

Town of Florida

Hazard Mitigation and Municipal Vulnerability Preparedness Plan



June 2025

Town of Florida, Massachusetts
379 Mohawk Trail, Drury, MA 01343

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North Hatfield, MA

With assistance from:
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EXECUTIVE SUMMARY

The State Hazard Mitigation and Climate Adaptation Plan, adopted on September 17, 2018, details approaches and measures to manage threats to public health, communities, vital infrastructure, and the economy from natural disasters and climate change, ensuring the Commonwealth's ability to withstand and prepare for such challenges. Climate Adaptation planning acknowledges that climate change will intensify the vulnerabilities and risks associated with natural hazards. This plan is in response to the Governor's Executive Order 569.

The Town of Florida has engaged in the planning process to enhance the town's resilience in the face of such natural hazards by completing its first Municipal Vulnerability Preparedness (MVP) Plan as well as its first Hazard Mitigation Plan (HMP).

With the adoption and implementation of the two plans, the Town will be eligible for hazard mitigation funding through the Federal Emergency Management Agency (FEMA) and the Massachusetts Executive Office of Energy and Environmental Affairs' (EEA) Municipal Vulnerability Preparedness (MVP) Grant Program.

1.0 INTRODUCTION

The Town of Florida prepared this Hazard Mitigation and Municipal Vulnerability Preparedness Plan (HM-MVP) as an action strategy to reduce the impacts of natural hazards and climate change within the community and the region. The Florida HM-MVP plan will be approved by MEMA and EEA to become a certified MVP and HMP town.

1.1 What is a Hazard Mitigation Plan?

Natural disasters including fires, floods, earthquakes, severe storms and more can cause property damage, injuries and loss of life. Hazard Mitigation Plans (HMP) strive to reduce the impacts of natural disasters. HMP's identify local hazards, assess risks, review current measures and priorities action items.

HMP's are administered by the Massachusetts Emergency Management Agency (MEMA) a state agency that works in cooperation with and under the guidance of the Federal Emergency Management Agency (FEMA).

"Hazard mitigation planning reduces loss of life and property by minimizing the impact of disasters. It begins with state, tribal and local governments identifying natural disaster risks and vulnerabilities that are common in their area. After identifying these risks, they develop long-term strategies for protecting people and property from similar events. Mitigation plans are key to breaking the cycle of disaster damage and reconstruction." (FEMA).

HMP's also increase public awareness of potential hazards, encourage cooperation between local government jurisdictions, and focus attention on the highest risks in a given area. Lastly, by completing an HMP, municipalities are also eligible for FEMA financial assistance programs.

1.2 What is a Municipal Vulnerability Preparedness Plan?

A Municipal Vulnerability Preparedness (MVP) Plan strives to help local communities prepare for, and build resilience to, the impacts of climate change. MVP's are administered by the Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA), a state specific program.

“The original MVP Planning Grant offers funding to municipalities that wish to assess their vulnerability to and prepare for climate change impacts, build community resilience, and receive designation as an MVP Community.” (EOEEA)

After successfully completing the first MVP plan (MVP 1.0), local communities are eligible for funding to implement climate change mitigation projects (MVP 2.0)

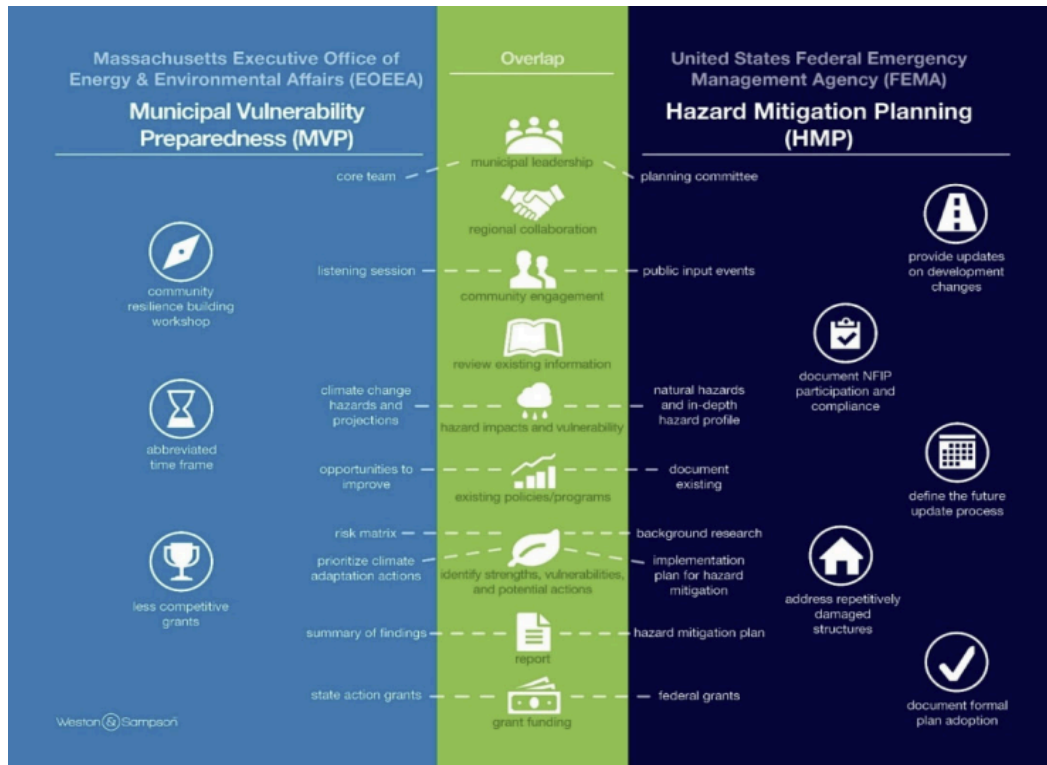
1.3 HMP and MVP planning in Florida

The town of Florida received a grant from the MA EOEEA to jointly prepare a MVP and HMP. To date, Florida does not have a completed and approved MVP or HMP. Since there is some overlap in the requirements and goals of the two plans, completing the MVP and HMP simultaneously saves the town of Florida time, money and staff resources. Further, by completing both plans, the town of Florida becomes eligible for federal funding and state grants to help implement goals and solutions identified in the combined plan. This funding is for climate-adaptation projects that mitigate future impacts resulting from natural hazards that pose risks to the community, such as extreme weather, flooding, or severe heat.

To prepare the combined plan, the town of Florida entered into an agreement for services with Conservation Works, LLC of North Hatfield, MA, a state approved vendor. Conservation Works staff coordinated and contracted with the Conway School of Landscape Design (CSLD) of Northampton, MA to help complete the combined plan.



Deerfield River in Florida



Comparison of the MVP and HMP Planning Process

1.4 Definitions

The following terms are critical to the planning process and will be used throughout the plan:

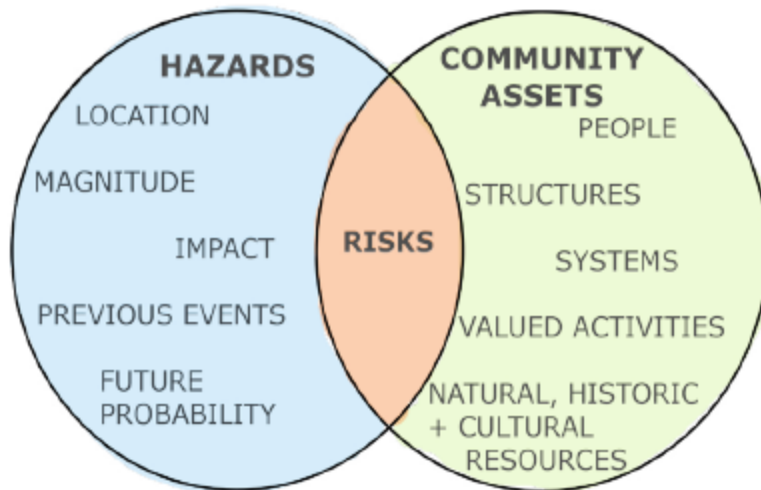
Hazards: a source of harm or difficulty created by a meteorological, environmental, or geological event. These do not preclude humane-made hazards.

Vulnerability: a description of which assets, including structures, systems, and populations, are at risk from the effects of the identified hazard(s).

Assets: the people, structures, facilities, and lifelines that have value to the community.

Risk: the potential for damage or loss created by the interaction of natural hazards with community assets, such as infrastructure or cultural resources.

Risk is the overlap between hazards and community assets. The bigger the overlap, the higher the risk.



GRAPHIC ADAPTED FROM RESILIENT MASS

1.5 Planning Summary

In preparing the combined MVP/HMP plan, a “core team” was created and met regularly during the planning process. By following the process described in the MVP *Community Resilience Building Workshop Guidebook* a plan that reflects Florida’s values and priorities is likely to produce greater community support and result in greater success in implementing mitigation strategies that reduce risk. MVP core principles are followed and utilized throughout the planning process (Appendix A).

HMP and MVP plans require that interested parties (landowners, businesses, state agencies, etc.) and the general public have opportunities to be involved during the planning process and implementation. Community members can provide vital input that can affect the content and outcomes of the mitigation plan. The planning and outreach strategy used to develop the combined plan has three groups: 1) the “core team”, with representation from municipal leadership, 2) “interested parties” who could be vulnerable to, or provide strength against, natural hazards and/or climate change, and 3) “the public”, who live and/or work in town.

1.5.1 Planning Process and Timeline

Following guidelines provided by MEMA and EEA the planning processes was completed as follows:

1. Convened a core team of municipal department heads and key community members.
2. Conducted research to characterize the town and determine social, infrastructure, and environmental vulnerabilities and assets.
3. Engaged the community in a Community Workshop, in-person event and via online and in-person survey.

4. Conducted a vulnerability and risk assessment of hazards and potential impacts of climate change.
5. Created a list of critical facilities and assets.
6. Documented the Town's capacity to mitigate and respond to hazards.
7. Developed an action and implementation strategy.

Task	Date
Core Team Formed	Jan 2025
First Core Team Meeting	February 2025
Second Core Team Meeting	February 2025
Third Core Team Meeting	March 2025
Survey Available	March 2025
First Community Workshop and Listening Session	March 2025
CSLD Draft Summary Report Available	April 2025
Second Community Workshop and Listening Session	May 2025
Draft Report Available	May 2025
Final Report to Town	June 2025
Final Report to MEMA and EOEEA	June/July 2025

1.5.2 Core Team

The core team met on multiple occasions at the Florida Town Hall (See Appendix B for meeting minutes). The core team established goals for the plan, provided information on local hazards and historic weather/climate related emergencies, identified critical infrastructure, identified key stakeholders, planned community outreach efforts including two community workshops as well as reviewed the status of current mitigation resources and measures.

The Florida MVP/HMP core team included the following participants:

Name	Title
Joan Lewis	Town Administrator
Tim Velazo	Selectboard
Neil Oleson	Selectboard
Mike Gleason	Fire Department Chief
James White	Highway Department Head
Sgt. Andy Canata	MA State Police
Jill Craig	Conservation Works, LLC
Andy Vecchio	Conservation Works, LLC
Nellie Ostow	Conway School of Landscape Design
John Johanson	Conway School of Landscape Design
Kayla Hatcher	Conway School of Landscape Design



Florida Core Team Meeting

Key documents and reports shared among the core team include:

- Sec. 4 Environmental Inventory and Analysis of the Town of Florida 2002 Open Space and Recreation Plan;
- Town of Florida 2002 Community Development Plan;
- History of the “old native american path”;
- Hoosac Wind Farm Site Map and Selectboard Comments 2002;
- Berkshire Regional Planning Commission's Historic Population Counts 1800-2000; Berkshire Regional Planning Commission's Report on Potential Buildout of Florida, MA, 2000

1.5.3 Town Identified High Priority Measures

The Town approved of this list of High Priority Measures during the Community Workshop. These measures are meant to be kept at the forefront of current and future planning processes to focus townwide efforts.

1. Implement a method for communicating flood risk and dam failure for River Road residents
2. Build an updated public safety facility to house the fire department and act as the primary evacuation shelter near the school and equipped with food, potable water, and backup power.
3. Update and improve culverts with priority on primary and secondary evacuation route roads.

1.5.4 Community Involvement: Community Resilience Building Workshop

The first Community Workshop was held on Saturday, March 5, 2025 from 10am to 2PM at the Florida Senior Center. (See Appendix C for sign-in sheet, group discussion summaries, Community Resilience Building Matrix sheets, maps, photos and agenda).

The workshop was open to the public at no-charge and was promoted on the Town of Florida and Senior Center websites. Promotional flyers (Appendix C) were posted at the town hall, fire station, Abbott school, transfer station and other locations. Invitations to both community workshops were extended via email or phone call to the following:

- Berkshire Natural Resources Council
- Department of Conservation and Recreation
- Better Places Forest
- The Nature Conservancy
- Manice Education Center

Hard copies of the community survey (Appendix D) were made available and collected at the workshop. The survey was also available on the town website and at the town hall. In total, 10 Florida residents submitted the survey. Responses have been gathered and are posted in the appendix. Respondents' input was taken into consideration during the planning process.



March 5th 2025 Community Workshop

During the March 5 workshop, Conservation Works presented an overview of the planning process, timeline, goals, climate and weather projections (Appendix E) and fielded questions from participants. The Conway School of Landscape Design presented their findings, draft maps and reports and outlined their role in the planning

process. Emma Sass, Regional MVP Coordinator presented information on the MVP 1.0 planning process and goals as well as financial assistance opportunities during the MVP 2.0 implementation process. Jill Craig of Conservation Works presented an overview of the HMP process and goals as MEMA/FEMA was not able to send a representative. Community input regarding past climate/weather events, risks, vulnerabilities, strengths, resources and potential solutions was gathered during breakout sessions. Eight residents attended the first 4-hour community workshop. Conservation Works also promoted the second Community Workshop and Listening Session (May 10, 2025) and encouraged residents to ‘spread the word’ with neighbors and others to complete the survey and attend the second community workshop.

	Environmental	Infrastructural	Societal
Heavy snow events and icing events	Often causes the power to go out	Feels unsafe to cross Route 2 to get mail	Limited cell coverage in parts of town, particularly in large sections of the Deerfield River Valley
	Concerns about there not being enough manpower to plow effectively (or is it an equipment issue?)	Wells along Route 2 are contaminated with salt used on the road	Elderly folks/seniors
High wind events	There has been an increase in weather alerts about high winds	There isn't potable water at the Senior Center, Town Hall and Fire Station	Some residents don't have access to transportation
	Lots of blow downs of trees onto road (lots of dead and dying ash trees due to Emerald Ash Borer)	Lack of evacuation routes in the Deerfield River Valley as well as designated emergency shelters in the Valley	Senior center doesn't have a van/shuttle to pick up folks
Wildfire	Impact on cell tower	Roads vulnerable to damage from flooding, icing events, etc	Need for education about the average response time for state police and where they are coming from
	There has been an increase in weather alerts about wildfire risk	Bridge to Rowe is not maintained anymore	Spread out community
	Combination of wind, dead trees, and chance of wildfire escalates risk	Risks related to poorly maintained train tracks and possible derailment in/near Hoosac Tunnel (Visible erosion under tracks, scattered railroad ties)	Volunteer Fire Department (staff, training, responsiveness)
	Question of whether there are the resources to fight a wildfire in Florida	Trucks carrying hazardous material on Route 2	North Adams EMS & State Police
	Could the fire track get down to the Deerfield River Valley in the winter if the roads are bad?	Loss of power after storms	Neighbors and strong/supportive community and mutual aid
	Question of whether the forests would benefit from controlled burns?	<i>Whitcomb Bridge at Stone Bridge washed out after a big rain storm on Whitcomb Hill Road around 25 years ago</i>	Town services (school, senior center, library ("tiny yet mighty"))
Heavy rain events	Concern of flooding in river valley	Cell tower	Indigenous history
Landslides along Route 2	Concern of rocks and soil coming down	Emergency shelters (Senior Center, Abbott Memorial School, Town Garage next to Town Hall) need to be organized and equipped better	Potential relationship to partners in Florida (including Blue Vista Lodge)
	Fencing only located along parts of River Road	Initial potential actions generated by the community: Assessing culvert size and distribution Managing roadside trees Clearcutting around power lines Localized power/generators Reverse 911 for vulnerable populations Implement state CodeRED alert system	
Hurricane Irene in 2011	Caused evacuations		
	Brooks/streams inundated (inadequate culverts)		
Forests	Erosion		
	<i>Landslide on Black Brook Road into Savoy on August 28, 2011</i>		
	Too even-aged		
	Lack of timber product markets/sawmills		
	High elevation and cooler temps		
	Deerfield River and amount of forests and state forests		
	Recreational opportunities		
	Outdoor recreation offering some income (though town expressed wish of there being more revenue from recreation)		

March 5, 2025 Community Workshop CRB

1.5.5 Listening Session and Final Workshop

The second Community Workshop and Listening Session was held on Saturday, May 10, 2025 from 12PM to 4PM at the Florida Senior Center. (Sign-in sheet, group discussion summaries, Community Resilience Building Matrix sheets, maps, photos and agenda-Appendix C).

The workshop was open to the public at no-charge and was promoted on the Town of Florida and Senior Center websites. Promotional flyers (Appendix C) were posted at the town hall, fire station, Abbott school, transfer station and other locations. Invitations to both community workshops were extended via email or phone call to the following:

- Berkshire Natural Resources Council
- Department of Conservation and Recreation
- Better Places Forest
- The Nature Conservancy
- Manice Education Center

Hard copies of the community survey (Appendix D) were made available and collected at the workshop. The survey was also available on the town website and at the town hall. Survey responses are listed in Appendix D.

During the May 10 Community Workshop and Listening Session, Conservation Works presented an overview of the planning process, timeline, goals, climate and weather projections (Appendix E) and fielded questions from participants. In addition, Conservation Works presented the draft MVP/HMP plans for public review and comment. The draft plan was also forwarded to the Town of Florida to post on their website and was emailed in advance of the May 10th event to all core team members as well as residents who requested. Emma Sass, Regional MVP Coordinator presented information on the MVP 1.0 planning process and goals as well as financial assistance opportunities during the MVP 2.0 implementation process. Jill Craig of Conservation Works presented an overview of the HMP process and goals as MEMA/FEMA was not able to send a representative. Community input regarding past climate/weather events, risks, vulnerabilities, strengths, resources and potential solutions was gathered during

Environmental	Infrastructural	Societal
50 mph wind events that can take trees out (most dead trees have already been knocked down)	Chemical trucks coming over the mountain	Isolated in winter
<i>Landslide on Black Brook Road into Savoy (Hurricane Irene 2011)</i>	Dead man's curve at the hairpin turn	<i>Lockdown at Abbott Memorial School in 2018, shelter-in-place calls</i>
<i>Deerfield River didn't breach onto River Road (Hurricane Irene 2011)</i>	90 degree turn "dead man's curve" along the Florida to Savoy town line (dangerous for trucks)	
<i>Power was out 3-4 days (Hurricane Irene 2011)</i>	Culverts at the top of Whitcomb Hill Road are in good shape but bottom half is in need of attention	
	Low-level radioactive waste stored to northeast of town	
	Expressed need for an emergency bypass for Route 2 if something were to happen in the middle (i.e., to connect Route 2 in the middle to S County Road)	
	15 homes along River Road (2 across the bridge in Rowe with five people) could be vulnerable to river flooding	
	<i>Tractor trailer crashed into Golden Eagle Restaurant</i>	
	<i>Electrical malfunction at Abbott Memorial School</i>	
	<i>Beaver digging culverts in Tower Swamp in the southwest corner of Florida (on Central Shaft Road)</i>	

breakout sessions. Eight residents attended the second 4-hour Community Workshop and Listening Session. Conservation Works also encouraged residents to ‘spread the word’ with neighbors and others to complete the MVP/HMP survey.

The majority of public input during the second workshop was favorable and attendees understood the importance and value of completing the MVP/HMP plans. A few attendees questioned the need to “formalize” or “change” emergency response actions verbally exchanged between town employees and residents. An attendee requested that the final plan have additional flood map coverage.

During review of the Community Resilience Building Risk Matrix, attendees identified *High Priority Infrastructural* needs including upgrading/replacing culverts and bridges, improving snow plow response times and minimizing damage to power lines and communication towers. Attendees also identified *High Priority Societal* needs as protecting elderly and/or disabled residents, and sharing/promoting evacuation routes. Finally, attendees identified *High Priority Environmental* concerns as contaminated drinking wells and high percentage of dead/dying forest trees.

2.0 HAZARD MITIGATION AND CLIMATE ADAPTATION GOALS

The following nine goals were identified during the planning process:

- 1) Develop mitigation measures in high-risk areas to protect the following: a) Residents’ health, safety, and property, b) Commercial and industrial interests, c) Cultural, natural and historic resources.
- 2) Protect critical infrastructure and essential services from disruption by improving the resilience and mitigation plans for the following a) Critical infrastructure, b) Essential services, such as emergency response, power delivery, phone service, public and private drinking water supplies.
- 3) Incorporate climate adaptation strategies into all town departments and boards.
- 4) Incorporate climate adaptation and hazard mitigation measures into local plans, bylaws, regulations, and other planning tools to protect critical infrastructure and property and to encourage resilient development.
- 5) Remain current on evolving and emerging climate change and weather risks.
- 6) Plan for all phases of the emergency management cycle, including mitigation, preparation, response, and recovery.
- 7) Increase awareness via education and outreach to provide resources for hazard mitigation to businesses, town government and residents.
- 8) Identify and pursue funding opportunities specific to hazard mitigation and climate adaptation projects.

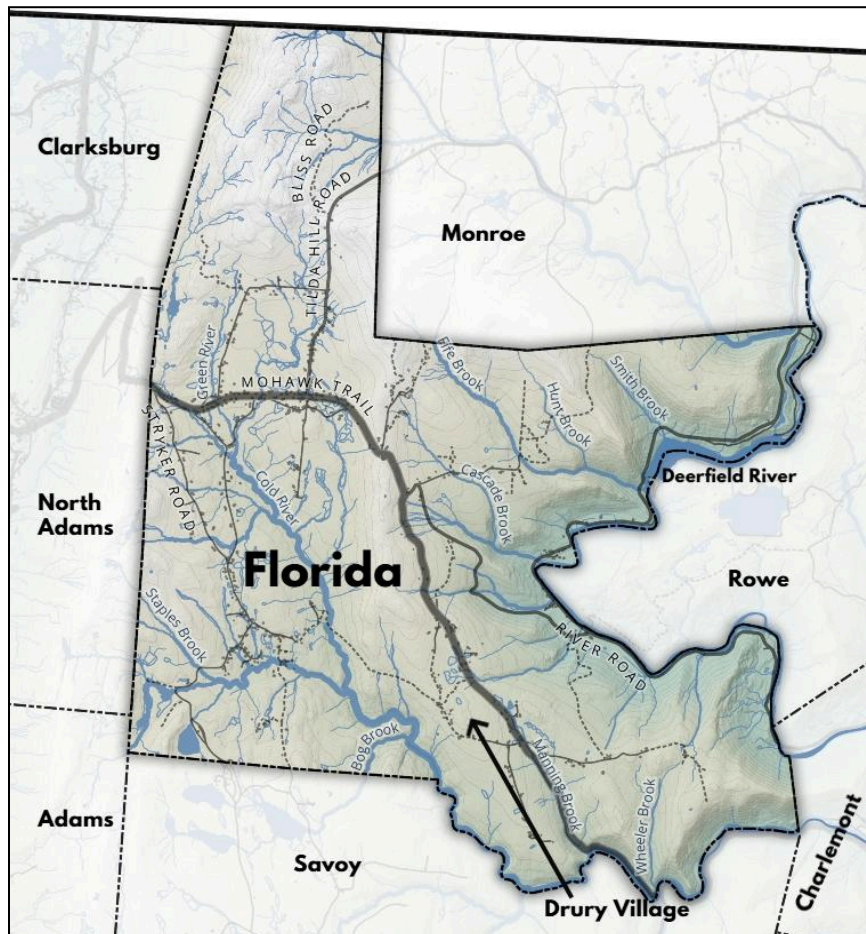
9) Increase town capacity for responding to a natural or climate hazard event through coordination with businesses, emergency response entities, schools, non-profits, surrounding communities as well as state, regional, and federal agencies.

3.0 COMMUNITY PROFILE, LAND USE, AND DEVELOPMENT TRENDS

3.1 Community Profile

The Town of Florida is located in the northwest corner of Massachusetts in Berkshire County. Florida is bordered by Clarksburg, North Adams, and Adams to the west; Savoy to the south; Monroe, Rowe, and Charlemont to the east; and the state of Vermont to the north. It is located atop the Hoosac Mountain Range, an extension of the Green Mountains down from Vermont (part of the Appalachian range), and has steep and rugged terrain. Its highest point is Whitcomb Summit at 2,172'. Due to its high elevation, Florida is cooler and residents note that it receives more snow than much of the rest of

the state. Florida contains the villages of Drury, Florida and Whitcomb Summit



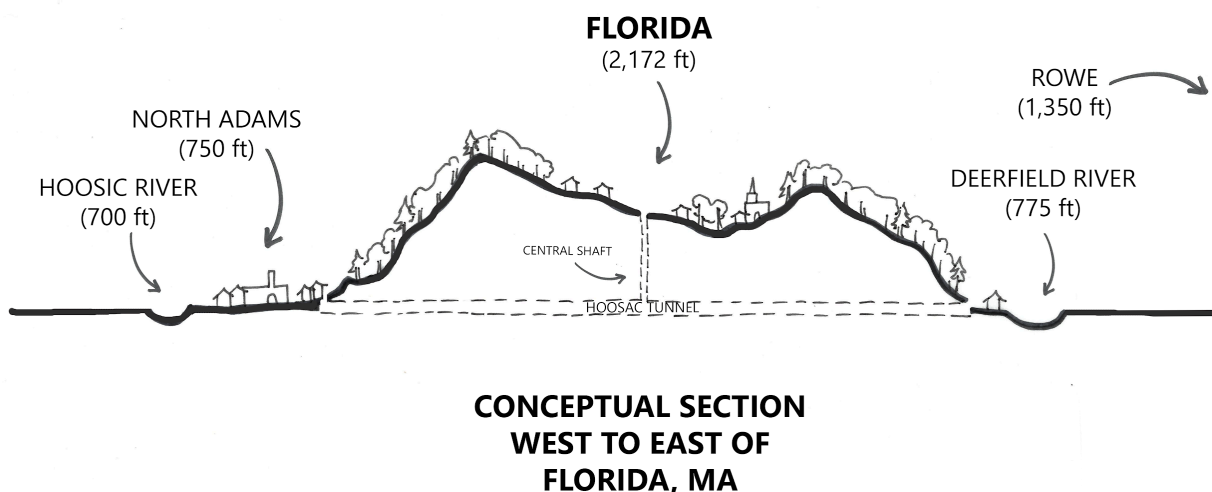
Route 2, a state highway, bisects the town and connects to North Adams in the west and Savoy to the southeast. The Deerfield River makes up the eastern edge of Florida and the western edge of Rowe. The 70-mile long Deerfield river flows south from Vermont and east before discharges into the Connecticut River.

The 2023 census reports 770 residents (Florida community members

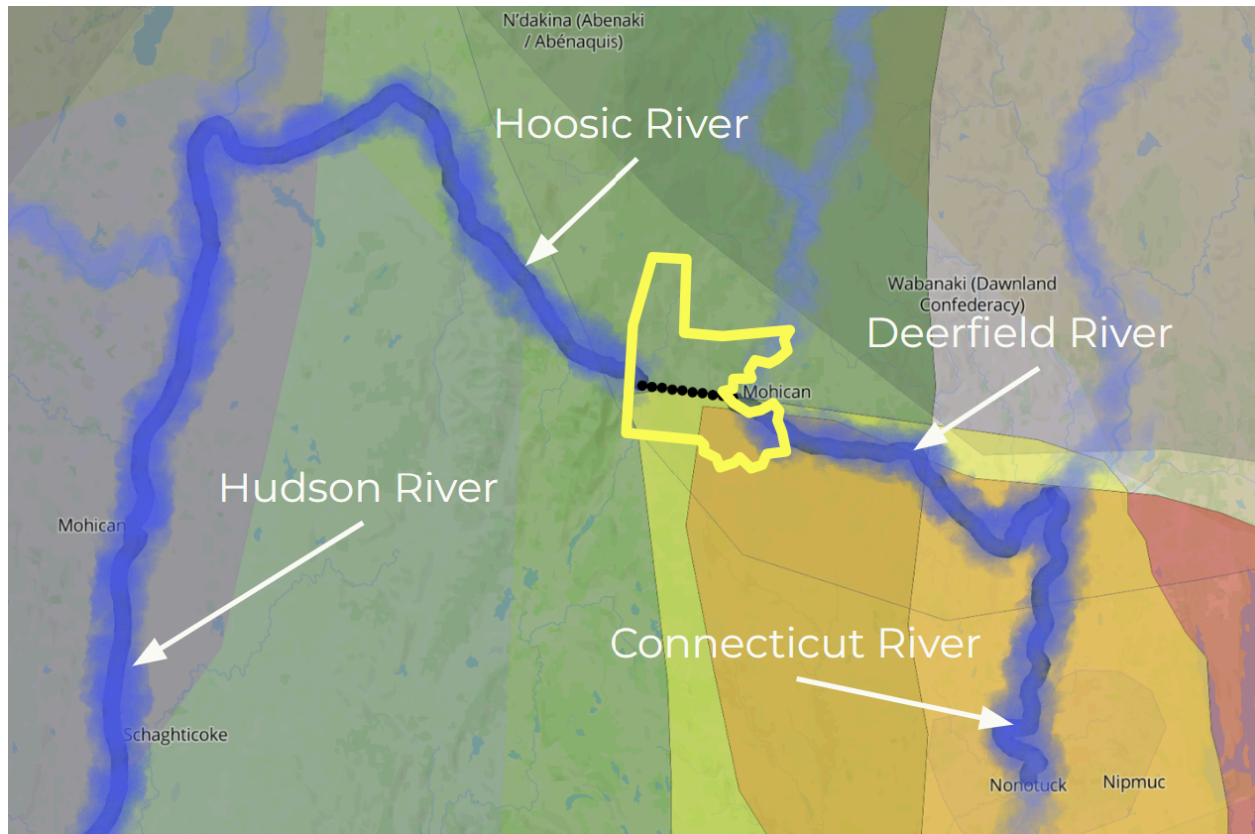
report that currently, 660 people reside in town), forming a tight-knit community. While Florida's population has remained between 600-700 from its onset, the construction of the Hoosac Tunnel during the 1860s led to a doubling of the population from 645 in

1860 to 1,322 in 1870 with new residents primarily residing along the Deerfield River. This burst in population was short-lived as by 1880 the population went down to 459 residents (Strahan).

Florida doesn't have a defined town center. Rather, development is dispersed widely throughout the town along roads. 813 structures in town include single-family residences, a few small businesses, and town services. The town services consist of the Town Hall, Abbott Memorial School, a Senior Center, a Highway Department, and a volunteer Fire Department. The bulk of these municipal services are located along Route 2. Due to its rural nature, Florida residents travel for almost all amenities including groceries, gas, post office, medical services, etc. North Adams serves as the nearest High School..



Florida is situated in the traditional homeland of the Mohican People, today known as the federally recognized Stockbridge-Munsee Community, and was historically frequented by Abenaki, Pocumtuck, and Nipmuc ancestors (Native Lands). While these tribes were displaced by European settlers, Native peoples continued to live in the region and have palpable connections to these ancestral homelands. In particular, while the majority of the Stockbridge-Munsee Mohican people were displaced from the region in the late eighteenth century, and were eventually resettled on a reservation in Wisconsin in 1856, they currently operate an active Tribal Historic Preservation Office based in Williamstown, MA (Stockbridge-Munsee Band of Mohican Indians).



Native Florida Area Lands

Tribal Historic Preservation Officer, Dr. Jeff Bendremer, revealed that present-day Florida exists at an intersection of many tribal lands due to its location along the Deerfield River between the Hudson River Valley and Connecticut River Valley. Florida was situated on an important trail and mountain pass connecting the Hudson River Valley and Connecticut River Valley (via the Hoosic and Deerfield Rivers). This footpath laid the groundwork for what eventually became the state highway, Route 2, also called the Mohawk Trail. Future development in Florida should include consultation with the Stockbridge-Munsee Community, consistent with existing historic preservation state and federal statutes.

3.2 SOCIETAL FEATURES

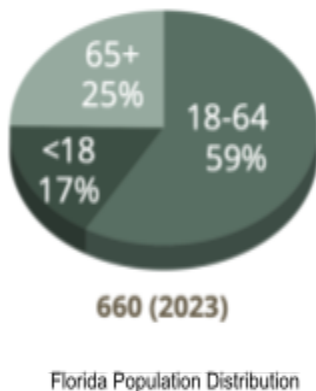
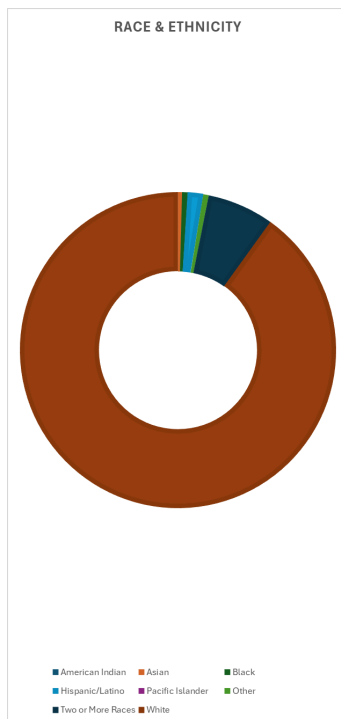
Florida residents take great care of one another and yet are also very self-reliant. The Community Survey showed that 60% of respondents most value the peace and privacy found in Florida, while 37% also appreciate the strong community which binds the town together.

Possibly one of the Town's greatest assets can be found at the Fire Department which relies entirely on volunteers, currently 15. In addition to the Fire Department, the Highway Department and (Senior) Center for Aging were quoted as being critical for

reaching some of Florida's most vulnerable populations including those without regular or reliable transportation, elderly, disabled, and low-income individuals or households.

While the population of Florida seems to be holding steady if not experiencing a slight decline, the town boasts several societal features which make up the backbone of this unique community.

DEMOGRAPHICS



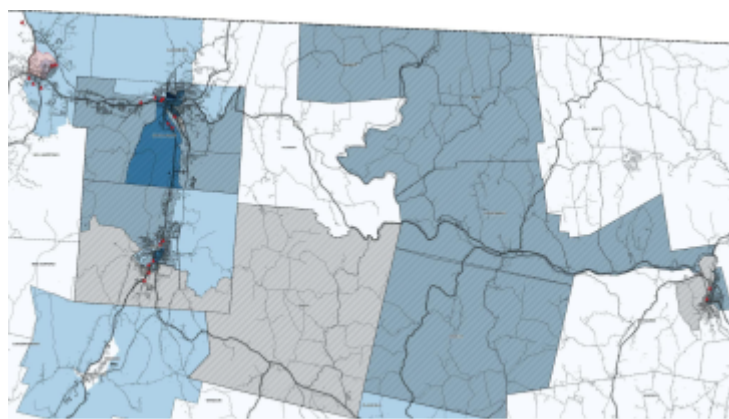
Florida is a town of families that have called Florida home for generations with a few new community members moving in along the way. The population of Florida has fluctuated little in the past few decades, with an average between 600 and 750 and, as of the 2023 census, a population of 774. In Florida, while the median household income is \$90,078, 19% are considered low income households with under \$50,000 (the next census bracket being \$50,000-100,000 representing 41% of the population). Nearly a quarter (22.4%) of the population have a bachelor's degree or higher, and 55.9% are employed. The 362 housing units (10% vacancy) in Florida vary significantly in age and style, with 90% as single household units. The 774 individuals represent 315 households, with an average household size of 2.5 individuals. As there are few businesses in Florida, most residents drive to North Adams or Pittsfield for work, with an average drive time of 28.4 minutes. There is minimal carpooling as 82% are driving alone (Census.gov; Census Reporter). While Florida is not identified as an Environmental Justice community, there are vulnerable populations within Florida. Vulnerable populations include those at higher risk of climatic changes due to health or age and those that require added assistance in the event of an emergency. In Florida, these communities include 25% of the population over 65 (approximately 30% living alone), (ESRI), 131 individuals with disabilities, 15 households with English as a second language, and 23 households without access to transportation (Census Reporter). In the event of an emergency, these populations may require specialized

transport, translation services, or alternative emergency alert systems for those who are visually impaired, deaf, or hard of hearing. According to community members, the Senior Center is currently without a transport vehicle, and a community member uses their personal vehicle to pick up residents that are without a vehicle. Resources such as

Life Alert can provide secondary communication resources for individuals with mobility and language barriers.

ENVIRONMENTAL JUSTICE (EJ)

Florida is not a designated EJ community. However, EJ designated communities are nearby. Environmental Justice (EJ) populations are designated by the Commonwealth as communities of low household income, minorities, households with a lack of English proficiency, racial minorities, or otherwise designated by the state. According to the state of Massachusetts, EJ communities are “most at risk of being unaware of or unable to participate in environmental decision-making or to gain access to state environmental resources or are especially vulnerable” (GEAR). Seven towns bordering Florida (Monroe, Rowe, Charlemont, Savoy, Adams, North Adams, and Hawley) are designated by the state as EJ communities due to lower median income, with a small portion of Adams designated as a combination of minority, language isolation, and lower income. A community is defined as an income EJ population when 25% of the households have a median household income that is 65% or less of the state median household income



Surrounding Environmental Justice Communities

(HHI). As of 2025, the median household income for Massachusetts is \$89,645, making 65% \$58,269 (WPR). On average, lower-income households are more susceptible to increased heat, air pollution, and extreme weather resulting in higher frequency of environmentally induced diseases and health conditions (GEAR). Lower-income individuals often live in less climate-resilient housing, have difficulty paying

energy bills, lack food security, and have limited access to transportation. Language isolation households are at higher risk of climate-induced health conditions, lack of access to alert systems, and healthcare. Minority populations are heavily impacted by systemic and social inequalities impacting their overall health and safety in the face of environmental factors (GEAR). In this analysis, sites of chemical and oil spills or threats have been included to identify the correlation between high density EJ populations around Florida and their proximity to areas of significant present or past environmental pollution. As Florida plans for resiliency, building relationships with neighboring communities and emphasizing the voices of EJ populations can help to create equitable access to resources such as medical care, climate-resilient housing, communication systems, and emergency shelters for all community members.



TOWN HALL

The Florida Town Hall is located on Route 2 adjacent to the Senior Center. Florida is governed by an open town meeting led by a board of selectmen and a town secretary. Florida is represented by the First Berkshire district (northern Berkshire County) in the Massachusetts House of Representatives, and in the Senate by Berkshire, Hampshire, and Franklin

district. Florida's Town Hall manages all governmental affairs and legal documentation for the town. The Town Hall Garage (attached to the Town Hall) is one of three emergency shelters in Florida, and is a temporary cooling shelter in the summer.

ABBOTT MEMORIAL SCHOOL & FLORIDA PUBLIC LIBRARY

Abbott Memorial School in Florida has classes from preschool to eighth grade. The school provides small class sizes, with specialists for STEAM, OT, PT, speech therapy, and reading intervention. Students from neighboring towns can apply to come to Abbott Memorial

School. The school is one of three emergency shelters in Florida, and is a temporary cooling shelter in the summer. Abbott Memorial is home to the Florida Public Library (FPL), which serves its community by providing a variety of materials and promotes reading to patrons of all ages (Abbott Memorial School). A resident described this library as a "small yet mighty" asset for the town.



SENIOR and COMMUNITY CENTER

A Senior Center is located on Route 2 in the lot next to the Town Hall. It is open three days a week and provides programming for elders and community members in Florida. The Senior Center

also releases a monthly newsletter on the town website that is made possible by a grant from the Executive Office of Elder Affairs (EOEA). The newsletter is a combination of news, announcements, and playful elements such as word games and recipes. The Senior Center has a Council on Aging that manages the affairs of the center. The Senior



Center is one of three emergency shelters in Florida, and is a temporary cooling shelter in the summer.



FIRE DEPARTMENT

Florida's Volunteer Fire Department, headquartered on Route 2, is the first response unit for all town emergencies, as ambulance/EMS are based in North Adams and police/law enforcement is handled by the Massachusetts State Police Cheshire Barracks. Emergency backup fire stations have one pickup truck each, located on Church Road near Town Hall, and River Road

in the valley (Fire Wiki).

HIGHWAY DEPARTMENT

The Highway Department employs five people and is responsible for maintaining the roads in town throughout all of the seasons. Maintenance activities include grading gravel roads, clearing fallen trees/limbs, snow plowing, clearing culverts and more.

FLORIDA BAPTIST CHURCH

Built in 1861, the Florida Baptist Church, also known as "The Church on the Trail", has had a small fluctuating attendance and has been a connection point for the community since the early establishment of the town (Strahan). Services also include a food pantry, secondary community center, and the town cemetery on its property.



TRANSFER STATION

The transfer station is located to the south of the Town Hall and serves as a community center as residents often run into one another on transfer days and chat about community events, share resources, reach out to members in need, and catch up on the Florida news.

3.2.1 CRB workshop discussion of *Societal* Features

Workshop participants identified key societal features in Florida that are most vulnerable to, or provide protection against, natural hazards and climate change impacts.

Vulnerability	Vulnerability and Asset	Asset
• No transportation for vulnerable populations • Connections to	• State Police • Volunteer-based services	• Fire Dept Volunteers • Strong, supportive neighbors • Senior Center

bordering towns Isolated during storms/winter		programs Selectboard
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3.3 Economic Features

Commercial properties in town are extremely limited, with the two largest parcels operated by the Blue Vista Motor Lodge and Pan Am Southern LLC, which is associated with the Hoosac Tunnel. Other commercial ownerships are limited to Dobbert Recycling, and what appears to be an out-of-business roadside store.

Industrial use in town is limited to facilities associated with the hydropower dams, power distribution, and ventilation for the Hoosac Tunnel.

There was no formal discussion relating to economic features of the Town during Core team meetings or the Community Workshops.

3.4 Infrastructure Features

Florida is an important regional hub for energy production, rail infrastructure, and transportation. State Route 2, also known as the Mohawk Trail, is an important regional vehicular connection because it is the main route in the surrounding area that crosses over its steep and high-elevation terrain. Route 2 as it crosses Whitcomb Summit, is the highest elevation stretch of road in the state, and due to Florida's relatively extreme winter weather and complex terrain, it can be a pinch point in the case of ice storm tree-fall, mudslides, or washouts. Along with personal transportation, much shipping traffic comes over this high-elevation road, including chemical trucks and other cargo loads. According to State Police, many trucks have accidentally careened off the road, spilling cargo into the landscape.



RAIL INFRASTRUCTURE

The rail line that passes deep below Florida through the 4.8 mile long Hoosac Tunnel (*photo left*) is of regional importance. Other than the main line that passes through Pittsfield to the south, the next nearest main line to the south is over a hundred miles away along the south coast of Connecticut, and the next nearest main line to the north is 125 miles to the north through Burlington

(OpenRailway). According to the Stand.earth oil train route maps, in the northeast, the only rail line north of New York City carrying oil trains to the east coast of the United States is via the Hoosac Tunnel. According to the state police, there have been several accidents in the Hoosac tunnel; it represents a pinch point in regional rail infrastructure.

ELECTRICAL GENERATION & DISTRIBUTION

Florida contains multiple major renewable energy projects, including dams and wind farms. The Hoosac Wind Farm is located in the high elevation and windy northwestern portion of Florida. The project comprises nineteen turbines, and is the largest wind farm in Massachusetts. It produces 28.5 MW of electricity, which is enough to power



approximately 10,000 homes per year (Wiki). According to the Town Administrator, the wind farm (*photo left*) is located on a mix of private and town-owned land, and lease payments are provided to the landowners. The wind farm also produces substantial tax revenue for the town. Florida's Deerfield River Valley is also home to the Bear Swamp Dam,

which is sometimes referred to as the Fife Dam. Dam infrastructure and hazards are addressed in more detail in the Infrastructural section of this report. Connecting these renewable energy projects to regional power networks is a major bulk power transmission line operated by Western Massachusetts Electrical Co. The transmission line is situated within an approximately 180 foot wide linear clearing which runs from the southwest to the northeast of Florida.

There are 813 structures (including accessory units) in Florida that are dispersed in a patchwork along Route 2, flatter upland areas, and along the Deerfield River Valley. The 2022 assessor data shows that structures throughout Florida vary in year built from 1800 to 2021 and are primarily residential (355) with 20 industrial, commercial, mixed-use, and nonresidential structures for a total of 375 taxed structures.

WELLS & SEPTIC

All housing and town facilities are on wells and septic as there is no municipal water or sewer within the town of Florida. According to the planning core team, the use of salt on roads has led to contamination of wells throughout the town, with those along Route 2 most heavily contaminated. The salinization levels of the groundwater supply have left multiple wells nonpotable. Facilities such as the Town Hall, Senior Center, and Fire Station, all critical to emergency response, do not have potable drinking water and rely on bottled water or limited filtration systems. The Senior Center and Town Hall water supply may also be contaminated due to leaching from the nearby unlined landfill that

was capped in 2000 (MassDEP). In the event of an emergency, this would limit the capacity of these facilities to act as shelters for an extended period. These waters also have levels of pre- and polyfluoroalkyl substances (PFAS) above the MA Maximum Contaminant Level (MMCL). PFAS are chemicals that bioaccumulate in the environment and exposure to PFAS is linked to numerous negative human health effects (EWG).

3.4.1 CRB Workshop Discussion of *Infrastructure Features*

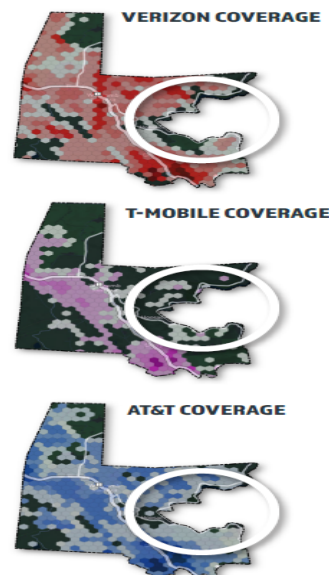
Given the high-elevation and steep grades found throughout the town, road conditions, access, emergency routes, and communications were first and foremost on workshop participants' minds.

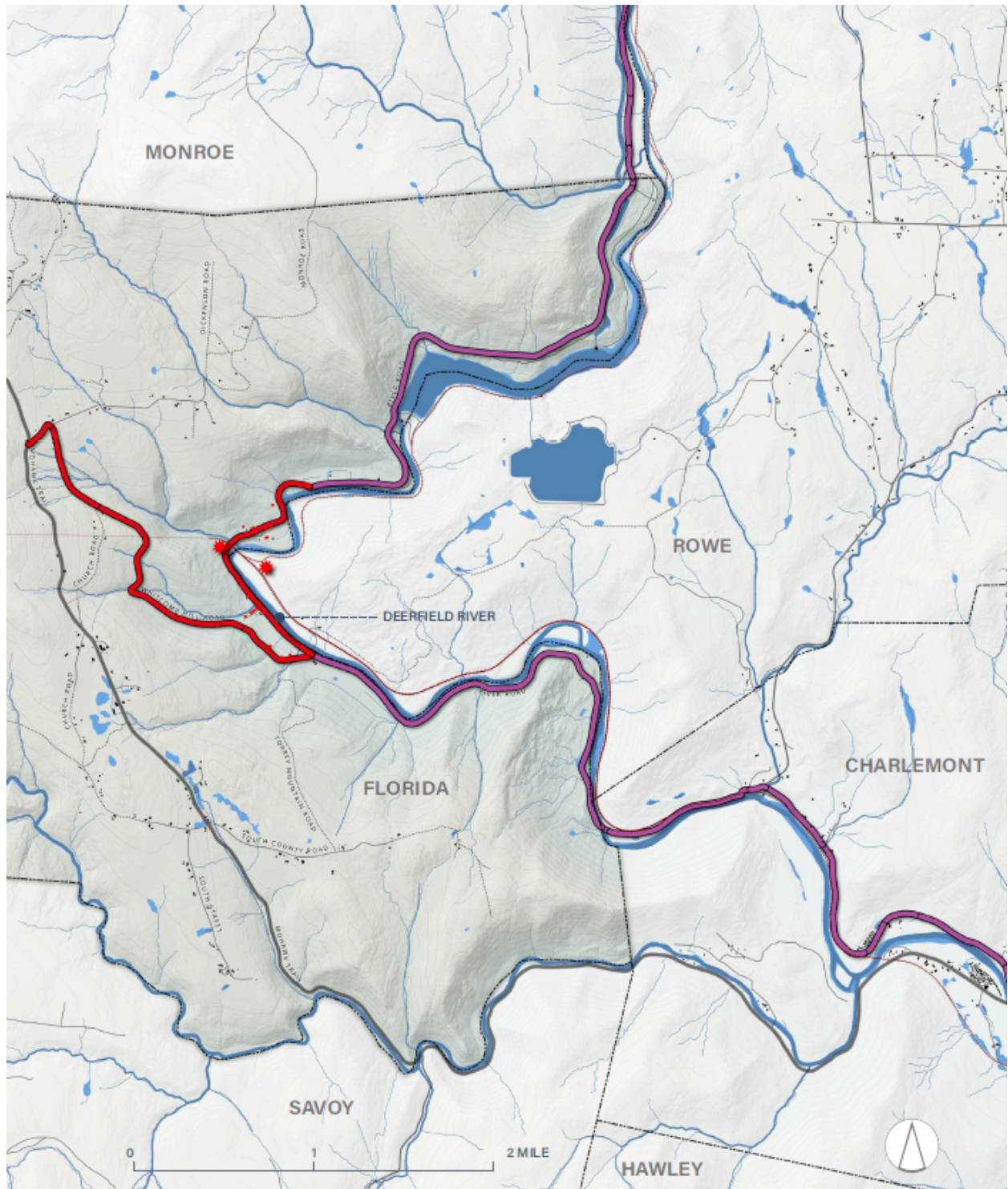
Vulnerability	Vulnerability and Asset	Asset
• Roads in varying conditions/grades • Power outages • Emergency routes • Emergency communication system • Hoosac Tunnel (derailments)	• Culverts • River Road • Whitcomb Road • Cell Tower • Dams • Emergency shelters	• Emergency response (Fire, Highway, State Police) • Route 2

3.4.2 Communication Features

One of the vulnerabilities that was pointed out by the Florida Fire Chief is the lack of consistent cellular service in the river valley, which makes communication with residents in the event of a major disaster difficult. These coverages are shown for the major providers in the maps to the right (Coveragemap). Given the limited time between breach and flooding, fast communications would be critical to save lives. It appears that cell service is poor to non-existent for all residents in the Deerfield River Valley.

Another vulnerability identified was the limited two-way radio communications commonly due to the dramatic topographic changes in the area. State police, Fire and DPW radios used near the Deerfield River are often not able to reach a repeater to communicate with a dispatch center, other mobile units or applicable headquarters.





Map of Florida Evacuation Routes



Florida Forests in Winter

3.5 Environmental Features

Florida residents who participated in the Community Workshops and surveys were unanimous about one of the best parts of living in Florida; access to nature and the beauty of the landscape. Florida is a trove of forests and woodlands, wetlands and streams. Of the forest types that make up Florida's habitats, the most abundant one is a Laurentian-Acadian Northern Hardwood Forest dominated by sugar maple, American beech, and yellow birch. Depending on soil composition, aspect, and

elevation, white ash, eastern hemlock, red maple, white pine, and red oak can also be found within this community. Generally in the Northeast, this forest community may be considered transitional between northern hardwood forests at higher elevations (and to the north), and the warmer Appalachian hemlock hardwoods and oak-pine forests at lower elevations (and to the south). In the higher elevations, there are small patches of Acadian Spruce-Fir-Hardwood Forests and Acadian Sub-Boreal Spruce flats, characteristic of cooler and wetter habitats that include balsam fir and red spruce primarily, along with yellow birch, paper birch, beech, and red or sugar maple. These habitats include both cold pockets and large areas of seasonally wet conifer swamps.

In the lower elevations on the east side of Florida are pockets of Central Appalachian Dry Oak-Pine Forests with oaks and pines that are characteristic of sunny and dry conditions. The vegetation is often patchy, with woodlands as well as open portions, or even sparse cover on dry rocky outcrops. This habitat overlaps with the Central Appalachian Pine-Oak Rocky Woodland.

The vast majority of Florida is located in the Deerfield watershed aside from a small 1.3-square mile, high-elevation area in the northwest of Florida which is in the Hoosic watershed. That portion of Florida has no structures, significant roads, major streams, or wetlands, so this report focuses on the Deerfield watershed. The Deerfield watershed is a vast 655-square-mile area, containing 650 miles of rivers and streams and 49 lakes. The watershed is largely undeveloped, and home to less than 50,000 people. The Deerfield River was heavily manipulated beginning in the late 1700s, and now has almost 120 former mills and 30 historical dam sites blocking passage within the river.

With this historical use came significant channel straightening which “further impacted hydrology and natural communities by causing unnaturally high flows, habitat degradation, flooding, erosion, and sedimentation” according to John Burk (Estuary).

The Deerfield River’s headwaters begin approximately 30 miles north of Florida in Stratton, Vermont, and the river flows to the Connecticut River approximately 20 miles to the east of Florida. Many named small streams originate in Florida’s high elevation terrain, but the most notable is the Cold River, which originates in western Florida. Fed most notably by the Green River, Staples Brook, and Tower Brook, the Cold River meets the Deerfield just to the east of Florida in Charlemont. Within Florida’s borders sit approximately 230 acres of wetlands, which are a critical aspect of Florida’s hydrology. Wetlands are vital ecosystems known as the “kidneys of the Earth.”

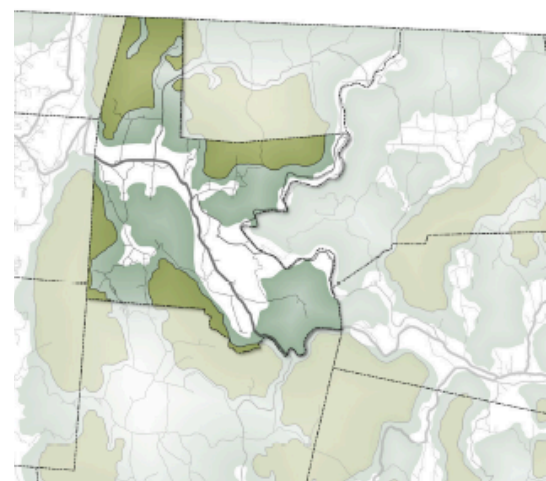
BIOMAP

BioMap is a tool created by The Nature Conservancy and MassWildlife to help guide protection and stewardship of Massachusetts' land, waters, and biodiversity. BioMap contains many data layers, including:

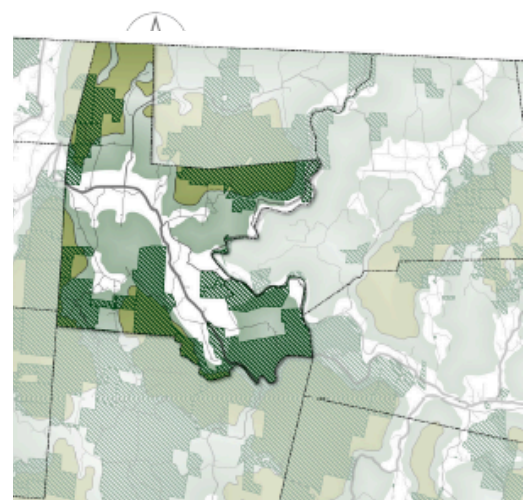
- Core Habitat: "areas critical for the long-term persistence of resilient ecosystems...[Forest Core] includes the most intact forests of Massachusetts, least impacted by development and essential for animals and plants dependent on remote habitat" (MassGIS).
- Critical Natural Landscape: "large areas of intact and connected forest, wetland, river, and coastal habitat that sustain healthy populations of countless species. These landscapes are minimally impacted by development which provides connectivity and resilience" (MassGIS).

There are both Core Habitat and Critical Natural Landscape areas in Florida (in addition to other data layers not represented here). These areas are significant as they are considered to be more resilient and adaptable in the face of climate change, which is predicted to cause plant/animal species loss and migration.

While much of these resilient habitats occur in currently protected lands, some BioMap Core Habitat and much of the Critical Landscape extend beyond protected areas. Conservation of, or regulation around, these habitats could



Core Forest Habitat (NHESP/TNC BioMap)
Critical Natural Landscape (NHESP/TNC BioMap)
Permanently Protected Open Space

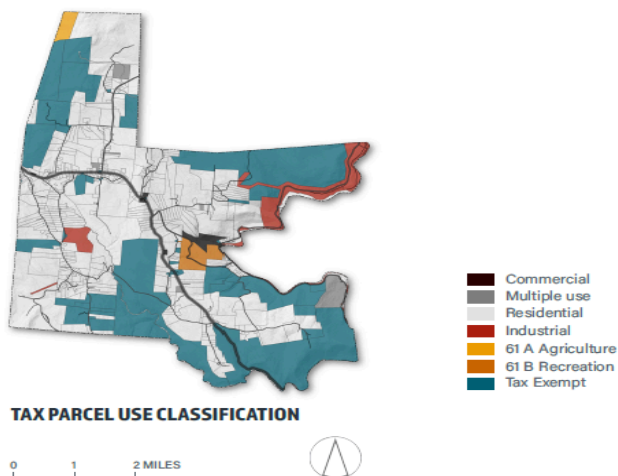
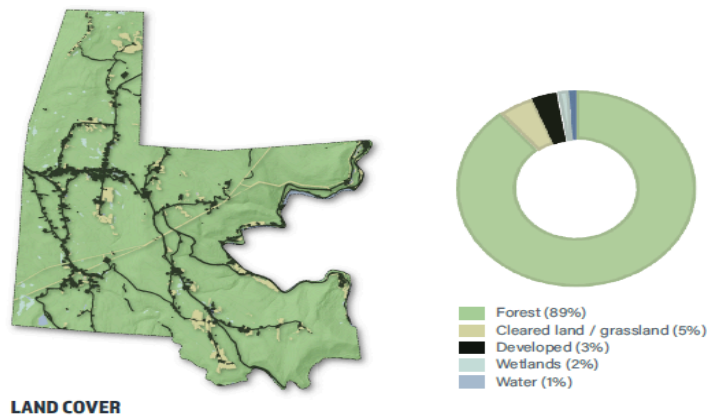


help to preserve the resiliency of Florida’s ecosystems. Protecting adaptive ecosystems in Florida nurtures greater adaptability and sustainability for the plant species, wildlife, and, in turn, the residents of Florida, as the forests and wetlands are a major asset to the community and their infrastructure.

3.5.1 CRB Workshop Discussion of *Environmental Features*

Workshop participants were unanimous that the town’s strengths lie mostly in the vast amount of open, protected, and/or forested lands and scenic views. As seen in the table, these features are also vulnerable to a changing climate and weather events.

Vulnerability	Vulnerability and Asset	Asset
• Contaminated wells • Aging, even-aged forest • Landslides/rockfalls • Invasive species • Increase pest/pathogens		• Recreation opportunities • Lots of open space/forested areas • Deerfield River • Scenic views



3.6 Land Use

Developed areas cover only 3% of Florida’s land, but the uses are diverse and include residential, commercial, industrial, agricultural, forestry and logging, open space, and recreation.

RESIDENTIAL

While the actual land cover affected by residential use is very low, the vast majority of the tax parcels in town are classified as residential property. Details about these properties are dealt with more thoroughly in subsequent sections. For example, the effect of structures on ecology and habitat is explained in the Environmental section, and the relationship of structures to larger town-wide

infrastructure and hazards is dealt with in the Infrastructural section.

COMMERCIAL

Commercial properties in town are extremely limited, with the two largest parcels operated by the Blue Vista Motor Lodge and Pan Am Southern LLC, which is associated with the Hoosac Tunnel. Other commercial ownerships are limited to Dobbert Recycling, and what appears to be an out-of-business roadside store.

INDUSTRIAL

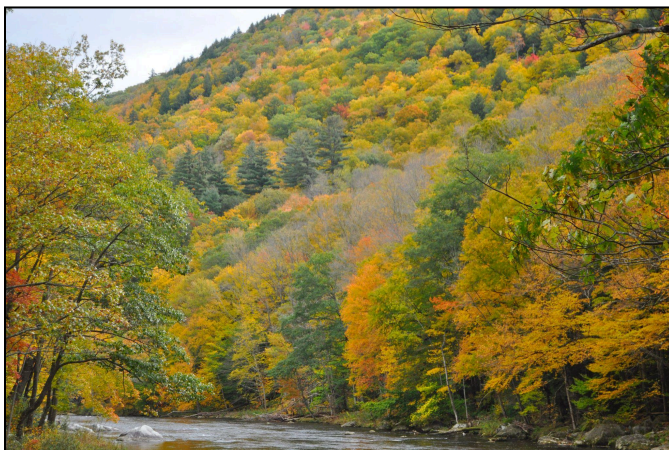
Industrial use in town is limited to facilities associated with the hydropower dams, power distribution, and ventilation for the Hoosac Tunnel.

AGRICULTURAL

While historically there appeared to be a significant amount of cleared land for agricultural purposes, functional agricultural land is limited to a few small hay fields off Oleson Road, and a small horse farm off River Road.

FORESTRY & LOGGING

According to Tom Brule of Massachusetts DCR, forestry operations are minimal in Florida primarily due to lack of markets and the prevalence of preserved land, while Massachusetts imports around 90% of its timber products. Brule noted that timber operations should be incentivized. Because the town's forests are unmanaged and growing into older, even-aged forest stands, Brule's position is that more active management, by the private and public sectors, could create more diverse uneven-aged forest stands. According to Brule, such uneven-aged stands are good for carbon sequestration, decreased blowdowns in heavy wind storms, and habitat for much wildlife. At the same time, unmanaged stands are important for forest interior and other species which do not thrive in disturbance.



OPEN SPACE

Approximately 5,200 acres or 33% of the total area of Florida is under permanent protection from development (Florida Community Development Plan 2003). This protected open space is an asset for resilience and hazard mitigation because of the ecosystem services provided, as addressed in subsequent chapters of this report.

This land is managed by multiple landholders: the State Department of Conservation and Recreation (DCR) manages Florida State Forest, Savoy State Forest, Monroe State Forest, and Mohawk Trail State Forest; the Berkshire Natural Resources Council manages the Hoosac Range Reserve;

the Nature Conservancy stewards the Reed Brook Preserve; and Better Place Forests manages a green burial forest site in the southeast corner of Florida.

Other permanent protections include a conservation restriction on a parcel of land owned by Christodora Inc., which is the site of the Manice Education Center that offers programming for youth from New York Center; and Brookfield Power, which owns the Beaver Swamp (Fife) Dam along the Deerfield River, and manages the Zoar Gap, a boating launch point under a conservation restriction. There are no known Agricultural Preservation Restrictions on parcels in Florida.

RECREATION

Florida's beautiful terrain and protected forests offer many opportunities for recreational activities including hiking, swimming, fishing, boating, camping, snowshoeing, snowmobiling, and more. Fall foliage draws locals and tourists to the Berkshires and into Florida annually. Florida is also situated close to nearby ski mountains and other recreational sites in both the Berkshires and in Windham County, Vermont. The Deerfield River is also a site of much recreation in Florida. From April to September, rafting and kayaking groups from companies based in neighboring towns launch into the Deerfield just below the Fife Dam. One of only two catch-and-release fishing areas is located in Florida (Deerfield Fly Shop).



Rafting on the Deerfield River

Seasonal tourists represent a large shift in the number of individuals within Florida, which should be considered in emergency management plans.

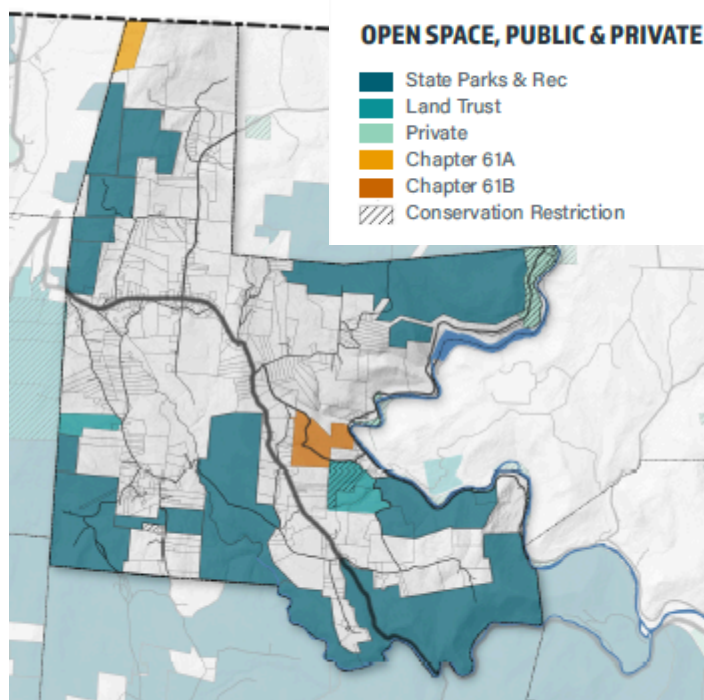
CHAPTER 61

Chapter 61 is a Massachusetts state tax abatement program, which provides lowered property tax rates in return for the owner limiting the usage of the property to

conservation, forestry, or agricultural purposes. The Chapter 61 program is broken down into three categories:

- Chapter 61 is for forestry purposes
- Chapter 61A is for agricultural purposes
- Chapter 61B is for open space and recreation purposes

Currently, only two parcels are enrolled in the Chapter 61 program: one Chapter 61A parcel in the northwestern corner of the town, and one Chapter 61B parcel on either side of Whitcomb Hill Road on the east side of town. The parcel on Whitcomb Hill Road is advantageous for resilience, as it is helping to protect steep land on either side of the road against erosion, landslides, and water damage, as explained later in this report. Chapter 61 offers temporary protection from development and also applies a right of first refusal: if a parcel enrolled in Chapter 61 goes up for sale and gets a market offer, the town has the first opportunity to purchase the property at the offer price.



3.7 Development

Currently in Florida, developed areas such as roads, homes and parking cover about 3% of the land area while forests cover almost 90%. While this contrast seems striking, it doesn't fully capture the effect that development has on forested areas. This wider effect is captured by the concept of "fragmentation", described in the callout above. Like humans, natural systems need to stay connected, and when they are isolated, they can become unhealthy. So for example, while a road may cover very little land area, it can break a forest into separate islands, and restrict movement of plants and animals between them. Also, depending on how homes are laid out, they can have very different effects of fragmentation. For example, homes that are on large parcels that are spread throughout the landscape have a much larger fragmenting effect than the same amount of homes that are closer together. Another effect that development has is called edge effect. When a habitat is disturbed, such as trees being cleared for a home, the effect of this disturbance doesn't end at the edge of the tree line. Because of the different land use types coming together, the edge effect brings new influences into the forest, such as predation, invasive species, and sunlight, which means that for a few hundred feet,

the forest becomes a very different place, driving out species that rely on intact forest. This effect is illustrated on the map to the left, where all development and clearing has a 300 foot buffer, to show how human uses create smaller islands of forest.

3.8 Critical Facilities and Vulnerable Populations

Critical facilities are extremely essential components to the Town's function and protecting them from natural hazards is even more crucial. Critical facilities range in function from: (a) resources that can be utilized to respond and recover from natural hazards; (b) facilities where additional assistance might be needed; and (c) hazardous sites that could be dangerous if it is compromised during a natural disaster.

VULNERABLE POPULATIONS IN FLORIDA

*AGE 65+ : 190 (25% of population)

*DISABILITY: 131

*LANGUAGE: 15 Spanish & Indo-European Speaking

*TRANSPORT: 23 Without Auto

Critical facilities and vulnerable populations have been broken into four categories: *emergency response* (facilities necessary for the Town in the event of a disaster), *non-emergency response* (essential for everyday function of the Town), *dangerous/hazard materials and facilities*, and *vulnerable populations and community facilities*.

CATEGORY 1 - Emergency Response Facilities

Type	Name	Location
Public Safety	Police Department	1141 N. State Rd., Cheshire, MA
	Fire Department	139 Mohawk Trail
Town Facilities	Florida Highway Department Town Hall	379 Mohawk Trail
Communication and Utilities Infrastructure	Verizon Control Center Power/Wind Dam Railway Route 2/State Hwy	
Official Emergency Shelters	Florida Senior Center Abbott Memorial School	367 Mohawk Trail 56 N. County Road

Unofficial Emergency Shelter	Town Hall Fire Station	379 Mohawk Trail 139 Mohawk Trail
Primary Evacuation Routes	Route 2 Whitcomb Road	

CATEGORY 2 - Non-Emergency Response Facilities

Type	Name	Location
Natural Resources	DEP Wetlands DCR Manic Education Center Brookfield Power Berkshire Natural Resource Council Nature Conservancy	

CATEGORY 3 - Dangerous/Hazardous Materials and Facilities

Type	Name	Location
Dams	Bear Swamp Dam (Fife) Deerfield No. 5 Dam Sherman Dam Harriman Dam	Rowe/Florida Rowe/Monroe Rowe/Monroe Windham Co., VT
Waste	Florida Transfer Station	379 Mohawk Trail
Nuclear Storage	Yankee Nuclear Power Plant	Rowe. NE of Florida
Chemical Transportation	Trains Transport Trucks	Hoosac Tunnel Route 2

CATEGORY 4 - Vulnerable Populations and Community Facilities

Type	Name	Location
Schools and Camps	Abbott Memorial School Manice Education Center, Christodora Inc.	56 N. County Rd. 68 Savoy Rd.

Senior Center		367 Mohawk Trail
Hotels & Campgrounds	Blue Vista Motor Lodge Savoy Mountain State Forest Campground	229 Mohawk Trail 319 Central Shaft Rd.
Recreation	Zoar Outdoors Crabapple	7 Main St., Charlemont 2056 Mohawk Trail, Charlemont, MA

4.0 HAZARD PROFILES, RISK ASSESSMENT, AND VULNERABILITIES

This section includes a summary of disasters that have or could affect Florida. Information here has been gathered through conversations with residents, local officials, emergency management personnel, Resilient Mass, and the 2018 Massachusetts State Hazard Mitigation and Climate Adaptation Plan (SHMCAP) (EEA and EOPSS, 2018). Each profile contains information on

4.1 Statewide Overview of Hazards

2013 Massachusetts State Hazard Mitigation Plan (MEMA and DCR, 2013) and the 2018 Massachusetts State Hazard Mitigation and Climate Adaptation Plan (SHMCAP) (EEA and EOPSS, 2018) examined the natural hazards that have the potential to impact the Commonwealth. These plans summarize the frequency and severity of hazards of greatest concern. The frequency classification ranges from very low to high. Severity classifications are listed as a range from minor severity to catastrophic. The box below gives further definitions of the frequency and severity characterizations.

Definitions used in the Commonwealth of Massachusetts State Hazard Mitigation Plan	
Frequency	
• <i>Very low frequency:</i> events that occur less frequently than once in 100 years (less than 1% per year)	
• <i>Low frequency:</i> events that occur from once in 50 years to once in 100 years (1% to 2% per year)	
• <i>Medium frequency:</i> events that occur from once in 5 years to once in 50 years (2% to 20% per year)	
• <i>High frequency:</i> events that occur more frequently than once in 5 years (greater than 20% per year)	
Severity	
• <i>Minor:</i> Limited and scattered property damage; limited damage to public infrastructure and essential services not interrupted; limited injuries or fatalities.	
• <i>Serious:</i> Scattered major property damage; some minor infrastructure damage; essential services are briefly interrupted; some injuries and/or fatalities.	
• <i>Extensive:</i> Widespread major property damage; major public infrastructure damage (up to several days for repairs); essential services are interrupted from several hours to several days; many injuries and/or fatalities.	
• <i>Catastrophic:</i> Property and public infrastructure destroyed; essential services stopped; numerous injuries and fatalities.	

4.1.1 Impacts of Climate Change

HARDINESS ZONES SHIFTING

As of 2023, Florida is entirely within the USDA hardiness zone 5a (-20 to -15°F) (USDA). In 2012, Florida's higher elevation points were within zone 5b (-20 to -15°F). Shifts in temperature patterns have caused species loss across the state and Appalachian mountain range. Species that require a specific temperature range, such as balsam fir, red spruce, bunchberry, and native wildflowers, are most susceptible to these changes (Moran). If the plants gradually move higher up a mountain seeking cooler temperatures, "there will eventually be no more mountain to move up," Uli Lorimer, Director of Horticulture at the Native Plant Trust, shared.

The Berkshires' cold winters have historically slowed the spread of pests, pathogens, and invasive species through die off. Warmer winters equate to increased pest, pathogen, and invasive species pressure on local ecosystems. Florida's high elevation and forested mountain peaks are part of a narrow corridor through the Appalachian mountains allowing for the plants and animals to migrate northward. Fragmentation of these ecosystems could inhibit species migration, resulting in ecosystems stressed by climate, pests, pathogens, invasive species, and subsequent existing species loss (WBUR).

Planning for species migration through assisted migration practices and increasing the boundaries of existing corridors has the dual influence of retaining species that require zone 5a temperatures within Massachusetts and preserving ecosystems services that mitigate the influence of climate change as further addressed in the ecological section of this report.

EXTREME PRECIPITATION

The most recent National Climate Assessment for the northeast states that "the frequency of heavy downpours is projected to continue to increase as the century progresses. Seasonal drought risk is also projected to increase in summer and fall as higher temperatures lead to greater evaporation and earlier winter and spring snowmelt" (GlobalChange 374). According to ResilientMass, the Deerfield watershed should expect a substantial increase in the rainfall during large storms this century. For example, by 2090 it projects a 14 to 29% increase in rainfall during the largest storms (99th percentile), and an increase in maximum precipitation of 20 to 46% (ResilientMass Climate). This projection may be too conservative, as even the highly conservative Intergovernmental Panel on Climate Change (IPCC) has much more aggressive projections (Scientific American). In the newest IPCC Assessment Report (Sixth), the writers look at the projected increases in the frequency of extreme precipitation events as well. In the eastern United States, they project a 4 to 7 times increase (that is 400 to 700% increase) in the frequency of 50-year precipitation events under a high end, 4°C, warming scenario, and a 2 to 3 times (200 to 300%) increase under a middle end, 2°C, warming scenario (IPCC).

4.1.2 Top Hazards as Defined in the CRB Workshop

During the first community workshop in March, participants and town officials discussed a number of hazards that affect Florida. The list, though extensive, had some commonalities and the community agreed on narrowing the list to include the following top four hazards. It is important to note that these aren't the only hazards that Florida and the Town's facilities may be vulnerable to. Rather, these hazards represent what participants agreed were priority hazards based on past, current, and potential future weather and climate events.



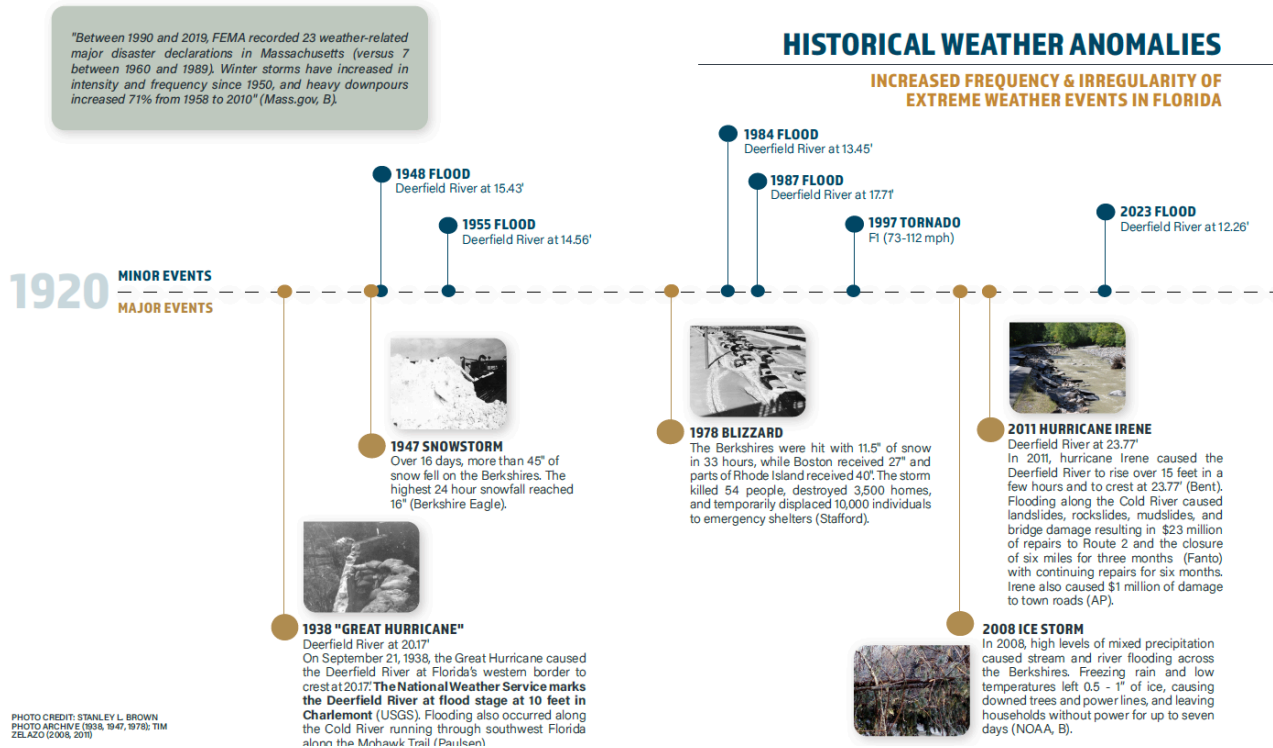
4.1.3 Historic Weather Patterns and Events

Weather patterns across the globe are shifting, creating unpredictable seasons and an increase in extreme weather events. In the Northeast these shifts include longer dry periods and increased frequency of high-intensity precipitation events. These shifts impact human health and destabilize ecosystems at a rate that makes adaptation difficult.

While the future is fundamentally uncertain, modern science has developed a robust and expansive scientific consensus to help humanity forecast and navigate the vast impacts that climate change will have in the future, and is having now. In the work of the Intergovernmental Panel on Climate Change, the international standard for climate projection, this uncertainty is dealt with by looking at scenarios, which are shown in the chart below. The high end scenario, shown in the chart as “SSP5-8.5 Fossil fuel development” represents a business-as-usual scenario where little significant action is taken to meaningfully reduce greenhouse gases in the atmosphere. The low end “SSP1-2.6 Sustainability” represents massive internationally coordinated efforts to reduce greenhouse gas emissions. The amount of warming the earth will likely see by 2100 depends on these future scenarios. The high end could see global average temperatures between 2.5 and 6.5°C higher than present day, whereas the low end scenario could see temperatures between 0 and 2°C. It should be noted that current progress aligns much closer to the high end projection (ClimateData).

The takeaways here are two-fold. First, these temperature numbers can feel abstract, but they are significant. The amount of warming it took to reverse the last ice age was about 4.5 to 7.5°C. Assuming a more aggressive climate change scenario, the pace of warming is similar to the warming that it took to melt a mile-thick sheet of ice in this region in recent geological history. While this cycle of ice ages and melts is typical over recent geological history, the current scale of human caused warming above these historic levels is unprecedented in human history and in millions of years of geological

history. Additionally, current efforts to mitigate climate change are expected to have a significant impact on future hazards.



4.2 Wind Events

STRONG WINDS

The Core Team and community members shared that prior extreme wind events in Florida has led to downed trees, power lines, and cell towers, blocked roads, and caused structural damage to homes and town facilities. In the event of downed trees along the River Road, residents have experienced being stranded due to a lack of alternative exit routes combined with a lack of cell service in the valley. The effects of increased tree loss due to a shifting climate, pests, and pathogens could further increase damage from high-intensity wind events in Florida.

4.2.1 Hurricanes and Tropical Storms

HURRICANE IRENE, AUGUST 2011

One community member reported that her family was living on Whitcomb Hill Road when it flooded during Hurricane Irene in August of 2011. The valley residents were planning for evacuation, and Whitcomb Hill Road—the main road out of the valley—was inundated. The roads were impassable by vehicles, so her niece was handed over the flooded section of the road with the support of community members, who were working in coordination with the volunteer Fire Department to evacuate residents from the valley.

Heavy rains and soils at maximum water-holding capacity led to a false-alarm dam-breach evacuation. Multiple culvert failures, landslides, and rockslides led to \$23 million in damages to Route 2 and \$1 million in damages to local roads. Many local roads were closed for weeks and some for months, while Route 2 was closed for six months disrupting regional traffic and local commutes.



Rt.2 Hurricane Irene

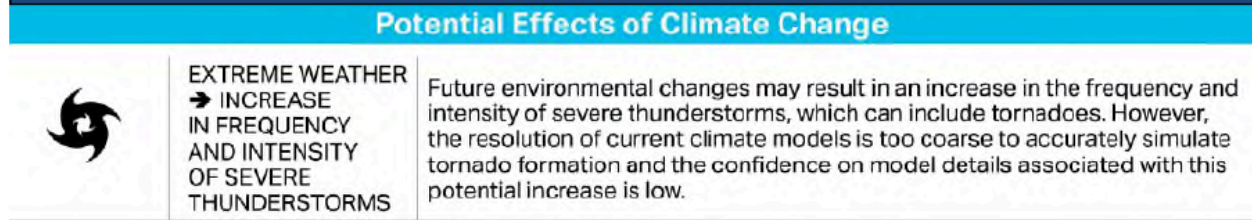
Another community member reported being trapped in their home for one and a half weeks due to the number of surrounding road closures. In order to access an open road, they crossed a neighbor's property with a four-wheeler. The residents then drove to a nearby town to acquire further supplies, as there remained much uncertainty as to when the roads around their home would reopen.

These experiences share the implications of vulnerable infrastructure, limited municipal and household preparedness, and the value of community cohesion to meet the residents' needs when municipal and state resources are at capacity.

4.2.2 Tornadoes

The frequency and intensity of severe weather, including tornadoes, is expected to increase with climate change. While tornadoes are typically too small to accurately model, they may form as a result of conditions that may be more accurately predicted by climate models, all of which are expected to become more severe in future years. While the Town of Florida has not experienced any major tornadoes in the past, and the varied terrain makes it unlikely, the Town should keep an eye on developing trends.

Figure 3-8: Impacts of Climate Change on Tornadoes



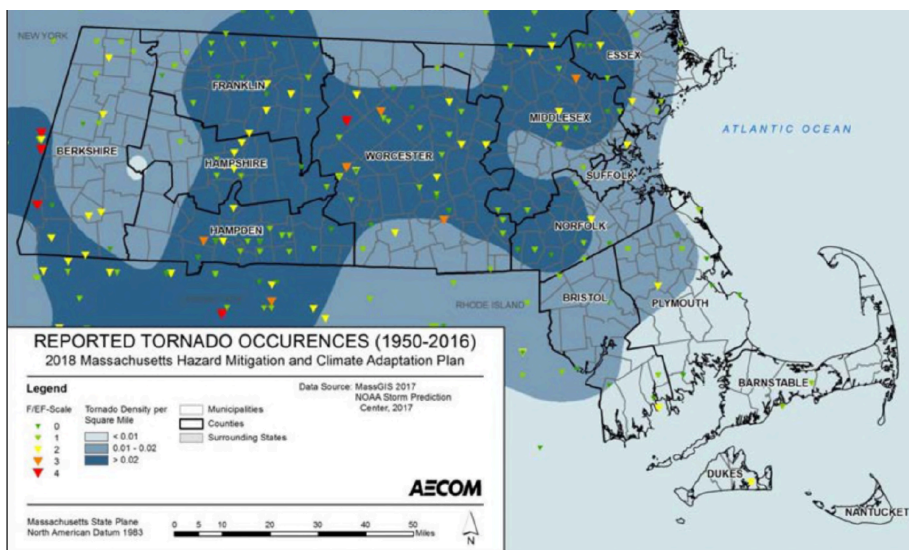
Source: Massachusetts State Hazard Mitigation and Climate Adaptation Plan. September 2018

A tornado is a violently rotating column of air that extends from the base of a cumulonimbus cloud to the ground. The observable aspect of a tornado is the rotating column of water droplets, with dust, and debris caught in the column.

The most common factors in tornado formation are:

- Very strong winds in the middle and upper levels of the atmosphere
- Clockwise turning of the wind with height (i.e. from the southeast at the surface to west aloft)
- Increasing wind speed in the lowest 10,000 feet of the atmosphere (i.e. 20 mph at the surface and 50 mph at 7,000 feet)
- Very warm, moist air near the ground, with unusually cooler air aloft
- A forcing mechanism such as a cold front or leftover weather boundary from previous shower or thunderstorm activity.

Tornadoes can form from individual cells within severe thunderstorm squall lines. They can also form from an isolated supercell thunderstorm. They can be spawned by tropical cyclones or the remnants thereof, and weak tornadoes can even occur from little more than a rain shower if air is converging and spinning upward. Most tornadoes occur in the late afternoon and evening when the heating is the greatest. The most common months for tornadoes to occur are June, July, and August, although the Conway, Massachusetts, tornado (2017) occurred in February.



Source: NOAA Storm Prediction Center (SPC), as presented in the Massachusetts State Hazard Mitigation and Climate Adaptation Plan, September 2018.

The NWS rates tornadoes using the Enhanced Fujita scale (EF scale), which does not directly measure wind speed but rather the amount of damage created. This scale derives 3-second gusts estimated at the point of damage based on the assignment of 1 out

of 8 degrees of damage to a range of different structure types. These estimates vary with height and exposure.

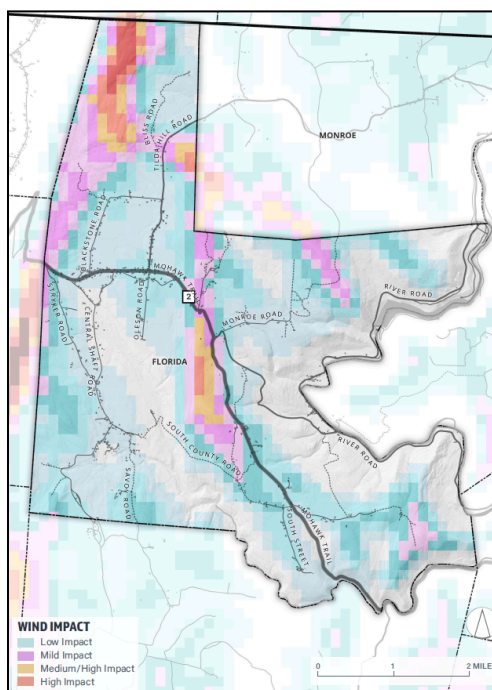
This method is considerably more sophisticated than the original Fujita scale, and it allows surveyors to create more precise assessments of tornado severity. Figure 3-10 provides guidance from NOAA about the impacts of a storm with each rating.

4.2.3 Nor'easters, Severe Thunderstorms, and Microbursts

A nor'easter is a powerful coastal storm driven by a clash between cold, dry air from Canada and warm, moist air from the Atlantic Ocean, particularly the Gulf Stream. The temperature difference fuels the storm's development, creating a low-pressure system that intensifies and moves northeast along the east coast. Characteristics of a nor'easter are known to be strong winds, heavy precipitation, coastal flooding, rough seas.

Thunderstorms are characterized by heavy rain, gusty winds, lightning, and, at times, hail. Thunderstorms can cover an area of 15 miles and last for up to 30 minutes, though more severe storms may be larger and last for longer. Microbursts are usually much smaller than a thunderstorm, on average 3 miles across and lasting from a few seconds to minutes. However, microbursts can cause damage from winds up to 170 mph.

Florida is as susceptible to Nor'easters, thunderstorms, and microbursts as any other town in the State. High winds, heavy precipitation, and hail can damage structures and vehicles, weaken poorly maintained or already damaged infrastructure, and cause flooding.



4.3 Extreme Temperatures

A much hotter Florida is predicted by the end of the century, though because of its geographical location, it may not experience significant heat waves (ResilientMass). While the current baseline mean between 1950 and 2013 is only 1 day above 90°F, by the end of the century Florida could see between 16 and 58 days above 90°F. Cold days are expected to decrease in frequency. The average temperature is expected to increase between 7.2 and 13.5°F. The number of cold days below 32°F is expected to decrease by between 55 and 96 days, and the number of cold days below 0°F is expected to decrease by between 13 and 17 days (ResilientMass Climate).

4.4 Severe Winter Storms

Florida experiences an annual average of 66 inches of snow and 155 days of nighttime temperatures below freezing, making Florida one of the snowiest and coldest places in

Massachusetts (Best Places). Heavy snow and ice events lead to power outages due to downed power lines and trees (*photo below*), falling ice along steep slopes on Route 2, and extensive road maintenance. The abundant and repetitive freeze and thaw events have led to increased erosion, causing falling rock, landslides, eroded roadsides, and potholes. The Highway Department maintains the roads, but community members have expressed a decrease in maintenance of side roads or roads that are more challenging to access in icy conditions, such as Whitcomb Hill, potentially resulting from limited staff capacity.



The extensive amount of salt used to maintain Route 2 has led to salination of waterways, soils, and groundwater supply, rendering multiple wells oversalinated (dangerous for those with salt limitation diets) and a few non potable, according to the core team. This salt is also corrosive to roads and vehicles and is potentially toxic to wildlife, aquatic habitats and vegetation. While a warming climate may entail a shortened winter season, winter storms have intensified and have become increasingly unpredictable since the 1950s (Mass.gov). In the event of power

loss, emergency shelters are established at the school, Town Hall Garage, and Senior Center.

At this time, there is no emergency shelter located in the valley (Coverage Map). In the event of power loss, vulnerable communities should be prioritized for connecting with temporary alternative dwellings or backup generators.

4.5 Flooding

ASSESSING FLOOD RISK TO ROADS

Flood maps, while traditionally the starting point for flood assessment, are in the process of being updated as shifting climates have turned 100-year frequency rain events into 25-year rain events for 21% of the United States (First Street). Local conditions must be evaluated and flooding projections adjusted accordingly (Skibba). In addition to mapping local and regional historical flood data, other factors to assess flood risk to roads include topography, existing drainage systems, roadside soil erosion factors, road surface type, and road condition.

One way to assess how flooding may impact roads is overlaying FEMA (100-year) flood maps with a First Street three-foot flood map (Map 2) that takes into account the projected increased precipitation in a rain event due to shifting climate patterns. This assessment shows where roads are likely to be flooded. In a minor rain event, this map highlights where unpaved surfaces may be unpassable without an ATV due to muddy conditions. This map identifies areas where, in a major rain event, it is crucial to

maintain vegetation and swales along roadsides and assure that the capacity of storm

drains, roadside swales, and culverts are sufficient for road runoff in order to reduce the risk of flood waters inundating hard surfaces.



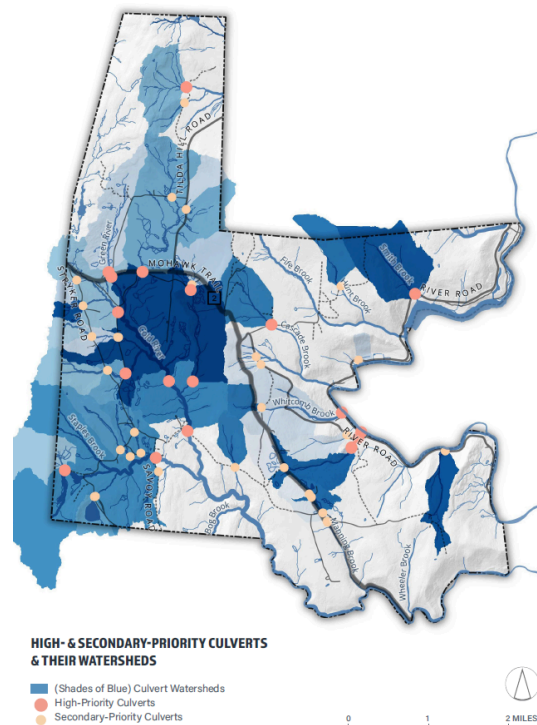
Rt. 2 Hurricane Irene Damage

Over half of flood-related drownings occur from vehicles entering hazardous waters (NOAA, C). While Route 2 is the main thoroughfare of Florida, the country roads and secondary access and egress routes are how the residents of Florida reach their homes, each other, and in the event of an emergency that requires evacuation, how they gain

access to in-town shelters and neighboring towns' resources.

There are 122 structures within FEMA (100-year) Floodplains or First Street Floodplains, representing 15% of structures in Florida. Four of these are within wetlands, making them susceptible to regular seasonal rains. Six structures are within the FEMA (100-year) Floodplain projection, making them at risk to what have become 10 to 25 year rain events. There are 112 structures within the First Street flood projection maps. Collectively, these structures are at the greatest risk of disturbance in the event of heavy rain events or increased annual rainfall.

As flood events increase in frequency, so will the value of wetlands and stream riparian zones as they mitigate flood waters and help protect infrastructure from flooding. Regulated buffers exist to protect wetlands. In Florida, 61% of buildings are within these buffers. While wetlands are protected by the MA Wetlands Protection Act (WPA) and under the jurisdiction of the Conservation Commission, development that occurred prior to the WPA had limited restrictions (MACC). In Florida, these wetlands alongside the forest system filter the groundwater that feeds into wells. Compared to undeveloped wetland buffers, developed ones have less filtration capacity, increased pollutants, and decreased



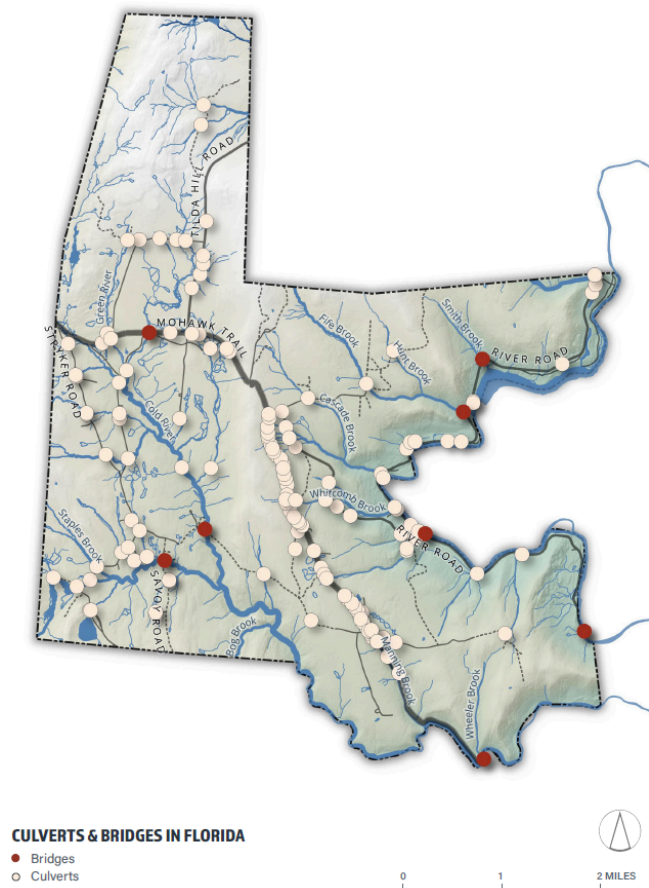
plant diversity, which destabilizes the flood mitigation capacity of the wetlands (EPA). Under the WPA, permits are required for activities such as construction, grading, and land clearing, but exemptions and discretionary permits are allowed for maintenance of properties grandfathered in, and emergency projects (MACC). Florida's primary hazard potential is flooding, and residents are solely reliant on wells for local drinking water supply, even discretionary permits and exemptions should be analyzed for the long term implications on the ecosystems, water supply, and flood mitigation. Further protection of wetlands from development will maintain their water-holding and flood mitigation capabilities, mitigating the impacts of future flood events on existing structures.

CULVERTS OF HIGH PRIORITY

The culvert map (Map identifies 25 high-priority culverts that, based on a flow accumulation analysis connecting streams to the culverts they flow through, likely experience the highest water flow rate. If blocked due to debris or failure, these culverts would have the highest accumulation of water and subsequent flooding impact. The 36 secondary-priority culverts likely experience the second-highest accumulation of water flow. If impaired or undersized, high-priority and secondary-priority culverts are at the highest risk of failure, which would cause extensive damage to road infrastructure, waterbodies, and habitat. The community has identified past culvert failures and existing concerns with high priority given to Whitcomb Hill Road. Their experience aligns with the high-priority and secondary-priority culverts identified in the flow accumulation analysis. In 2011, during Hurricane Irene, Whitcomb Hill Road was flooded while emergency responders evacuated the residents in the valley. The 42 culverts along Route 2 are managed by the state and in the event of a failure the Department of Transportation is the first point of contact. Preemptive discussions with the state should address high-priority culverts meeting updated standards for flow accumulation capacity and organism passage.

CULVERT WATERSHEDS

Culverts along the Cold River and Whitcomb Brook have the largest watersheds impacting the highest concentrations of structures. Construction within these



watersheds, and subsequent ground cover loss, would increase groundwater accumulation and flow, putting further strain on existing culverts.

4.5.1 Dams

The Deerfield River Valley makes up much of Florida's eastern border, shared with the neighboring towns of Rowe and Charlemont to the southeast. The valley is part of the



Deerfield River Watershed, which originates in southern Vermont, and drains into the Connecticut River to the southeast. There are several human-created dams upstream from the town's portion of the Deerfield River. Several are high-hazard-potential dams according to the U.S. Army Corps of Engineers. High-hazard potential does not mean that they are structurally unsound, but in the case of failure, there would be a high cost to life and property. Starting upstream, the dams within 10 miles from Florida are as follows:

HARRIMAN DAM

The Harriman Dam, in Windham County, Vermont, is a high-hazard-potential earthen dam built in 1923. The dam is capable of 41 megawatts of generation capacity (GR Harriman) and holds 144.7 million cubic meters of water (Wiki Harriman).

SHERMAN DAM

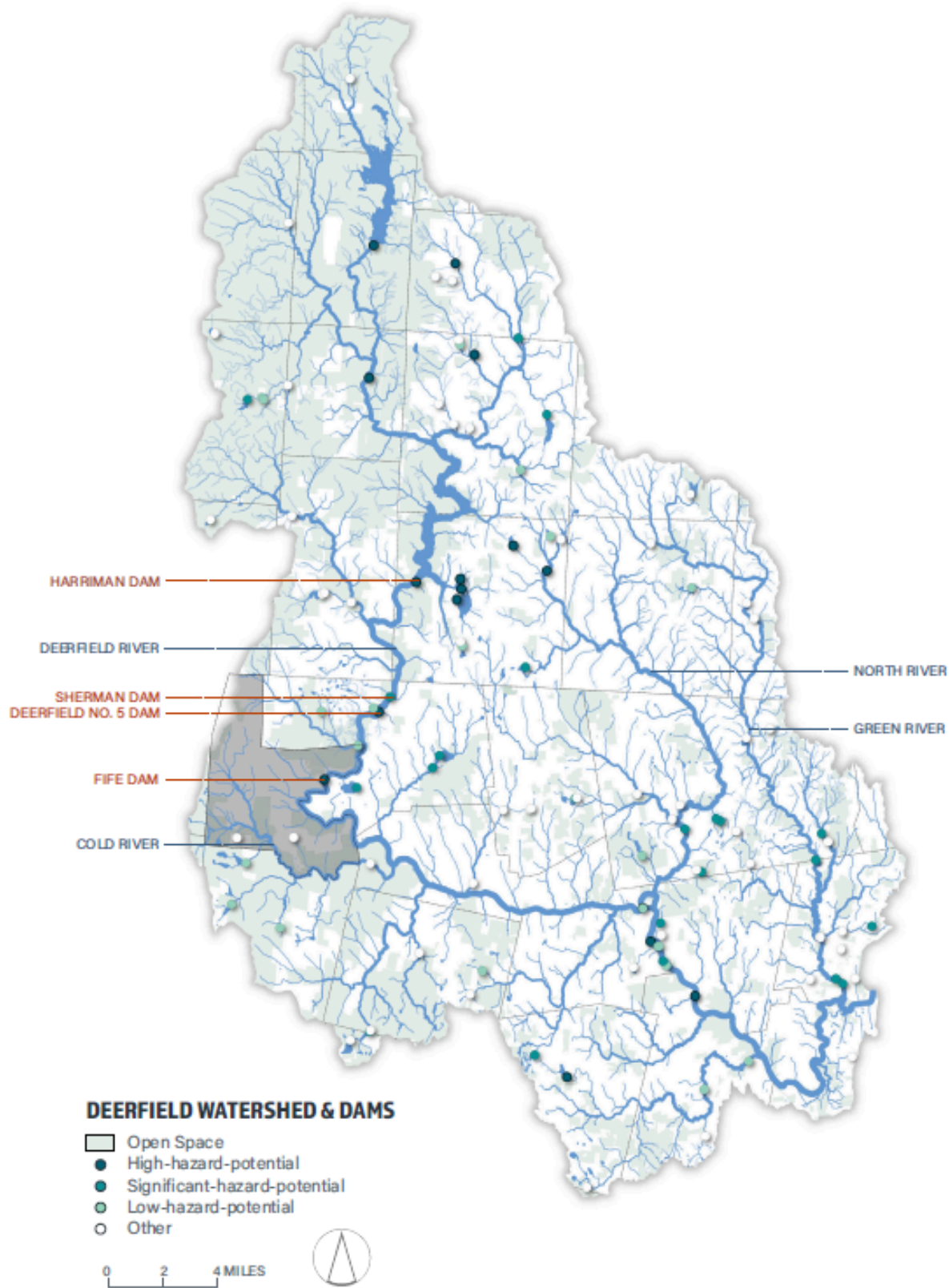
The Sherman Dam, (*photo above*) in Rowe and Monroe, Massachusetts, is a "concrete earth" dam built in 1927. The dam is not rated as a high-hazard-potential dam. It is capable of 6 megawatts of generation capacity (GR Sherman) and holds 5,480 acre-feet of water (DOTW).

DEERFIELD NO. 5 DAM

This dam, also in Rowe and Monroe, is a high-hazard potential dam. It is capable of 14 megawatts of generation capacity (GR 5).

BEAR SWAMP DAM (FIFE DAM)

This dam, in Rowe and Florida, is a high hazard-potential dam completed in 1974. It is capable of 600 megawatts of generation capacity (Wiki Bear), and holds 1.7 billion gallons of water (Wiki List).



While it would be a low likelihood event, another risk to assess is what would happen in the unlikely event of a dam breach. To assess the possible impact of a dam breach, dam owners contract engineering firms to produce Flood Inundation Maps to assess the potential outfall of a breach. While the Conway team was not able to gain access to Inundation maps for all dams, Great River Hydro provided the inundation map for a

[illegible]

While it is not common, dam breaches do happen. Ninety-nine major dams

have failed in US history, and more have failed in the last few decades than in the rest of US history

(Stanford). Dam failures in the United States have killed between 3,432 and 3,736 people historically. Overtopping, due to flood waters rolling over the top of a dam, is by far the most common cause of dam failure, especially with earthen dams such as the Harriman (ASDS). With climate change increasing extreme precipitation events, this threat will increase.

4.6 Wildfire

Florida is not currently at high risk for wildfire; however a future of extreme heat and drought could increase its fire risk. Given the inherent complexity of wildfire risk, interviews were conducted with ecologists Jesse Bellemare, Bill Patterson, and Tom Brule; all have boots-on-the-ground experience in this region. The consensus among them is that Florida is not currently at high risk for wildfire; however, with a changing climate, it is important to understand the factors affecting wildfire risk and how these map onto the ecosystems and landscape of Florida. Wildfire is not inherently a negative force. Many habitats have coadapted with fire and rely on it for regeneration, and the suppression of fire in the short term can in certain scenarios increase the long-term damage of major fires. The complexity of producing a wildfire management plan is outside the scope of this report, so the team focused on the relative likelihood of wildfires emerging from certain habitats, and not the management or damage potential of such fires.



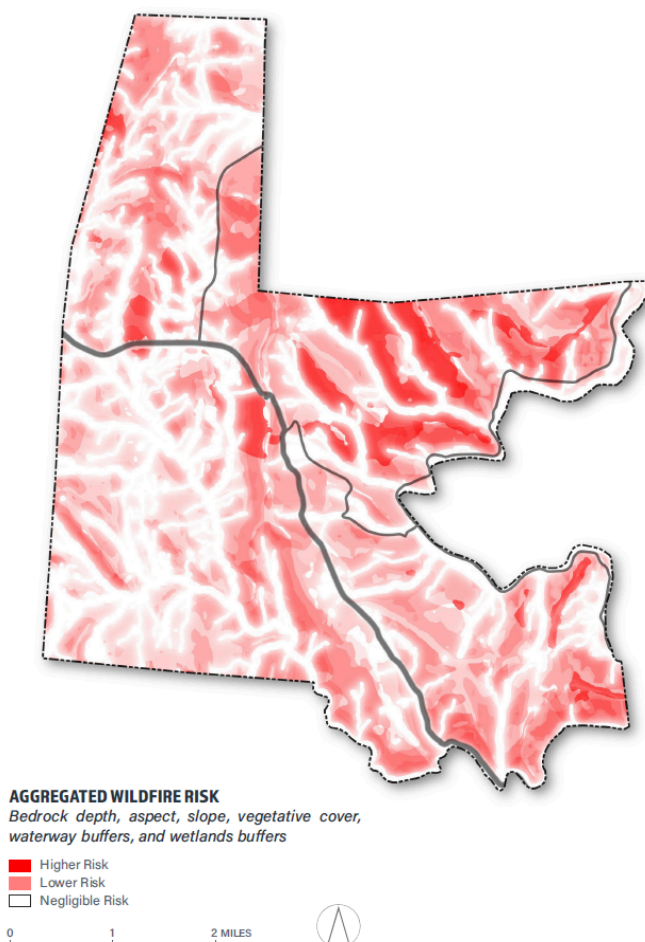
There are many factors affecting wildfire risk, some of which are directly related to the habitat on the ground, and some of which are related to the climate and atmosphere. Because the current risk of wildfire is low, these risks are being assessed in the context of a climate in which drought and extreme heat are expected to be more common.

CLIMATE & ATMOSPHERIC FACTORS

Atmospherically, the two most important factors are heat and drought, both of which remove moisture in the environment and make it more susceptible to fire. In the context of climate change, we can expect that both of these factors will increase.

One way to track risk is via the Keetch-Byram Drought Index (KBDI), compiled by the USDA. This index assesses wildfire risk by looking at the “net effect of

evapotranspiration and precipitation in producing cumulative moisture deficiency in deep duff and upper soil layers” (USFS, A). The KBDI is a means with which the town of Florida can monitor its wildfire risk.



ENVIRONMENTAL FACTORS

The following are major factors affecting wildfire risk:

- **Vegetative cover:** Certain plants have a long history of co-adaptation with fire, some making environments more prone to wildfire, while others have fire suppressive qualities.
- **Wetness:** Habitats that remain wet throughout the year are vastly less susceptible to wildfire, whereas dry environments are much more susceptible. A major factor influencing wetness is the distribution of water throughout the landscape because of its hydrology and wetland distribution. Florida's wetter areas will be less fire prone.
- **Bedrock depth:** Shallower depths to bedrock, especially those less than 18" deep, are less likely to retain sinks of moisture, are prone to dry more quickly, and therefore are more prone to fire.
- **Aspect and insolation:** Orientation to the sun also affects moisture levels.

South- and southwest facing aspects tend to get the most sun and therefore are more prone to drying. North-facing aspects receive the least sun and therefore are more likely to stay moist, and therefore less prone to fire.

- **Slope:** Slope also plays a role in fire spread. Steeper slopes create conditions where fire can spread more rapidly as the flames lick upwards.

4.7 Drought

Droughts in Massachusetts have become a growing concern in recent years, with Florida as no exception. At a level 2 drought as of March 2025, Florida, along with most of the state, has been in a drought since August of 2024 with a 8 to 13" annual precipitation deficit (Mass.gov, A). Droughts result in decreased groundwater supply, requiring restrictions on water usage as determined by the state. A prolonged drought can result in a dry well, sediment in the well, and non-potable water due to higher concentrations of minerals and contaminants (Mass.gov, A). When a well goes dry, it

can require deepening the well or establishing on site storage to be filled by an outside supplier.

WHAT CAN YOU DO TO HELP DURING A DROUGHT?

Conserving water is always a good idea, but it is especially important during times of drought. We can all help reduce the impact of the drought by using less water, and if the drought becomes more severe, we can increase our conservation in response.



Look for leaks in homes and businesses. Check pipes, fixtures, and appliances. Inspect water meters for constant dial movement. Use dye tabs or food coloring to check for toilet leaks.



Avoid outdoor watering during the growing season. If you have a vegetable patch that needs some water, use a hand-held device only. Lawns naturally go dormant when water is scarce and revive when conditions improve.



Avoid letting the water run. take shorter showers, and wash only full loads of dishes and laundry. Be mindful of indoor water use and use only what is necessary.



Make sure your water fixtures are WaterSense efficient.



Use drought-resistant, native plants in your garden and employ water-smart landscaping principles.



See how much you can save! Use the **MA Home Water Use Calculator tool** to help evaluate your household use.



Talk to your friends and neighbors about conserving water!



MORE WATER SAVING TIPS
MASS.GOV/CONSERVEMAWATER

Drought level is determined monthly based on the number of indices which have reached a given drought level. A majority of the indices would need to be triggered in a region in order for a drought designation to move to a more severe level. Drought levels are declared on a regional basis for each of the six regions in Massachusetts. Drought levels may also be made county by county or be watershed specific. The end of a drought is determined by precipitation and groundwater levels since these have the greatest long-term impact on streamflow, water supply, reservoir levels, soil moisture and potential for forest fires (EEA and EOPSS, 2018).

Table 4. Summary of drought indices for June 2016 conditions.

DROUGHT INDICATOR	DROUGHT REGIONS					
	Western	CT River Valley	Central	Northeast	Southeast	Cape and Islands
Standardized Precipitation Index (SPI)	Normal	Advisory	Advisory	Advisory	Normal	Normal
Precipitation % Below Normal	Normal	Watch	Watch	Watch	Normal	Advisory
Streamflow Months Below Normal	Advisory	Advisory	Watch	Watch	Normal	Not Applicable
Groundwater Months Below Normal	Watch	Advisory	Advisory	Advisory	Advisory	Normal
Size of Reservoir Below Normal	Normal	Normal	Watch	Watch	Watch	Normal
Crop Moisture Index	Normal	Advisory	Advisory	Advisory	Advisory	Advisory
Keetch-Byram Drought Index	Advisory	Advisory	Watch	Advisory	Advisory	Advisory
Normal Advisory Watch Warning Emergency						

⁷ During the 2016–2017 drought, the indices and methods outlined in the 2013 version of the Massachusetts Drought Management Plan were used

2016-2017 MA Executive Office of Energy and Environmental Affairs (EEOEA) Drought Retrospective report; Note-Florida is located in the Western Drought Region

Residents reported few if any wells failing to produce during the 2016-2017 statewide drought based on verbal communications with Florida Town Administrator and Town Fire Chief. Most wells are deep drilled and drought hazard was not listed as a priority by survey respondents. However, a lack of municipal water supply and sewers may deter development in Florida, subsequently assisting in preserving ecosystems, but limiting the capacity for growth if desired.

4.8 Pests and Pathogens

Insects, bacteria, and fungi play numerous roles including pollination, food sources, soil health, decomposition, and balancing ecological systems and cycles. Organisms are identified as pests when they damage or interfere with desirable plants, impair ecosystem health, cause damage to infrastructure, or negatively impact the health of animals or humans (UCANR).

Shifting climates and the movement of plants, animals, bacteria, and fungi across the globe are introducing new pests and pathogens, causing short- and long-term damage to ecosystems. While the forests of Florida are one of its greatest assets and help provide a corridor of migration for plant and animal species as climates shift, these same forest corridors allow for the movement of invasive species, pests, and pathogens and put the existing ecosystems at risk of species and habitat loss. In Massachusetts, the pests and pathogens with the potential to cause significant damage to ecosystems include hemlock woolly adelgid, emerald ash borer, Asian longhorn beetle, beech bark disease, beech leaf disease, and spongy moth.

The following pages discuss the main ecosystems within Florida and the potential impacts of these pests on their stability. Regarding human health in connection to Florida's ecosystem, tick-borne diseases are gaining precedence (Gougherty and Davies).

HEMLOCK WOOLLY ADELGID (HWA)

(Source: DACF) Hemlock woolly adelgid affects all species of hemlock but does not impact pine, spruce, fir, or other conifers. HWA is thriving in hemlock's northeast native range, where shifting climates mean that consecutive days below -4°F are a rarity. The die-off of hemlock and loss of its dense canopy leads to increased populations of deciduous tree species (e.g., oak and pine) and a dryer forest floor. As mentioned in the wildfire section, this combination results in transforming a previously low-fire risk ecosystem into an ecosystem susceptible to fires. Signs: Wool-like wax filament masses (approximately 1/16" to 1/8" in diameter) line the underside of hemlock needles as the insect matures. They are most easily seen in late fall to early summer on the newer growth of the tree. They spread from March to July. Look-alikes: Spittlebug, spider egg sacs, oak skeletonizer, and scale insect floss.

EMERALD ASH BORER (EAB)

Emerald ash borers are metallic green wood-boring beetles as adults (1/2" long, 1/8" wide) with about 1/2" long off-white pupae. Their larvae can be 1" long and have a distinct ten-segmented abdomen. This wood-boring beetle feeds on the phloem of ash trees

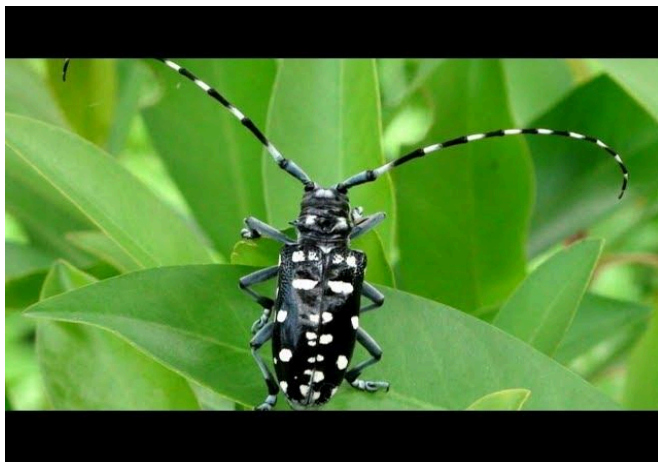


(*Fraxinus* spp.). The larva girdles the tree's tissue, killing the tree in as little as two years (Flower, et al.). Within eight to ten years of EAB establishment in an ecosystem, 99% of the ash trees are killed. Black ash has been declared endangered under the Federal Endangered Species Act as a result of EAB. Ash impacted by EAB will show crown dieback and bark

deformities such as vertical cracks and prolific shoots from the lower trunk, D-shaped exit holes, and yellowing foliage. Look-alikes: Bronze birch borer, the metallic wood borer, and the two-lined chestnut borer (Vermont Invasives, C).

Asian Longhorn Beetle (ALB)

Asian Longhorn Beetles are approximately 1 to 1.5" long and have a shiny jet-black body with white spots, long black and white banded antennae, and blue-tinted feet. Their off-white larvae are up to 2.5" long. They bore into trunks and branches of hardwood



trees. While the adults will feed on the leaves of trees, this feeding causes little damage. Some species they impact include ash, birch, elm, golden raintree, sycamore, maple, horse chestnut, katsura, mimosa, mountain ash, poplar, and willow. As they are generalists, they have the potential to cause more damage than Dutch elm disease, chestnut blight, and spongy moths combined (Vermont Invasives, A; Mass.gov, A; USDA, C). Adult beetles emerge from July to September leaving dime-sized exit holes that go deep into the tree. Egg-laying sites

ooze sap or will heal over with a knotted scar, leaving sawdust or frass. Look-alikes: white-spotted sawyer, western conifer seed bug, northeastern sawyer, eyed click beetle, and broad-necked root borer (MassNRC).

BEECH BARK DISEASE (BBD)

Beech bark disease consists of insects (e.g., *Cryptococcus fagisuga* [beech scale] and *Xylococcus betulae*) and fungi (*Neonectria faginata* and *N. ditissima*) causing

aboveground mortality of beech. Air pollution and nutrient imbalances weaken the trees and intensify their risk of BBD. While beech trees have little timber value and the disease spreads slowly, the loss of beech in the canopy has put trees of high economic value that grow in their understory (e.g., sugar maple) at risk of mortality. Beech contributes biomass, biodiversity, erosion control, food, and habitat in a forest ecosystem (Cale). Scale insects appear as "white wool" on the tree trunk. While the scale doesn't typically kill the tree, over three to six years it weakens it, giving way to fungal infection. The infection causes yellowing of leaves, smaller variegated new leaves, and a reduced canopy. Cankers develop on the trunk that eventually girdle and kill the tree. In summer and fall, the fungus is seen as small red dots in a circle. Weakened trees are susceptible to breaking in heavy winds. In the Northeast, the mature trees see a mortality of 50% in ten years with an eventual loss of 90% (Vermont Invasives, B; Cale et al.).

BEECH LEAF DISEASE (BLD)

Beech leaf disease is caused by the *Litylenchus crenatae* ssp. *mccannii* (LCM) nematode. The nematodes increase populations over the summer and by fall spread into new leaf buds, feed on the bud tissue causing them to dry and crack, and subsequently not leaf out in the spring (Norman). This results in branch and canopy loss. Post infection, saplings typically die within five years. The rate and breath of mortality is high once a stand is infected. The loss of canopy and the beech nut that is important to wildlife, and a key component of bear diets, is rippling through the ecosystem (USFS). The distinguishing characteristic of BLD is dark green interveinal banding on new leaves in the spring caused by cellular damage to the leaf bud. As the infection increases, leaves develop a leathery texture and crinkle (Norman). Look-Alikes: Beech leaf curl aphid, erineum patch, anthracnose, powdery mildew (Michigan Invasives).

SPONGY MOTH

(Sources: USDA, B; NYSDEC) Spongy moths (*Lymantria dispar dispar*) (previously known as Gypsy Moth) have been present in the U.S. for over 100 years and feed on the leaves of over 300 tree and shrub species, leading to defoliation and sometimes plant mortality. Females lay eggs on outdoor surfaces, including tree trunks, outdoor toys, and furniture. The movement of these objects disperses the eggs. Drought conditions decrease the presence of fungi that mitigate spongy moth populations.

Egg masses about 1.5" in diameter are present in the late summer, winter, and spring



and covered with yellowish hair. Caterpillars about 1.5 to 2.5" long are present in spring (black and hairy when young transitioning to mute yellow to grey with bristle-like hairs with an alternating pattern of five pairs of blue dots and six pairs of red dots). The adult moths are seen in the summer. Males have a 1.5" wingspan, and are

brown with dark brown on their wings, while females are off-white and have a 2" wingspan with a jagged pattern on their wings that inhibits them from flying. Look for defoliation of hardwood trees and shrubs. Look-alikes: Tent caterpillars have a white line with light blue and black spots on either side.

LYME DISEASE

(Source: Mayo Clinic) Lyme disease is an illness caused by a borrelia bacteria carried by ticks with 1,515 cases confirmed in Berkshire County from 2000 to 2020 (Tick Check). Tick habitat includes grassy, brushy, or wooded areas. Typically the tick must be attached for 24 hours to spread the bacteria. Symptoms of lyme arise in stages that sometimes overlap or some stages may never present themselves. Stage One (3 to 30 days) A rash that is warm but is typically not painful or itchy. Potential signs of fever, headache, extreme tiredness, joint stiffness, muscle aches and pains, and swollen lymph nodes. Stage Two (3 to 10 weeks) Many rashes on other parts of the body, neck pain or stiffness, muscle weakness on one or both sides of the face, irregular heartbeats, pain that starts from the back and hips and spreads to the legs, pain, numbness, or weakness in the hands or feet, painful swelling around the eye or eyelid, and eye pain or vision loss. Stage Three (2 to 12 months) Arthritis in large joints, particularly the knees, pain, swelling, or stiffness that is long-lasting.

FLORIDA'S PRIMARY ECOSYSTEMS AT HIGH RISK NORTHERN HARDWOOD FORESTS

The northern hardwood forests are at the highest risk in Florida's ecosystems as they contain a high number of species that could be impacted by hemlock woolly adelgid, beech bark disease, emerald ash borer, asian longhorn beetle, and spongy moth. This forest type makes up approximately 72% of Florida's land. It provides corridors of unfractured forest systems allowing northern migration of plant and animal species as shifting climates reduce their southern habitats.

DRY OAK-PINE FORESTS

In Massachusetts, the spongy moth preferred food source is the foliage of oak trees and it has caused defoliation and tree loss across the state, including the northeast corner of Florida (Mass.gov, B). From 2015 to 2017, drought conditions decreased the fungi that were mitigating spongy moth populations and led to 923,000 acres of defoliation across Massachusetts. Moist springs in the following years helped decrease the population to a current manageable level (Mass.gov, B). Asian longhorn beetles also feed on oak forests (Grimaldi).

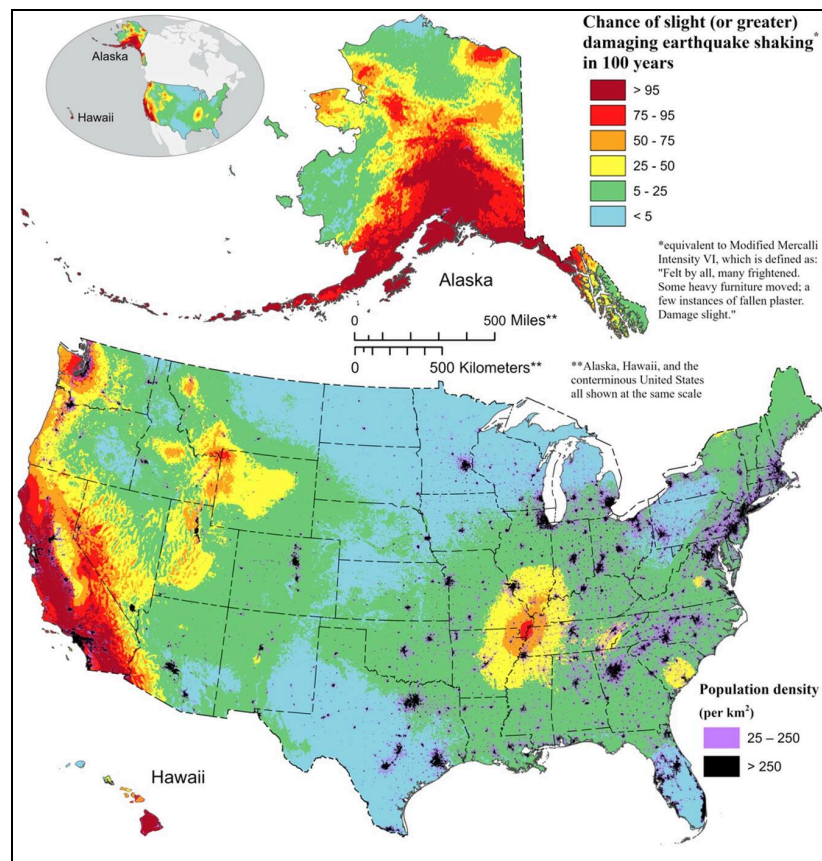
ACIDIC CLIFF AND TALUS

Lingonberry is an evergreen shrub in the heath family that spongy moths feed on (NYSDEC). Monitoring of heath shrublands for the presence of spongy moths will allow for early detection and may help prevent its spread or large-scale defoliation. Beech bark disease, beech leaf disease, and hemlock woolly adelgid are species specific and do not impact these ecosystems. There are no reports of Asian longhorn beetle impacting acidic cliff and talus ecosystems.

4.9 Earthquakes

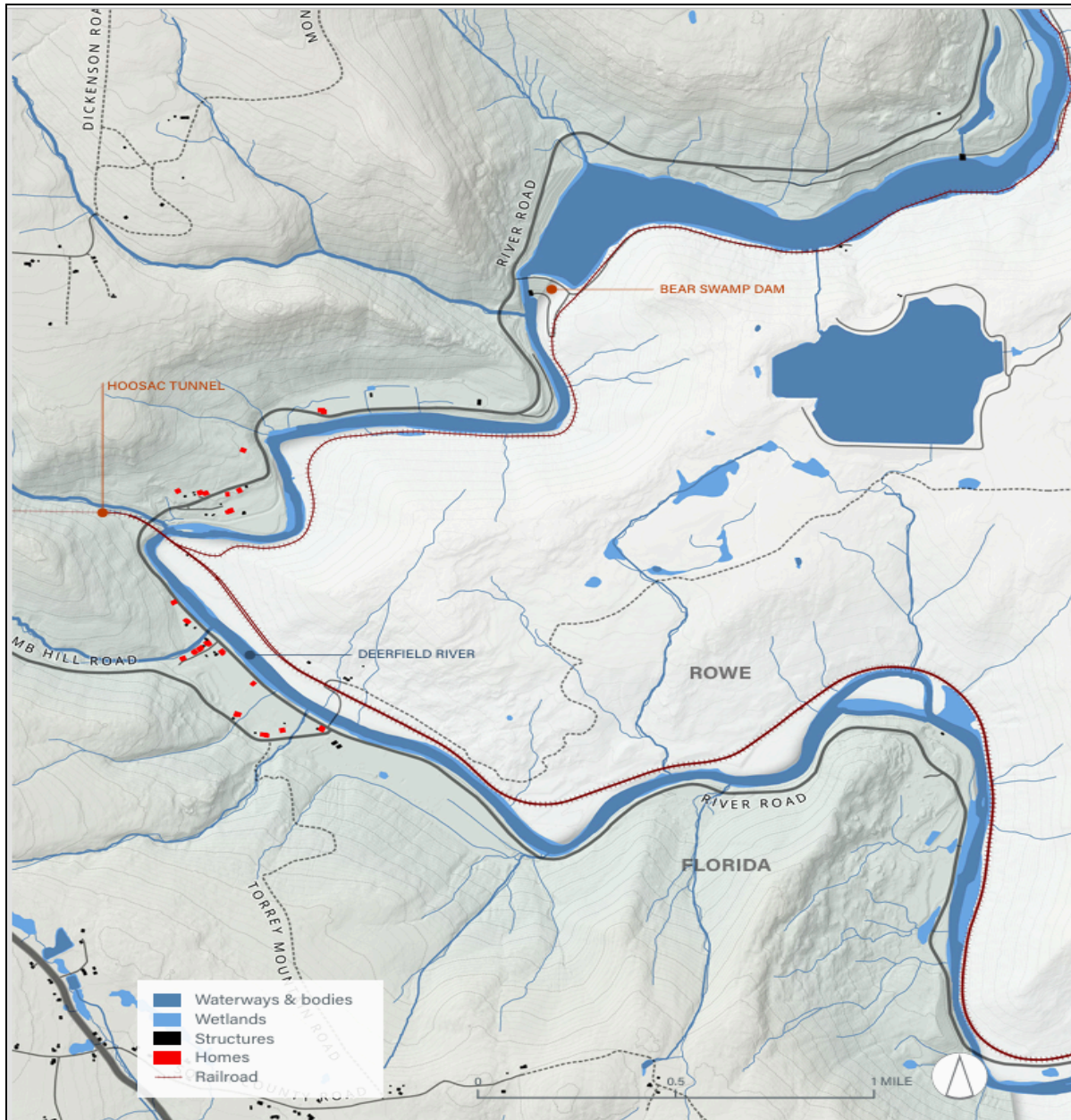
Although infrequent and typically minor, earthquakes do occur in New England. Per the 2024 USGS National Seismic Hazard Model Map, Florida MA is ranked in the second lowest of six risk categories with a 5-25% chance per 100 years of an earthquake that is felt by most but causing only slight damage.

Per the USGS Earthquake Frequency Map, the nearest and most recent recorded earthquake occurred in the Spring of 2022 in Erving MA approximately 35 miles east of Florida. The 2.2 magnitude earthquake caused minimal damage.



4.10 Train Oil Transportation

Oil trains are one of the many types of train cars that use the Hoosac Tunnel and the rail line along the Deerfield River in Florida and neighboring communities. They are trains carrying fossil fuel products, such as oil, crude oil, and ethanol, and are sometimes referred to as "bomb trains" because of their rare but deadly high profile explosions. According to Stand.earth, the only oil train rail line leading to the eastern coast of the United States north of New York City passes through the Hoosac Tunnel (Stand.earth). Train schedules and contents are not available online, but it appears it could be upward of 9 million gallons per week may come through the Hoosac Tunnel on a few trains (Berkshire Eagle). Risks from oil trains include explosion and spillage, both of which, while rare, do happen. In one notorious explosion, in 2013 a crude oil train derailed and exploded in Lac Megantic, Quebec, leveling the town center and killing 47 people (Earth Justice). 25 million Americans live within the blast zones of oil train bearing rail lines. Spillage does happen as well. In a study period between 2013 and 2015, there were 21 oil train derailments, and almost 2 million gallons of oil were spilled (National Observer). A spill on or near the Deerfield River could have a substantial and costly environmental impact.



Local Rail Infrastructure

4.11 Spent Nuclear Fuel Storage

Next to the Sherman Dam, the Yankee Rowe Nuclear Power Plant operated from 1961 to 1991. Decommissioning of the site was completed in 2007 (Wiki Yankee), but the Department of Energy, which was contracted to begin removing spent nuclear fuel from the site by 1998, has not removed any. The transfer of Yankee's used fuel from wet to dry cask storage was successfully completed in June of 2003. Yankee states its mission and focus is the safe



Yankee Rowe

storage of the plant's spent nuclear fuel and Greater than Class C waste at the Independent Spent Fuel Storage Installation until the U.S. Department of Energy meets its statutory and contractual obligation to remove the material. The storage will be conducted in accordance with NRC requirements and applicable regulations while the company pursues opportunities with stakeholders to complete the removal of the material from the site.(YankeeRowe.Com) Currently, spent nuclear fuel and associated waste is stored in 16 stainless steel and concrete casks, which are said to weigh approximately 200 tons each, at the former site (Yankee).

5.0 MITIGATION STRATEGIES

This plan is the first Hazard Mitigation Plan for the Town of Florida. While the Town underwent an Open Space and Recreation Plan in 2003, this will be the first effort to catalog mitigation strategies and recommendations. Current and existing strategies include the Volunteer Fire Department, Highway Department and State Police from Cheshire working together to respond to emergency calls and events. There are no recorded strategies until now.

According to the 2003 Open Space and Recreation Plan for the Town of Florida, there is only one zoning district, the Residential/Agricultural District. Single-family and two-family dwellings are permitted by right, although there has been no two-family development in the last ten years (as of 2003). The minimum lot is one acre. The minimum subdivision right-of-way width used to calculate additional new roadways at buildout is 40 feet. Retail stores and consumer service establishments are allowed by right. Other types of commercial development require a special permit from the Select Board. Florida does not have its own regulations for Wetlands, Stream and Pond Protection, Floodplain Water Supply Protection or Site Plan Review.

5.1 Hazard Mitigation Goal Statements

The Core Team along with community members identified and approved of the following Mitigation goals:

1. To provide adequate shelter, water, food and basic first aid to displaced residents in the event of a natural disaster.
2. To provide adequate notification and information regarding evacuation procedures, etc., to residents in the event of a natural disaster.
3. To minimize the loss of life, damage to property, and the disruption of governmental services and general business activities due to natural hazards.

The Town of Florida has limited resources, staff and volunteers often wear multiple hats to accomplish many of the Town's goals and provide much needed services. These goals and the following strategies are intended to assist the Town in prioritizing the proposed measures, which will provide guidance on how to best allocate any available grant or funding opportunities. Based on CRB workshops and discussions with the Core

Team, the Town has an eager base of volunteers and interested residents who continue to bolster the Town's efforts to improve services.

5.2 Hazard Mitigation Recommendations and Climate Change Strategies

The following strategies were developed through a multifaceted approach. Residents, business owners, state and local agencies, and neighboring towns were engaged through the Core Team, The Conway School of Landscape Design student research, the CRB workshops, the community survey and the open comment period to respond to the draft plan.

The following tables represent the Town's recommended hazard mitigation and climate adaptation measures. Recommendations are categorized based on the CRB matrix format; Environmental, Infrastructural, and Societal.

Hazard/Concern - These items are based upon community input at the CRB workshops, community surveys, and Core Team meetings.

Implementation Responsibility - Most mitigation strategies will require a multi-department collaboration. The designation of responsibility in the table is a recommendation and may be altered as appropriate.

Priority - The designation of high, medium, and low priority was based on overall potential benefits and feasibility. A high priority action is more likely to be supported by the community and provide greater, overall benefits for the community. A medium action may either have less community support or provide less overall benefits.

Timeframe - The timeframe designates the most likely initial start time and/or length of time to complete the action. Timeframes are designated based upon the overall complexity of the action, availability of funding, and the priority assigned to an action.

Timeframes and priorities assignments do not need to be strictly adhered to, projects that might receive funding and community support more immediately should absolutely be prioritized.

RECOMMENDATIONS: ENVIRONMENTAL

Environmental Hazards and Mitigation Strategies				
Hazard/Concern	Mitigation Action	Implementation Responsibility	Priority	Timeframe
Wildfire	Develop a plan to manage risk in potentially fire-prone areas such as oak-dominated forests.	Fire Department	Medium	3-5 years
	Educate the community about risks and firewise practices associated with wildfire	Selectboard, Fire Department, residents	High	Ongoing
Pests and Pathogens	General recommendations include education on identification, keeping firewood on site, and maintaining continued communication with DCR offices for early detection. Detailed information about specific pests/pathogens may be found in the appendix.	Selectboard, Conservation Commission	Medium	Ongoing
Land Protections	Update/revisit the Open Space and Recreation plan to identify critical ecosystems to protect.	Planning Board	Medium	1-3 years
	Consider a wetlands protection bylaw to avoid fragmentation of ecosystems.	Planning Board/Conservation Commission	Medium	5-10 years
	Consider extending permanent protections of intact and critical ecosystems through acquisition or partnerships with land trusts.	Conservation Commission	Medium	5-10 years
	Encourage education and adoption of climate-smart forestry practices that integrate the tasks of managing a forest for carbon sequestration, climate change adaptation, and timber.	Residents	Medium	Ongoing

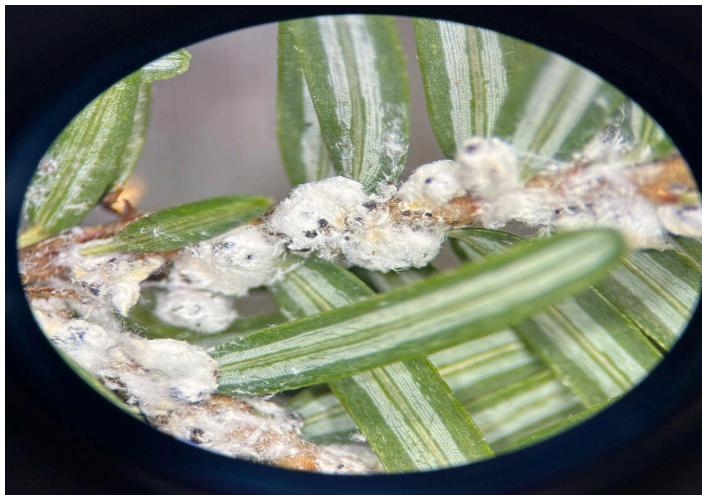
WILDFIRE: Develop a plan to manage risk in potentially fire prone areas like the oak-dominated forests. The plan may include controlled burn regimens in fire-prone areas. Educate the community about risks and recommendations associated with wildfire. There are actions that can be taken to share information with the community about the risks and responses to the potential of wildfire and the spread of pests and pathogens. Ongoing communication with specialists will support the planning process. Land management plans may include controlled burn regimens in fire-prone areas.

PESTS & PATHOGENS: Responses to pests and pathogens depend on seasonality, species, and level of existing and potential impact. General recommendations include education on pests and pathogens identification made available to residents; not moving firewood off site; and maintaining continued communication with regional DCR offices for early detection. A few species specific recommendations on a site scale include:

- Hemlock Woolly Adelgid Response: Do not move hemlock firewood off site, monitor trees, and remove bird feeders near hemlocks from March to July as the HWA can be dispersed by contact with bird feathers and feet. Prune hemlocks in August or February to prevent overhang of branches on roads and trails. In partnership with DCR, trials of the biological control *Sasajiscymnus tsugae*, a beetle that feeds on HWA, may be appropriate (DACF).
- Emerald Ash Borer Response: (ISC) Control methods include mechanical control through selectively cutting infested trees and burning or burying the wood, or injecting pesticides into the tree—this method requires an annual application and has the best results when done before infestation (Mwangola). In partnership with DCR, trials of wasps (*Tetrastichus planipennisi*, *Spathius galinae*, and *Oobius agrili*) as biological controls may be appropriate (Duan).

Asian Longhorn Beetle Response:

Remove infested and nearby susceptible trees by chipping/burning to prevent the spread of ALB, and detect early as small populations can be eradicated (USDA, C). • Beech Bark Disease Response: Beech scale can be removed using brushes, a blast of water, or direct application of insecticidal oils annually. Research is being done to propagate beech trees that are resistant to beech bark. Contact DCR to stay up to date on access to resistant varieties. Selective harvesting of diseased trees allows resistant or partially resistant trees a better chance at survival. In forests where BBD is not yet detected, remove unhealthy, aged, or rough-barked beech trees. When beech trees die or roots are disturbed, they produce young shoots, forming thickets on the forest floor that prevent the growth of understory species (e.g., maple or oak). Manage thickets by decreasing root disturbance, cutting, or applying localized herbicides (Kibbe). • Beech Leaf Disease Response: Research is being done to find a forest scale treatment for BLD. Current studies for individual tree treatment include injecting thibendazole into the trunk. Application of potassium based fertilizers at the base of trees can strengthen the tree and increase its resistance to BLD. If the tree is highly infected these methods may not be effective (Norman). • Spongy Moth Response: Inspect all outdoor items before moving them, and scrape egg masses into hot soapy water (USDA, B). • Lyme Disease Response: An increase in deer population and a warming climate have increased tick populations across North America. Management methods may include increasing the deer hunting season or reducing the predator species hunting season (such as coyotes and bobcats). Provision of educational activities and resources to the community is encouraged



Hemlock impacted by Woolly Adelgid

Future: As development occurs, Florida should ensure that intact and critical ecosystems are protected and preserved to the extent possible. There are a range of actions that can be taken by the municipality and residents to help reduce the loss of the valuable ecosystems in Florida, while also maintaining the rural character of the town and allowing for continued recreation in and appreciation of Florida's landscapes.

RECOMMENDATIONS: INFRASTRUCTURAL

Infrastructural Hazards and Mitigation Strategies				
Hazard/Concern	Mitigation Action	Implementation Responsibility	Priority	Timeframe
Culverts	Evaluate current structural integrity, sizing, and capacity of the identified high- and medium- priority culverts.	Highway Department	High	1-3 years
	Consider implementing non-invasive natural methods to slow, spread, and sink water upstream to decrease pressure on culverts (i.e. micro check dams).	Highway Department	High	1-3 years
Deerfield River Valley (Dams and Rail Line)	Continue to strengthen relationship with Great River Hydro with regards to emergency notifications, response, and support.	Selectboard/Highway or Fire Department	High	Ongoing
	Create a comprehensive evacuation and disaster response plan which focuses on the Deerfield River Valley.	Selectboard/Emergency Responders	High	1-3 years
	Limit further development in high-risk areas of the valley.	Planning Board	Low	Ongoing
	Investigate the possibility of installing a siren in the valley to alert of dam breach or other disaster.	Selectboard/Highway or Fire Department	Medium	3-5 years
	Continue attempts to establish relationship with rail line managers.	Selectboard	Low	Ongoing
Emergency Response and Preparedness	Determine a primary Public Safety Center (PSC) for the Town. Improve PSC preparedness with sufficient fresh water, nonperishable food, bedding, and power source.	Selectboard/Highway or Fire Department	High	1-3 years
	Distribute or engage the community in education regarding emergency response and preparedness for households.	Selectboard/Highway or Fire Department	Medium	Less than 1 year
	Collaborate with the State Highway Department to reduce the use of salt on Route 2, contaminating well water.	Selectboard/Highway or Fire Department	Low	Ongoing
	Establish regional resource and management cooperation (neighboring towns) to help decrease the load on Florida's volunteer fire department and disaster response.	Selectboard/Highway or Fire Department	Medium	3-5 years
Power Outages	Evaluate Town owned generators to assess need for upgrades, maintenance and/or fuel stocking.	Selectboard/Highway or Fire Department	Medium	1-3 years
Communications	Evaluate and assess ways to improve communications within the Deerfield River Valley and other cellphone or radio "dead spots"	Selectboard/Highway or Fire Department	Medium	1-3 years

Florida's roads and trails are vital for local and regional transit, while its communication systems and structures are critical for local climate resilience. A shifting climate and increased frequency of extreme weather events leave Florida's roads, communication systems, and structures vulnerable to localized and large-scale destruction. At this point in time the Town of Florida and its residents do not participate in the NFIP program as it was voted down several years ago at a Select Board meeting. It is recommended that this issue be brought before the community once again for a re-vote.

EVACUATION ROUTES: Safe and secure evacuation routes are also necessary. In the case of minor gradual flooding or train-related accidents, River Road would serve as an ample vehicular evacuation route because it would not be compromised by higher flood levels. Evacuation along River Road would bring evacuees either north to Monroe or south to Charlemont. In the event of a dam breach or major flood, however, Whitcomb Hill Road is the only safe vehicular access out of the valley because it quickly raises in elevation above flood levels, and River Road would be compromised.

RESIDENTIAL • Distribute educational resources on disaster response and preparedness for households (see Societal section). • Share information with residents about roof water catchment (on non-asphalt roofs) systems for household plumbing

(when combined with a filtration system) or for backup greywater for bathing and cleaning in the event of an emergency. • Facilitate household and neighbor resilience planning (e.g., a shared ATV or snowmobile) in the event of closed access to connecting roads(see section Crisis Response & Preparedness).

MUNICIPAL • Establish regional resource and management cooperation to help decrease the strain on Florida's volunteer firefighters and increase seasonal personnel for the Highway Department. • Limit development through local policy in forests and wetlands to preserve their flood mitigation and water-holding capacities and filtration of groundwater supply (further details in the Environmental recommendations section). • Pursue alternatives to salt for road treatment. • Provide further disaster response training for first responders living within Florida on emergency medical response and relief in the event of a crisis level disaster that could leave Florida disconnected from regional resources. • Identify opportunities for roadside vegetated check dams to help slow the water runoff, filter pollutants, and prevent sediment and salt from flowing into streams and wetlands.

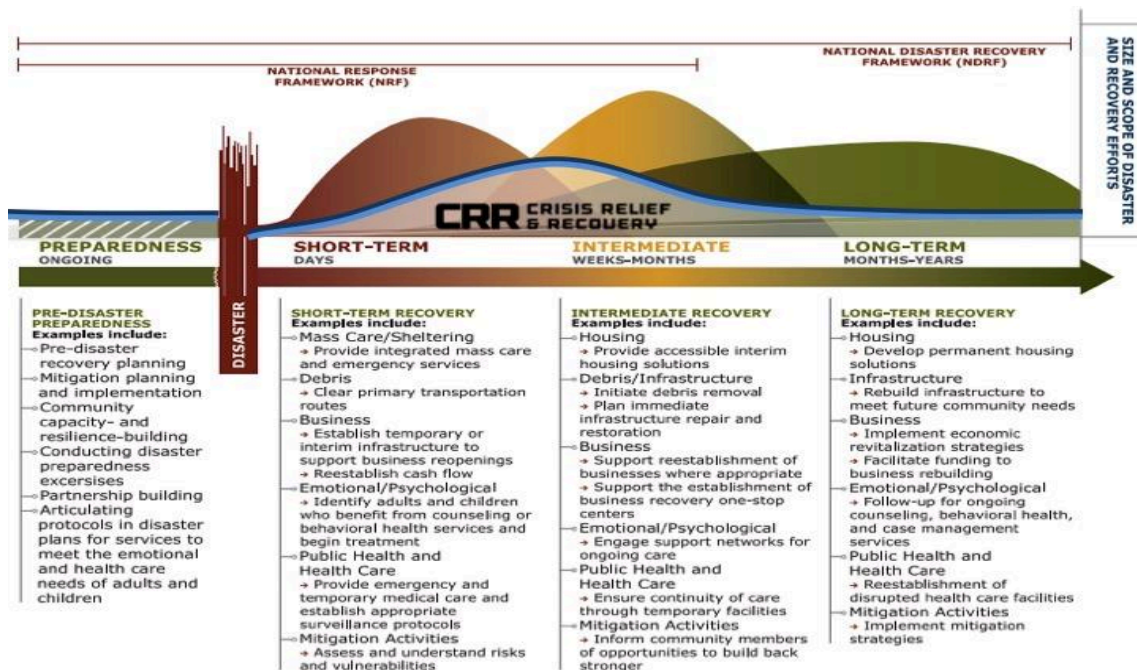
CULVERTS • Evaluate current structural integrity, sizing, and capacity of the identified high- and medium priority culverts. The U.S. Climate Resilience Toolkit - Precipitation Frequency Data Server can be used for assessments. • Assess in person and map culverts that block upstream tributary access for wildlife. If high priority or secondary-priority culverts are identified as blocking upstream access, consider starting with re-design of these culverts. • Lead-ins to culverts can be designed to reduce the velocity of water flowing through culverts and allow for the passage of sediment. Implementing non-invasive natural methods to slow, spread, and sink water upstream, such as micro check dams using rocks, that retain passage for aquatic life, can decrease pressure on culverts. Well designed lead-outs of culverts reduce erosion through the dispersal of flowing water. Optimum Stream Crossing Designs (Source: UMASS) • Culverts sized for 500-year rain events and suitable for flooding • Open bottom arch or bridge span • Minimum height of 6' and openness ratio greater than 0.75 in areas where wildlife passage is inhibited by high traffic, steep embankments, fencing, or other physical barriers • Minimum Height of 4' and openness ratio of .5 when road crossing is uninhibited • The openness ratio is the cross-section area of a structure divided by the length of the structure when measured in meters. The openness ratio is (height x width)/length • Greater than 1.2 times the stream width to maintain dry banks on both sides at least 80% of the year for wildlife passage • Water depth and velocity match conditions upstream and downstream • Natural substrates for stream-dwelling organisms

DEERFIELD RIVER VALLEY • Establish an emergency shelter in the Deerfield River Valley. • Create a comprehensive evacuation and disaster response plan • Make improvements to communications systems, such as improved cell service, mesh network, or Starlink • Install of a well-sited siren in the valley to alert of imminent disaster • Limit further development in the high-risk areas of the valley • Assess possible conservation or buyback options within the valley floodplains • Assess the impact of rail line oil spill or explosion risks

RECOMMENDATIONS: SOCIETAL

SOCIETAL HAZARDS AND MITIGATION STRATEGIES				
Hazard/Concern	Mitigation Action	Implementation Responsibility	Priority	Timeframe
Residents facing barriers	Investigate neighbor resilience planning and communication options (i.e. rideshare, wellness checks, etc.)	Selectboard, Senior Center, Council on Aging	High	1-3 years
	Diversify emergency alert systems to address loss of communication networks (i.e. those with hearing loss, visually impaired).	Selectboard, Senior Center, Council on Aging, Fire Department	Low	Ongoing
	Develop a map of households without transportation, reliable communication services or with mobility challenges to be accessible to all emergency responders.	Selectboard, Senior Center, Council on Aging, Fire Department	Medium	Ongoing
	Investigate purchasing a universally accessible vehicle for the Senior Center to secure safe transit.	Selectboard, Senior Center, Council on Aging	Medium	3-5 years
Cross Municipality Collaboration	Investigate the potential to collaborate with neighboring towns to establish a Comprehensive Plan in reference to the Berkshire County Hazard Mitigation Plan.	Selectboard	Medium	1-3 years
Residential Emergency Preparedness	Encourage residents to develop at-home emergency preparedness kits.	Local groups, Selectboard, Senior Center/Community Center	High	Ongoing

To be a place of refuge for potential incoming and present Florida residents, the current dependency on neighboring towns for gas stations, medical facilities and ambulances, police services, groceries, and stores that would supply emergency supplies such as batteries or blankets needs to be lessened. In the event of a regional disaster, these facilities may be inundated by local need and limited in capacity to meet the needs of neighboring communities. Access to these facilities may also be limited due to blocked roads.



According to the World Bank, if national and local governments take initiative to mitigate climate change and adapt to existing conditions, climate-related internal migration could drop by up to 80%, which is 44 million people (Huang). Mitigating and adapting to climate change is not a task Florida can or should respond to independently. Collaboration with neighboring rural towns and cities increases the skills, resources, and capacity of each community in an effort towards regional resilience.

In the event of a climate disaster, staying at your place of residence may be the safest option. Households should be prepared with emergency radios in the event of power outages or isolation in order to receive emergency evacuation orders or in the event of their dwelling being rendered unsafe. See FEMA Planning Considerations: Evacuation and Shelter-in-Place guide for disaster-specific shelter-in-place responses.

RECOMMENDATIONS: CRISIS RESPONSE & PREPAREDNESS

Establishing a municipal disaster preparedness plan that addresses social systems, resource access, an asset inventory, and a conflict analysis would facilitate a rapid response in the event of a disaster, saving hours of in-the-moment planning and coordination. Some key considerations include structures, evacuation routes, communication, medical resources, and political influences that may impact access to necessary resources. This plan should answer the questions: where do we go, what do we do, and who do we call. • Crucial response plans should be visually represented (e.g., printed infographics or videos) and posted in community and government spaces. Local schools and community centers can use games to simulate these events and methods of response (Morrow) • Establishing mutual trust and agreed upon resource and skill sharing with numerous community and national organizations as well as neighboring towns builds regional resilience through combined capacity. • Informational videos distributed through local channels can address items such as household shelter-in-place planning, varying methods of water filtration, shelter locations throughout town, and evacuation strategies. • See the "Build Your Go Bag, Get Home Bag, and Shelter Kit" free online training video by Crisis Relief and Recovery for details on blustering emergency shelters.

TRAINING: Consider investing in training for emergency responders and volunteers that addresses climate disaster specific response strategies such as the "Real -World Crisis Management" training provided by Crisis Relief and Recovery. These trainings establish a Standard Operating Procedure for order of communication and terminology. Then, participants practice those response strategies in disaster simulations. This includes items such as who will be responsible for setting up emergency centers, contacting neighboring town emergency response units, and updating local alert systems. • Emergency responders should first take care of their families and then proceed to using their skills to help other community members (CRR). • Training of community leaders and emergency responders should include Psychological First Aid (PFA). PFA is a supportive response to those with heightened distress due to an immediate or ongoing trauma to help calm an individual and connect them to medical, communal, or survival resources (CRR).

VULNERABLE POPULATIONS : Listening sessions that welcome neighboring environmental justice populations to assess if there is overlap of needs and opportunity for collaboration on solutions (e.g., further medical clinics or housing) • Diversify emergency alert systems to address loss of communication networks and vulnerable populations (e.g., those who are hard of hearing or visually impaired). • A mapping of households without transportation or with mobility disabilities should be accessible to emergency responders. • Purchasing of a universally accessible vehicle for the Senior Center will help secure safe transit to emergency shelters for vulnerable community members. • Supplementary supplies for water filtration that do not require electricity (such as Lifestraw or Berkey) at the Senior Center and Town Hall garage shelters can provide short term resilience in the event of an emergency until potable water is re-established at these facilities.

RULE OF THREES

(SOURCE: CRISIS RELIEF & RECOVERY)

The Rule of Threes, is a survival mnemonic device highlighting the order of response to emergency circumstances and threats to life.

3 SECONDS

In 3 seconds you can make a poor decision

- Pause and think



3 MINUTES

You can only last 3 minutes without air

- First aid kit (know what's in it and know how to use it)



3 HOURS

You can survive for 3 hours outside of your normal temperature range

- Shelter
- Space blanket
- Fire
 - Primary - lighter
 - Alternative - matches
 - Contingency - flint & steel
 - Emergency - sticks
- Getting out of the sun or rain
- Knife
- Para-cord
- Tarp



3 DAYS

You can survive 3 days without water (Variable due to individual health and weather)

- Multiple options
 - Water purification tablets
 - Water filter
 - Boiling water
 - Filter with moss/sand/charcoal





5.3 Potential Funding Sources

The identification of potential funding sources is preliminary and may vary depending on numerous factors. These factors include, but are not limited to, if a mitigation measure is conceptual or has been studied, evaluated, or designed. In most cases, the measure will require an assemblage of funding sources. The funding sources identified are not a guarantee that a specific project will be eligible for or receive funding. Upon adoption of this plan, the local representatives responsible for implementation should begin to explore the funding sources in more detail. Funding sources could include the following: Traditional funding sources within the Town of Florida such as funding from the operating and capital budgets may be able to cover some of the cost. State revolving funds and other no or low interest loans may also be of interest. There is a great variety of grant funding available for Massachusetts municipalities, both through the state and federal governments. A full list of funding opportunities can be found on the Community Grant Finder webpage. The [Community Grant finder](#) provides a streamlined interface where municipalities can easily learn about grant opportunities.

Potential Grant Funding Sources		
Source	Grant	Description of Funding
MA Emergency Management Agency (MEMA)	Flood Mitigation Assistance Grant Program (FMA)	Implements cost-effective measures that reduce or eliminate the long-term risk of flood damage
	Hazard Mitigation Grant Program	Provides funding after a disaster.
	Building Resilience Infrastructure and Communities Grant Program (BRIC)	Provides funding for hazard mitigation planning prior to a disaster
	Emergency Management Performance Grant (EMPG)	Reimbursable program to assist local emergency management departments to build and maintain systems
	Public Assistance Program	State reimbursable program for disaster related costs
Department of Energy and Resources (DOER)	Green Communities Designation and Grant Program	For qualifying communities to reduce fossil fuel consumption
Department of Conservation and Recreation (DCR)	Community Forest Grant Program	Funding to establish community forests
Division of Ecological Restoration (DER)	Culvert Replacement Municipal Assistance Grant Program	Grant to replace undersized, perched and/or degraded culverts.
Department of Environmental Protection (DEP)	604b Grant Program	Water quality assessment and management planning
	MS4 Grant Program	Meeting the requirements of the 2016 MS4 permit and reduce stormwater pollution through partnerships
	Water Management Act Grant	Funds planning projects to identify implementation actions to improve ecological conditions, conservation projects, and drought resiliency planning, and withdrawal mitigation projects that increase porosity and water quality.
	Drinking Water Supply Protection (DWSP)	Financial assistance for protection of existing DEP-approved public drinking water supplies, protection of planned future public drinking water supplies, and protection of planned future public drinking water supplies.

Executive Office of Energy and Environmental Affairs (EEA)	Dam and Seawall Program	Grants for the repair or removal of dams, seawalls, and levees
	Drinking Water Supply Protection (DWSP)	Financial assistance to public water systems and municipal water departments for the purchase of land or interests in land
	Land Use Planning Grants	Support effort to plan, regulate, and act to conserve and develop land consistent with the Massachusetts' Sustainable Development Principles
	LAND Grant Program	Helps cities and towns acquire land for conservation and passive recreation
	Federal Land and Water Conservation Fund	Funding for the acquisition, development, and renovation of parks, trails, and conservation areas.
	MassTrails Program	Trail protection, construction, and stewardship projects
	MVP Program - Action Grants	Provides support in implanting climate change resiliency priority projects
	MA Environmental Trust (MET)	Grants to support projects that protect and restore natural resources, including dam removal
Department of Fire Services	Senior SAFE	Supports fire and life safety education for seniors
	Student Awareness of Fire Education (S.A.F.E.)	Grants for local fire departments to teach fire and life safety to schools
U.S. Environmental Protection Agency	Healthy Communities Grant Program	Reduce environmental risk to protect and improve human health and the quality of life
	Drinking Water State Revolving Fund (DWSRF)	Loans provided to municipalities to assist with infrastructure projects needed improve drinking water source, distribution, and treatment

6.0 PLAN ADOPTION AND MAINTENANCE

6.1 Plan Adoption

On ____ the HM/MVP Town of Florida Plan was adopted by the Select Board. See Appendix ____ for documentation. The plan was approved by FEMA on _____ for a five year period that will expire on _____.

6.2 Plan Maintenance

6.2.1 Tracking Progress and Updates

FEMA's initial approval of this plan is valid for five years. During that time, the Town will need to continue to track progress, document hazards, and identify future mitigation efforts. The core team, co-coordinated by the Town Administrator and Select Board, will meet annually or on an as-needed basis, whichever is most frequent, to monitor plan implementation. The core team will be amended as needed. The co-coordinators of the

core team will also prepare and distribute instruction on how to collaborate to keep the plan current every two years. The co-coordinators will utilize a series of shared spreadsheets to be made available to all core team members and any other interested local stakeholders. The spreadsheet and discussion about the spreadsheet will assist in determining any necessary changes or revisions to the plan that may be needed. In addition, it will help provide information on progress and accomplishments for implementation and any new hazards or problem areas that have been identified since the plan drafting. The information collected through the survey will be used to formulate a report and/or addendum to the plan.

6.2.2 Continuing Public Participation

The adopted plan will be posted on the Town's website. The posting of the plan on the Town's website will provide a mechanism for citizen feedback, such as an e-mail address for interested parties to send comments. The Town will encourage local participation whenever possible during the next five-year planning cycle and the core team will incorporate engagement into the implementation of the priority action items. All updates to the plan, including implementation progress, will be placed on the Town's web site. All public meetings related to the HM-MVP Plan will be publicly noticed in accordance with town and state open meeting laws.

6.2.3 Integration of the Plan with Other Initiatives

Upon approval of the 2025 Florida HM-MVP Plan by FEMA, the core team will make the plan available to all interested parties and all departments with an implementation responsibility. The group will initiate a discussion with those various departments regarding how the plan can be integrated into their ongoing work. At a minimum, the plan will be reviewed and discussed with the following departments and the Town Administrator's Office: Fire Department, Highway Department, Senior and Community Center, State Police Cheshire Barracks, Conservation Commission, Planning Board.

Appropriate sections of the HM-MVP Plan will be integrated into other plans, policies, and documents as those are updated and renewed, including the Master Plan and Open Space and Recreation Plan.

6.3 Process of Updating

By maintaining the 2025 HM-MVP Plan, the Town will have a competitive application when applying to FEMA for funding to update the plan. Once the resources have been secured to update the plan, the core team will need to determine whether to undertake the update itself or hire a consultant. If the core team decides to update the plan itself, the group will need to review the current FEMA hazard mitigation plan guidelines for any change in the requirements. The Florida HM-MVP Plan Update will be forwarded to MEMA for review and to FEMA for ultimate approval. The core team will begin drafting the full update of the plan in four years. This will help the Town avoid a lapse in its approved plan status and grant eligibility when the current plan expires at the end of year five.

APPENDIX

APPENDIX A: Core Principles

APPENDIX B: Core Team meeting Notes

APPENDIX C: Community Workshop Agendas and Promotional Materials

APPENDIX D: Community Survey

APPENDIX E: Climate Change Projection Charts for Florida

APPENDIX F: References

APPENDIX A: Municipal Vulnerability Preparedness (MVP) Program Core Principles

The MVP program has 10 core principles that should be incorporated into MVP projects:

1. Furthering a community identified priority action to address climate change impacts: Projects funded under this program should address one (or more) priority implementation action(s) identified by the community through the original MVP Planning Grant or MVP Planning 2.0 (whichever is most recent).
2. Increasing equitable outcomes for Environmental Justice (EJ) and other priority populations and addressing the root causes of social vulnerability: Projects funded under this program that increase climate resilience for Environmental Justice (EJ) Populations and other priority populations and take steps to address the root causes of inequity will be prioritized. Environmental Justice (EJ) Populations are defined in the 2021 EJ Policy and can be viewed in the MA EJ viewer. Priority populations are people or communities who may be disproportionately impacted by climate change due to life circumstances that systematically increase their exposure to climate hazards or make it harder to respond. In addition to factors that contribute to designation as an EJ Population (i.e., income, race, and language), other factors like physical ability, access to transportation, health status, and age shape whether someone or their community will be disproportionately affected by climate change. Learn more in the Guides for Equitable and Actionable Resilience (GEAR) Community Guide.
3. Building community capacity for climate resilience: Projects funded under this program should, where appropriate, include capacity building activities like fostering relationships between community members or community organizations to increase social resilience, integrating climate resilience thinking into other planning or policy projects, training community members on climate resilience and equity, or engaging students via new climate resilience curricula.
4. Conducting robust community engagement and supporting strong partnerships with EJ and other priority populations: Projects are required to demonstrate robust community engagement as part of the application. Applicants should utilize the MVP Planning 2.0 Engagement Plan guidance and template for building this out. The community liaison model or other partnership building activities with EJ Populations and priority populations are strongly encouraged.
5. Utilizing climate change data for a proactive solution: Projects funded under this program should incorporate climate change projections and data. Climate projections should not only be considered for projects with physical assets, but also in planning or policy review, identifying sites for potential land acquisition, training community members in climate resilience and equity, etc. Quantitative climate data can be found on the ResilientMass Climate Change

Clearinghouse resilient.mass.gov, (which includes the ResilientMass Maps and Data Center and the Climate Resilience Design Standards Tool), and/or local-level climate change studies. MVP's definition of data also includes Traditional Ecological Knowledge (TEK) or other qualitative forms of data like storytelling, interviews, or audio visual or audio-visual documentation.

6. Employing Nature-Based Solutions (NBS): NBS are adaptation measures focused on the protection, restoration, and/or management of ecological systems to safeguard public health, provide clean air and water, increase natural hazard resilience, and sequester carbon. Projects focused on NBS do not have to be strictly infrastructure or implementation focused. NBS can be incorporated into policy review, regulatory processes, developing community trainings or school curricula, etc. More information on nature-based solutions can be found in the MVP NBS toolkit.
7. Achieving broad and multiple community benefits: Projects that maximize climate resilience and provide other co-benefits (e.g., public health, environmental, social, economic, etc.) for many people will receive priority.
8. Committing to monitoring project success and maintaining the project into the future: Projects that proactively set in place mechanisms to (1) measure success over time and (2) maintain the installation or process beyond the life of the grant will receive priority.
9. Utilizing regional solutions for regional benefit: Projects that provide regional climate resilience benefits are prioritized. Regional partnerships of multiple communities are encouraged under the program.
10. Pursuing innovative, transferable approaches: Innovative projects that seek to address critical climate related issues with widespread relevance for many communities are encouraged.

Appendix B: Community Involvement Materials

Town of Florida MVP and HMP Core Team Meeting

Friday Feb. 14, 2025, 10:30-12:00

Florida Town Hall- 379 Mohawk Trail (RT. 2), Drury MA

CORE TEAM MEMBERS

Town administrator: Joan Lewis - townhall.floridamass@gmail.com
Selectboard: Tim Velazo - timvelazo@gmail.com
Fire Dept: Chief Mike Gleason - Mikefvfd@gmail.com
Highway: James White - Highway@townofflorida.org
Dam/Great River Hydro: Matt Cole - mcole@greatriverhydro.com
Cons Com: Steven Brown (Email Joan) town resident
Principal Abbot Memorial School: Martin McEvoy - MMcevoy@abbottmemorial.org

Regional MVP Coordinator - Emma Sass emma.m.sass@mass.gov

MA Hazard Mitigation Planner - Jeffrey Zukowski jeffrey.zukowski@mass.gov

CONSERVATION WORKS, LLC - Jill Craig - jillbeecraig@gmail.com 413-325-7792
Andy Vecchio - avecchio321@gmail.com 413-800-2760
CONWAY SCHOOL OF LANDSCAPE DESIGN - Nellie Ostow - ostow25@csld.edu
John (Jojo) Johanson - johanson25@csld.edu
Kayla Hatcher - hatcher25@csld.edu

Core Team Meeting Agenda

10:30 Introductions (5-10 min)

Andy - conservation works
Jill Craig - conservation works
Tim Velazo - select board emergency planning worked on the Mohawk Trail
Documentary, offered to share the document of build-out and have a road map (there may be a few discrepancies in the document)
Mathew Cole - Great River Hydro, emergency action plans, worked with numerous municipalities mentioned that dams are tested every 5 years
Conway School Team - John (JoJo) Johanson, Nellie Ostow, Kayla Hatcher
Emma Sass - Berkshire Region MVP coordinator from the Department of Energy and Environmental Affairs
James White (Jim) - Town of Florida Highway
Chief Mike Gleason - Florida Fire Department
Joan Lewis - town administrator
Jeffrey Zukowski (via Zoom) - MA HMP

10:40 Description of MVP planning and goals–Emma Sass (10-15 min)

Overview of MVP - The climate is changing; more extreme weather events. In 2017 MA developed the MVP program to help municipalities be more resilient to climate change.

Focus: find what our community needs and take action.

MVP grant - over 90% of towns have an MVP or in the process/ 3 grant programs:

planning grants: How communities get into MVP programs. Florida was awarded the planning grant in 2023.

Example of action grants: Awareness education, culvert fixes, supporting resilience

- Tend to be 1-2 year projects
- Emma is here to help brainstorm what could happen
- Municipalities can apply for action grants more than once.
- Better to do a small project, see it succeed, and then pursue another project

MVP is fully state-funded and stable. Typically \$20-25 million for funding annually

MVP 2.0

- Updated planning process: focus on community engagement, equity, and diverse community involvement
- Just starting this process as a state

Questions -

TIM: Voiced that DEP presented challenges when trying to do natural projects in the past
Emma can help with advising Florida on how to get approvals from DEP

A hard copy of the core principles was shared by Andy and print copies were later provided to attendees

MVP very connected to HMP

HMP is a MEMA/FEMA requirement. The Florida MVP is combined with the HMP to cover all requirements.

11:00 Description of HMP planning process and goals-Jeffrey Zukowski (10-15 min. via Zoom)

State funding is stable - HMP with MEMA

- 60% of the FEMA portion of the HMP is being funded at the state level through the MVP process
- The approval can still go to MEMA no matter the status of FEMA
- Federal FEMA funding is approved this year but uncertain for future years

HMP create resources to mitigate hazards, required by all municipalities to be eligible for

- BRICK, flood, and ____ grants

(1) Once the project is approved by FEMA, Florida will receive a pending approval document

(2) Once approved by FEMA can pursue funding

Questions:

- Andy: what is the typical turn-around?
- Funding is available around September/October through MEMA
- Review Process: From the date that Jeff receives the plan and returns it to the community is 45-60 days
- If submitted by the end of June 2025, based on this timeline, Florida will be able to apply for grants come the fall (2025) funding round

11:15 Role of Conservation Works-Jill Craig (5-10 min)

Conservation Works (CW) :

- The link between Florida and communicating with Emma, Jeffery, and the Conway team
- Facilitating core-team meetings
- As questions arise email Jill (jillbeecraig@gmail.com)
- CW helps facilitate community meetings alongside the core team

b) Today:

- i) Looking at dates for community meetings
- ii) Community meetings

Hoping to get community members to join the conversation: how would this community show up?

Questions:

Joan asked for the 3 select men to be added to the communication

Tim shared that they had a good turnout for their visioning sessions.

- He offered to share Documents on buildout plans
- He doesn't anticipate a lot of people in the town showing up to community meetings

Joan shared that the firefighter community would hopefully join and that the main challenges the community would likely identify include the culverts and guaranteeing a safe exit

11:25 Role of Conway School (5-10 min)

a) Nellie

The Conway team is here to support the town of Florida and conservation works

b) John: What is Conway

Conway is a 1-year master's program in ecological design and how to design through working with nature

3 terms working with clients on projects

2nd term - current - is focused on planning (Jan - March for this project)

The Conway portion of this process feeds into MVP but is not the full MVP

Requests from the Conway Team of the Core Team

Share of data from core team members (paper or digital)

Let the Conway Team know what areas of town they find the most concerning

c) Jill - The MVP process that CW and Conway will be doing does not include the surveying

Joan expressed that surveying will be required at the stage of grants

Feb 28th Conway students will be doing a presentation of the status of their project. Core team members are welcome to join.

Resource offers:

Matthew Cole can share the Emergency Action Plan via the website that has downloadable maps (not for public dissemination). It has GIS data at 1 Meter and depth inundation at 1 Meter

Tim expressed that the biggest concern is the housing on River Road in the event of a flood or problem with the dam

Wickham Road is the evacuation route

Wind at the top of the mountain (where downtown Florida is located)

Dams breaching
Nuclear waste is being stored in Rowe

11:35 Timeline for meetings and deliverables-Andy Vecchio (5-10 min)

Timeline

MVP plan to Emma by 30 June

if this is not feasible can discuss extending it

CW will turn into town earlier than 30 June for review before sending to Emma

Next Core team meeting on 27 February from 10:30 am - 12 noon

(1) Planning and prep for 1st community engagement meeting

(2) Logistics for community engagement and outreach

Typically two engagement meetings about a month apart and 4 hrs each

(1) 1st community engagement 15 March at the Senior Center

Joan provided a 'save the date' to the community as soon as possible

Joan will check with the senior centre to confirm the time

70 people capacity at the Senior centre?

29th as snow day back-up

Jill shared Petersham's example: open event with stations to move through

How to get the word out to community

Joan was told not to use FB by attorney

Caucus submission potential

Joan will talk with the Town Board of Selectmen to decide on location

Joan requested help on how to word the advertising

Emma suggested focusing on visioning and what makes you save

2nd community meeting 10 May Saturday 10a - 2p

present draft of MVP to the community for the community to give input before submitting the MVP to Emma in June

This event fulfils listening session requirements for HMP as well

Andy shared that a Survey will also be generated and submitted to the public

Questions

Joan: requesting to add 1 individual from the fire team to the core team. She emphasized making sure the community understands that this process is a good thing.

Requests

Contacts for the Town Board of Selectmen

Joan will provide contact information for:

1. Michael Badini

2. Neil Olsen

Joan will share with Martin McEvoy (principal) about future core team meetings

Cheshire Barracks (lieutenant) point of contact for trooper/police 413-743-4700

Usually, the fire department is the main point of contact in Florida

Plane crash - a previous event when the Cheshire Barracks were contacted

Chief Mike Gleason shared that there is a good working relationship between the fire department and state police

Expressed current hazards shared:

Joan: How to alert people in an emergency: sirens of how to get ahold of people in the case of emergency. In the valley even radio traffic is hard to access, no cell service, a lot of people on the river in the summer. Firefighters and the highway department work together and are the highway department.

The Fire Department currently using an emergency response plan from the '50s
Mike Gleason- recommends a siren by Lisa Teren's house
15 houses in the valley (27 of voting age) - 2 across the bridge in Rowe - around 30 people in total in the valley

Format options for public workshops and forums-Andy Vecchio (5-10 min)

Tentative schedule for public workshops, core meeting meetings-Andy Vecchio (10 min)
Invitation list and potential planning participants (business, underrepresented demographics, abutting community members? -Jill Craig (10 min)
Review of current maps (digital, hard copy) -Jill Craig-(5 min)

Participant action items assigned-press releases, emails, etc. -Andy Vecchio (10-15 min)

Town of Florida MA MVP & HMP 2.27.25 Core Team Meeting Minutes

LOCATION: Florida Town Hall 379 Mohawk Trail, Drury MA

PARTICIPANTS:

Jill Craig, Conservation Works
Andy Vecchio, Conservation Works (via Zoom)
Nelli Ostow, Conway School of Landscape Design
John (Jojo) Johanson, Conway School of Landscape Design
Kayla Hatcher, Conway School of Landscape Design
Joan Lewis, Florida Town Administrator
Tim Zelazo, Selectboard
Neil Oleson, Selectboard
Sgt. Andy Canata, MA State Police, Cheshire Barracks

The meeting started at 10:30am with Nelli Ostow, John Johanson and Kayla Hatcher presenting maps they prepared featuring culverts, flood areas, drainage basins, evacuation routes and related information pertaining to extreme weather-related events. Other meeting participants provided additional information to include.

Tim Zelazo and Neil Oleson added that Tilda Hill Road recently had a major culvert replaced and that some catch basins were beginning to fail in the Stone Bridge area. It was also mentioned that beavers regularly obstruct culverts with sticks and limbs that required clearing by town staff.

Participants mentioned in August 2011 Hurricane Irene caused significant damage to the town infrastructure and Rt. 2 was closed for an extended period for repairs.

Neil Oleson and Joan Lewis added that the town fire department volunteers assist the highway department employees with clearing trees and debris from roads after storms and have also pumped flooded residential basements.

Andy Canata and others discussed the fact that there are cell phone “dead spots” with no service particularly focused in low elevation locations.

Jill Craig presented information on local risks, vulnerabilities, assets, resources and strengths and provided handouts from the HMP planning handbook. She also presented the Community Resilience Building (CRB) Matrix that will be used to identify and rank priority vulnerabilities and strengths during the planning process at the Community Workshops.

Andy Vecchio forwarded a sample copy of the public survey that will be used to solicit town resident input to the planning processes and will be available online, distributed by hard copy and available at the Community Workshops.

Conversation then moved to mobility, especially for at-risk populations and it was noted that the majority of residents have their own personal vehicles for transportation in part due the rural location of the town and proximity to amenities. Andy Canata added that

while the Town of Florida does not have the highest elevation in Massachusetts, it is the highest occupied elevation in the state. As a result, there are often significantly colder temperatures, greater snowfall accumulations and stronger wind gusts than other inhabited areas of Massachusetts.

Tim Zelazo commented that he is the former director of the senior center and that elderly residents were previously contacted by volunteers after significant weather events to check on their well-being. Joan Lewis added that letter and package delivery employees have notified the town hall if residents had not retrieved delivered items over an extended period of time.

Neil Oleson added that the senior center encouraged elderly residents to obtain “call buttons” or “alert necklaces” in the event they fall and are immobile. Discussion followed around possibly using such devices in the event of a community emergency. It was also noted that many young people leave the town to pursue employment or education and as a result the average town resident age was likely to increase.

Various alert system options were discussed next and it was mentioned that National Grid provides text notifications for power outages and that a similar system could possibly be used for other emergencies. A public air horn or siren option was also discussed for residents without cellular phones or areas without network coverage. Andy Canata stated that the state took over 911 calls, communications and emergency dispatch duties to better provide regional services in the area. A suggestion was made to see if Florida is part of the “Code Red” communication systems.

Jill Craig and Andy Vecchio provided information on format options, outreach efforts and meeting requirements for the Community Workshops. Discussion next centered on a variety of ways to increase public involvement including expanding the scope of the event to include student art exhibits, exhibition booths, demos as well as emergency equipment/vehicle displays. It was agreed that the local Fire Department, Highway Department, Abbott Memorial School and State Police will be contacted regarding some of these options.

Discussion followed on Community Workshop logistics for the senior center, outreach opportunities as well as an agenda and it was agreed that Conservation Works staff would communicate with town staff next week to finalize.

The meeting concluded at approximately 12:15PM

Minutes prepared by Andy Vecchio 3.4.25

Town of Florida MVP & HMP 4.3.25 Core Meeting Minutes

LOCATION:

Florida Town Hall 379 Mohawk Trail, Drury MA

PARTICIPANTS:

Joan Lewis, Town Administrator
Tim Zelazo, Selectboard
Mike Gleason, Fire Dept.
James White, Highways Dept.
Andy Vecchio, Conservation Works
Jill Craig, Conservation Works

The meeting started at approximately 9am with a review and takeaways from the first Community Workshop on March 15th. Overall, the outreach, format, number and distribution of participants were very favorable.

It was noted that the Conway School of Landscape Design participation in the planning process was coming to an end and their involvement and input was beneficial and very much appreciated.

In discussing infrastructure, Tim advised that state Chapter. 90 funding for town road and culvert upgrades should increase significantly with newly proposed formulas benefiting rural communities. James mentioned that upgrading and enlarging some culverts under Chapter. 90 will require additional engineering services that will significantly increase replacement costs. He added that many of the culverts in town are between 18"-24" in diameter and are failing due to age (40+ y/o). James also noted that upgrading the capacity of one culvert often requires upgrading the capacity of all downstream culverts to mitigate flooding.

Also related to infrastructure, the question was raised whether future HMP funds can be used to install cell towers in areas not currently serviced. Mike mentioned the possibility of installing a public alert siren in the vicinity of 237 River Road to notify the nearby 15 homes of flooding or other emergencies as there is no current cell phone service in the area.

Mike added that the fire department has 3 portable generators but that they are 40 years old and should be replaced. Another larger generator to power some of the senior center is 25 years old and likely due for replacement. Also, the fire station is an evacuation center and its solar powered generator was replaced in 2008. He added that there is no potable water (due to well being impacted by road salt) and a small capacity septic system at the fire station.

James added that the town investigated treatment systems for the salt impacted wells at the town hall, senior center, fire station and other nearby locations, but high costs and

limited well water output prevented installation. It was noted that the well water at the school is potable.

Regarding emergency response, Mike confirmed that Rowe and Florida have a joint river rescue team and that some rafting/tubing outfitters have river rescue trained staff and equipment. Also, state police and local fire department radios are not usable in areas along the Deerfield River. The nearest EMS station is 6 miles away in North Adams and their response times to Florida varies between 6-20 minutes based on call volume and location of emergency.

The group discussed the emergency response of CSX railroad company and wished to investigate what resources the railroad had as well as what potentially hazardous materials were transported on the rail lines in town. Andy noted that RR companies often only release this information to towns directly and not outside or third-party entities.

Mike advised that he is the town Emergency Management Director and that Mike Worth, also with the volunteer fire department, is second in command as has a good knowledge of town resources.

Tim noted that the Florida Mountaineers, a local snowmobile club, has rescue trained volunteers and assists with rural recreation emergencies. Mike mentioned that the Florida fire department volunteers were committed and reliable. Also, the town has a large portable trailer stocked with blankets, cots, bottled water and other provisions. Mike stated that the local DCR Fire District 12 is based in Pittsfield and that the Savoy fire tower is staffed in times of high fire danger.

The group discussed the impacts of the 2008 ice storm where much of the town lost electrical power for up to 4-5 days. It was noted that local cell towers have backup generators, radio and cell service is generally available half-way up Whitcomb Hill Rd and most homes along the river have landline phone service since cell service is not available.

Next, Jill and Joan advised that 7 public surveys had been received and that it remains available on the Florida town website and at the town hall.

Jill provided a brief overview of the FEMA administered National Flood Insurance Program (NFIP). Tim noted that previous discussions approximately 15 years ago with the town residents along the Deerfield River were met with opposition to joining the program due primarily to private property use restrictions. Andy added that given more frequent flooding since then and potential changes to the program, a renewed effort to discuss the NFIP may be warranted.

In planning the next Community Workshop on May 10th, the group discussed potential additional attendees including the Manus Center, Blue Vista, Tom Brule (DCR), Angela Sirois (TNC), Christopher Marsden (MEMA) and a representative from the Hoosac wind farm. Also, Conservation Works will have a draft MVP and HMP plan presented 5 business days before the workshop. The CSLD reports, maps and findings will be

incorporated into the draft plans. The group confirmed that the upcoming Community Workshop promotional material is on the town website and posted at the town hall, transfer station, senior center, fire department and school.

The meeting concluded at approximately 11 am.

Minutes prepared by Andy Vecchio 4.6.25

Appendix C: Community Workshop Agendas

Town of Florida

Hazard Mitigation and Municipal Vulnerability Preparedness Plan Agenda

(Planners Version)

3/15/25 10:00AM – 2:00PM

Objectives

1. Share information about the planning process,
2. Share data regarding environmental, social, and infrastructure related hazards,
3. Gather feedback from community members.

Agenda

10:00 - 10:15 Registration

- CSLD big map “where do you live?”
- Sign in/name tags
- Refreshments

10:15 – 10:25 (10 min)

Andy

- Welcome to workshop/overview of agenda/Introduce Core Team, CSLD and Emma Sass

10:25 - 10:55 (30 min)

Emma Sass – MVP

Jill – HMP

10:55 - 11:10 (5-10 min) Q&A - Andy Facilitate

11:10 - 11:25 (15 min)

15 minute break

11:25 - 11:45 (20 min)

Conway School Presentation

Overview - issues in context of local, regional risk, resiliency, maps and data

11:45 - 12:00 Jill - Introduce group exercise/discussion process

Andy - Climate Change projection chart Interpretation

12:00 - 1:00 Andy/Jill/Kayla/Nellie/Jojo

- Group exercise/discussions
- Kayla, Nellie, or Jojo timekeeper & usher

1:00 - 1:15 **15 min break**

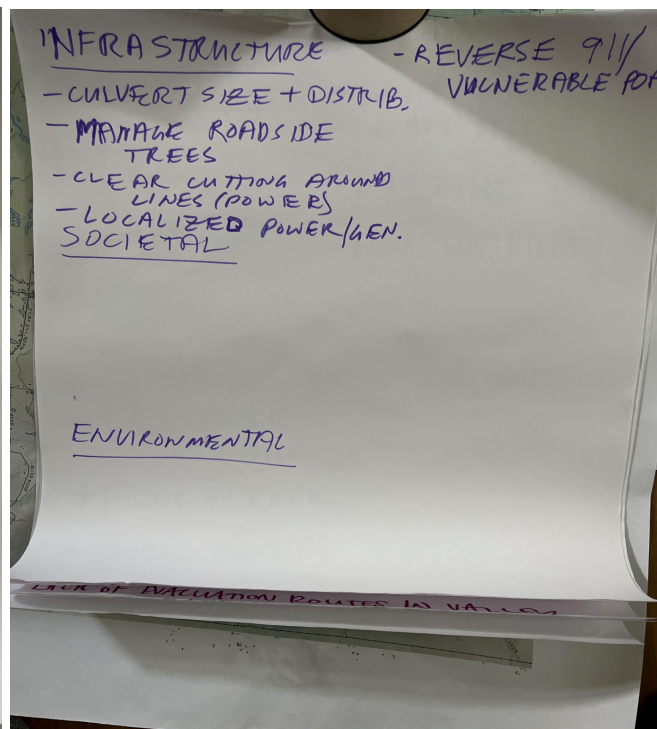
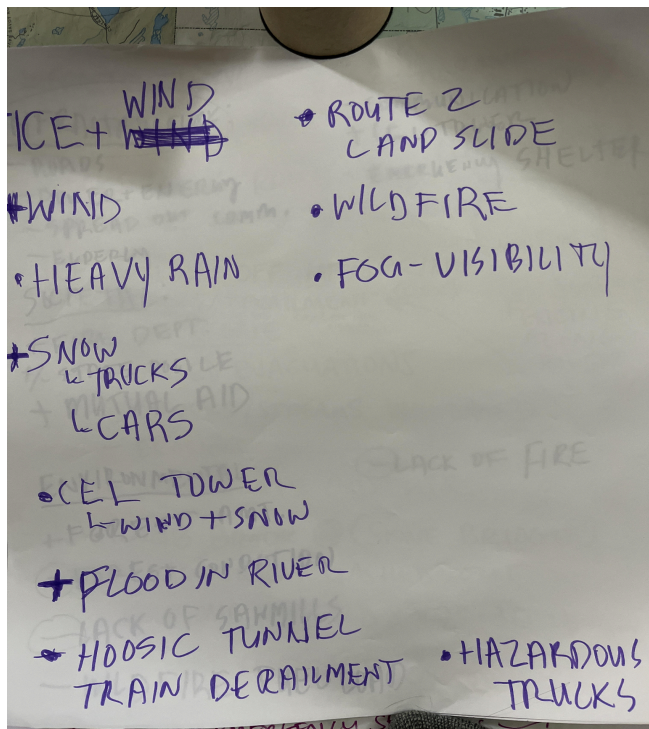
1:15 - 1:30 Andy

- Bring group back together
- Each group share 2-4 actions discussed/Summary of discussion

1:15 - 2:00 Jill - Workshop Wrap Up, introduce surveys, second Community Workshop

- Map input by Conway School
- Surveys
- MEMA/FEMA,
- State Police,
- Fire Station (fire truck),
- Highway Dept.,
- CW & Conway School,
- Senior Center,
- School,
- Tim- table with Town of Florida history

Group Discussion Summaries



INFRASTRUCTURE:

- ROADS
- POWER + ENERGY
- SPREAD OUT COMM.
- ELDERLY

SOCIETAL:

- + FIRE DEPT.
- + STATE POLICE
- + MUTUAL AID

ENVIRONMENTAL:

- LACK OF FIRE
- + FOREST AMT.
- FOREST CONDITION
- LACK OF SAWMILLS
- WILDFIRE FUEL LOAD

INFRASTRUCTURAL HAZARDS

- BRIDGE TO ROWE (NOT MAINTAINED ANY MORE)
- (LANDSLIDES)
- ROCKS ALONG ROUTE 2 (HAVE COME DOWN IN THE PAST)
- ICE FALLING OFF IN SPRING
- TRAIN TRACKS / DERAILMENT (CSX)
- HURRICANE IRENE
- CAUSED EVACUATIONS
- BROOKS / STREAMS INUNDATED
- EROSION
- INADEQUATE CULVERTS
- WHITCOMB BROOK (STONE BRIDGE)
- BIG RAIN STORM WASHED OUT WHITCOMB HILL RD ~ 25-30 YEARS AGO
- LIMITED CELL COVERAGE (NEW VERIZON TOWER)

SOME FENCING ALONG RIVER RD

HEAVY SNOW EVENTS

- NOT ENOUGH MAINTENANCE FOR PLOWING
- POWER LOSS

HIGH WIND EVENTS

- IN VALLEY
- BLOWN DOWNS OF TREES ON ROAD
- ASH TREES (EMERALD ASH BORER)
- WILDFIRE (DO WE HAVE THE RESOURCES TO FIGHT A FIRE?)
- WIND X FIRE X DEAD TREES
- CROSSING ROUTE 2 (TO GET MAIL, ETC)
- WELLS ARE CONTAMINATED W/ SALT ALONG ROUTE 2
- INCREASE IN SALT DUE TO ICING EVENTS
- NOT POTABLE WATER @ SENIOR CENTER, TOWN HALL, FIRE STATION
- LACK OF EVACUATION ROUTES IN VALLEY + DESIGNATED EMERGENCY SHELTERS

EQUIPMENT ISSUE??

INCREASE IN (ALERTS)

SOCIETAL

- ELDERLY FOLKS / SENIORS
- (SENIOR CENTER DOESN'T HAVE VAN / SHUTTLE)
- SLOW RESPONSE TIME FOR POLICE
- CHESTERFIELD
- AMBULANCE SERVICE IN NORTH ADAMS
- + VOLUNTEER FIRE DPT +
- COULD THE FIRE TRUCK GET DOWN ^ IN WINTER?

ENVIRONMENTAL

- DEERFIELD RIVER
- RECREATION
- STATE FORESTS
- HANG GLIDING @ ABOVE HAIR PIN TURN

INDIGENOUS HISTORY
 HODSAC TUNNEL

Yoga @ Senior Center
 Mondays 6-7:30P

STRENGTHS

- * FIRE DPT (STAFF, TRAINING, RESPONSIVENESS)
- * NEIGHBORS / COMMUNITY (STRONG + SUPPORTIVE)
- * SCHOOL + SENIOR CENTER + LIBRARY (TINY BUT MIGHTY)
- * FOREST (RELATIONSHIP TO BLUE VISTA ??)
- * ELEVATION (LOOKER)
- * RECREATION (\$)

* NORTH ADAMS AMULANCE

SIGN-IN SHEET		
NAME	AFFILIATION	EMAIL
Emma Sass	MVP	emma.m.sass@mass.gov
Larry Cote	Res	Lawcote@jail.com
Tom Bauls	Res	tom.bauls@gmail.com
Marty McEay	Abbott Memorial	mmceay@abbottmemorial.org
Ruth Boyce	COA	
Sarah MacLennan	COA	HAC82150C@4ail.com
Lisa Tanner	Resident	sht1997@gmail.com
Sheila Comstock	Resident	kelliher.sheila.231@gmail.com

Town of Florida Community Workshop

Municipal Vulnerability Preparedness &
Hazard Mitigation Plan

**10 to 2 PM – Florida Senior Center
Saturday, March 15, 2025**

ARE WE PREPARED?



The Town of Florida has received funding from Massachusetts' EEA and MEMA to complete a Municipal Vulnerability Preparedness and Hazard Mitigation planning process. Completion of these plans qualify the town for Action Grants which support towns to begin planning for climate change and implement projects.

WORKSHOP TOPICS



Identify strengths and vulnerabilities in our town



Share thoughts on what the town can do to prepare



Learn about potential hazards and how they may impact the town and your property



MORE INFORMATION

www.townofflorida.org
www.resilient.mass.gov/mvp
www.mass.gov

Town of Florida MVP/HMP Second Community Workshop Agenda

Sat. May 10th, 2025, 12-4 PM

Florida Senior Center, Drury MA

Objectives

1. Provide update on the planning process and draft report,
2. Review and edit findings from workshop #1,
3. Develop and prioritize actions that reduce vulnerabilities and reinforce strengths for the community at large.

Schedule

- 12:00 - 12:15 Registration/Refreshments
Map “where do you live?”
Sign in/name tags
- 12:15 – 12:25 *Andy Vecchio-Conservation Works, LLC*
Welcome to workshop/Overview of agenda/Introduce Core Team and Emma Sass/Objectives of meeting/desired outcomes
- 12:25 - 12:45 *Emma Sass, Regional MVP Coordinator – MVP Overview*
Jill Craig-Conservation Works, LLC– HMP Overview
**Add 5-10 min if new community members in attendance*
- 12:45 - 1:00 Questions and Answers (Q&A) - *Andy Vecchio*
- 1:00 - 1:15 **15-minute break/Refreshments**
- 1:15 - 2:00 *Jill Craig- Draft Report Presentation/Large Group Discussion*
 - Review findings from workshop 1 (hazards, vulnerabilities and assets)
 - Review Chapter 1.5.3 Town Identified High Priority Measures & Chapter 2 Hazard Mitigation and Climate Adaptation Goals*Andy Vecchio- Comments Documentation*
- 2:00 - 2:15 *Jill Craig- Introduce group exercise/discussion process*
Andy Vecchio- Climate Change projection chart Interpretation
- 2:15 - 3:00 *Andy Vecchio and Jill Craig*
Group Discussion -
 1. Review hazards/features from Meeting 1
 - a. Add/edit as needed (or if new group of community members)
 2. Identify actions needed for each hazard that will reduce the vulnerability or reinforce the strength represented by each feature/asset
- 3:00 - 3:15 **15 min break/Refreshments**
- 3:15 - 3:45 *Andy Vecchio*

Identify the priority level of each action (High, medium, low) and urgency (ongoing, short-term, long-term)

3:45-4:00

Jill Craig

Workshop Wrap Up, Survey Reminder, Draft plan email



Final Community Workshop

Town of Florida
Municipal Vulnerability Preparedness & Hazard Mitigation Plan

12 to 4 PM – Saturday, May 10, 2025
Florida Senior Center

We want to hear from you!

- ◆ Review the draft plan
- ◆ Enjoy refreshments & baked goods
- ◆ Provide input on the plan

Logos: CONSERVATION WORKS, MVP Municipal Vulnerability Preparedness, and the Town of Florida seal.

Please Sign In

<u>Name</u>	<u>Email</u>	<u>Affiliation</u>
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Tim ZELAZO	TIMZELAZO@gmail.com	TOWN
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Second Community Workshop and Listening Session Sign-in Sheet

Appendix D: Community Survey

This survey was made available to residents online, in print at the Town Hall and at both Community Workshops.

The purpose of this survey is to get a better understanding of what Florida community members value about their town as well as concerns they may have related to past or future hazards (i.e. weather/climate related or road accessibility). This survey will help inform a planning process that seeks to make Florida as prepared and resilient as possible for potential hazards and vulnerabilities in the future.

Do you live in Florida? How long have you lived in Florida?

What things do you love most about living in Florida?

What are the most challenging aspect(s) of living in Florida?

What weather-related or other hazards have impacted you in the past in Florida?

What hazards are you concerned about in the future in Florida? *Circle all that apply.*

- Extreme rainfall
- Tornado
- Hurricane
- High winds
- Flooding
- Dam breach
- Wildfire
- Chemical spill
- Oil spill
- Other _____

Have you seen any changes in weather over the years or how often weather events are occurring?

In past weather events, such as Irene or other major weather events, what have been the impacts on you? *Circle all that apply.*

- Loss of power
- Loss of road access
- Lost access to amenities
- Loss of communication
- Other _____

Where would you go in the case that evacuation out of your home was necessary?

If there was a disaster, how would you expect to receive critical information about evacuation or emergency response plans?

- Call
- Email
- Other _____

Hazards can have a significant impact on a community, but planning for these types of events can help lessen the impacts. The following statements will help us determine your priorities regarding planning for hazards in your community. Please tell us how important each statement is to you by checking the appropriate box for each.

Hazard Priorities:

- Protecting private property
- Protecting critical facilities (transportation networks, hospitals, fire stations, etc) -
- Preventing development in hazard areas
- Enhancing function of natural assets (streams, wetlands, rivers, etc) -
- Protecting historic and cultural landmarks
- Protecting and reducing damage to utilities
- Strengthening emergency services (police, fire, ambulance)
- Promoting cooperation among public agencies, citizens, businesses, etc

In your opinion, which of the following categories are most vulnerable to natural hazards in your community? Please rank the community assets in order of vulnerability, 1 being the most vulnerable and 6 being the least vulnerable.

Vulnerabilities:

- People: Loss of life and/or injuries
- Economic: Business interruption / closures, job losses, etc
- Infrastructure: damage to roads, bridges, utilities
- Community: Loss of access to work, schools, senior center
- Cultural/Historic: Damage or loss of libraries, historic properties, landmarks -
- Environmental damage: contamination or loss of forests, wetlands, waterways -
- Outdoor Recreation damage: loss of hunting/fishing access, hiking - Governance: ability to maintain order and/or provide public amenities and services



FLORIDA COMMUNITY SURVEY

What do you value about Florida?
What are your concerns?



the **Conway** School
Graduate Program in Sustainable Landscape Planning • Design

<https://tinyurl.com/FloridaMASurvey>

SCAN ME!

If yes, how long have you lived in Florida? If not, where do you live?	What do you love about living in Florida?	What are some challenges of living in Florida?	What hazards have impacted you in the past in Florida? (select all that apply)	What hazards are you concerned about in the future in Florida? (select all that apply)	Over the years, what changes in weather patterns or weather events have you noticed? (frequency, strength, season shifts)	During past weather events, such as Irene, what impacts have you experienced? (select all that apply)	Where would you go if evacuating your home was necessary?	If there was a disaster, how would you like to receive information? (select two)
I split my time between Florida, MA and NYC. My family lived here full time for 16 years. My daughters grew up here	Quiet. Space. Nature. My home and my land.	Nature. Space. My home and my land. Weather. Insurance.	Extreme rainfall, Tornado, Hurricane, High winds, Flooding, Wildlife, Invasive species, Pests or plant diseases	Extreme rainfall, Tornado, Hurricane, High winds, Flooding, Wildlife, Invasive species, Pests or plant diseases	Weather has gotten warmer. Storms more frequent and stronger.	Loss of power, Loss of road access, Lost access to amenities (library, school, clinic, senior center, etc.), Loss of communication	Outside of town	Call, power company
I live in Bennington, VT but manage 220 acres in Florida	It's a beautiful rural area.		Extreme rainfall, High winds, Pests or plant diseases	Extreme rainfall, High winds, Pests or plant diseases	weather has been unpredictable. Season shifts seem to be getting harder to determine.	Loss of power, Loss of communication	Outside of town	Call, Email
9 yrs	All the recreation and the Deerfield river. We paddle, cross country ski and hike	Sometimes driving Whitcomb hill especially in fog and wears our brakes out	Invasive species	Invasive species, Pests or plant diseases	Warming and more wind. Less snow	Loss of power, Loss of road access	Not sure	Call, Email
69 Years	The privacy and independence	You have to be self sufficient with a good support system	Hurricane	None of the above	None, it's all a cycle	Loss of power, Loss of road access	Another Florida home (friend or family)	Public alert system (siren)
73 years	Everything	No gas station	Hurricane	Every year is different	Every year is different	Loss of power, Loss of communication	Another Florida home (friend or family)	Call
60 years	The community, the beautiful land, the privacy	Hard winters, extreme weather, quick weather changes, steep grade of roads	Extreme rainfall, Hurricane, High winds, Flooding, Invasive species	Extreme rainfall, Hurricane, High winds, Flooding, Invasive species	The weather changes are more extreme. We can go from drought conditions to inches of rain! It has been drier than it used to be and rainfall, when we have it, is more extreme.	Loss of power, Loss of road access, Loss of communication, Small streams flooded, causing damage to my driveway and sheds.	Outside of town	Call, Social media, TV news, Public alert system (siren)
3.4	Clean air, relaxed environment. nature trails, quiet neighborhoods, night sky	High winds cause power outages due to fallen trees. Road not paved, which makes it dangerous during heavy snowfalls with ice covering surface road.	High winds, Wildlife, Pests or plant diseases	High winds, Wildfire, Pests or plant diseases	Wet summer followed by dry summer the following year.	Loss of power, Frequent loss of power had to install a generator	Outside of town	Call, Radio
5 years	It is a quiet place to live. Nobody bothers us. The people are kind and take care of each other. Folks take care of other folks on this mountain. We just simply love living here. The select board makes decisions that benefit everyone.	Ice storms. Having enough employees to staff the trucks to plow and sand. Plowing side roads in order for homeowners to get to the main road. A system to notify population of extreme dangerous conditions.	Extreme rainfall, High winds	Extreme rainfall, High winds, Flooding	Milder snow totals. Higher winds. Less rainfall. Increase of drought conditions.	Loss of power	Blue Vista Motel	Text!
6-4 years	Community school environment	Transportation no stores	High winds	Hurricane, High winds, Wildfire	Warming temperatures	Loss of power, Loss of communication	Florida town shelter	Call, Public alert system (siren)
over 60 years	nature, privacy, low taxes, low landfill fees	harsh winters, challenging roads (steep, snowy)	High winds, Flooding, Wildlife	High winds, Flooding, Dam breach	more frequent storms. More violent storms. Heavier and more frequent wind gusts	Loss of power, Loss of road access, Lost access to amenities (library, school, clinic, senior center, etc.), Loss of communication	Outside of town	Call, Public alert system (siren)

In the event of an emergency and you stayed home, how prepared would you be?	I or a member of my household may require extra assistance in the case of an emergency, due to ... (optional)	In your opinion, how concerned are you that the following categories are at risk in the event of natural hazards in Florida? [People: loss of life and/or injuries]	In your opinion, how concerned are you that the following categories are at risk in the event of natural hazards in Florida? [Economic: business interruption/closures, job losses, etc.]	In your opinion, how concerned are you that the following categories are at risk in the event of natural hazards in Florida? [Infrastructure: loss of your home, damage to roads, bridges, utilities]	In your opinion, how concerned are you that the following categories are at risk in the event of natural hazards in Florida? [Community: loss of access to work, schools, senior center, other community members]	In your opinion, how concerned are you that the following categories are at risk in the event of natural hazards in Florida? [Emergency Services: loss of access to hospitals, fire stations, etc.]	In your opinion, how concerned are you that the following categories are at risk in the event of natural hazards in Florida? [Cultural/Historic: damage or loss of libraries, historic properties, landmarks]	In your opinion, how concerned are you that the following categories are at risk in the event of natural hazards in Florida? [Environmental Damage: contamination or loss of forests, wetlands, waterways due to natural hazards or development]
Moderately prepared (I have some extra food, water, and batteries)	None of the above	Neutral	Not concerned at all	Concerned	Neutral	Neutral	Not concerned at all	Concerned
Not prepared (I would need to find food/water/power as soon as possible)	None of the above	Concerned	Very concerned	Concerned	Concerned	Very concerned	Very concerned	Very concerned
Very prepared (I have two weeks of food and water, a generator, etc.)	None of the above	Concerned	Neutral	Concerned	Neutral	Concerned	Concerned	Very concerned
Very prepared (I have two weeks of food and water, a generator, etc.)	None of the above	Not concerned at all	Not concerned at all	Not concerned at all	Not concerned at all	Not concerned at all	Not concerned at all	Not concerned at all
Very prepared (I have two weeks of food and water, a generator, etc.)		Neutral	Neutral	Not concerned at all	Neutral	Not concerned at all	Not concerned at all	Not concerned at all
Very prepared (I have two weeks of food and water, a generator, etc.)		Very concerned	Neutral	Very concerned	Very concerned	Very concerned	Very concerned	Very concerned
Moderately prepared (I have some extra food, water, and batteries)	None of the above	Concerned	Concerned	Concerned	Concerned	Concerned	Concerned	Concerned
Moderately prepared (I have some extra food, water, and batteries)	We are ok.	Very concerned	Very concerned	Very concerned	Concerned	Very concerned	Concerned	Concerned
Very prepared (I have two weeks of food and water, a generator, etc.)	None of the above	Concerned	Neutral	Concerned	Not concerned at all	Concerned	Not concerned at all	Concerned
Very prepared (I have two weeks of food and water, a generator, etc.)	None of the above	Concerned	Neutral	Very concerned	Concerned	Very concerned	Concerned	Very concerned

In your opinion, how concerned are you that the following categories are at risk in the event of natural hazards in Florida? [Outdoor Recreation Damage: loss of hunting/fishing access, hiking, etc.]	In your opinion, how concerned are you that the following categories are at risk in the event of natural hazards in Florida? [Governance: ability to maintain order and/or provide public services]	Share a story of how weather events in Florida have impacted you, your household, or your organization. (optional)
Neutral	Neutral	For the most part folks have traditionally taken care of their own families and homes. Folks have generators, trucks, tractors etc. We have lost power many times, once for a week. We lost route 2 access to Charlemont and beyond for 6 months. We are used to things like that, and have chosen to live on a mountain in the coldest inhabited place in the Commonwealth.
Very concerned	Very concerned	Over the past 3 years, we have increasingly had to reschedule/cancel customer visits due to extreme weather events.
Not concerned at all	Concerned	We had planned a vacation and our road was impassable due to 3 ft of snow. Eventually we left
Not concerned at all	Not concerned at all	
Not concerned at all	Not concerned at all	Made me install a generator
Very concerned	Not concerned at all	During Irene the Deerfield River hit historic levels. There are three roads out of the area. I live in the Hoosac Tunnel area two of the three roads were closed due to damage from water. The third road held out but it is the steepest and not in great shape. People were told to leave this section of town due to a possible dam breach.
Concerned	Concerned	During the Canada fires we felt the impact here on the mountain. The air was heavy and difficult to breathe. Had to put wet towels on the base of the door.
Neutral	Neutral	During major storms, my wife and I have a difficult time getting down our steep driveway to our extension road and down to Route 2. We get plowed later and later during storms. Our culverts during rainstorms overflow. If we have to get out onto Route 2 from Moores Road Extension it's difficult to do.
Not concerned at all	Not concerned at all	
Neutral	Concerned	During Irene, my driveway (black top) was 1/2 washed away and my utility shed washed down my front lawn.

APPENDIX E: Climate Change Projections

RESILIENT MASS SELECT CLIMATE CHANGE PROJECTIONS FOR FLORIDA

COLD DAYS

	Min. Median (10-90 th) Temp. In Degrees F	Days Below Zero Degrees F	Average Temp. (Degrees F)	Cold Stress Events	Heating Degree Days	Days Below 32 Degrees F
Baseline Value	-12.9	20	43.1	113	8209	180
2030	-9.3	12	46.7	90	7116	155
2050	-6.6	9	49.4	74	6366	132
2070	-3.9	6	52.1	60	4669	112

Source: MA Executive Office of Energy and Environmental Affairs, Resilient MA Climate Change Projections Dashboard
 Note: Degree Days is the difference between daily mean temp. and 65 degrees. IE: 78 degrees-65 degrees=12 cooling degree days.
 Baseline data from median values of 1950-2013 (Livneh et al 2015)
 Deerfield River Watershed (HUC8) Basin
 RCP (Rep. Conc. Path.) 8.5 Scenario

RESILIENT MASS SELECT CLIMATE CHANGE PROJECTIONS FOR FLORIDA

HOT DAYS

	Max. Median (10-90 th %) Temp in Degrees F	Days Above 95 Degrees F	Heat Stress Events	Cooling Degree Days	Days Above 90 Degrees F
Baseline Value	79.6	0	0	199	1
2030	83.2	0	0	222	5
2050	85.9	2	0	455	12
2070	88.6	6	0	744	26

Source: MA Executive Office of Energy and Environmental Affairs, Resilient MA Climate Change Projections Dashboard
 Note: Degree Days is the difference between daily mean temp. and 65 degrees. IE: 78 degrees-65 degrees=12 cooling degree days.
 Baseline data from median values of 1950-2013 (Livneh et al 2015)
 Deerfield River Watershed (HUC8) Basin
 RCP 8.5 Warming Scenario

RESILIENT MASS SELECT CLIMATE CHANGE PROJECTIONS FOR FLORIDA
PRECIPITATION

	Total Precipitation	Maximum Precipitation	Consecutive Dry Days	Precipitation Depth (99 th Percentile Storm Rainfall)	Days Above 1"
Baseline Value	52.6"	2.0"	27	1.2"	6
2030	55.8"	2.2"	27	1.3"	7
2050	56.8"	2.3"	28	1.3"	8
2070	57.8"	2.5"	29	1.4"	8

Source: MA Executive Office of Energy and Environmental Affairs, Resilient MA Climate Change Projections Dashboard
Baseline data from median values of 1950-2013 (Livneh et al 2015)
Deerfield River Watershed (HUC8) Basin

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