered with the Kestrel Land Trust and the University of Massachusetts at Amherst to transform the land into a living classroom of sustainable forest management.

### Learn How to Spot Invasive Species:



Woolly Adelgid



Red Pine Scale



Emerald Ash Borer

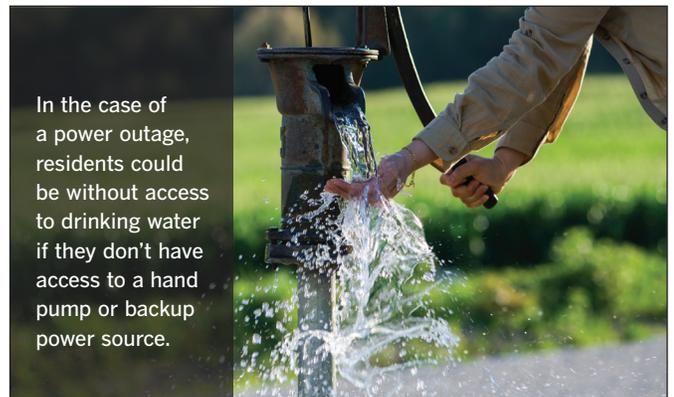


Purple Loosestrife

# Climate Action

## Handpumps Save the Day During a Power Outage

Pelham has long been a rural small town that relies on its natural resources to sustain the lifestyles and well-being of its residents. Many Pelham residents rely on groundwater protected by the waterprotection overlay district as their sole source for drinking water, which they pull from private wells. In the case of a power outage, these same residents could be without access to drinking water if they don't have access to a hand pump or backup power source, making the availability of a fully operational emergency shelter even more critical. The reliance on private wells and groundwater speaks to the importance of maintaining Pelham's forest cover, and the necessity to continue protecting the watershed for public and private water supply. Furthermore, it highlights the need to put into place some mechanism to ensure potable water for well-users in case of power outages and emergencies.



In the case of a power outage, residents could be without access to drinking water if they don't have access to a hand pump or backup power source.