

Hubbardton, Vermont
2026 Local Hazard Mitigation Plan



Partial Collapse of a Section of Monument Hill Road in August 2011 – DR4022

FEMA Approval Pending Adoption Date: August 28, 2026
Municipal Adoption Date: September 14, 2026
FEMA Formal Approval Date: September 15, 2026



FEMA

September 16, 2026

Caroline Paske, Hazard Mitigation Supervisor
Vermont Emergency Management
45 State Drive
Waterbury, Vermont 05671-1300

Dear Caroline Paske:

As outlined in the FEMA-State Agreements for FEMA-4744-DR-VT, FEMA-4720-DR-VT, FEMA-4695-DR-VT, FEMA-4621-DR-VT, FEMA-4532-DR-VT, and FEMA-4474-DR-VT, your office has been delegated the authority to review and approve local mitigation plans under the Program Administration by States Pilot Program. Our Agency has been notified that your office completed its review of the *Hubbardton, Vermont Local Hazard Mitigation Plan* effective **September 15, 2026** through **September 14, 2031** in accordance with the planning requirements of the Robert T. Stafford Relief and Emergency Assistance Act (Stafford Act), as amended; the National Flood Insurance Act of 1968, as amended; the National Dam Safety Program Act, as amended; and Title 44 Code of Federal Regulations (CFR) Part 201.

Mitigation plans may include additional content to meet Element H: Additional State Requirements or content the local government included beyond applicable FEMA mitigation planning requirements. FEMA approval does not include the review or approval of content that exceeds these applicable FEMA mitigation planning requirements.

With this plan approval, the Town of Hubbardton, VT is eligible to apply to the Vermont Emergency Management for mitigation grants administered by FEMA. Requests for funding will be evaluated according to the eligibility requirements identified for each of these programs. A specific mitigation activity or project identified in this community's plan may not meet eligibility requirements for FEMA funding; even eligible mitigation activities or projects are not automatically approved.

The plan must be updated and resubmitted to the FEMA Region 1 Mitigation Division for approval every five years to remain eligible for FEMA mitigation grant funding.

Caroline Paske, Hazard Mitigation Supervisor
Page 2

Thank you for your continued commitment and dedication to risk reduction demonstrated by preparing and adopting a strategy for reducing disaster losses. Should you have any questions, please contact Alexis Meehan at (202) 394-6439 or alexis.meehan@fema.dhs.gov.

Sincerely,

CHRISTOPHER J MARKESICH Digitally signed by CHRISTOPHER J MARKESICH
Date: 2026.09.17 14:03:59 -04'00'

Christopher Markesich
Floodplain Management and Insurance Branch Chief
Mitigation Division | DHS, FEMA Region 1

cc: Ella Ferguson, State Hazard Mitigation Planner, VEM
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Technical Assistance by the Rutland Regional Planning Commission (RRPC)



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1 INTRODUCTION

Community planning and action can reduce the impact of expected but unpredictable natural events. The goal of this Plan is to advance mitigation investments to reduce risks posed by natural hazards and increase Hubbardton's resilience to natural hazard impacts.

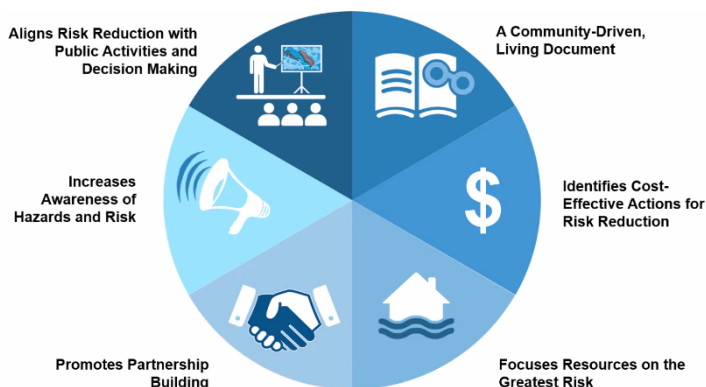
Hazard Mitigation is any sustained policy or action that reduces or eliminates long-term risk to people and property from the effects of natural hazards. All levels of government have come to recognize that it is less expensive to prevent disasters than to repeatedly repair damage after a disaster has struck. While hazards themselves cannot be eliminated, it is possible to identify local hazards, where their impacts may be most severe, and what actions and policies can be implemented to reduce the severity of their impacts.

This Plan recognizes that many hazards are interrelated and can cause cascading effects. Communities should therefore take a holistic approach to mitigation and integrate its principles and practices throughout government operations.

2 PURPOSE

This Plan identifies all natural hazards facing the Town of Hubbardton, ranks them according to local vulnerabilities, and develops strategies to reduce the risks posed by these hazards. Once adopted, this Plan is not legally binding; instead, it outlines goals and actions to prevent future loss of life and property.

The benefits of mitigation planning include:



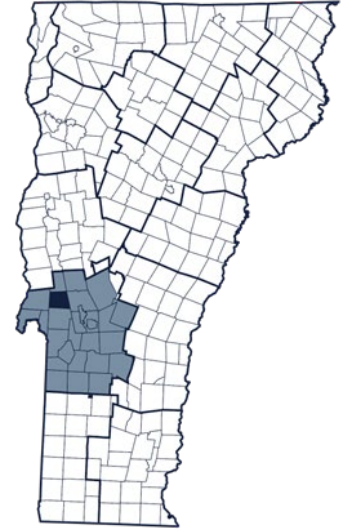
Source: FEMA LHMP Skill Share Workshop 2021

Furthermore, the Town seeks to be in accordance with the strategies, goals, and objectives of the 2023 State Hazard Mitigation Plan.

3 COMMUNITY PROFILE

Land Use and Development Patterns Chartered in

1764, the Town's earliest farms were spread out near East Hubbardton. Hortonville, situated at the outlet of Lake Horton, grew as a milling hub by the early 19th century. During this period, lumbering, sugaring, and dairy farming became central to the local economy. Bypassed by the railroad, the Town's population declined significantly in the 20th century as mills shut down, sheep farms failed, and lumber sources dwindled. In the 1930s and 40s, summer camps temporarily brought visitors back; however, this did not last long as US Route 4 was built, diverting local tourists. Since the 1950s, the Town has increasingly become part-time and seasonal, with the lakes emerging as popular camping spots.



Located in northwest Rutland County, Hubbardton is the sixth smallest town in the Region. It is characterized by scattered rural residential development, with a concentration of seasonal dwellings around lakes and ponds. While there are very few commercial or public buildings in Town, there are several home-based businesses and cottage industries along the major thoroughfares. Beyond this, the predominant land use is low-impact outdoor recreation, though lumbering and agricultural uses continue in some areas.

Historic hamlets and village centers in Hubbardton have been lost to history. Residents primarily depend on nearby Castleton for essential services like postal delivery, waste disposal, and education. Large swaths of land are privately conserved or owned by the State, including Half Moon State Park and the Hubbardton Battlefield.

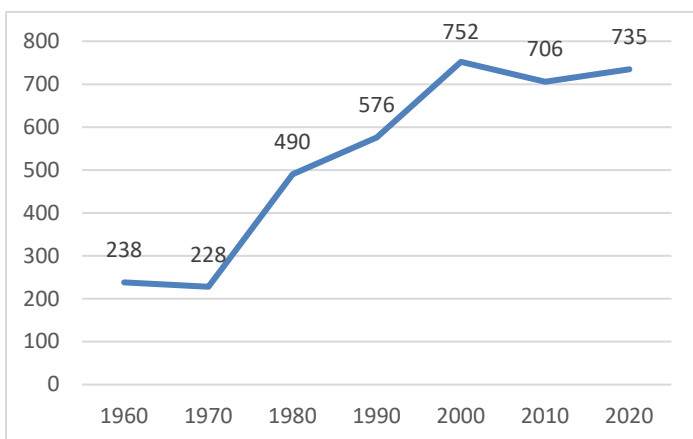
Hubbardton is around 18,429 acres in size, including all lakes and ponds. Of this, 14,565 (or about 80% of the land) is privately owned. Fifty percent of the Town's private land (or 6,683 acres) is enrolled in Vermont's "Current Use Program", meaning it is under active management for agricultural or forestry products."

Land Features Hubbardton is situated at the north end of the Taconic mountain range, with elevations ranging from 400 feet in the valleys to almost 2,000 feet in the southeastern corner of the Town. Mount Zion, a landmark peak in the Taconic Rambles State Park, reaches just over 1,200 feet.

The land primarily consists of steep hills bisected by meandering rivers and an abundance of scattered lakes and ponds. Additionally, the distribution of marshes and wetlands limits the extent of level areas in Town. The ridgelines and higher elevation areas are largely undeveloped. Because of their shallow soils and steep slopes, the ecosystems at higher elevations tend to be fragile and susceptible to damage.

According to the Vermont Natural Resources Council, 1,942 acres in Hubbardton are conserved by the State of Vermont, and 1,344 acres are conserved by non-profit organizations. The Nature Conservancy owns 934.5 acres, including The High Pond Natural Area. The Sargent Hill Wilderness Preserve consists of around 200 acres owned by the Northeast Wilderness Trust.

Demographics and Growth Potential The 2020 Decennial U.S. Census shows a population of 735 and 606 housing units, of which 584 are occupied. From 1960 to 2000, Hubbardton nearly quadrupled in size before stabilizing at around 700 people.



Between 2010 and 2020, the median age of Hubbardton residents rose from 47 to 53, above the median age in Rutland County of 47. About 27% of the population in Hubbardton is over 65, and 18% are considered disabled. The Town's population density is 28 people per square mile, much lower than the overall state density of 68 people per square mile.

The Town has 251 seasonal units representing an estimated 43% of the total housing stock, significantly greater than the 17% average for Rutland County. Of the permanent residences, about 86% are site-built single-family units, 2% are multi-family units, and 12% are manufactured housing. Non-seasonal housing units are 90% owner-occupied, with the remaining 10% being renter-occupied.

Hubbardton is a rural community that values high-quality open space and scenic resources. Growth potential is limited by the lack of public water and wastewater, steep slopes, certain soil types, telecommunication gaps, and a restricted road system. Current land use regulations ensure any development remains small-scale and environmentally mindful.

Precipitation and Water Features Hubbardton has about 130 precipitation days per year. The average annual precipitation is 40.7 inches of rain, with July being the wettest month. The average annual snowfall is 66.7 inches, with January being the snowiest month.

Projections from the University of California San Diego predict that by 2044, under scenarios of both intermediate and extreme greenhouse gas emissions, Hubbardton will see 0-1 days of extreme precipitation per year.

Surface waters are abundant in Hubbardton, accounting for 5% of the land area. There are around a dozen lakes and ponds, the largest including portions of Lake Bomoseen in the south and Lake Hortonia to the northwest. Other smaller water bodies include most of Echo Lake to the north and several ponds scattered across Town – Beebe, Black, Breese, Half Moon, Mudd, Parson's, Roach, and Walker Ponds.

Portions of other ponds occupy the northern townline border (High Pond) and southwest corner (Moscow Pond, Said Pond).

The Hubbardton River flows across the northwestern portion of Town. Notable brooks include Bresee Mill, Giddings, North Brenton, and Sucker, though many others extend from, or connect to, other bodies of water.

According to the Agency of Natural Resources, ~7.3% of the Town's land area (or 1,341.11 acres) is Class II Wetlands. These play an important role in water absorption and holding capacity, reducing flooding hazards and replenishing groundwater supplies.

Average Temperatures July is the hottest month in Hubbardton, with an average daytime temperature of 82.4°F. There are 7.0 days annually when the high temperature is over 90°F, significantly warmer than most places in Vermont. January is the coldest month of the year, with an average nighttime temperature of just 9.7°F. There are 157.1 days annually when nighttime low temperatures fall below freezing, which is warmer than most places in Vermont.

Projections from the University of California, San Diego predict that by 2044, under scenarios of both intermediate and extreme greenhouse gas emissions, Hubbardton will see 0-20 days above 90°F and 120-140 days below 32°F per year.

The Vermont Climate Action Office reports the period from 2010-2020 was the warmest decade on record; if this trend continues, Hubbardton will likely exceed 7.0 annual days of temperatures above 90°F by 2050.

Drinking Water and Sanitary Sewer There are no municipal drinking water or sanitary sewer services in Hubbardton. Homes and businesses rely upon individual wells for water supply and on-site septic systems for waste management.

Transportation Hubbardton covers ~28.9 square miles, with Vermont Route 30 being the major highway corridor connecting Sudbury to the north and Castleton to the south.

Hortonia Road and Monument Hill Road are the major town roads roughly linking the eastern and western portions of the community. There are also numerous private roads, usually used to access the seasonal homes surrounding the lakes. The primary form of transportation is personal vehicles.

According to 2024 VTrans Town Highway data, the Town has about 30.1 municipal road miles: 14.3 miles Class 2 and 15.8 miles Class 3. Approximately 60% are gravel and 34% are paved. In addition, there are 5.2 miles of State highway in Hubbardton, for a total of ~39.8 miles of traveled highways, including Class 4 roads and legal trails.

The Town's 2017 road erosion inventory shows that 93% of the road mileage is hydrologically connected—meaning it is within 100 feet of a water resource (e.g., stream, wetland, lake, or pond). Proximity to water resources can make these sections of road more vulnerable to flooding and fluvial erosion.

The Town's 2023 structures inventory (short structures and culverts) shows Hubbardton has thirteen (13) short structures (bridges with 6'-20' span); all are owned and maintained by the Town. There are ±375 culverts in the municipal road right-of-way; all were inventoried in 2023 by the RRPC. Of these, 104 culverts are classified as being in "poor", "urgent", or "critical" condition and should be considered for replacement and/or upgrade in accordance with the Town's Road and Bridge Standards.

According to VTrans, one (1) Town-owned long structure (bridges with >20' span) exists, with an additional two (B96 and B98) owned by the State. VTrans inspects long structures every two years through the Town Highway Bridge Program.

The local road network is maintained by a Town highway maintenance crew of three (3) full time employees and an appointed Road Commissioner. The Town Garage is located on Hortonia Road.

Electric Utility Distribution System Green Mountain Power provides electric service to approximately 595 accounts via two primary circuits. Average annual outage statistics between 2020 and 2024 are summarized in **Table 1**.

Table 1: Power Outage Summary

Average Annual (2021-2025)	
Avg # of times a customer was without power in a year	5.47
Avg length of each outage in hours	4.79
# of hours the typical customer was without power	26.20
2025 only	
Avg # of times a customer was without power in a year	3.61
Avg length of each outage in hours	2.29
# of hours the typical customer was without power	8.28

The longest power outage affecting the greatest number of accounts between 2021 and 2025 was 7.4 hours, impacting 406 accounts in 2021. In 2022, the longest outage between 2021 and 2024 occurred, with a 66.88-hour outage impacting 132 accounts. In 2025, there was a 19.13-hour outage that affected 167 accounts.

Public Safety The Hubbardton Fire Department, a 16-member on-call volunteer department, provides local fire protection. The Department is a Rutland County Mutual Aid Association member, allowing for additional assistance from surrounding communities when resources within the Town are maximized.

Historically, Hubbardton has relied on an elected local constable for law enforcement. As of 2025, the position is vacant. Until it is filled, the Vermont State Police handle primary law enforcement duties.

Hubbardton relies on the Fair Haven Rescue Squad for medical care and ambulance services. The nearest hospital is the Rutland Regional Medical Center (±23 miles) though specialist/medivac support is available at Dartmouth Hitchcock (±74 miles), the University of Vermont (±60 miles), and LifeNet New York (±24 miles).

Emergency Management Per the Town's Local Emergency Management Plan (LEMP), the town appoints an Emergency Management Director (EMD) and Emergency Management Coordinator (EMC).

These individuals work with others in town to keep the LEMP up to date and coordinate with nearby towns and non-profit agencies that serve at-risk populations.

The Town Office serves as the emergency operations center when needed; it is also the Town's designated primary local shelter and can operate as a warming and cooling center in the winter and summer, respectively.



Hubbardton Town Office

4 PLANNING PROCESS

Plan Developers

A local Hazard Mitigation Planning Team participated in updating the Plan. Team members included the Selectboard Chair, the EMD/Planning Commission representative, the Town Clerk, the Road Commissioner, the Town Administrator, and the EMC. It should be noted that the Selectboard Chair and EMD participated in the 2020 plan update.

The RRPC assisted with this Plan update. FEMA Building Resilient Infrastructure and Communities (BRIC) funds supported this process.

Plan Development Process

The 2026 Local Hazard Mitigation Plan is an update to the 2020 single-jurisdiction mitigation plan. **Table 2** on the following page and **Appendix C** provide a summary of the process used to develop the 2026 update.

Table 2: Plan Development Process

Jul 31, 2025 Planning Team Kick-off Meeting: discussed what an LHMP is; benefits of hazard mitigation planning; current plan status; planning process; and developed the public engagement strategy – see **Appendix C**. Planning Team working meetings were not open to the public.

Jul–Oct 2025: completed Phase 1 public engagement activities – see **Appendix C**.

Aug 19, 2025 Risk Assessment Workshop: confirmed community profile (Section 3), completed risk assessment, and began developing profiles for highest risk natural hazards (Section 5). A subject matter expert attended the Workshop to assist with risk assessments for Invasive Species; the subject matter expert for Infectious Disease was not available.

Sep 11, 2025 Planning Team Meeting: finalized Hazard Identification and Risk Assessment (Section 5) with input from Phase 1 engagement. This is a critical milestone in the plan development process, and the draft plan was prepared for presentation to Selectboard and first public comment period.

Sep 22, 2025 Draft Plan Presentation: presented to Selectboard to encourage input from local government and the public that could affect the plan's conclusions and better integrate with Town initiatives. Meeting was recorded and is available from the Town upon request.

Sep 22-Oct 6, 2025 Draft Plan Public Comment Period: draft plan posted for first public comment period. Draft plan discussed at Jun 23, 2025 Selectboard meeting – coincided with close of first public comment period. Selectboard authorized proceeding with development of mitigation strategy on Oct 6, 2025. Meeting was recorded and is available from the Town upon request.

Oct 23, 2025 Planning Team Meeting: discussed comments received on Sep draft; finalized Hazard Identification and Risk Assessment (Section 5); and began work on hazard mitigation strategy (Section 6).

Nov 2025-Jan 2026: completed Phase 2 public engagement activities – see **Appendix C**.

Nov 20, 2025 Mitigation Action Evaluation Workshop: evaluated broad range of possible actions to address the highest risk natural hazards (Section 6). Subject matter experts attended the Workshop to assist the planning team with action evaluation.

Dec 11, 2025 Planning Team Meeting: developed actions proposed for implementation (Section 6); began work on Plan Maintenance (Section 7) and Changes Since 2020 (Section 4).

Jan 8, 2026 Planning Team Meeting: finalized actions proposed for implementation with input from Phase 2 engagement (Section 6); finished work on Plan Maintenance (Section 7) and Changes Since 2020 (Section 4).

Jan 26, 2026 Draft Plan Presentation: presented to Selectboard to encourage input from local government and the public. Meeting was recorded and is available from the Town upon request.

Jan 26 – Feb 23, 2026 Draft Plan Public Comment Period: draft Plan posted for last public comment period. Draft Plan discussed at Feb 23, 2026 Selectboard meeting with opportunity for public comments – coincided with close of last public comment period. At meeting, Selectboard granted approval to submit the draft Plan to Vermont Emergency Management for Approval Pending Adoption. Meeting was recorded and is available from the Town upon request.

In addition to the local knowledge of Planning Team members and other relevant parties, several existing plans, studies, reports, and technical information were utilized in the preparation of this Plan. **Table 3** provides a summary of these.

Table 3: Existing Plans, Studies, Reports & Technical Information

2025 Local Emergency Management Plan Primarily used to identify local organizations that support at-risk populations to ensure these organizations are invited to participate in the plan update.

2025 FEMA NFIP Insurance Reports Used to determine how many structures are insured and number and type of repetitive loss properties in Section 5 and describe NFIP compliance in Section 6.

2025 Local Mitigation Planning Handbook Used to ensure plan meets the Federal mitigation planning requirements.

2025 Local Mitigation Planning Policy Guide Used to ensure plan meets the Federal mitigation planning requirements.

2025 State of Vermont Highway Mileage Summary Used to develop Transportation information in Section 3.

2024-2020 Green Mountain Power Outage Data Used to develop Table 1 in Section 3.

2024 Hubbardton Town Plan Referenced to develop Mitigation Strategy Updates – Changes Since 2020 Plan in Section 4 and Community Capabilities and Integrating into Existing Plans and Procedures in Section 6.

2024 FEMA Hazard Mitigation Assistance Program Policy Guide Used to ensure plan meets the Federal mitigation planning requirements.

2023 Structures Inventory (culverts and short structures) Referenced to develop the risk profile in Section 5 and mitigation actions to address floods in Section 6.

2023 State of Vermont Hazard Mitigation Plan Primarily referenced to develop the risk assessment and profiles in Section 5.

2023 State of Vermont Municipal Vulnerability Indicators Tool Referenced to develop the Average Temperatures information in Section 3 and to develop the risk assessment and profiles in Section 5.

2021 Vermont Climate Assessment Referenced to develop the flood risk profile in Section 5.

2020 United States Census Report Used to develop the Demographics and Growth Potential information in Section 3.

2017 Road Erosion Inventory Referenced to develop the risk profile in Section 5 and mitigation actions to address floods in Section 6.

2017 FEMA Region 1 Mitigation Ideas for Natural Hazards Used to develop mitigation actions to address impacts from severe winter storms, high wind, and floods.

2016 Lake Bomoseen Watershed Stormwater Master Plan Referenced to develop the risk profile in Section 5 and mitigation actions to address floods in Section 6.

2013 FEMA Mitigation Ideas Resource for Reducing Risk to Natural Hazards Used to develop mitigation actions to address impacts from severe winter storms, strong wind, floods, and extreme heat in Section 6.

2008 Flood Insurance Study for Rutland County, Vermont Referenced for community profile in Section 3; however, given the age of the document and the lack of FIS reports for Hubbardton, it provided little in terms of assessing and profiling current flood risk.

VTrans Town Highway Bridge Inspection Reports Used to develop the risk profile in Section 5 and mitigation actions to address floods in Section 6.

Vermont Statewide Highway Flood Vulnerability and Risk Map Used to develop the risk profile in Section 5 and mitigation actions to address floods in Section 6.

VTrans Transportation Resilience Planning Tool Used to develop the risk profile in Section 5 and mitigation actions to address floods in Section 6.

Vermont Dam Inventory (VDI) Used to develop the risk profile in Section 5 and mitigation actions to address floods in Section 6.

RRPC Local Liaison Reports of Storm Damage Used to develop the risk profile and hazard history in Section 5.

National Oceanic and Atmospheric (NOAA) National Climatic Data Center's Storm Events Database Regional data for Western Rutland County used to develop the risk profile and hazard history in Section 5.

FEMA Disaster Declarations for Vermont Used to develop the risk profile and hazard history in Section 5.

GIS Data Layers Incorporated into base mapping to assess and profile hazards, including, but not limited to, FEMA National Flood Hazard Layers and State River Corridor Layers.

OpenFEMA Dataset: Public Assistance Funded Project Summaries for Vermont Used to develop the risk profile and hazard history in Section 5.

Vermont Department of Forests, Parks & Recreation Referenced to assess invasive species risks in Section 5.

Vermont Department of Health Referenced to assess infectious disease and extreme temperatures risks in Section 5.

Mitigation Strategy Update - Changes Since 2020

In 2020, Hubbardton identified the following natural hazards that they believed posed the highest risk to the community:

- Thunderstorms with associated flash flooding, fluvial erosion, inundation flooding, high winds, and/or hail.
- Winter Storms with associated extreme cold, snow, ice, and high winds.

As the Town sought to implement the 2020 mitigation strategy, it looked for opportunities to incorporate information and recommendations from the 2020 Plan into other plans, programs, and procedures. Below are some examples.

Hubbardton has effectively integrated information from the 2020 Plan into budgets and other plans.

The Selectboard has worked closely with the Road Commissioner and the highway department to incorporate risk information and hazard mitigation goals into annual operating budgets. This remains an ongoing priority, and the Town is interested in expanding this effort by developing a formal capital plan for municipal facilities and equipment.

In 2017, Hubbardton completed its first road erosion inventory under the Municipal Roads General Permit (MRGP). The MRGP is required by the Vermont Clean Water Act and aims to protect water quality by reducing stormwater-related erosion from municipal roads. Nearly 95% of Hubbardton's municipal roads are regulated by the MRGP.

The Town has made significant progress in bringing its roads and drainage systems up to basic MRGP maintenance standards. Since 2017, the Town has improved approximately 6.09 miles of municipal roads. These infrastructure improvements protect water quality and make the roads more resilient to flash flooding. As of December 2025, only 1.4 road miles are non-compliant with MRGP standards. This progress is reflected in the 2026 update to the Town's Road Erosion Inventory.

Hubbardton has made progress in completing other mitigation actions identified in the 2020 Plan – see **Appendix B**. One noteworthy accomplishment is the installation of several upsized culverts on multiple roads: Black Pond Road, Burns Road, Frog Hollow Road, High Pond Road, Hinkley Road, Monument Hill Road, and St. John Road.

Like other small rural communities in Vermont, Hubbardton has a limited staff to integrate mitigation into municipal government operations. Considering this, their progress over the past five years has been impressive, as is the fact that their Local Hazard Mitigation Planning team has six members. Despite some recent turnover in longstanding municipal positions, core staff are better equipped to be trained on hazards and to understand the role of emergency management in hazard mitigation than they were in 2020. This is something for the Town to be proud of.

Hubbardton's mitigation actions since 2020 have made the community more prepared and less vulnerable to future natural hazard impacts.

Looking back over the past five years, Hubbardton has not experienced significant changes in land use, development, or population. Approximately 120 zoning permits have been issued since 2020; apart from a few new camps, these cover changes in use, additions to existing buildings, and minor construction projects such as sheds and garages. Because so few structures in Hubbardton are in FEMA-mapped floodplains and State-mapped River Corridors, the impact on Town vulnerability is likely minimal.

The Town believes its growth potential is limited by various factors, including a lack of public water and sewer utilities; steep slopes and certain soil types that inhibit septic system expansion; gaps in telecommunications services; and a restricted road system. There is also a strong public sentiment to maintain Hubbardton's rural character, particularly its high-quality open space and scenic resources. historic settlement pattern. Current land use regulations ensure that any potential development remains small-scale and environmentally conscious.

Limited, if any, future residential growth is expected in Hubbardton. This prediction is supported by the overall population decline from 2000 to 2020, with an average annual loss of 1.5 households (0.2%).

More significantly, the Town has seen some shifts in key demographics, particularly the median age of residents and the percentage of residents over age 65. These demographic changes have increased the Town's vulnerability to natural hazards.

Changes in population demographics and weather patterns are the primary drivers for a shift in the Town's mitigation priorities in 2026.

Since 2020, the acceleration of climate change has been increasing the frequency, duration, and intensity of storms, floods, fires, and extreme temperatures in Vermont. Local communities are already feeling the impacts of climate change, and these multi-hazard trends are expected to intensify over the next century.¹

As a result, Hubbardton considered the effects of future conditions, like climate change or potential development, on the type, location, and range of intensities of identified hazards when conducting the risk assessment and selecting mitigation actions for the 2026 Plan.

The 2026 risk assessment is presented in **Table 4**. The Town once again identified flooding and fluvial erosion, strong wind, and extreme cold/snow/ice as the highest risk hazards.

¹ FEMA Hazard Mitigation Assistance Program and Policy Guide, March 23, 2023

However, the risk scores for these hazards have change. Strong wind's risk score has dropped from 9.00 to 6.00, while the risk score for extreme cold, snow, and ice has risen from 7.00 to 11.00. This shift likely reflects recent damage to highway infrastructure caused by severe winter storms, alongside increased ownership of power generators by residents to reduce the impact of power outages from strong winds.

Since 2020, the Town's hazard mitigation strategy has evolved in response to more frequent and severe hazard events, which threaten both existing and future assets. This has led to a shift in Hubbardton's mitigation goals and priorities.

The list of assessed hazards was also expanded in the 2026 Plan to include invasive species and infectious diseases, which are identified in the 2023 State Hazard Mitigation Plan. Invasive species ultimately scored as a highest risk hazard for the Town.

Extreme heat and drought are also new additions to the list of highest-risk hazards. Recent hot summers, warmer-than-normal winters, and the record-breaking 2025 drought, coupled with extensive publicity regarding climate change, have brought these natural hazards to the forefront. Likewise, the attention drawn to the Emerald Ash Borer has heightened awareness of the issues it creates, adding this hazard to the highest-risk category.

Finally, to better address the needs of Hubbardton's frontline populations, when ranking an action's implementation priority in 2026, those that directly benefit a vulnerable population were ranked first priority – see **Table 6**.

In this Plan, natural hazards are defined as:

- Geological hazards including landslides and earthquakes.
- Environmental and climatic hazards including flooding, wind, hail, snow and ice storms, extreme temperatures, drought, wildfire, and invasive species.
- Biological hazards including infectious disease that can become epidemics or pandemics.

5 HAZARD IDENTIFICATION AND RISK ASSESSMENT

Local Vulnerabilities and Risk Assessment

The Planning Team completed a risk assessment for a broad range of natural hazards, consistent with those in the 2023 State Hazard Mitigation Plan.

Hazards were ranked based on 1) probability of occurrence and 2) potential impact on community assets—people, infrastructure, the environment, and the local economy. The assessment considered the effects of future conditions, like climate change or potential development, on the type, location, and range of intensities of identified hazards.

The ranking process is presented in **Table 4** and reflects the **highest-risk hazards** the Town believes it is most vulnerable to. The **highest-risk** hazards are those with a higher probability of occurrence and/or more severe or extensive impacts on community assets.

A summary of the risk assessment, including input from Phase 1 engagement activities, is provided here; See **Appendix C** for all responses and restrictions imposed by the small sample size:

	Risk Score	Phase 1 Engagement Input
Extreme Cold/Snow/Ice	11.00	50% of survey respondents have experienced extreme cold, snow, ice events; tied for #1 of the top 3 hazards most likely to occur in the next 5 years
Flooding (Flash & Inundation)	9.00	25% of survey respondents have experienced inundation flooding. 50% of survey respondents have experienced flash flooding; tied for #1 of the top 3 hazards most likely to occur in the next 5 years
Extreme Heat	8.00	25% of survey respondents have experienced extreme heat; 50% think extreme heat events are likely to occur in the next 5 years
Drought	6.75	25% of survey respondents have experienced drought; the same percentage believe that drought events are likely to occur in the next 5 years
Invasives	6.00	(not surveyed)
Strong Wind	6.00	50% of survey respondents have experienced strong wind events; 25% think strong wind is likely to occur in the next 5 years

Table 4: Community Hazard Risk Assessment

Hazards	Probability	Potential Impact					Risk Score
		People 	Infrastructure 	Environment 	Economy 	Average	
Extreme Cold/Snow/Ice	4	4	3	2	2	2.75	11.00
Flash Floods/ Fluvial Erosion	3	3	3	3	3	3.00	9.00
Inundation Floods	3	3	3	3	3	3.00	9.00
Extreme Heat	4	2	2	2	2	2.00	8.00
Drought	3	3	1	3	2	2.25	6.75
Invasives	4	1	2	1	2	1.50	6.00
Strong Wind	3	2	2	2	2	2.00	6.00
Hail	3	1	2	1	1	1.25	3.75
Infectious Disease	2	4	1	1	1	1.75	3.50
Wildfire	2	1	1	2	1	1.25	2.50
Earthquake	1	1	1	1	1	1.00	1.00
Landslide	1	1	1	1	1	1.00	1.00

*Score = Probability x Average Potential Impact

	Frequency of Occurrence: Probability of a plausibly significant event	Potential Impact: Severity and extent of damage and disruption to population, property, environment, and the economy
1	Unlikely: <1% probability of occurrence per year	Negligible: isolated occurrences of minor property and environmental damage, potential for minor injuries, no to minimal economic disruption
2	Occasionally: 1–10% probability of occurrence per year, or at least one chance in next 100 years	Minor: isolated occurrences of moderate to severe property and environmental damage, potential for injuries, minor economic disruption
3	Likely: >10% but <75% probability per year, at least 1 chance in next 10 years	Moderate: severe property and environmental damage on a community scale, injuries or fatalities, short-term economic impact
4	Highly Likely: >75% probability in a year	Major: severe property and environmental damage on a community or regional scale, multiple injuries or fatalities, significant economic impact

Infectious Disease and Invasive Species

This Plan must assess the risk of all hazards identified in the 2023 State Hazard Mitigation Plan, including infectious disease and invasive species. These hazards are unique and diverse. While their probability of occurrence in Hubbardton may be high, potential impacts will be highly dependent on the specific infectious agent or invasive species.

When conducting the risk assessment, the Planning Team assumed an endemic level of spread for infectious disease. They concluded that the Vermont Department of Health (VDH), located in nearby Rutland City, is better equipped to mitigate any outbreaks; therefore, the team considered it a lower-risk hazard for the municipality.

The team focused on a high-concern forest pest, the Emerald Ash Borer (EAB), due to detections in Hubbardton and nearby Benson, Castleton, and Pittsford. They concluded there is a high infestation risk, and that minor to moderate impacts justify mitigation. They also expressed concern over the prevalence of Eurasian Milfoil at Lake Bomoseen's northern end. Dense milfoil stands are capable of obstructing water flow, especially in drainage systems, which may exacerbate flooding conditions in nearby areas.

Given the diverse nature of these hazards, this Plan cannot fully explore them. Readers should look to VDH for more information on infectious diseases and the Vermont Agency of Natural Resources for more information on terrestrial & aquatic invasives.

Each of the **highest-risk hazards** is profiled in this section. Lower risk hazards do not justify mitigation due to a lower probability of occurrence and/or negligible impacts and are not profiled in this Plan. See the State Hazard Mitigation Plan for information on lower-risk hazards.

Survey Respondents Said....

Natural hazard impacts they are concerned about:

- #1 Loss of life or injuries, especially among vulnerable populations
- #2 Damage or loss of roads, bridges, public utilities
- #3 Damage to environmental resources (e.g., wetlands, lakes, ponds, rivers, forests)

Highest Risk Hazard Profiles



Extreme Cold, Snow, and Ice events typically occur between December and March in the Rutland Region. They can include snow, sleet, freezing rain, or a mix of these wintry forms of precipitation. Events can also be associated with Strong Wind or Floods, increasing the potential hazard impacts.

The costs of these storms include power outages due to heavy snow or ice, damaged trees, school closures, and traffic accidents.

From 2001 to 2010, Rutland County experienced \$2.27 million in property damage and \$100,000 in crop damage from winter storms, including Disaster Declarations DR1358 in 2001 and DR1698 in 2007.

From 2011 to 2020, Rutland County experienced \$1.4 million in property damage, and \$100,000 in crop damage from winter storms, with \$465,000 in property damage due to a 10" - 20" heavy, wet snowfall across the county on December 9, 2014 (DR4207).

From 2021 to May 2026, Rutland County experienced \$110,000 million in property damage and \$1.02 million in crop damage due to a hard freeze in May 2023 (S5470).

Winter weather impacts of greatest concern are extended periods of extreme cold coupled with a long-duration power outage. Hubbardton is vulnerable to power outages; they are a potentially significant risk to many residents.



Severe winter storms create a higher risk of car accidents, and extreme cold poses a higher risk of hypothermia and frostbite. This threat is amplified if extreme temperatures coincide with power outages, which can cut off heat and communications. See the Strong Wind profile for more information about the Town's vulnerability to power outages.

The impacts of extreme cold and severe winter storms are hardest felt by Hubbardton's at-risk populations—the disabled, the elderly, outdoor workers, and those living in substandard housing. About 18% of Hubbardton residents are considered disabled; 21% of residents are over the age of 65; 20% work consistently in outdoor conditions; and 93% of houses were built before 2000.

The Town does not have a system for monitoring the needs of vulnerable populations before or during an extreme winter storm. However, it provides aid if requested and can set up temporary warming shelters at the Town Office, Eastside Firehouse, and Congregational Church if needed.



Car accidents are a leading cause of death and injury during winter storms. To lessen roadway impacts, the Town maintains a fleet of equipment, including two tandem dump trucks equipped with three plows, one wheel loader, one grader, and one excavator.

As shown on the following map, roads historically prone to drifting include Hortonia Road and Monument Hill Road. However, these areas are maintained accordingly, and snow accumulation and ice events typically do not result in a long-term loss of road accessibility. Roads adjacent to critical facilities (Town Office, Town Garage, Fire Houses) are well maintained.

Overhead utility lines that are covered in ice or wet snow accumulation pose the greatest risk to infrastructure.

Of growing concern is “mud season” – the period typically between winter and spring when the ground thaws and freezes in cycles, causing mud on gravel roads. Mud season usually begins in late March or early April when the snow melts. Since hard winter freezes are becoming less common, Hubbardton is experiencing thaw-freeze cycles earlier in the winter season, making plowing on its many gravel roads more difficult.

One Town-wide risk that is hard to predict in terms of location is where gravel roads are vulnerable to becoming mud traps. For example, in the spring of 2025, prevailing weather conditions and the use of construction vehicles on Biddie Knob, a road that has traditionally not been affected by mud season, made the road impassable for a period due to excessive soil saturation.



The primary environmental concern is tree damage. Trees provide many environmental services and benefits, including stormwater management, improved air quality, carbon storage, shade, wildlife habitat, noise reduction, and aesthetic value.

Hubbardton’s vulnerability lies with roadside trees falling in the road and/or on utility lines due to the weight of ice or wet snow accumulation. The resulting impacts include loss of the trees, utility disruptions, and road debris that requires clearing.



As outlined in the Community Profile, the Town’s commercial sector is minimal. The few farms and lumber operations that exist in Hubbardton are mainly vulnerable.

Home-based businesses are also at risk in the short term; potential impacts include inaccessibility, commute delays, and frozen pipes.

Extreme Cold, Snow, and Ice Hazard History

These are the most recent significant events impacting Hubbardton. Hazard histories are limited to 20 years in the past, except for federal Rutland County Disaster Declarations, which are depicted in **bold**. All damages are to property unless otherwise noted.

5/18/2023: **\$5470 record low in the 20s: \$1,025,000 regional crop damage**

- 1/16/2021: 3-6” wet snow: \$60,000 regional damage
- 2/7/2020: 8-12” snow; ¼” ice: \$35,000 regional damage
- 1/19/2019: 10-18” snow; -10 to -20 below zero degrees with 30+ mph winds creating windchills colder than 20-40 below zero: \$25,000 regional damage
- 3/7/2018: 8-10” snow: \$20,000 regional damage
- 3/14/2017: 12-22” snow; 35 mph wind creating whiteout conditions: \$50,000 regional damage
- 11/29/2016: freezing rain, ⅓” ice: \$20,000 regional damage
- 2/1-2/2015: Record cold month with 15-20+ days below zero and 10” snow: \$25,000 regional damage
- 1/7/2015: 0-10 degrees with wind of 15-30 mph creating wind chills colder than 20-30 below zero: no reported damage

12/9/2014: **DR4207 10-20” snow: \$34,827 local damage; \$300,000 regional damage**

- 3/12/2014: 8-24” snow: \$55,000 regional damage
- 4/28/2012: sub-freezing temps in 20s for three consecutive nights: \$100,000 regional crop damage
- 2/23/2010: 6-30” snow: \$300,000 regional damage
- 12/11/2008: 5-9” snow/ice glaze: \$75,000 regional damage
- 2/14/2007: 15-35” snow and 0-10 degrees, with wind of 15-25 mph creating windchills colder than 10 below zero; \$275,000 regional damage
- 2/10/2005: 8-18” snow: \$100,000 regional damage
- 3/5/2001: **DR3167 20-30” snow: \$6,475 local damage; \$100,000 regional damage**



Floods can damage or destroy property, disable utilities, destroy or make impassable roads and bridges, destroy crops and agricultural lands, disrupt emergency services, and result in fatalities.

People may be stranded in their homes without power, heat, or communication, or they may be unable to reach their homes.

Long-term collateral dangers include disease outbreaks, livestock losses, septic system washouts which pollute the water supply, downed power lines, fuel storage tank losses, fires, and the release of hazardous materials.

As noted in the 2023 State Hazard Mitigation Plan and 2021 Vermont Climate Assessment, flooding is the most common recurring hazard event impacting Vermont communities. There are two types of flooding: inundation and flash flooding. Inundation flooding occurs when water rises onto low-lying land. Flash flooding is a sudden, violent flood that often entails stream bank (i.e., fluvial) erosion.

While inundation-related flood loss can be a significant component of flood disasters, the more common mode of damage in Vermont is fluvial erosion. Fluvial erosion is often associated with physical adjustment of stream channel dimensions and location during flood events. These dynamic and often catastrophic adjustments are due to bed and bank erosion of naturally occurring unstable stream banks, debris and ice jams, or structural failure of or flow diversion by human-made structures.

“Damage from high flows is the single most costly type of disaster in Vermont, primarily due to the erosive power of water. Many roads and culverts conflict with the room needed by streams and rivers.”

2021 Vermont Climate Assessment

Several major flood events have recently affected Rutland County, resulting in multiple Disaster Declarations. From 2001 to 2010, the County experienced roughly \$2.6 million in property damage due to flood events. The worst flood came in August 2011 from Tropical Storm Irene (DR4022), which dropped 7-8 inches of rain. Irene caused 2 deaths, \$55 million in property damage, and \$2.5 million in crop damage in Rutland County

Although Irene was technically a tropical storm, its effects are profiled in this flooding section since the storm brought only large rainfall and flooding to the Town, not the strong wind typically associated with tropical storms.

This caused most streams and rivers to flood, in addition to widespread and severe fluvial erosion. Although damages from Tropical Storm Irene were minor compared to neighboring towns, Hubbardton experienced approximately \$87,885 in local damage—all costs were related to Public Assistance. There were no Individual Assistance or National Flood Insurance Program claims for DR4022 in Hubbardton.



Inundation flooding at the intersection of Monument Hill Road and VT Route 30 during Tropical Storm Irene (DR4022)

From 2012 to 2020, Rutland County experienced approximately \$3.6 million in property and crop damage and three Disaster Declarations: \$420,000 in June & July 2013 (DR4140), \$2 million in July 2017 (DR4330), and \$1 million in April 2019 (DR4445).

According to the NOAA Storm Events database, Rutland County experienced approximately \$200,000 in property damage in July 2023 (DR4720). However, FEMA's Public Assistance Project Summary indicates this number to be as high as \$4.4 million. The only other instance of significant damage from flooding in Rutland County is in July 2024 (DR4762), with approximately \$50,000 in property damage.

In Hubbardton, floods are a risk. Damages from Tropical Storm Irene were relatively minor compared to Rutland County, but significant for the Town, with about \$87,885 in impacts. A wide range of assets are vulnerable to flooding.

Hubbardton is vulnerable to inundation flooding along the headwaters of Giddings Brook (north-east Lake Bomoseen) and the northern shore of Roach Pond. Roads that are impacted by inundation flooding include a small portion of Hortonia Road and VT Route 30 between Dikeman Road and Monument Hill Road. The latter cuts through “the Hubbardton Gulf”, a low-lying valley filled in with wetlands, but the severity and extent of damages from inundation flooding are typically minor.

There are 12 buildings in the FEMA-mapped floodplain, as well as roads, culverts, and bridges. No properties are located in the FEMA Floodway.

An estimated 12 buildings (2% of community structures) are in the Special Flood Hazard Area; a mixture of camps, ski areas, boat ramps or docks, and single or multi-family dwellings.

According to FEMA, only one property has flood insurance. This single policy covers \$115,000 in value.

There are no repetitive loss properties.

Unlike inundation floods, flash floods can occur whenever the area has heavy rain. These flood events are inherently sudden and unpredictable and can impact areas outside of designated floodplains, namely River Corridors. River Corridors encompass an area around and adjacent to the river where fluvial erosion is most likely to occur. The River Corridor map for Hubbardton can be viewed on the Vermont Flood Ready Atlas and is also delineated on the following map.

A moderate range of assets is at risk from flash floods. Hubbardton is vulnerable to flash flooding impacts on portions of the following roads: Benson Road (VT Route 144), Black Pond Road, High Pond Road, Monument Hill Road, VT Route 30, and the intersection of Davis and Woods Roads. There are also six (6) buildings in the State-mapped River Corridors- single family dwellings, an accessory barn, a boat ramp or dock, a camp, and a house of worship- as well as roads, culverts, bridges, and dams. Areas of flood concern are shown on the following map.



According to the National Weather Service, floods are responsible for more fatalities than any other weather-related hazard besides Extreme Heat. Most flood-related deaths occur while driving a vehicle into flood waters.

For those sheltering in place, the greatest risk beyond the floodwaters themselves is the potential for isolation. The rapid and erosive destruction of nearby infrastructure may render flooded areas inaccessible.

The result is that people become trapped and require swift water rescues, or critical assets, such as medical services, become unavailable. At-risk populations, especially those with a limited range of motion, face the greatest risk of isolation.

With inundation floods, there are cascading impacts involving infectious disease. Mosquitos, for example, breed in standing water, and when their population increases, so does the risk of diseases they transmit – e.g., West Nile Virus and Eastern equine encephalitis (EEE).

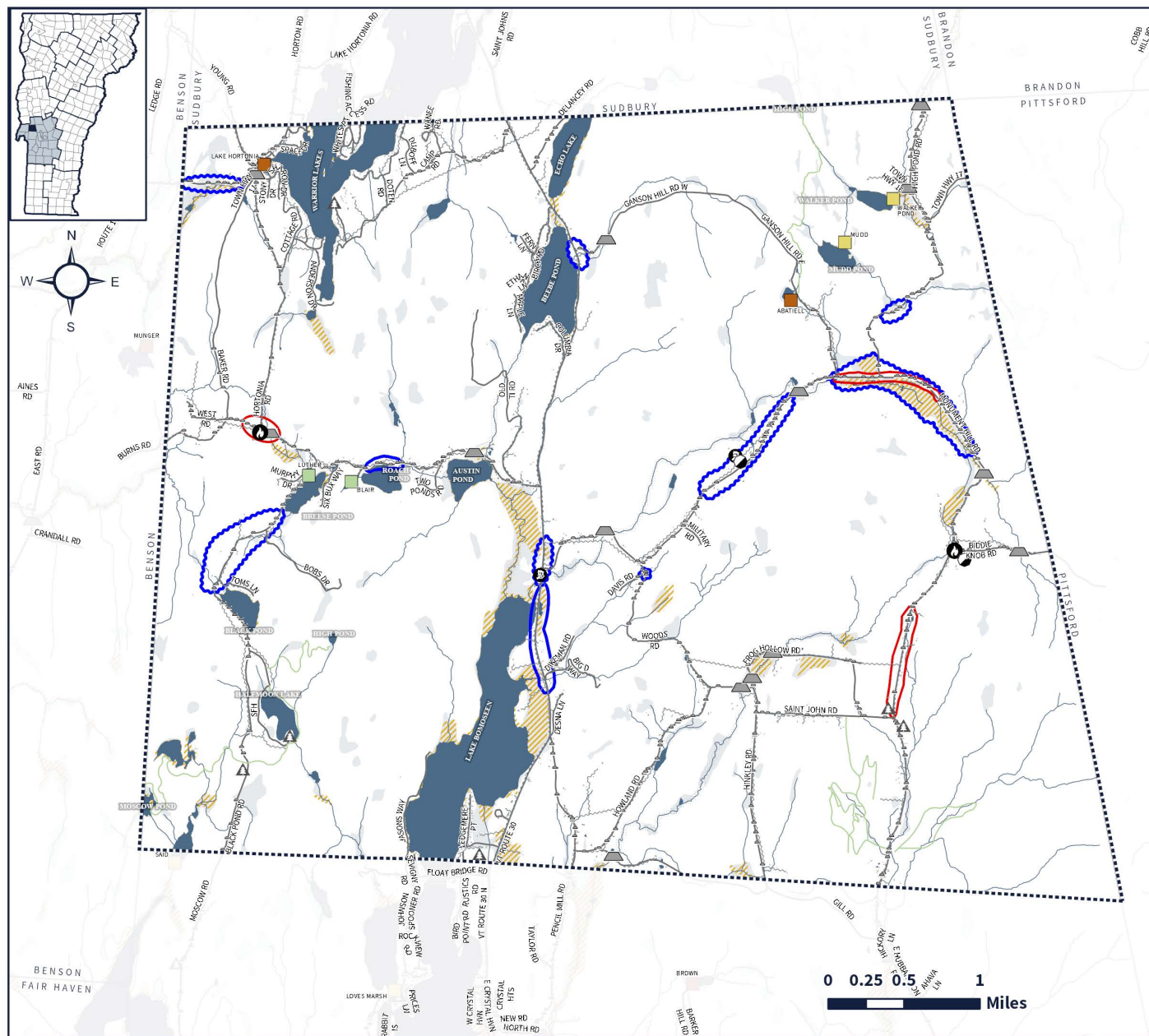


The most common type of flash flood damage is road washouts. When runoff volumes exceed the capacity of the stormwater drainage system (i.e., ditching and culverts), washouts can occur.



Shoulder damage on Monument Hill Road after Tropical Storm Irene (DR4022)

HUBBARDTON



Credits: Nic Stark for the Rutland Regional Planning Commission | Produced: 9/15/2025

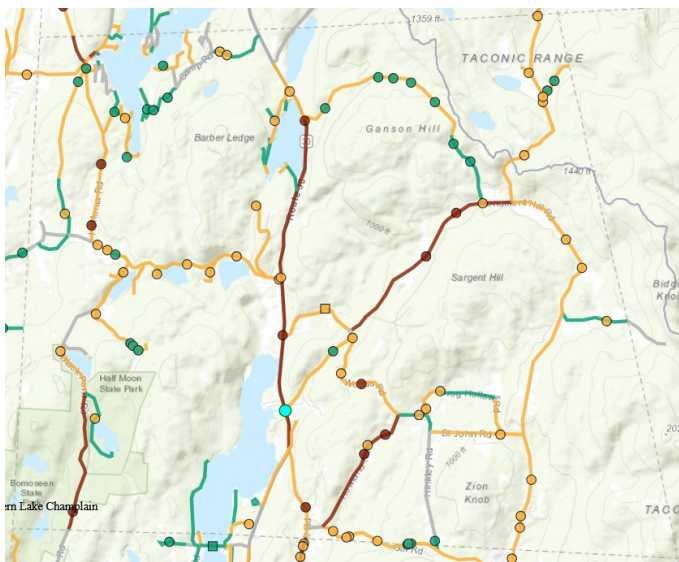
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VCGI, Green Mountain Power, Local governments, RPCs (regional planning commissions), VT Lidar Program, VT Imagery Program, public domain., E911, Vermont River Corridor and Floodplain Protection Program
 VT Dept of Environmental Conservation, ANR, See dataset specific metadata.

The Town's structures and road erosion inventories, ANR's Municipal Vulnerability Indicators Tool, VTrans Highway Flood Vulnerability and Risk Tool, and VTrans Transportation Resilience Planning Tool (TRPT) were used to help identify locations and assets at risk from flash flooding. Areas of concern are shown and on the preceding map.

Road segments, culverts, and bridges that exhibit high flood risk according to the TRPT are shown in red. These include:

- Road segments (—): Black Pond Road, Howland Road, Monument Hill Road, VT Route 30, VT Route 144 (Benson Road), and Youngs Road.
- Culverts (●): Black Pond Road, Hortonia Road, Howland Road, Monument Hill Road, Pencil Mill Road, VT Route 30
- Bridges (■): None



VTrans TRPT Flood Risk Results for Hubbardton

Culvert failures and road washouts can have a significant negative impact on the Town, especially if they occur on roads considered locally important routes for through-traffic, short-cuts, detours, and/or access to critical facilities. When roads are impacted by flooding, the Town coordinates with the Fire Department and State Dispatch to close roads and set up detours. Road closures can create longer commute times and longer emergency service response times.

In addition to road stormwater runoff, ice or debris jams and dam failures may result in flash flooding.

The Town historically experienced ice jams in two locations on Giddings Brook: near the portion of VT Route 30 in the Gulf, and along Monument Hill Road (from Ganson Hill Road east to Hanley's Corner). As hard freezes become less common, the Town has seen less ice jams and more mud and debris related events.

There are eight (8) dams in Hubbardton listed in the Vermont Dam Inventory, a database managed by the VT Dam Safety Program:

- 1) Abatiell Dam, located on an unnamed tributary of Giddings Brook, is about 0.7 miles northwest of the intersection of Ganson Hill Road East and Monument Hill Road. It is privately owned and classified as a significant hazard potential dam. Last inspected in 2023, its condition is poor.
- 2) Austin Pond Dam was on an unnamed tributary of Lake Bomoseen. It was privately owned and classified as a low hazard potential dam. Last inspected in 2024, its condition was unsatisfactory. The dam has been drained as of Fall 2025, and the pond no longer exists.
- 3) Beebe Pond is listed in the Dam Inventory. According to the Town, there is no physical dam in place, though dam rights are in place.
- 4) Blair Dam is on an unnamed tributary of Lake Bomoseen, slightly southwest of Roach Pond. Its current owner, condition rating, and last year of inspection is unknown, though it is classified as a minimal hazard potential dam.
- 5) Lake Hortonia Dam is located on the Hubbardton River, just east of the intersections of Benson, Hortonia, and Youngs Roads. It is owned by the State and classified as a significant hazard potential dam. Last inspected in 2023, its condition rating is fair.
- 6) Luther Dam is located on an unnamed tributary of the Hubbardton River, southwest of the intersection of Hortonia and Black Pond Roads. It is privately owned and classified as a minimal hazard potential dam. Last inspected in 2007, its condition rating is poor.
- 7) Mudd Dam is located on an unnamed tributary of Breese Mill Brook, along the northern shore of Mudd Pond. It is owned by The Nature Conservancy and classified as a low hazard potential dam. Last inspected in 2023, its condition rating is unknown.

- 8) Walker Pond Dam is located on an unnamed tributary of Breese Mill Brook, southwest of the intersection between High Pond Road and Town Highway 16. It is owned by Dartley Investment LP and classified as a low hazard potential dam. Last inspected in 2023, its condition rating is poor.

Beaver dams are a recurring concern for Hubbardton. In 2019, the Town removed a dam on a tributary of Walker Pond and beavers from Breese Pond. Presently, beaver dams frequently occupy the portion of Giddings Brook between Ganson Hill Road east to Hanley's Corner. Because beaver dams can provide beneficial ecological services, such as water retention during drought, the Town uses management techniques, including beaver baffles and exclusionary fencing, to minimize flood risk. Clearing is used only when the dam interferes with a culvert in the municipal road right-of-way and all other options have failed.

Locations listed as a risk for flash flooding in the 2020 plan have since been mitigated by the Town, namely Burns, Frog Hollow, and St. John Roads. Refer to page 7 for more details.



As mentioned previously, flash floods often entail stream bank or fluvial erosion. Excessive erosion can trigger land or mudslides.² It also has a negative impact on water quality and may result in increased turbidity, increased phosphorus transport, or the release of legacy pollutants. The sediment mobilized by fluvial erosion additionally contributes to aggradation and dammed streams.

Existing studies helped identify other locations and assets at risk from fluvial erosion. These include a 2005 Phase 1 Stream Geomorphic Assessment for the Castleton River and the 2016 Stormwater Master Plan for the Lake Bomoseen Watershed completed in December 2016.

Stream Geomorphic Assessments (SGAs) provide information about the physical condition of streams and factors that influence their stability. Phase 1 SGAs provide an overview of the general characteristics of the watershed.

Phase 2 SGAs provide more specific information about stream reaches of interest and typically identify priority locations for projects related to river corridor protection: planting stream buffers, stabilizing stream banks, removing berms, and removing or replacing human-placed structures.

The 2005 Phase 1 SGA is limited in scope, and the 2007 Phase 2 SGA for the Castleton River watershed does not examine any stream reaches in Hubbardton. There is also no recent SGA of the Hubbardton River; the last to be completed in 2004 is too antiquated to have any modern relevance, according to the Poultney-Mettawee Natural Resources Conservation District (PMNRCD).

Much of Hubbardton lies within the Lake Bomoseen watershed. The 2016 Lake Bomoseen Stormwater Master Plan recommended 48 projects in the watershed that are designed to decrease stormwater flows and increase flood resiliency. These include ditch erosion and runoff projects, shoreline revegetation or buffer projects, and stream channel or bank erosion projects.

As weather patterns shift and we see larger storms and more frequent freeze-thaw cycles, the Town will monitor for signs that rivers that have historically been stable becoming less stable, with increased erosion, widening, trees falling in from its banks, etc.



As the above studies demonstrate, environmental impacts from flooding can be significant, especially to the water quality in Lake Bomoseen. This can in turn have an adverse impact on local tourism and recreation. Accessibility to recreation areas may also be compromised, further contributing to the adverse impact. Flood events with associated road closures can also have a short-term impact on the local economy due to fewer shopping trips and commuter delays.

² While DR4720 damages included land and mudslides linked to fluvial erosion, these hazards did not manifest in Hubbardton and are thus omitted from this Plan, based on a lack of recent available data.

Floods Hazard History

These are the most recent significant events impacting Hubbardton. Hazard histories are limited to 20 years in the past, except for federal Rutland County Disaster Declarations, which are depicted in **bold**. All damages are to property unless otherwise noted.

12/18/2023: DR4762 3" rain with significant snow melt; no local damage reported; \$150,000 regional damage
7/11/2023: DR4720 3" rain: \$1.6 mil regional damage
 8/24/2020: 2-3" rain: \$10,000 regional damage
4/15/2019: DR4445 1-2" rain with significant snow melt: \$1 mil regional damage
7/1/2017: DR4330 3-4" rain the previous 3-4 days with flash flooding on 7/1/17: \$31,477 local damage; \$1.9 mil regional damage
6/25-7/11/2013: DR4140 heavy rain over multiple days: \$420,000 regional damage
8/28/2011: DR4022 Tropical Storm Irene with ±5" rain: \$87,844 local damage; \$55 mil regional damage
 6/14/2008: 3-5" rain: \$2 mil regional damage
 1/18/2006: 1½-2½" rain with significant snow melt: \$50,000 regional damage
 4/13/2002: 1-3" rain plus snow melt: \$30,000 regional damage
12/16/2000: DR1358 2-4" rain: \$10,506 local damage; \$100,000 regional damage
7/16/2000: DR1336 heavy rain: \$200,000 regional damage
9/16-9/21/1999: DR1307 Tropical Storm Floyd with 5-6" rain and 44 mph winds: no reported local damage; \$100,000 regional damage



Extreme Heat is an emerging concern for communities accustomed to cooler environments. Excessive heat events involve a combination of significantly high temperatures and high humidity. Multiple consecutive days of excessive heat (i.e., at least three) during which the apparent temperature meets or exceeds 90°F are known as heat waves. Vermont's "heat season" typically lasts from May to September.

From 2001-2010, Rutland County experienced one heatwave in August 2006, with no reported damage. From 2011 to 2020, Rutland County experienced five heat waves, four of which occurred during the Vermont heat season. The fifth, which occurred in March 2012, resulted in \$650,000 in damage to the regional maple sugaring industry. From 2021 to May 2026, several short-lived heat outbreaks occurred, but these were too brief to be formally defined as heatwaves.

This includes the June 2025 heat outbreak, which had apparent temperatures of 100-110°F for only two days.

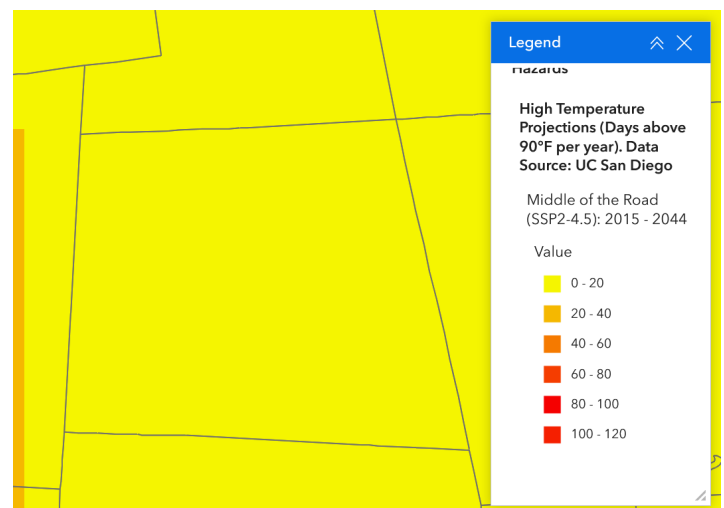
Excessive temperatures have and will continue to impact Hubbardton. Heatwaves pose the greatest risk to Hubbardton's at-risk populations, including young children, the elderly, outdoor workers, and those living in substandard housing.



Vermont Department of Health data indicates that state residents experience heat-related illnesses at around 87°F. While everyone is affected by hot weather, the risk of heat illness is greater for vulnerable populations, outdoor workers, urban residents, and the homeless. Other at-risk indicators include living alone, having limited transportation options, and lacking air conditioning or other cooling options.

Hubbardton's older population, outdoor workers in the timber industry, and those living in older houses lacking central air or air conditioning units are especially at risk from extreme heat impacts.

Hubbardton does not have a system for monitoring the needs of at-risk populations before or during extreme weather events. However, it can provide aid if requested, and the Town can set up a temporary cooling center in the Town Office if needed.



Under an intermediate emissions scenario, Hubbardton will see 0-20 days of temperatures above 90°F. The Town already experiences 7 days annually that exceed this threshold. (Source: Vermont MVI Tool.)



The materials used in transportation infrastructure exhibit a limited range of heat tolerance. Asphalt can melt and crack upon cooling, while concrete can buckle with limited room for the slab to expand. Thermal expansion may swell bridge connections and induce their collapse.

The Town has a high percentage of non-paved roads and thus perceives a lower susceptibility to highway infrastructure damage, specifically asphalt cracking. Given Hubbardton's reliance on drilled wells, increased evaporation rates may hinder access to potable water.

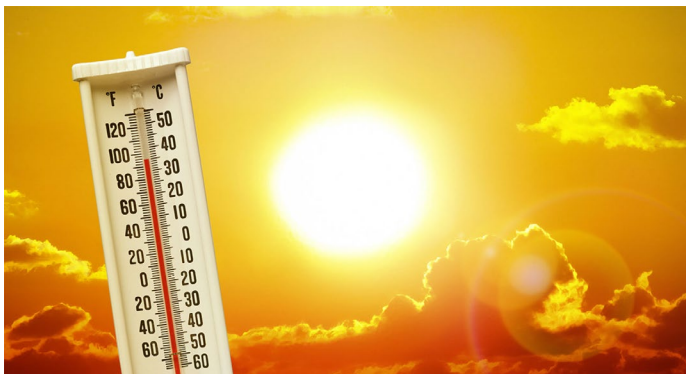


A gradually warming climate will increase soil drying rates, contributing to drought-like conditions. Heat-stressed trees are more likely to succumb to disease or pest invasions. Conversely, warmer air can hold more water vapor, which in turn influences the frequency and magnitude of extreme precipitation events that weaken tree integrity.

Drought-like conditions can also increase the potential for brush fires. Brush fire probability depends on local weather conditions (lightning, drought, extreme heat); outdoor activities (camping, debris burning); and the amount of "fuel" present in the environment. While Hubbardton has not experienced a notable brush fire in recent years, other municipalities in Rutland County have, including nearby Castleton and Fair Haven.



Higher temperatures, especially if accompanied by drought, can significantly impact crops and other agricultural operations. While there are a few remaining active farms in Hubbardton extreme heat impacts on this and other sectors of the local economy are perceived to be minor.



Extreme Heat Hazard History

These are the most recent significant events impacting Hubbardton. Hazard histories are limited to 20 years in the past. All damages are to property unless otherwise noted.

- 6/22/2025: Apparent temps of 100-110°F for two days; no reported damages
- 7/7/2020: Apparent temps of 95-100°F for four days; no reported damages
- 6/18/2020: Apparent temps of 95-100°F for six days; no reported damages.
- 7/1/2018: Apparent temps of 95-110°F for six days; no reported damages
- 3/17/2012: 70 and 80°F temps, with maximums 30-40°F above normal for four days; \$650,000 regional damage to maple sugaring industry
- 7/21/2011: Apparent temps of 100-108°F for four days; no reported damages
- 8/1/2006: Apparent temps of 100-105°F for three days; no reported damages



Drought is a period of lower-than-average precipitation that results in a water shortage. It is typically a slow-onset natural hazard that can last months or years. Higher temperatures, water demands that exceed availability, low winter snowpack, and lack of sufficient rainfall are all factors that can lead to a significant drought.

Drought is a natural part of the climate cycle, and it can occur at any place and any time. It is a complex phenomenon that is difficult to monitor and assess because it develops slowly and covers extensive areas. This is unique in comparison to other disasters that have rapid onsets and obvious destruction. Reference the 2023 State Hazard Mitigation Plan for a full discussion of how drought differs from other natural hazards and extreme heat trends in Vermont.

The USDA rates droughts from D0-D4, depending on the severity of the drought, the amount of time it will take for vegetation to return to normal levels, and the possible effects of the drought on the vegetation and water supply:

- D0 = Abnormally Dry
- D1 = Moderate Drought
- D2 = Severe Drought
- D3 = Extreme Drought
- D4 = Exceptional Drought

For the purposes of this Plan, all moderate drought events (i.e., in which any percentage of the cumulative percent of land area is classified as D1 for at least four weeks) and above are featured in this hazard profile. For a history of abnormally dry events in Rutland County, see the U.S. Drought Monitor.

From 2001-2010, Rutland County experienced a moderate drought from Aug 2001 – Mar 2002. Severe drought (D2) occurred in a small amount of land area ($\leq 1\%$) in Nov and Dec 2001.

From 2011-2020, Rutland County experienced periods of moderate drought from May-June 2015, June-Aug 2016, Sept 2016 – Apr 2017, Jun – Sept 2018, and Jun 2020 – Dec 2020. Severe drought occurred in a majority of the county from Oct-Nov 2016 (~63% of cumulative land area) and a small portion of the county in Sept-Oct 2020 (~5% cumulative land area).

From 2021 – May 2026, Rutland County saw moderate droughts from Jan – Apr 2021, July-Sept 2022, Nov 2024-Mar 2025, and Aug-Nov 2025. From Sept-Oct 2025, much of the County experienced at least a severe drought ($\geq 88\%$ cumulative land area), with extreme drought affecting 75% of the Region.

During the past 20 years, Rutland County has seen several instances of moderate drought (D1) and severe drought (D2). Extreme drought (D3) made its first appearance since the 20th century in September 2025.



Drought can lead to dry or low water levels in wells needed for drinking water. In addition to the obvious effects on the quantity of water, the quality of water suffers due to the increased concentration of contaminants such as lead. In conjunction with extreme temperatures, drought can compromise food and nutrition and increase incidents of illness and disease.

Because drought is strongly correlated with extreme heat, there is overlap with the populations at higher risk- mainly the youth, the elderly, outdoor workers, expecting mothers, and those with pre-existing health conditions.



Structural impacts of drought are uncommon, making the risk to municipal buildings, facilities, infrastructure, or governmental functions low. If a drought is severe enough in its frequency, duration, and/or intensity, it may require the construction of new community water supplies with better storage capability.

There are plenty of existing bodies of water in Hubbardton. Specifically, Black and Beebe Ponds may be diverted for drinking water on a small-scale, individual basis. Their capability in providing portable water on a vast scale, however, is undetermined. To the Town's knowledge, these waters have never been tested for human consumption. It is more likely that residents will decide to drill new, deeper wells on properties where they have run dry.



The impacts of drought on the natural environment can be extensive. Primarily, water availability becomes severely constrained for both cultivated and wild plants and animals. During periods of drought, deciduous trees in Vermont have experienced leaf scorch, leaf yellowing, and early leaf color, which are all indicators poor leaf health.

As water levels in underground aquifers fall, the ground runs the risk of subsidence. Subsidence is the sinking of the ground, which can impact roads and buildings and can lead to the formation of sinkholes. Historic drought events suggest this is not likely in Hubbardton, especially given the prevalence of ledges and steep slopes in Town.



There may be situations where water-intensive industries and agricultural production shift to different locations due to lack of water. Other industries directly affected include energy, tourism, and fisheries. The wide-ranging impacts of drought can include job losses, business failures, and lost investments.

In Hubbardton, where industry is minimal, the greatest threat is posed to local water bodies used for recreation due to lower water levels and poor water quality.

Drought Hazard History

These are the most recent significant events impacting Hubbardton. Hazard histories are limited to 20 years in the past, except for federal Rutland County Disaster Declarations, which are depicted in **bold**. All damages are to property unless otherwise noted.

9/30/2025: USDA Disaster S6088 2025 Crop Year

Sept-Oct 2025: D3 drought in 75% of county

Nov 2024 – Mar 2025: D1 drought in 15-50% of county

July-Sept 2022: D1 drought in 5-33% of county

11/11/2020: USDA Disaster S4869 2020 Crop Year

Jun 2020 – July 2021: Multiple periods of D1 drought in county; D1 drought in 100% of county in Jul-Aug 2020 and Mar-Apr 2021; D2 drought in 5% of county in Sept-Oct 2020

Jun - Sept 2018: D1 drought in 40-100% of county

Feb – Apr 2017: D1 drought in 0-20% of county

Sept 2016 – Feb 2017: D1 drought in 90%-100% of county; D2 drought in 65% of county from Oct-Nov 2016

June – Aug 2016: D1 drought in 0-15% of county

May-June 2015: D1 drought in 0-50% of county

6/5/2012: USDA Disaster S3249 2012 Crop Year



Invasive Species are typically introduced to non-native ecosystems by human activity, both intentional and accidental.

Not every non-native species is invasive; the organism must be capable of causing harm to the environment, the economy, or human health. The exact nature of these harms varies by species, but commonalities include a change in native species composition, a disruption of natural ecosystem functions, and millions of dollars spent annually on control and spread prevention measures.

Though many aquatic and terrestrial invasives currently inhabit Vermont, forest pests are most relevant given their impacts on local trees. Examples include Asian long-horned beetle, oak wilt, and spotted lanternfly.

Given the data available, this Plan examines the impacts posed by the emerald ash borer (*Agrilus planipennis*), an exotic beetle. Emerald ash borer (EAB) is well established in Rutland County and was first detected in Hubbardton in 2024.

EAB larvae burrow through the inner layer of the ash tree's bark, impeding the tree's ability to conduct water and nutrients. Lacking sufficient water and nutrients, healthy ash can die within 1-4 years of exhibiting the first signs of invasion.

Once detected, invasive species are virtually impossible to eradicate or contain. Millions of dollars are spent annually in Vermont on long-term management and asset protection.



Those working to remove an infested tree are at the greatest risk of injury. Once infested, the tree becomes brittle, significantly increasing the risk and complexity of its removal.



Infested trees along roads become hazards as they die, pulling down powerlines or falling into the roadway. During high precipitation events, they also add to riverine debris.

The Town does not have an ash tree roadside inventory, so it is currently unknown how many ash trees are within the road right-of-way in Hubbardton.



Because 5% of Vermont's trees are ash, the State's forest composition is vulnerable to this invasive species. While it is present in most Vermont counties, its population is low, and it has infested only a small percentage of the state's total ash trees.

The location and numbers of ash trees at risk in Hubbardton is currently unknown. However, nearly 6,700 acres of land are enrolled in Vermont's "Current Use Program", meaning it is under active management for agricultural or forestry products."



Emerald Ash Borer. Photo Credit: State of Vermont Agency of Agriculture, Food, and Markets

An additional estimated 4,420 acres are conserved by the State and non-profit organizations. This means over 11,100 acres, or about 60% of land area in Hubbardton, are likely to contain trees that may be susceptible to EAB infestation.



EAB has serious financial implications for forest landowners and municipalities, including productive timber losses and costs to remove ash trees along roadsides. Assigning financial losses for Rutland County specifically would be difficult, so this information is not included.

Emerald Ash Borer (EAB) Hazard History

Because invasive species often spread over a long period of time, identification of a hazard event concerning invasive species is rather difficult. FEMA also does not declare federal disasters for invasive species outbreaks.



Strong Wind, as defined by FEMA's National Risk Index, is damaging wind exceeding 58 mph. It can occur alone, such as during straight-line wind events, or can accompany other natural hazards, including severe thunder and/or winter storms.

From 2001 to 2010, Rutland County incurred nearly \$7.9 million in property damage, with the most significant damage amounting to \$4.5 million from an event on April 16, 2007.

From 2011 to 2020, Rutland County experienced over \$2.4 million in property damage, with the most significant incident resulting in \$500,000 in damage on May 5, 2017. On August 21, 2011, an estimated \$10,000 in crop damage occurred due to an event with winds of 70 mph.

From 2021 to September 2025, wind events caused over \$1.3 million in property damage in Rutland County, with the most significant damage totaling \$500,000 from an August 26, 2022, event. In December 2022, a felled tree caused one death in nearby Castleton (DR-4695)³ with an additional two injuries in Rutland County.

Strong wind is possible here; Hubbardton is susceptible to high directional winds townwide, particularly east of VT Route 30. Many storms with high winds can result in downed trees, damaged phone and power lines, buildings, and other property.



Strong wind threatens lives, property, and vital utilities primarily because of flying debris or downed trees and power lines. Those relying on electric-powered medical devices are especially at-risk during power outage.

Notably, power outages in Hubbardton are often a cascading effect of outages in other Towns. Two substations in the Towns of Middlebury and Poultney provide the bulk of Hubbardton's power. Fallen tree limbs can and do fall on local powerlines, but it is far more likely for an outage to be triggered by incidents that occur outside of Town borders.

In July 2016, a fatality due to a fallen tree occurred during a thunderstorm. A man standing on a private dock was struck by a falling tree limb during the storm.

Because there is no municipal water system, when there is a power outage, those who rely on a private well are also without water. Without a back-up supply of power, people need to be prepared to withstand potentially 24-hours or more without power or seek alternative accommodations.



Downed trees within the road right-of-way are the root cause of many power outages. Roads that pass through dense wooded areas are prone to downed trees, which can lead to fallen utility lines – power and telecommunications.

Downed utility lines can cause power outages and disrupt communications, which are crucial in times of crisis. The loss of phone service is of particular concern for Hubbardton's more remote homes and older populations.

³ While DR4695 is classified under severe storms and flooding, the mortality in Castleton is directly linked to a tree felled by wind.

Landline phones that have been converted from copper wire to fiber rely on an in-home battery back-up. The battery life is typically less than eight hours, whether the phone is used or not. Notably, all municipal buildings were recently converted to fiber.

Though many residents use cell phones, service in Hubbardton is spotty, further complicating the problem of contacting emergency services during power outages.

Telecommunications are needed for warning systems before a disaster and for response during and recovery after. During a disaster, municipal response is managed by the local Emergency Operations Center (EOC) at the Hubbardton Town Office. This includes all communications, from phone calls to internet browsing and two-way radio.

All municipal buildings and critical facilities are equipped with on-site generators: the Town Office, Town Garage, and the Eastside and Westside Fire Stations. The Hubbardton Congregational Church, which serves as the alternative local shelter, is not equipped with back-up power.



In addition to utility disruptions, downed trees can damage buildings and block road access. When downed trees become entangled in utility lines, clearing the debris from the roadway becomes more complicated, and it can take longer to restore access.

As the Community Profile mentions, Hubbardton's population density is relatively low, and most people are scattered across the countryside.

This is a concern for the Town regarding accessibility via the roadway and emergency response time.



Like extreme winter storms, the primary environmental impact of concern is tree damage.



Strong wind events, accompanied by power outages and roadway debris, can have a short-term impact on the local economy due to business closures or commutes being blocked by downed trees or power lines.

Strong Wind Hazard History

These are the most recent significant events impacting Hubbardton. Hazard histories are limited to 20 years in the past, except for federal Rutland County Disaster Declarations, which are depicted in **bold**. All damages are to property unless otherwise noted.

2/16/2025: 52 mph winds; no reported damages
 4/3/2024: 52 mph winds: \$100,000 regional damage
 2/28/2024: 48 mph winds: \$50,000 regional damage
 12/23/2022: 48 mph winds: \$175,000 regional damage
 7/12/2022: 50 mph winds: \$2,000 local damage
 12/11/2021: 40 mph winds: \$35,000 regional damage
 3/1/2021: 39 mph winds: \$55,000 regional damage
 8/4/2020: 45 mph winds: \$60,000 regional damage
 2/24/2019: 48 mph winds: \$50,000 regional damage
 4/1/2018: 63 mph winds: \$100,000 regional damage
 10/30/2017: 40 mph winds: \$200,000 regional damage
 5/5/2017: 64 mph winds: \$525,000 regional damage
 7/23/2016: 50 mph winds: \$25,000 local damage; one fatality
 1/20/2013: 43 mph winds: \$25,000 regional damage
 12/21/2012: 61 mph winds: \$100,000 regional damage
 10/29/2012: 43 mph winds: \$15,000 regional damage
8/28/2011: DR4022 48 mph winds: \$100,000 regional damage
 12/1/2010: 56 mph winds: \$350,000 regional damage
 2/26/2010: 50 mph winds: \$75,000 regional damage
 12/9/2009: 55 mph winds: \$35,000 regional damage
 6/30/2009: 50 mph winds: \$15,000 local damage
 6/10/2008: 50 mph winds: \$10,000 local damage
 3/5/2008: 43 mph winds: \$35,000 regional damage
 8/16/2007: 60 mph winds: \$75,000 local damage
4/15-16/2007: DR1698 "Nor'icane" 3" snow and rain, 60-80 mph wind: \$4.5 mil regional damage
 6/29/2006: 50 mph winds: \$5,000 local damage
 2/17/2006: 37 mph winds: \$125,000 regional damage
 9/29/2005: 35 mph winds: \$150,000 regional damage
 6/6/2005: 50 mph winds: \$5,000 local damage

Vulnerability Summary



Extreme Cold, Snow, and Ice

Vulnerable Assets people (especially at-risk populations: the disabled, the elderly, and those living in sub-standard housing); highway infrastructure; power lines; telecommunications systems; trees; building plumbing and service lines; local businesses

Location Townwide

Extent 15-20+ days below zero; up to 35" snow; ½" freezing rain/sleet; ¼" ice

Past Occurrence \$6,475 local property damage; \$300,000 regional property damage; \$1,025,000 regional crop damage

Future Probability Highly likely, >75% probability in a year

Outlook Poses ongoing risks to existing and future assets without targeted mitigation measures



Floods

Vulnerable Assets people (especially at-risk populations: the disabled, the elderly, and those living in sub-standard housing); residential dwellings; mobile and seasonal homes; development sites; camps; boat ramps and docks; recreation facilities; highway infrastructure; dams; rivers and streams; local businesses

Location *Inundation Flooding:* Giddings Brook headwaters (i.e., the "Hubbardton Gulf") and along northern shore of Roach Pond; Hortonia Road; VT Route 30

Flash Flooding: Benson Road (VT Route 144); Black Pond Road; High Pond Road; Monument Hill Road; VT Route 130; corner of Davis and Woods Roads.

Fluvial Erosion: Bresee Pond tributary; Lake Bomoseen tributaries; Giddings Brook; Hubbardton River

Extent ±5" rain; extent data for fluvial erosion is unavailable

Past Occurrence \$148,000 local property damage; \$55,000,000 regional property damage

Future Probability Likely, at least 1 chance in next 10 years

Outlook Poses ongoing risks to existing and future assets without targeted mitigation measures



Extreme Heat

Vulnerable Assets people (especially at-risk population: the elderly, the disabled, and those living in sub-standard housing, and outdoor workers); highway infrastructure; drilled wells; crops/agricultural products

Location Townwide

Extent Apparent temperatures up to 110°F for six days

Extreme Heat, Continued

Past Occurrence \$650,000 regional damage to maple sugaring industry

Future Probability Highly likely, >75% probability in a year

Outlook Poses ongoing risks to existing and future assets without targeted mitigation measures



Drought

Vulnerable Assets people (especially at-risk populations: the elderly, the disabled, those living in sub-standard housing, and outdoor workers); rivers and streams; ponds and lakes; trees; drilled wells; crops/agricultural products

Location Townwide

Extent D1 drought in 90%-100% of county for several months; D2 drought in 65% of county for two months; D3 drought in 75% of county for one month

Past Occurrence Information unavailable

Future Probability Likely, at least 1 chance in next 10 years

Outlook Poses ongoing risks to existing and future assets without targeted mitigation measures



Invasive Species

Vulnerable Assets people; roads; power lines; telecommunications systems; trees

Location Unknown

Extent Unknown

Past Occurrence First detection in Hubbardton in 2024

Future Probability Highly likely, >75% probability in a year

Outlook Poses ongoing risks to existing and future assets without targeted mitigation measures



Strong Wind

Vulnerable Assets people (especially at-risk populations, those living in sub-standard housing, and homeless); Town Office; Fire House buildings; Town Garage; roads; power lines; telecommunications systems; trees; local businesses

Location Town-wide; east of VT Route 30

Extent 60-80 mph wind

Past Occurrence \$75,000 local property damage; \$4,500,000 regional property damage; one fatality

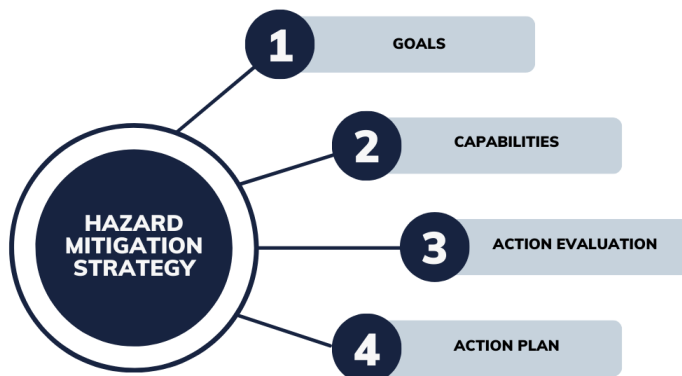
Future Probability Likely, at least 1 chance in next 10 years

Outlook Poses ongoing risks to existing and future assets without targeted mitigation measures

6 HAZARD MITIGATION STRATEGY

The highest-risk natural hazards and vulnerabilities identified in the previous section of this Plan directly inform the hazard mitigation strategy, which is the core of the mitigation plan.

The mitigation strategy has four main components: goals, community capabilities, action evaluation, and an action plan with the most appropriate activities for the Town to undertake to reduce future risk from potential hazards.



Mitigation Goal

The community's mitigation goal, which was supported by 100% of survey respondents, is to:

Increase Hubbardton's resilience to natural hazards by advancing mitigation investments. These investments will ultimately reduce or avoid long-term risks to:

- ***People,***
- ***Homes and neighborhoods,***
- ***The local economy,***
- ***Cultural and historic resources,***
- ***Ecosystems and natural resources, and***
- ***Community Lifelines such as transportation, energy, and communications.***

See results in **Appendix C** for which assets engagement respondents thought were most important to protect against potential future extreme weather impacts.

Community Lifelines

Community Lifelines enable the continuous operation of critical government and business functions and are essential to human health and safety or economic security. The goal of the lifeline concept is to focus response efforts on stabilizing or re-establishing these most fundamental services during and after a disaster. Mitigating lifelines should reduce cascading impacts across government and business functions and lessen system-wide damage.

Community Lifelines are organized into seven categories:



1. Law Enforcement
2. Fire Service
3. Search & Rescue
4. Government Service
5. Community Safety



1. Food
2. Water
3. Shelter
4. Agriculture



1. Medical Care
2. Public Health
3. Patient Movement
4. Medical Supply Chain
5. Fatality Management



1. Power Grid
2. Fuel



1. Infrastructure
2. Responder Communications
3. Alerts, Warnings, & Messages
4. Finance
5. 911 & Dispatch



1. Highway/Road/Motor Vehicle
2. Mass Transit
3. Railway
4. Aviation
5. Maritime



1. Facilities HAZMAT, Pollutants, Contaminants

Community Capabilities

Each community has unique capabilities, including authorities, programs, staff, funding, and other resources available to mitigate and reduce long-term vulnerability. Hubbardton's mitigation capabilities that reduce hazard impacts or that could be used to implement hazard mitigation activities are listed below.

Administrative & Technical This capability refers to the Town's staff and their skills and tools that can be used for mitigation planning and to implement actions. Such resources are limited in Hubbardton: for example, one individual serves three roles as the Emergency Management Director, a member of the Selectboard, and a member of the Planning Commission. Other municipal staff that can be used for mitigation planning and to implement specific mitigation actions include: a part-time Town Clerk; a part-time Zoning Administrator; a full-time Road Foreman; three full-time highway department employees; one part-time Town Administrator; and a Fire Warden.

In addition to paid staff, there is a 5-member Selectboard and 5-member Planning Commission.

To augment local resources, the Town has formal mutual aid agreements for emergency response – fire and public works. Technical support is available through the RRPC in the areas of land use planning, emergency management, transportation, GIS mapping, and grant writing. Technical support is available through the State ANR for floodplain bylaw administration and VTrans for hydraulic analyses.

The Town does not have any local building codes.

Vermont has adopted statewide codes for commercial building fire safety and energy standards. The energy code also applies to residential buildings. Codes enforced by Vermont's Division of Fire Safety are the 2015 National Fire Protection Association (NFPA) 1 Fire Code; 2015 NFPA 101 Life Safety Code; the 2015 International Building Code (IBC); 2017 NFPA 70 National Electrical Code; 2021 International Code Council (ICC) International Plumbing Code; and the 2015 National Board Inspection Code from the National Board of Boiler and Pressure Vessel Inspectors.

Strengths Staff are trained on hazards and mitigation and cross trained within departments • Coordination between local departments is effective • Excellent record keeping systems • Past success in securing grants for public infrastructure improvements • Established maintenance programs for cleaning culverts and roadside ditches, as well as tree trimming within municipal road right-of-way

Areas for Improvement Few staff perform multiple functions – lack of redundancy between departments makes Town's administrative and technical capabilities vulnerable • Highway Department staff could benefit from training in online mapping and asset management resources – ANR Natural Resource Atlas, VTCulverts, MRGP Road Erosion Inventory Portal • Small pool of volunteers creates burnout and limited time commitments • Periodic table and field exercises to test and strengthen inter-agency coordination

Planning & Regulatory These capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of hazards. Examples of planning capabilities that can either enable or inhibit mitigation include land use plans, capital improvement programs, transportation plans, stormwater management plans, disaster recovery and reconstruction plans, and emergency preparedness and response plans. Examples of regulatory capabilities include the enforcement of zoning ordinances, subdivision regulations, and building codes that regulate how and where land is developed and structures are built.

Town Plan

Description: A framework and guide for how future growth and development should proceed.

Relationship to Natural Hazard Mitigation Planning: Includes goals and policies related to flood resilience and land use.

Road Erosion and Structures Inventories

Description: Prioritizes those infrastructure projects necessary to improve transportation network resiliency to floods and water quality.

Relationship to Natural Hazard Mitigation Planning: Improvements are designed to minimize or eliminate flood impacts on municipal roads.

Lake Bomoseen Watershed Stormwater Masterplan

Description: Identify stormwater inputs and develop prioritized projects to mitigate stormwater water quality problems.

Relationship to Natural Hazard Mitigation Planning: Projects accomplish multiple goals-water quality and mitigation.

Local Emergency Management Plan

Description: Establishes lines of responsibility and procedures to be implemented during a disaster and identifies high risk populations, hazard sites, and available resources.

Relationship to Natural Hazard Mitigation Planning: Includes actions for tracking events and response actions including damage reports to facilitate funding requests during recovery. This type of information can be essential to preparing hazard mitigation project applications for FEMA funding.

Road and Bridge Standards

Description: Provide minimum codes and standards for construction, repair, maintenance of town roads and bridges.

Relationship to Natural Hazard Mitigation Planning: Standards include management practices and are designed to ensure travel safety, minimize damage to road infrastructure during flood events, and enhance water quality protections.

Fire Department Insurance Services Office (ISO) Rating

Description: The Hubbardton Fire Department's ISO Rating is 9. This rating is a score from 1 to 10 that indicates how well-protected the community is by the local fire department.

Relationship to Natural Hazard Mitigation Planning: Everyone wants to keep family, home, and business safe from fires. The ISO rating is a measure of the effectiveness of a community's fire services.

Land Use Development Regulations

Description: Provides for orderly community growth promoting the health, safety, and general welfare of the community.

In Hubbardton, the regulations include **zoning bylaws**, **subdivision regulations**, and **flood hazard area regulations**.

Relationship to Natural Hazard Mitigation Planning: Establish site plan review requirements and zoning districts, including Flood Hazard Overlay Districts, with specific standards for proposed development. Requirements are designed to prevent overdevelopment; to mitigate negative impacts to the natural and human environment; minimize effects to the historical and aesthetic character of the community; and ensure design and construction of development in flood and other hazard areas are accomplished in a manner that minimizes or eliminates the potential for flood loss or damage to life and property.

Strengths Existing land use ordinances are effective at reducing hazard impacts and they are adequately enforced • Codes and standards are adequately administered and enforced • Elements of hazard mitigation are included in other local plans • Stormwater Planning • Floodplain area regulations.

Areas for Improvement Protect river corridors from new encroachment (River Corridor Bylaws) • Capital Planning • Continuity of operations planning • Expand LEMP to include procedures for extreme weather sheltering (e.g., Hot Weather Annex)

Financial These capabilities are the resources that a community has access to or is eligible to use to fund mitigation actions.

Hubbardton's 2025-2026 town operating budget is \$1,476,690, with a Highway Department operating budget of \$785,035.

Although the Town has not done so in the past, it is eligible to incur debt through general obligation bonds to fund mitigation actions.

Strengths Maximizing grant opportunities, especially through VTrans for transportation infrastructure projects

• Budgeting for equipment reserve fund • Annual budgets are sufficient to meet operating needs

Areas for Improvement Establish a reserve fund that can be used to fund mitigation actions

Outreach & Education Hubbardton has several outreach and education opportunities that could be used to implement mitigation activities and communicate hazard-related information:

- Community Organizations: Hubbardton Senior Connections, Bone Builders, Grange #290, S.A.F.E. Snowmobile Club, Hubbardton Liberty Church, Hubbardton Congregational Church, Hubbardton Historical Society, and Fire Department Booster Club
- Town Facebook pages (municipal, fire department) and Front Porch Forum

Strengths Multiple programs/organizations are already in place in the community • Use of social media

Areas for Improvement Better coordination is needed to help implement future mitigation activities • More accessible information to reach at-risk populations • Town website

National Flood Insurance Program Compliance

The Town joined the National Flood Insurance Program (NFIP) in 1990. The effective date of the current adopted Flood Insurance Rate Map (FIRM) and FEMA Flood Insurance Study (FIS) for Rutland County is August 28, 2008. No FIS report was ever produced for the Town of Hubbardton.

Hubbardton's Zoning Regulations, adopted on June 20, 2019, comply with or exceed NFIP requirements. They set minimum standards for development in FEMA Special Flood Hazard Areas and Floodway Areas. The regulations also include rules for Substantial Improvement and Substantial Damage (SI/SD) based on the FEMA P-758 SI/SD Desk Reference from May 2010. The Hubbardton Administrative Officer (i.e., the Zoning Administrator) reviews SI/SD cases, which are governed by local flood hazard regulations. Below is a summary of articles that show NFIP compliance:

- Article IV, Section 408, subsection III requires any substantial improvement to any existing structure to receive conditional use approval from the Hubbardton Board of Adjustment before the Administrative Officer may issue a permit.
- Article IV, Section 408, subsection IV contains the standards reviewed by the Board of Adjustment, which meet or exceed NFIP requirements.
- Article XI, Sections 1103-1108 outline procedures for submitting an application, referrals, permit validity, hearings, decisions, and appeals. Properly filing and maintaining records is addressed in Article IV, Section 408.
- Article XI, Section 1109 outlines procedures for enforcement if a violation exists and establishes the duty of the Administrative Officer to enforce the provisions of the regulations.
- Article XIII, Section 1301: defines SI/SD the same as found in 44 CFR Part 59; as noted in federal code: "substantial improvement" includes structures which have incurred 'substantial damage', regardless of the actual repair work performed."

The Town discussed the following as possible actions to continue NFIP compliance:

- 1) Prepare, distribute, or make available NFIP insurance explanatory pamphlets or booklets at the Town Office.
- 2) Participate in NFIP training offered by the State and/or FEMA.
- 3) Adopt river corridor protection language in the flood hazard regulations bylaw to improve flood hazard planning and management.

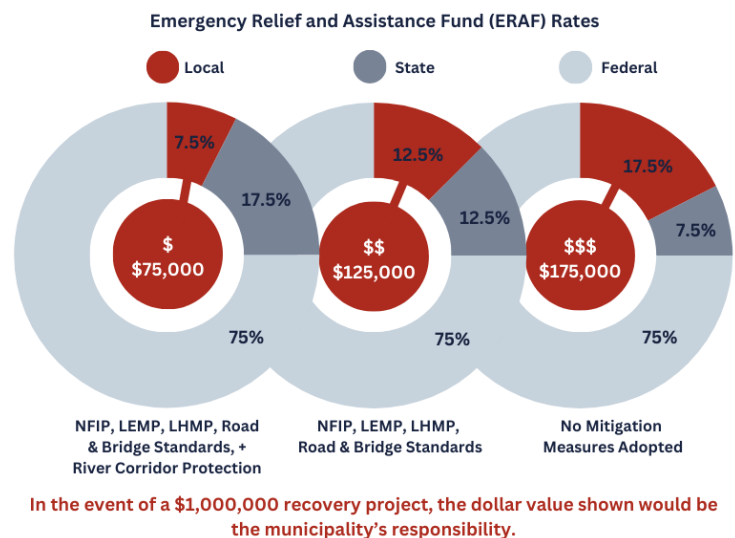
State Incentives for Flood Mitigation Vermont's Emergency Relief Assistance Funding (ERAF) provides state funding to match FEMA Public Assistance after federally declared disasters. Eligible public costs are generally reimbursed by FEMA at 75% with a 7.5% State match. The State will increase its match to 12.5% or 17.5% if communities take steps to reduce flood risk as described below.

12.5% funding for communities that have adopted four (4) mitigation measures:

- 1) NFIP participation;
- 2) Town Road and Bridge Standards;
- 3) Local Emergency Plan; and
- 4) Local Hazard Mitigation Plan.

17.5% funding for communities that also participate in FEMA's Community Rating System OR adopt Fluvial Erosion Hazard or other river corridor protection bylaw that meets or exceeds the Vermont ANR model regulations.

Hubbardton will attain 12.5% ERAF rate with adoption of the 2025 Local Hazard Mitigation Plan. To increase their ERAF rate to 17.5% the Town would have to adopt River Corridor Bylaws.



Mitigation Action Identification

The Hazard Mitigation Planning Team discussed the mitigation strategy, reviewed projects from the 2020 Plan, and identified possible new actions from the following categories for each of the highest risk natural hazards identified in Section 5.



Local Plans & Regulations These actions include government authorities, policies, or codes that influence the way land and buildings are developed and built.



Structure & Infrastructure Projects

These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This applies to public or private structures as well as critical facilities.



Natural Systems Protection These actions help minimize damage and losses and preserve or restore the functions of natural systems.



Outreach & Education Programs These actions inform and educate the public about hazards and potential ways to mitigate them. Although this type of

action reduces risk less directly than structure projects or regulation, it is an important foundation. Greater awareness is more likely to lead to community support for direct actions.

Local Plans & Regulations Examples

Integrate Mitigation into Capital Improvement Programs: Incorporate risk assessment and hazard mitigation principles into capital planning.

Reduce Impacts to Roadways: The leading cause of death and injury during winter storms is automobile accidents, so it is important to plan for and maintain adequate road and debris clearing capabilities.

Develop a Road Right-of-Way Vegetation Management Plan: Identify community priorities and plan of action for site-specific tree and roadside forest management to increase roadside resilience.

Improve Flood Resilience with a Flood Study: The aim of a flood study is to define existing flood behavior for a particular catchment, river, or creek. The study helps inform building, land use planning, community awareness and disaster management.

Improve Stormwater Management Planning: Rain and snowmelt can cause flooding and erosion in developed areas. A community-wide stormwater management plan can address stormwater runoff-related flooding.

Manage Development in Erosion Hazard Areas: The intent of River Corridor Bylaws is to allow for wise use of property within river corridors that minimizes potential damage to existing structures and development from flood-related erosion.

Develop a Drought Contingency Plan: A strategy or combination of strategies for monitoring the progression of a drought and preparing a response to potential water supply shortages resulting from severe droughts or other water supply emergencies.

Develop an Ordinance to Prioritize or Control Water Use: Such an ordinance might prioritize water use for emergency situations like firefighting, or restrict the use of public water resources for non-essential usage, such as landscaping, washing cars, or filling swimming pools.

Structure & Infrastructure Project Examples

Protect Power Lines: Protect power lines by 1) inspecting and maintaining hazardous trees in the road right-of-way and 2) burying power lines.

Protect Critical Roadways: Use snow fences or living snow fences (e.g., rows of trees) to limit blowing and drifting of snow.

Retrofit Critical Facilities: Critical facilities can be protected from the impacts of high winds and winter storms by 1) retrofitting them to strengthen structural frames to withstand wind and snow loads; 2) anchoring roof-mounted mechanical equipment; and 3) installing back-up generators or quick connect wiring for a portable generator.

Invest in Infrastructure to Expand Water Supplies: Improve water supply and delivery systems to ensure adequate supply for fire suppression during times of drought.

Remove Existing Structures from Flood Hazard Areas: FEMA policy encourages the removal of structures from flood-prone areas to minimize future flood losses.

Improve Stormwater Drainage Capacity: Minimize flooding and fluvial erosion by 1) increasing drainage/absorption capacities with green stormwater management practices; 2) increasing dimensions of undersized drainage culverts in flood-prone areas; 3) stabilizing outfalls with riprap and other slope stabilization techniques; and 4) re-establishing roadside ditches.

Conduct Regular Maintenance for Drainage Systems: Help drainage systems and flood control structures function properly with 1) routine cleaning and repair; 2) cleaning debris from support bracing underneath low-lying bridges; and 3) inspecting bridges and identifying if any repairs are needed to maintain integrity or prevent scour.

Protect Infrastructure and Critical Facilities: Minimize infrastructure losses and protect critical facilities from flooding by 1) elevating roads above base flood elevation to maintain dry access; 2) armoring streambanks near roadways to prevent washouts; 3) rerouting a stream away from a vulnerable roadway; and 4) floodproofing facilities.

Natural Systems Protection Examples

Protect and Restore Natural Flood Mitigation Features: Natural conditions can provide floodplain protection, riparian buffers, groundwater infiltration, and other ecosystem services that mitigate flooding. Preserving such functionality is not only important for the ecosystem but also for protecting public safety and infrastructure. Examples include 1) adding riparian buffers; 2) stabilizing stream banks; 3) removing berms; 4) minimizing impervious area development; 5) restore floodplain; and 6) restore incision areas.

Outreach & Education Program Examples

Educate Residents about Extreme Temperatures: The impacts of extreme temperatures (cold and hot) on public health can be lessened if residents know how to prepare and protect themselves.

Educate Residents about Flood Insurance: Flood insurance is available to anyone living in Hubbardton as the municipality participates in the National Flood Insurance Program (NFIP). Residents can better protect their assets from flood damage if they are insured and know what steps to take to provide their homes when flooding is predicted.

Educate Residents about Invasive Species: Using apps such as iNaturalist, residents can play an active role in identifying and reporting sightings of invasive species and their impacts, particularly that of Emerald Ash Borer, to the relevant authorities.

Educate Residents on Drought-related Hazards and Water Saving Techniques: Increase awareness of drought-related hazards such as brush fire, diminished water quality and quantity. Encourage residents to take water-saving measures, such as 1) installing low-flow water saving showerheads and toilets; 2) checking for leaks in plumbing or dripping faucets; and 3) installing rain-capturing devices for irrigation.

Mitigation Action Evaluation

As described in **Appendix C**, the Planning Team invited several subject matter experts with local knowledge to participate in a mitigation action evaluation workshop.

For each mitigation action, workshop participants evaluated its potential benefits and/or likelihood of successful implementation. Actions were evaluated against a range of criteria, including a planning level assessment of whether the costs are reasonable compared to the probable benefits. Results of this evaluation are presented in **Table 5**.

Mitigation Action Plan for Implementation

After careful evaluation, the Planning Team agreed on a list of actions that support the mitigation goals of this Plan and are acceptable and practical for the community to implement.

Actions without overall public support/political will were not selected for implementation, and actions whose costs were not reasonable compared to probable benefits were also not selected.

A community survey was used to gauge public reaction to the proposed mitigation goal and actions. 100% of respondents agreed with the mitigation goal and there was wide support for the proposed actions – see **Appendix C**.

For proposed actions, the Planning Team then 1) assigned a responsible party to lead the completion of each action; 2) identified potential funding; 3) defined a timeframe for implementation; and 4) ranked each action's priority (first, second).

Natural hazards pose a unique threat to the Town's at-risk populations. Data has shown that underserved and marginalized populations tend to live in at-risk hazard-prone areas or in homes with substandard construction. The data also suggests that this segment of the community is less likely to fully recover after a disaster.⁴ When ranking an action's priority, those that directly benefit an at-risk population were ranked first priority.

Proposed actions also ranked first priority if they 1) represented routine activities critical to Hubbardton's ability to limit the impacts of natural hazards, or 2) addressed an ongoing need that would provide significant benefit to the Town if pursued sooner rather than later. The action plan is presented in **Table 6**.



The Hubbardton Road Crew

Table 5 Evaluation Criteria

Life Safety – Will the action be effective at protecting lives and preventing injuries?

Property Protection – Will the action be effective at eliminating or reducing damage to structures and infrastructure?

Technical – Is the action a long-term, technically feasible solution?

Political – Is there overall public support or political will for the action?

Administrative – Does the community have the administrative capacity to implement the action?

Other Community Objectives – Does the action advance other community objectives, such as capital improvements, economic development, benefit a vulnerable population, environmental quality, or open space preservation?

Rank each of the above criteria in Table 5 with a -1, 0, or 1 using the following table:

1 = Highly effective or feasible

0 = Neutral

-1 = Ineffective or not feasible

Estimated Cost – 1 = less than \$50,000; 2 = \$50,000 to \$100,000; 3 = more than \$100,000

C/B – Are the costs reasonable compared to the probable benefits? Yes or No

⁴ FEMA Hazard Mitigation Assistance Program and Policy Guide, March 23, 2023

Table 5: Mitigation Action Evaluation and Prioritization

Mitigation Action	Life Safety	Prop Protect	Tech	Political	Admin	Other Obj	Benefit Score	Est Cost	C/B
Local Plans & Regulations									
Recommended for Implementation									
Integrate Mitigation into Capital Improvement Programs and Planning*	1	1	1	1	1	1	6	1	Yes
Plan for and Maintain Adequate Road and Debris Clearing Capabilities	1	1	1	1	1	1	6	1	Yes
Update Road Erosion and Culvert Inventories	1	1	1	1	1	1	6	1	Yes
Inspect Town Short-Structures and Review VTrans Bridge Inspection Reports for Town Long-Structures and Plan for Repairs	1	1	1	1	1	1	6	1	Yes
Plan for Road ROW Vegetation Management, Including an Ash Tree Inventory	1	1	1	1	1	1	6	1	Yes
Identify Additional Opportunities to Improve Stormwater Management By Updating the 2016 Lake Bomoseen Stormwater Master Plan*	1	1	1	1	1	1	6	1	Yes
Improve Extreme Temperature Resilience with Cold/Hot Weather Response Plan	1	0	1	1	1	1	5	1	Yes
Update Personnel Policy to Recommend Vaccinations*	1	0	1	0	1	1	4	1	Yes
Not Recommended for Implementation									
Develop a Drought Contingency Plan	1	0	1	0	0	1	3	1	No
Improve Flood Resilience with a Flood Study	Not evaluated because there are no known locations in need of study.								
Adopt River Corridor Bylaws	Not evaluated because there are too few properties located within River Corridors to justify the adoption of bylaws. Also, no new significant development is expected.								
Adopt Local Building Codes for Structural Wind and Snow Loads	Not evaluated because the Town relies on statewide codes – see page 25 for additional information.								
Update Land Use Bylaws to Require New Development to Bury Power Lines	Not evaluated because Green Mountain Power has authority over the power lines, and the Town has little say over whether the lines are buried or not. Also, no new significant development is expected.								
Develop an Ordinance to Prioritize or Control Water Use	Not evaluated because the Town has no municipal water system on which to impose public usage restrictions.								
Structure & Infrastructure Projects									
Recommended for Implementation									
Protect Power Lines by Inspecting and Removing Hazard Trees in Road ROW	1	1	1	1	1	1	6	1	Yes
Routinely Clean and Repair Stormwater Infrastructure	1	1	1	1	1	1	6	1	Yes
Install/Re-establish Roadside Ditches	1	1	1	1	1	1	6	1	Yes
Increase Dimension of Drainage Culverts in Flood-Prone Areas	1	1	1	1	1	1	6	2-3	Yes
Not Recommended for Implementation									
Bury Power Lines	Not evaluated because Green Mountain Power has authority over the power lines, and the Town has little say over whether the lines are buried or not.								
Install Battery Storage, Back-up Generators, or Quick Connect Wiring at Critical Facilities	Not evaluated because all critical facilities have been equipped with back-up power.								

Mitigation Action	Life Safety	Prop Protect	Tech	Political	Admin	Other Obj	Benefit Score	Est Cost	C/B
Not Recommended for Implementation (Continued)									
Retrofit Critical Facilities to Current Structural Wind and Snow Loads	Not evaluated because there are no critical facilities that require retrofitting.								
Anchor Roof-Mounted Mechanical Equipment on Critical Facilities	Not evaluated because there are no critical facilities with roof-mounted mechanical equipment.								
Insulate Shallow Buried Utility Mains/Services	Not evaluated because there are no buried utility mains/services.								
Use Snow Fence on Critical Roads Prone to Drifting	Not evaluated because drifting potential is minimized by the existence of live snow fences in some locations; therefore, the costs would outweigh the benefits.								
Invest in Infrastructure to Expand Water Supplies	Not evaluated due to the abundance of water available from the Town's many lakes and ponds; therefore, the costs would outweigh the benefits.								
Increase Drainage/Absorption Capacities with Green Stormwater Management Practices	Not evaluated because the 2016 Lake Bomoseen Stormwater Master Plan is currently undergoing an update by the Poultney-Mettawee Natural Resources Conservation District. Once the update is complete, areas best suited to these practices will be identified and addressed accordingly.								
Stabilize Critical Outfalls	Not evaluated because there are no identified outfalls in Hubbardton.								
Routinely Clear Debris from Support Bracing Underneath Low-lying Bridges	Not evaluated because there are no low-lying bridges in Hubbardton.								
Remove Existing Structures from Flood-Prone Areas	Not evaluated because none of the structures in the floodplain are identified as repetitive loss properties, and the costs would not outweigh the perceived benefits.								
Elevate Roads Above Base Flood Elevation to Maintain Dry Access	Not evaluated because the Town has designated improved drainage as a priority and has also made substantial progress in upsizing culverts.								
Floodproof Critical Facilities	Not evaluated because there are no critical facilities that require floodproofing.								

Natural Systems Protection**Not Recommended for Implementation**

Remove Significant Hazard Potential Dams	Not evaluated because, among the two Significant Hazard Potential Dams in Hubbardton, one is owned by the State Department of Fish and Wildlife and remains in Fair Condition. The other is privately owned, and the Town reports it is not close enough to have a significant impact on municipal infrastructure or private property in case of a breach; thus, the costs would not outweigh the benefits.								
Stabilize Stream Banks	Not evaluated for multiple reasons: no such projects were identified in the 2005 Castleton River Phase 1 SGA; there is no relevant Phase 2 SGA to help identify potential project types; and the 2016 Lake Saint Catherine SWMP is currently undergoing an overhaul, so there are no projects that can be identified at this time. Once the Poultney-Mettawee Natural Resources Conservation District completes the SWMP update, the Town will partner with the District to monitor for potential projects and implement them as needed.								
Remove Berms and/or Accumulated Debris from Stream to Restore Flood Capacity									
Establish Vegetative Buffers in Riparian Areas									
Restore Floodplain									
Restore Incision Areas									

Outreach & Education Programs**Recommended for Implementation**

How to Prepare for Extreme Temperatures – Cold and Hot	1	1	1	1	1	1	6	1	Yes
Keep the Ditches Clean Campaign	1	1	1	1	1	1	6	1	Yes
National Flood Insurance Program (NFIP)	1	1	1	1	1	1	6	1	Yes
Water Saving Techniques During Drought	1	1	1	1	1	1	6	1	Yes
How to Identify and Report Invasive Species	1	1	1	1	1	1	6	1	Yes
Infectious Disease Awareness and Prevention	1	1	1	1	1	1	6	1	Yes

*These actions are not included in Table 6 but rather are listed as examples of how the actions in this Plan will be incorporated into other plans and procedures – see page 38.

Table 6: Mitigation Action Plan

Plan for and Maintain Adequate Road and Debris Clearing Capabilities: A leading cause of death and injury during winter storms is from automobile accidents, so it is important to plan for and maintain adequate road and debris clearing capabilities. This includes capital planning and annual funding to support the facilities (highway garage and equipment), and an appropriate number of staff and/or contracted services needed to maintain the transportation network in Hubbardton.

ADDRESSED HAZARDS

Extreme Cold, Snow, and Ice

Primary Hazard



Strong Wind

TYPE OF PROJECT

Local Plans & Regulations

COMMUNITY LIFELINES TARGETED

Safety & Security



Transportation
Primary Lifeline

Area of Impact

Town-wide; ±30 mile road network

LEAD PARTY

Road Commissioner

FUNDING SOURCES

- Town Highway Budget

PARTNERSHIPS

- Local Highway Department
- Selectboard

PROJECT TIMEFRAME

Oct-Dec Annually

PRIORITIZATION = FIRST

Road Right-of-Way (ROW) Vegetation Management Plan: Hazard trees in the road ROW can contribute to power and communication outages as well as debris in the roadway during winter storms and wind events. This hazard is exacerbated by the possibility of Emerald Ash Borer infestation. To increase roadside resilience, Hubbardton will develop a plan to 1) identify community priorities and 2) define a plan of action for site-specific tree and roadside forest management. This will include an inventory of ash trees to assess the scope of impact from EAB and, if warranted, prioritize trees for treatment and removal.

ADDRESSED HAZARDS

Extreme Cold, Snow, and Ice

Primary Hazard



Strong Wind



Invasive Species

TYPE OF PROJECT

Local Plans & Regulations

COMMUNITY LIFELINES TARGETED

Energy

Primary Lifeline



Communications



Transportation

Area of Impact

Town-wide; ±30 mile road network

LEAD PARTY

Road Commissioner

FUNDING SOURCES

- VT Urban & Community Forestry Grants

PARTNERSHIPS

- Tree Warden
- VT Urban & Community Forestry
- VT Dept of Forests, Parks, & Rec

PROJECT TIMEFRAME

Partner outreach by April 2026

Complete plan by December 2026

PRIORITIZATION = FIRST

Update Road Erosion (REI) and Culvert Inventories: These inventories were completed in 2020 and 2023, respectively, and serve as the basis for asset management. Inventories should be kept up-to-date annually, with a full reassessment every 5 years.

ADDRESSED HAZARDS**Floods****TYPE OF PROJECT**

Local Plans & Regulations

COMMUNITY LIFELINES TARGETED**Safety & Security****Transportation**
Primary Lifeline**Area of Impact**

Town-wide; ±30 mile road network and ±375 culverts

LEAD PARTY

Road Commissioner

FUNDING SOURCES

- VTrans Grant Programs⁵

PARTNERSHIPS

- Rutland RPC
- ANR Municipal Roads Program

PROJECT TIMEFRAME

REI 2026 construction season

Culverts 2028 construction season

PRIORITIZATION = SECOND

Plan for Bridge Repairs: The Town will inspect short structures and review long structure VTrans inspection reports to plan for flood-related bridge repairs, such as scour and channel maintenance, as needed, based on the inspection results.

ADDRESSED HAZARDS**Floods****TYPE OF PROJECT**

Local Plans & Regulations

COMMUNITY LIFELINES TARGETED**Safety & Security****Transportation**
Primary Lifeline**Area of Impact**

13 Short Structures: See 2023 structure inventory for complete list

3 Long Structures: B7 Monument Hill Rd; B96 VT-30; B98 VT-30

LEAD PARTY

Town Administrator

FUNDING SOURCES

- VTrans Grant Programs⁵

PARTNERSHIPS

- VTrans District 3

PROJECT TIMEFRAME

Short Inspections: Annually in June

Long Inspections: Review 2027, 2029 construction seasons

PRIORITIZATION = SECOND

Improve Extreme Temperature Resilience with Cold/Hot Weather Response LEMP Annex: To supplement the Town's sheltering plan outlined in the local emergency management plan, the Town will prepare an annex focused on sheltering procedures for extreme cold and extreme heat to better support the community's resilience to extreme temperatures.

ADDRESSED HAZARDS**Extreme Cold****Extreme Heat****TYPE OF PROJECT**

Local Plans & Regulations

COMMUNITY LIFELINES TARGETED**Safety & Security****Area of Impact**

Town-wide

LEAD PARTY

Emergency Management Director

FUNDING SOURCES

- Not Applicable

PARTNERSHIPS

- Rutland RPC
- Vermont Department of Health

PROJECT TIMEFRAME

Develop in 2026 for adoption in May 2027

PRIORITIZATION = SECOND

⁵ See the Vermont Agency of Transportation's "Show Me the Money" Guidance for a complete list of potential funding sources.

Remove Hazard Trees in Road ROW: Hubbardton will remove hazard trees within their road ROW and/or request removal by Green Mountain Power if also within the power line ROW in accordance with their Road ROW Vegetation Management Plan.

ADDRESSED HAZARDS

Extreme Cold, Snow, and Ice
Primary Hazard



Strong Wind



Invasive Species

TYPE OF PROJECT

Structure & Infrastructure

COMMUNITY LIFELINES TARGETED

Energy
Primary Lifeline



Communications



Transportation

Area of Impact

Town-wide; ±30 mile road network

LEAD PARTY

Road Commissioner

FUNDING SOURCES

- Rural Roadside Ash Tree Removal Grant
- Town Highway Budget

PARTNERSHIPS

- Tree Warden
- Green Mountain Power

PROJECT TIMEFRAME

See ROW Vegetation Management Plan

PRIORITIZATION = FIRST

Routinely Clean and Repair Stormwater Infrastructure: Regular maintenance is one of the most effective ways to mitigate flood impacts. Routine cleaning and repairs of catch basins, ditches, and culverts will be done according to the Highway Department's maintenance schedule and the Municipal Roads General Permit (MRGP).

ADDRESSED HAZARDS

Floods

TYPE OF PROJECT

Structure & Infrastructure

COMMUNITY LIFELINES TARGETED

Safety & Security



Transportation
Primary Lifeline

Area of Impact

Town-wide; ±30 mile road network, ±375 culverts, and open stormwater collection system

LEAD PARTY

Road Commissioner

FUNDING SOURCES

- Town Highway Budget

PARTNERSHIPS

- ANR Stormwater Program

PROJECT TIMEFRAME

See Highway Department's Maintenance Schedule, MRGP

PRIORITIZATION = FIRST

Install/Re-work Roadside Ditches: Properly installed and stabilized roadside ditches are critical to protect the integrity of the road. As of December 2025, Hubbardton has 22 road segments (1 segment = 328 ft) with ditches that must be improved to current municipal road standards. Of these, 2 are listed as high priority. This action was listed in the 2020 Hubbardton Local Hazard Mitigation Plan and remains a priority.

ADDRESSED HAZARDS

Floods

TYPE OF PROJECT

Structure & Infrastructure

COMMUNITY LIFELINES TARGETED

Safety & Security



Transportation
Primary Lifeline

Area of Impact

- 1) See MRGP Road Erosion Inventory for non-compliant road segments

LEAD PARTY

Road Commissioner

FUNDING SOURCES

- VTrans Grant Programs⁶

PARTNERSHIPS

- ANR Municipal Roads Program

PROJECT TIMEFRAME

See MRGP Improvement Schedule

PRIORITIZATION = FIRST

Adequately Size Culverts in Flood-Prone Areas: Undersized culverts can lead to road washouts and floods. Hubbardton has identified the following location where upsized culverts are needed. This action was listed in the 2020 Hubbardton Local Hazard Mitigation Plan and remains a priority.

ADDRESSED HAZARDS**Floods****TYPE OF PROJECT**Structure &
Infrastructure**COMMUNITY LIFELINES TARGETED****Safety & Security****Transportation**
Primary Lifeline**Area of Impact**

1. High Pond Road (#04-07)
2. See Culvert and MRGP Road Erosion Inventories for non-compliant culverts

LEAD PARTY

Road Commissioner

FUNDING SOURCES

- VTrans
- FEMA/VEM Hazard Mitigation

PARTNERSHIPS

- ANR Municipal Roads Program
- ANR River Engineer
- VTrans District 3

PROJECT TIMEFRAME

- 1) 2026 Construction Season
- 2) See MRGP

PRIORITY = SECOND

Educate the Public about Severe Winter and Extreme Heat-Related Hazards: Hubbardton will undertake education and awareness efforts by publishing information on Front Porch Forum and Facebook on ways to prepare for 1) severe winter-related hazards (e.g., freezing pipes) and 2) extreme heat-related hazards (e.g., heat stroke). The Town will also consider including this education in periodic municipal mailings, such as tax bill reminders.

ADDRESSED HAZARDS**Extreme Cold, Snow,
and Ice****Extreme Heat****COMMUNITY LIFELINES TARGETED****Safety & Security**
Primary Lifeline**Area of Impact**

Town-wide

LEAD PARTY

Emergency Management Coordinator

FUNDING SOURCES

- Not Applicable

PARTNERSHIPS

- Ready.gov Tool Kits
- VT Department of Health

PROJECT TIMEFRAME

Spring and Fall Annually

PRIORITIZATION = SECOND**TYPE OF PROJECT**Outreach & Education
Programs

Navigating Table 6

The Mitigation Action Plan includes a series of “mini-project profiles”, one for each action recommended for implementation in **Table 5**. Each profile consists of the following elements:

Mitigation Action Description: Explains the action’s relevance to Hubbardton and whether it was previously listed in the 2020 Plan or another plan with ties to hazard mitigation.

Addressed Hazard: Indicates the type of highest risk hazard the action addresses.

Type of Project: Indicates the project type category to which the action belongs (see page 28).

Community Lifelines Targeted: Indicates which critical government and business functions responsible for preserving human health and safety or economic security will benefit from this action (see page 24).

Area of Impact: Indicates the location where the action will be implemented and the spatial extent of the action’s outcomes. “Town-wide” is used for actions that apply throughout the municipality.

Lead Party: Identifies who is responsible for administering each action.

(Continues on the following page.)

Educate the Public about Drought and Flood-Related Hazards: Hubbardton will undertake education and awareness efforts by publishing information on Front Porch Forum and Facebook on 1) implementing water-saving measures during times of drought (e.g., installing low-flow faucets), 2) the importance of keeping roadside ditches and culvert clear of yard waste and other debris, and 3) the availability of flood insurance through the NFIP and how to prepare for/recover from a flood event. The Town will also consider including this education in periodic municipal mailings, such as tax bill reminders.

ADDRESSED HAZARDS**Drought****Floods****TYPE OF PROJECT**

Outreach & Education Programs

COMMUNITY LIFELINES TARGETED**Safety & Security**
Primary Lifeline**Area of Impact**

Town-wide

LEAD PARTY

Emergency Management Coordinator

FUNDING SOURCES

- Not Applicable

PARTNERSHIPS

- Ready.gov Tool Kits

PROJECT TIMEFRAME

Spring-Fall Annually

PRIORITIZATION = SECOND

Educate the Public About Invasive Species and Infectious Disease: Vermont has many organizations that offer information and resources on the threat, identification, and management of invasive species, including the Vermont Invasives Website. For Infectious Disease, the Vermont Department of Health has an Immunization Program with numerous resources related to infectious disease control. Hubbardton will promote these resources on Front Porch Forum and Facebook. The Town will also consider including this education in periodic municipal mailings, such as tax bill reminders.

ADDRESSED HAZARDS**Invasive Species****Infectious Disease****TYPE OF PROJECT**

Outreach & Education Programs

COMMUNITY LIFELINES TARGETED**Safety & Security**
Primary Lifeline**Area of Impact**

Town-wide

LEAD PARTY

Emergency Management Coordinator

FUNDING SOURCES

- Not Applicable

PARTNERSHIPS

- Town Tree Warden
- Vermont Invasives
www.vtinvasives.org
- Vermont Agency of Natural Resources
- Vermont Department of Health

PROJECT TIMEFRAME

Spring and Fall Annually

PRIORITIZATION = SECOND

Navigating Table 6 (Continued)

The Mitigation Action Plan includes a series of “mini-project profiles”, one for each action recommended for implementation in **Table 5**. Each profile consists of the following elements:

Funding Sources: Identifies a potential funding source to implement the action. The Town is ultimately responsible for determining the specific funding source to be utilized when the action is implemented. Where the funding source is “not applicable”, work is completed by town officials who volunteer their time.

Partnerships: List individuals, agencies, or resources that may be able to help identify funding sources, complete grant applications, and/or implement the action.

Project Timeframe: Provides the expected schedule for completion based on available time and resources.

Prioritization: Indicates the relative importance of each action based on a set of criteria (see page 30).

Integrating Into Existing Plans and Procedures

For Hubbardton to succeed in reducing long-term risk to natural hazards, the goals, vulnerability information, and mitigation actions in this Plan will be integrated throughout government operations. When activities are connected, they not only reduce risk and increase resilience but also accomplish other objectives such as environmental protection, economic development, financial stability, and land use planning.

The Town can achieve integration into existing plans and procedures to support risk-informed community planning in the following ways:

- Funding for mitigation actions can be prioritized in capital planning for facilities and equipment and in the annual operating budget process. This was a 2020 action and remains a priority.
- To support workplace health and safety for employees, the Town's personnel policy may be updated to recommend vaccinations for municipal employees.
- The mitigation goal and risk information can inform the response and recovery procedures outlined in the Local Emergency Management Plan, especially by developing an Extreme Temperature (Hot and Cold) Response annex.
- The mitigation goal and risk information can help inform the next update of the Town Plan, particularly its flood resilience and land use policies and actions. These policies and actions support the goal of mitigating risks to public safety, critical infrastructure, historic structures, and municipal investments (including current and future assets) posed by floods and fluvial erosion.
- The mitigation goal and flood risk information can help inform the ongoing update of the 2016 Lake Bomoseen Stormwater Master Plan, which the Poultney-Mettawee NRCD is currently leading. Once complete, green stormwater management practices that increase drainage/absorption capacities can be implemented in whatever locations in Hubbardton are deemed appropriate.

- Flood-related mitigation actions to increase road resiliency can be implemented under the Municipal Road General Permit to control stormwater discharges from town roads.
- The mitigation goal and risk information can be integrated into the mission of the Rutland Regional Disaster Cooperative (RRDC). This county-wide organization is currently being developed through a joint effort by the RRPC and Vermont Department of Health. The RRDC will coordinate knowledge and resources among the Whole Community to help those affected by natural hazards. By strengthening the coordination and sharing of resources, RRDC may play a crucial role in bolstering the administrative, outreach, and education capabilities of the municipalities in Rutland County.

Section 406 – Public Assistance Program

Section 406 mitigation measures are funded under the FEMA Public Assistance Program. 406 funding provides discretionary authority to fund mitigation measures in conjunction with the repair of disaster-damaged facilities, so is limited to declared counties and eligible damaged facilities. Section 406 is applied on the parts of the facility that were damaged by the disaster and the mitigation measures directly reduce the potential of future, similar disaster damages to the facility.

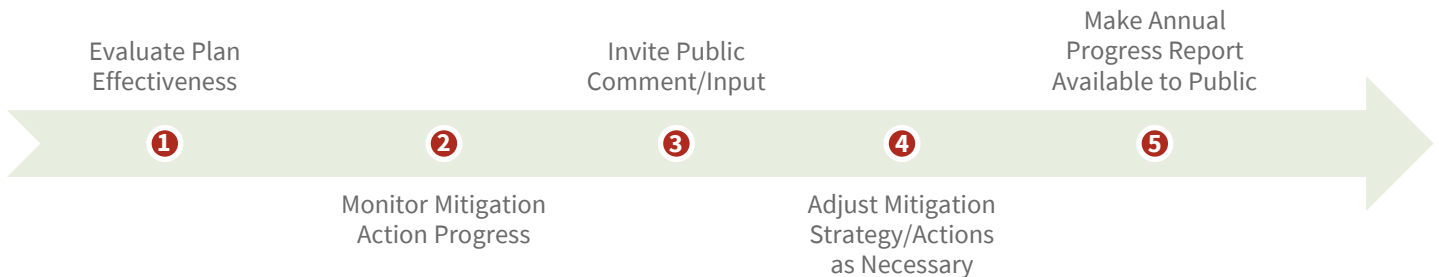
Hubbardton will make every effort to maximize use of future Public Assistance Section 406 Mitigation opportunities when available during federally declared disasters.

7 PLAN MAINTENANCE

This Plan is dynamic. To ensure it remains current and relevant, it should be annually evaluated and monitored and updated every five years, in accordance with FEMA guidelines in effect at the time.

Annual Evaluation and Monitoring

Within 12 months of FEMA Final Approval, the Plan will be annually evaluated and monitored as follows:



1 The Town Administrator and Emergency Management Director (EMD) will evaluate the effectiveness of the Plan in meeting the stated goals. Things to consider during this evaluation:

- What disasters has the town (or region) experienced?
- Should the list of highest risk natural hazard impacts be modified?
- Are new data sources, maps, plans, or reports available? If so, what have they revealed, and should the information be incorporated into this plan?
- Has development in the region occurred and could it create or reduce risk?
- Has the town adopted new policies or regulations that could be incorporated into this plan?
- Have elements of this plan been incorporated into new plans, reports, policies, or regulations?
- Are there different or additional community capabilities available for mitigation implementation?

2 Next, the Town Administrator and EMD will monitor mitigation action progress. Things to consider:

- Is the mitigation strategy being implemented as anticipated?
- Were the cost and timeline estimates accurate?
- Should new mitigation actions be added?
- Should proposed actions be revised or removed?
- Are there new funding sources to consider?

The status (e.g., in progress, complete) of each action should be recorded in **Table 7**. If the status is “in progress”, note whether the action is on schedule. If the action is not on schedule, describe any problems, delays, or adverse conditions that will impair the ability to complete the action.

3 The Town Administrator and EMD will seek public comment from the Whole Community on plan implementation. Things to consider:

- Are there any new stakeholders to include?
- What public outreach activities have occurred? At minimum, the Town will publicly post notice of meetings when the plan is being evaluated.
- How can public involvement be improved?

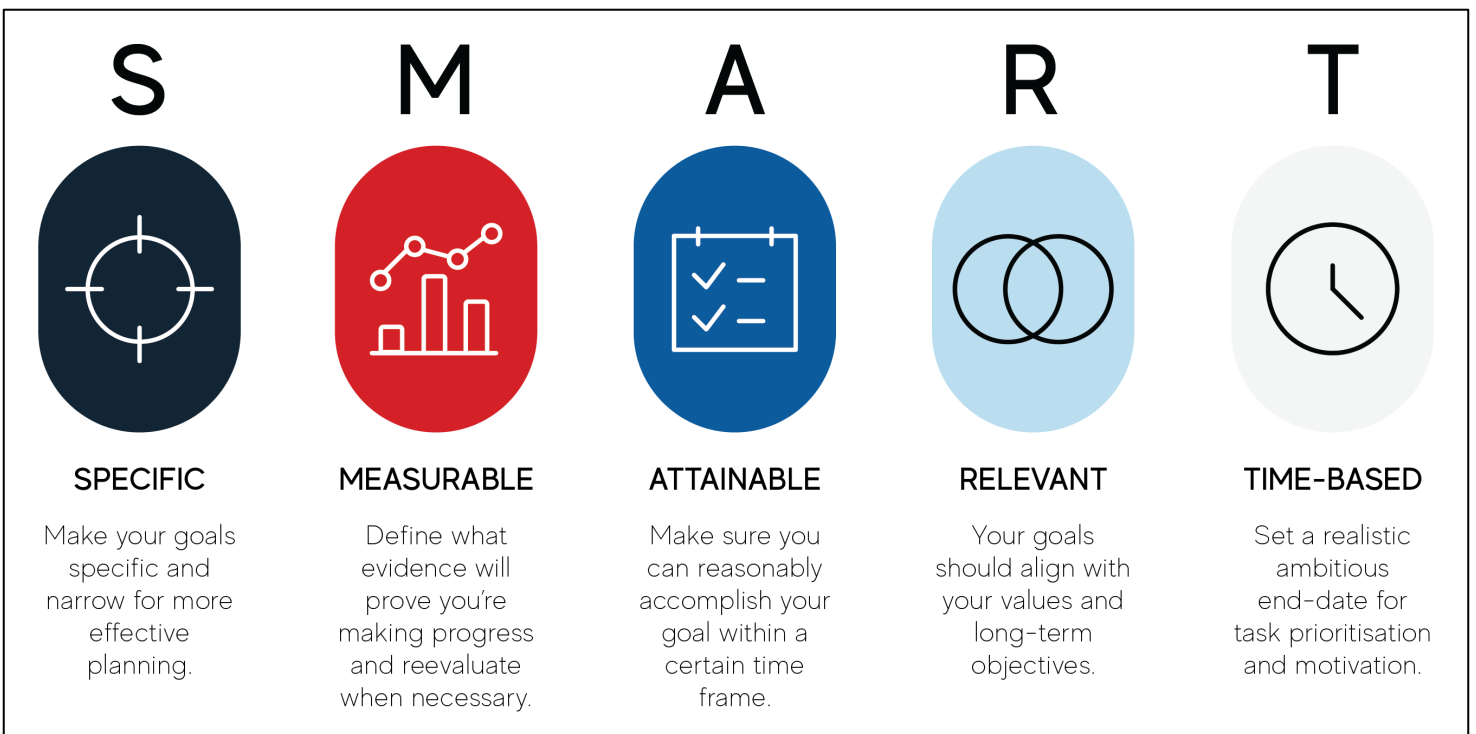
4 Based on input received, the mitigation strategy and/or actions will be modified, if needed.

5 A report (or record in the form of meeting minutes) of the annual evaluation and monitoring will be made available to the public.

Table 7: Mitigation Action Status

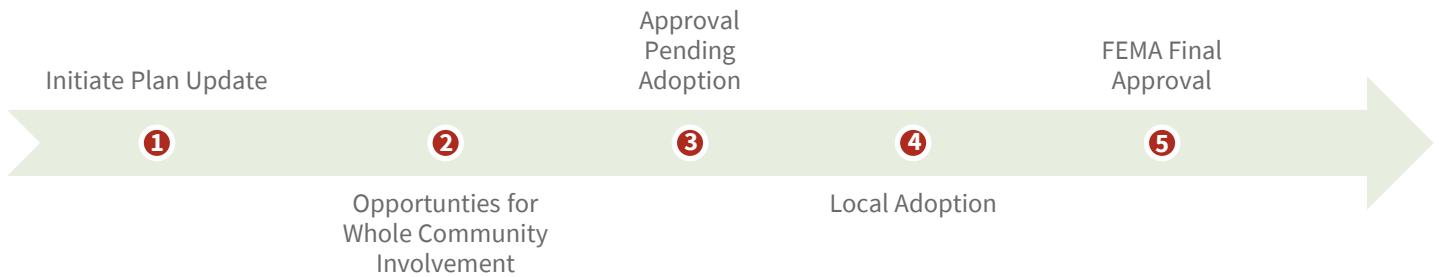
Mitigation Action	2027	2028	2029	2030	2031
Local Plans & Regulations					
Plan for and Maintain Adequate Road and Debris Clearing Capabilities PRIORITY: First LEAD PARTY: Road Commissioner TIMEFRAME: Oct-Dec annually					
Right-of-Way Vegetation Management Plan PRIORITY: First LEAD PARTY: Road Commissioner TIMEFRAME: Complete by December 2026					
Update Road Erosion (REI) and Culvert Inventories PRIORITY: Second LEAD PARTY: Road Commissioner TIMEFRAME: REI 2026 construction season; Culverts 2028 construction season					
Plan for Bridge Repairs PRIORITY: Second LEAD PARTY: Town Administrator TIMEFRAME: Short Inspections: annually in June Long Inspections: Review 2027, 2029 construction season					
Improve Extreme Temperature Resilience with Cold/Hot Weather Response LEMP Annex PRIORITY: Second LEAD PARTY: Emergency Management Director TIMEFRAME: Develop in 2026 for adoption in May 2027					
Structure & Infrastructure Projects					
Remove Hazard Trees in Road Right-of-Way PRIORITY: First LEAD PARTY: Road Commissioner TIMEFRAME: See ROW Vegetation Management Plan					
Routinely Clean and Repair Stormwater Infrastructure PRIORITY: First LEAD PARTY: Road Commissioner TIMEFRAME: See Highway Department's Maintenance Schedule and MRGP					
Install/Rework Roadside Ditches PRIORITY: First LEAD PARTY: Road Commissioner TIMEFRAME: See MRGP Improvement Schedule					
Adequately Size Culverts in Flood-Prone Areas PRIORITY: Second LEAD PARTY: Road Commissioner TIMEFRAME: 2026 construction season					
Outreach & Education Programs					
Educate the Public about Severe Winter and Extreme Heat-Related Hazards PRIORITY: Second LEAD PARTY: Emergency Management Coordinator TIMEFRAME: Spring and Fall annually					

Mitigation Action	2027	2028	2029	2030	2031
Outreach & Education Programs, Continued					
Educate the Public about Drought and Flood-Related Hazards PRIORITY: Second LEAD PARTY: Emergency Management Coordinator TIMEFRAME: Spring – Fall annually					
Educate the Public about Invasive Species and Infectious Disease PRIORITY: Second LEAD PARTY: Emergency Management Coordinator TIMEFRAME: Spring and Fall annually					

Source: www.futurelearn.com

5-Year Updates

This Plan will be updated at a minimum every five (5) years as follows:



- 1 As of April 2025, BRIC funding is no longer available to assist municipalities in paying for planning services to update the Local Hazard Mitigation Plan. If BRIC or a similar federal grant were to become available, the Hubbardton Town Administrator should contact Vermont Emergency Management (VEM) to apply for funding in 2029 – approximately 2 years before the Plan expires. It is assumed that the Emergency Management Coordinator will serve as the primary point of contact for the Plan update.

Once funding is secured and the grant agreement between the Town and State is in place, the Selectboard can issue a request for proposals (RFP) to procure planning services in accordance with the grant agreement. The RFP should be issued approximately 14 months before the Plan expires.

Once a consultant is procured, the Plan update can begin with a kick-off meeting including the consultant and local hazard mitigation planning team. The kick-off meeting should be scheduled approximately 12 months before the Plan expires. The Town should allot approximately 8 months for the Plan update process.

- 2 Opportunities for Whole Community involvement throughout the Plan update process need to be factored into the schedule. These opportunities may include community surveys, pop-up events, planning workshop, and public meetings at critical milestones agreed to at the project kick-off meeting.
- 3 Once the local hazard mitigation planning team has prepared a final draft, they can seek authorization from the Selectboard to submit the Plan for VEM/FEMA approval. Plan approval is accomplished in two steps – the first is Approval Pending Adoption. The Town should submit for Approval Pending Adoption approximately 4 months before the Plan expires to allow for time to respond to any review comments received from VEM/FEMA.
- 4 Once the Town receives Approval Pending Adoption, the Selectboard should adopt the Plan as soon as their next regular meeting.
- 5 Once adopted, the Town can submit the Plan for VEM/FEMA Final Approval. The Town should submit for Final Approval approximately 1 month before the Plan expires to ensure there is no gap in coverage between updates. The FEMA Final Approval date starts the clock on the effective dates of the 5-year Plan.

CERTIFICATE OF ADOPTION
Town of Hubbardton, Vermont Selectboard
A Resolution Adopting the Hubbardton, Vermont 2026 Local Hazard Mitigation Plan

WHEREAS the Hubbardton Selectboard recognizes the threat that natural hazards pose to people and property within the Town of Hubbardton; and

WHEREAS the Hubbardton Selectboard has prepared a natural hazard mitigation plan, hereby known as the Hubbardton, Vermont 2026 Local Hazard Mitigation Plan in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

WHEREAS the Hubbardton, Vermont 2026 Local Hazard Mitigation Plan identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the Town of Hubbardton from the impacts of future hazards and disasters; and

WHEREAS adoption by the Hubbardton Selectboard demonstrates its commitment to hazard mitigation and achieving the goals outlined in the Hubbardton, Vermont 2026 Local Hazard Mitigation Plan.

NOW THEREFORE, BE IT RESOLVED BY THE TOWN OF HUBBARDTON, VERMONT, THAT:

Section 1. In accordance with 24 VSA §872, the Hubbardton Selectboard adopts the Hubbardton, Vermont 2026 Local Hazard Mitigation Plan. While content related to the Town of Hubbardton may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the Town of Hubbardton to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

ADOPTED by a vote of 4 in favor and 0 against, and 1 absent or abstaining, this 14 day of September 2026.

By: [Signature] (signature)
Selectboard Chair

ROBERT A. GIBBS (print name)
Selectboard Chair

ATTEST: By: Kathleen Hewes (print name)
KATHLEEN HEWES

MITIGATION ACTIONS FROM 2020 PLAN

Mitigation Action	Lead Party	Timeframe	2026 Status
Local Plans and Regulations			
Integrate Mitigation into Annual Budgets and Capital Improvement Programs	Selectboard	Annually, during budget preparation	Ongoing
Plan for and Maintain Adequate Road and Debris Clearing Capabilities	Selectboard	Ongoing	Ongoing
Manage Development in Erosion Hazard Areas by Adopting River Corridor Bylaws	Planning Commission	2023	Incomplete; No longer a priority
Examine current Town Plan to Ensure Identified Hazard Areas are Addressed	Planning Commission	2024	Ongoing
Attend regular training sessions on floodplain management and flood regulations administration	Zoning Administrator	Annually, as needed	Incomplete; Remains as a lesser priority
Structure and Infrastructure Projects			
Encourage Green Mountain Power to fix problems with Middlebury power line	Selectboard	Annually	Incomplete; No longer a priority due to lack of meaningful influence
Stabilize Outfalls: There are currently no identified outfall stabilization projects. The Highway Department will monitor all outfalls and address as needed.	Road Commissioner	Annually	N/A
Re-establish Roadside Ditches: In addition to the ditch work identified in the 2018 Road Stormwater Management Plan, ditching is planned for the following in 2020: (1) Monument Hill Road (2) Woods Road (3) High Pond Road In addition to planned ditch work, the Highway Department inspects all ditches each spring for needed repairs	Road Commissioner	See 2018 Road Stormwater Management Plan; 2020; annually, as needed	Partially complete; Remains a priority
Routinely Clean and Repair Stormwater Infrastructure	Road Commissioner	Annually or as needed	Ongoing, as needed
Protect Power Lines by Inspecting and Removing Hazardous Trees in Road ROW	Road Commissioner	Annually or as needed	Ongoing, as needed
Increase Dimension of Culverts in Flood-Prone Areas: (1) One culvert on St. John Road (2) One culvert on High Pond Road (3) Two culverts on Black Pond Road (4) Possibly a culvert on Ganson Hill Road East	Road Commissioner	2020-2021	(1) Complete (2) Complete (3) Complete (4) N/A ⁶

⁶ The Town does not recall there being any culverts needing upsizing on this road, so this is no longer a priority

Mitigation Action	Lead Party	Timeframe	2026 Status
Elevate Roads Above Base Flood Elevation to Maintain Dry Access: (1) Black Pond Road is a gravel road. A ¼ mile of the road along Breese Pond will be elevated ±6 inches.	Road Commissioner	2022-2023	Incomplete; no longer a priority after two upsized culverts were installed
Review VTrans Bridge Inspection Reports and Plan for Identified Repairs to Prevent Scour: (1) Bridge #7 beginning in 2015, the inspection reports noted problems with the bridge abutments. The last report in 2019 noted the exposed backfill in a voided area at the base of abutment 1 is vulnerable to erosion during high water events. Replacement of this bridge is planned.	Road Commissioner	2021-2022	Bridge replacement complete; action remains ongoing priority
Increase Drainage/Absorption Capacities with Low Impact Development Practices: There are currently no identified LID projects. The Highway Department will monitor the stormwater collection system for LID opportunities.	Road Commissioner	Ongoing	N/A
Remove Existing Structures from Flood-Prone Areas	This action was not selected for implementation because the perceived benefits do not outweigh anticipated costs.		
Bury Power Lines	This action was not selected for implementation because the perceived benefits do not outweigh anticipated costs.		
Natural Systems Protection			
Stream/Lakeshore Stabilization: (1) Breese Pond	Road Commissioner	2021-2022	Incomplete; no longer a priority after upsized culverts were installed
Education and Awareness Programs			
Assist Vulnerable Populations	The Town is already working with identified vulnerable populations and regional social service agencies to meet the needs of vulnerable populations – see Hubbardton Local Emergency Management Plan.		
Keep the Culverts and Ditches Clean Campaign	Selectboard	Annually, in Town Report	Remains as ongoing priority

PUBLIC ENGAGEMENT SUMMARY

Community Engagement Strategy

During the kickoff meeting, the Hubbardton Hazard Mitigation Planning Team came to a consensus on a 2-phase Community Engagement Strategy – see **Appendix Table 1**. This Strategy was designed to ensure that at-risk populations had an opportunity for equitable involvement throughout the entirety of the plan development process (i.e., from kickoff to final draft).

This Strategy also ensured the involvement of the Whole Community. For the purposes of this plan, the Whole Community is comprised of 1) local and regional agencies involved in hazard mitigation; 2) entities with authority to regulate development; 3) neighboring towns; 4) representatives of business, schools/academia, and other private organizations that sustain community lifelines; and 5) representatives of community-serving nonprofit organizations that work directly with frontline populations.

A Goal Statement was developed to guide the planning team's public outreach throughout the planning process:

The Town of Hubbardton will:

- ***Notify the Whole Community about the plan update at the kickoff, mid-point draft, and final draft;***
- ***Solicit feedback from the Whole Community about the frequency and impacts of various natural hazards, and strategies and mitigation methods that should be prioritized; and***
- ***Integrate from the Whole Community perspectives and information about hazard impacts and likelihoods, and priorities for potential mitigation actions.***

Phase 1 Engagement Activities

Kick-off To notify the Whole Community of the Plan Update, the Town conducted a robust advertising campaign. A landing page was created to provide a dedicated online source for all information related to the planning process and opportunities for community engagement. The landing page url is: tinyurl.com/hubbardton-LHMP25.

Physical flyers were posted at the Castleton Transfer Station, Hubbardton Town Office, Hubbardton Town Garage, and Hubbardton Westside Firehouse. Online notices were posted on the Hubbardton Town Facebook Page, Hubbardton Front Porch Forum, the RRPC website, and the RRPC Facebook Page. Notices were also included in tax bill send outs to Hubbardton residents.

Project communications were sent to the following segments of the Whole Community:

- 1) **Hazard Mitigation Agencies:** DEC River Engineer for Southwest VT, DEC Western VT Floodplain Manager, Hubbardton Fire Safety; Hubbardton Emergency Management Director, Hubbardton Emergency Management Coordinator, Hubbardton Town Clerk, Hubbardton Town Administrator, Poultney-Mettowee Natural Resources Conservation District, South Lake Champlain Clean Water Service Provider, VDH Emergency Preparedness Specialist, VDH Rutland District Director, VTrans District 3 Projects Manager, VTrans District 3 Transportation Administrator.
- 2) **Authorities Regulating Development:** Hubbardton Selectboard Chair/Zoning Administrator, Hubbardton Selectboard members, Hubbardton Planning Commission Chair, Hubbardton Planning Commission members.
- 3) **Neighboring Municipalities:** Selectboard Chair, Planning Commission Chair, Town Clerk, and EMD/EMC for Towns of Benson, Brandon, Castleton, Pittsford, and Sudbury.
- 4) **Business, Schools, Private Orgs.:** Castleton Elementary School, Council of Economic Development of the Rutland Region, Fair Haven Union Middle and High School, Slate Valley Unified School District, Rutland County Solid Waste District.
- 5) **Non-profit Organizations:** Advocacy Resources Community Rutland, Bayada, Bennington-Rutland Opportunity Council, Fair Haven Rescue Squad, Housing Trust of Rutland County, Rutland County Pride, Rutland County Restorative Justice Center, Rutland Mental Health Services, Rutland Regional Medical Center, Slate Valley Cares, Southwestern Vermont Council on Aging, (contd.)

United Way of Rutland County, Vermont Association for the Blind and Visually Impaired, Vermont Center for Independent Living, Visiting Nurses Association & Hospice of SW Vermont.

Kick-off engagement materials can be seen below.

No inquiries or comments received from Town officials or the public in response to project kick-off notices.

Gather Data & Assess Risk To inform the Hazard Identification and Risk Assessment section of the plan, the Town employed four (4) engagement methods: survey, workshop, presentation to the Selectboard at a public meeting, and public comment period.

A survey was administered online and was open from July 31-August 29, 2025. Physical surveys were also available at the Town Office. Notice of the survey was included in plan kick-off communications. **A total of 4 surveys were received.** A summary of the survey results is provided below. Given this small sample size, statistics that are typically incorporated into the risk profile narratives are not included.

The Town conducted a workshop on August 19, 2025 with the planning team and one subject matter expert to complete the community hazard risk assessment. Noah Hoffman, from the Agency of Natural Resources, attended the workshop to assist with the risk assessments for Invasive Species. Eric Pulver, the Emergency Preparedness Specialist with the Vermont Department of Health, was invited to assist with the risk assessment for Infectious Disease but unfortunately could not attend. Results of the risk assessment are presented in **Table 4** in the Plan.

Pop-up events assist Towns in “meeting people where they are: and collecting additional input from demographics that may not have otherwise been engaged. This method of public outreach was considered for the Community Engagement Strategy. The Planning Team ultimately decided not to utilize pop-up events due to limited capacity, limited resources, and limited opportunities to attend community gathering spaces.

The draft Plan was provided to the Selectboard at their regular meeting on September 22, 2025 to encourage input from the local government and public on the Hazard Identification and Risk Assessment results. Input at this milestone is critical as feedback could affect the plan’s conclusions and ensure that it integrates with other Town initiatives. The meeting was recorded and is available from the Town upon request.

The draft Plan was posted for a 2-week public comment period from September 22 – October 6, 2025. It was available on the landing page and at the Town Office. Notice of the comment period was posted on the Town’s Facebook page, Front Porch Forum, RRPC Website, and Facebook page. Physical flyers were posted at the Castleton Transfer Station, Hubbardton Town Office, Hubbardton Town Garage, and Hubbardton Westside Firehouse. The draft plan and notice of the comment period were direct emailed to all five segments of the Whole Community.

Notices included instructions to email comments to the Rutland Regional Planning Commission. Review of the draft Plan by the Selectboard and public concluded on October 6, 2025.

Positive reception from local officials. No input received from Whole Community partners during public comment period.

The Selectboard did not have any comments on the draft Plan. They authorized the Planning Team to proceed with developing the mitigation strategy at their October 6, 2025 meeting.

Input from the public received during the public comment period is summarized on page A-18.

Phase 2 Engagement Activities

Develop Mitigation Strategy To inform the Mitigation Strategy section of the plan, the Town employed two (2) engagement methods: workshop and survey.

The Town conducted a workshop on November 20, 2025 with the planning team, the VDH Emergency Preparedness Specialist, and the executive director of the Poultnery-Mettowee NRCD to complete the mitigation action evaluation.

Several other subject matter experts were invited but unable to attend the workshop – ANR Floodplain Manager, ANR River Engineer, and Planning Commission Chair. Results of the evaluation are presented in **Table 5** in the Plan.

A survey to seek public reaction to the proposed mitigation goal and actions was administered online and was open from Dec 3-22, 2025. Notice of the survey was provided via social media and direct email to segments of the Whole Community listed above in Phase 1. To encourage participation, the Town offered a raffle for several \$25 gift cards for completing the survey. **A total of 11 surveys were received.** A summary of the survey results is provided below.

Finalize Draft Plan To help finalize the draft, the Plan was presented to the Selectboard at a public meeting and posted for a final public comment period. Online notices of the public presentation at the January 26, 2026 Hubbardton Selectboard meeting were directly emailed to all Whole Community segments and posted on the landing page, RRPC Website, and RRPC Facebook page.

The SelectBoard chose not to reschedule the meeting despite the winter storm that made travel particularly hazardous. Options to delay the presentation were limited by the once-a-month Selectboard meeting schedule and an anticipated absence from the lead RRPC staff during the second half of February.

After consulting with the Planning Team about these extenuating circumstances, this round of public notice urged people to stay home if the roads were unsafe (the Town is currently unable to accommodate the “hybrid” meeting format for an audience) and to inquire separately for more information about the presentation's content.

The final draft Plan was presented remotely at the January 26, 2026 Selectboard meeting to encourage input from the local government and public on the mitigation strategy and final draft plan. Input at this milestone is critical as it is the last opportunity to weigh in on the plan contents before submittal for Approval Pending Adoption. The meeting was recorded and is available from the Town upon request.

The final draft Plan was posted for a 4-week public comment period from January 26 – February 23, 2026. It was available on the landing page and at the Town Office.

Notice of the comment period was also posted on the Town's Facebook page, Front Porch Forum, RRPC Website and Facebook page. The final draft plan and notice of the comment period were directly emailed to all Whole Community segments. Flyers were also posted at the public notice locations listed on page A-4.

Notices included instructions to email comments to the Rutland Regional Planning Commission. Review of the final draft Plan by the Selectboard and public concluded on February 23, 2026.

The Selectboard did not have any comments on the final draft Plan. On February 23, 2026, the Board voted to authorize submission to Vermont Emergency Management for Approval Pending Adoption.

Positive reception from local officials. No input received from the public or Whole Community partners during public comment period

Appendix Table 1. Hubbardton Community Engagement Strategy

Engagement Phase	Project Milestone	Outreach Method	Purpose	Target Date
1	Kick-Off	Landing page, flyers, press release, social media, email blast	Notify (inform the Whole Community of the plan update)	7/31/2025
	Gather Data & Assess Risk	Survey	Solicit (feedback from Whole Community on potential natural hazard impacts)	7/31/2025 – 8/29/2025
		Workshop	Integrate (evaluate broad range of risks)	8/19/2025
		Selectboard Presentation	Notify (inform local officials of plan progress)	9/22/2025
		Public Comment Period	Solicit (feedback from Whole Community on draft Hazard Identification and Risk Assessment)	9/22/2025– 10/6/2025
2	Develop Mitigation Strategy	Workshop(s)	Integrate (evaluate broad range of mitigation actions)	11/20/2025
		Survey	Solicit (reaction from Whole Community on mitigation strategy and actions)	12/3/2025 – 12/22/2025
	Finalize Draft Plan	Selectboard Presentation	Notify (inform local officials of plan progress)	1/26/2026
		Public Comment Period	Solicit (feedback from Whole Community on final draft plan)	1/26/2026– 2/23/2026

Examples of Phase 1 Engagement Materials

Physical Flyer
Email Blasts
Social Media Postings
Tax Bill Insert
Survey with Results
Public Comments

KICK-OFF FLYER

Hubbardton

LOCAL HAZARD
MITIGATION
PLANNING

Plan Purpose

- Increase Awareness
- Identify Actions
- Focus Resources
- Communicate Priorities

The Local Hazard Mitigation Plan outlines our long-term strategy to reduce natural disaster losses and break the cycle of disaster damage, reconstruction, and repeated damage.



Take our online survey to share what natural hazards you are most concerned about:



HELP US

PREPARE FOR
RESILIENCY!

Planning Schedule

- Jul 2025: Plan Update Kick-off ✓
- Aug-Sep 2025: Assess Risks & Identify Hazards ✓
- Sep-Oct 2025: Develop Mitigation Strategy ✓
- Nov-Dec 2025: Finalize Draft Plan ✓
- Jan-Feb 2026: Adopt Plan ✓

ACT NOW!

For More Information

tinyurl.com/hubbardton-lhmp25

KICK-OFF EMAIL BLAST



**SURVEY
NOW
OPEN**

Accepting responses through August 29, 2025



LOCAL HAZARD MITIGATION PLAN

2025

For more information visit:
tinyurl.com/hubbardton-lhmp25

Help Make Hubbardton More Resilient!

Hubbardton Launching our Hazard Mitigation Planning Process

Every five years, municipalities update their Local Hazard Mitigation Plans, or LHMPs. Ours is due to be updated. We do an LHMP for a few reasons:

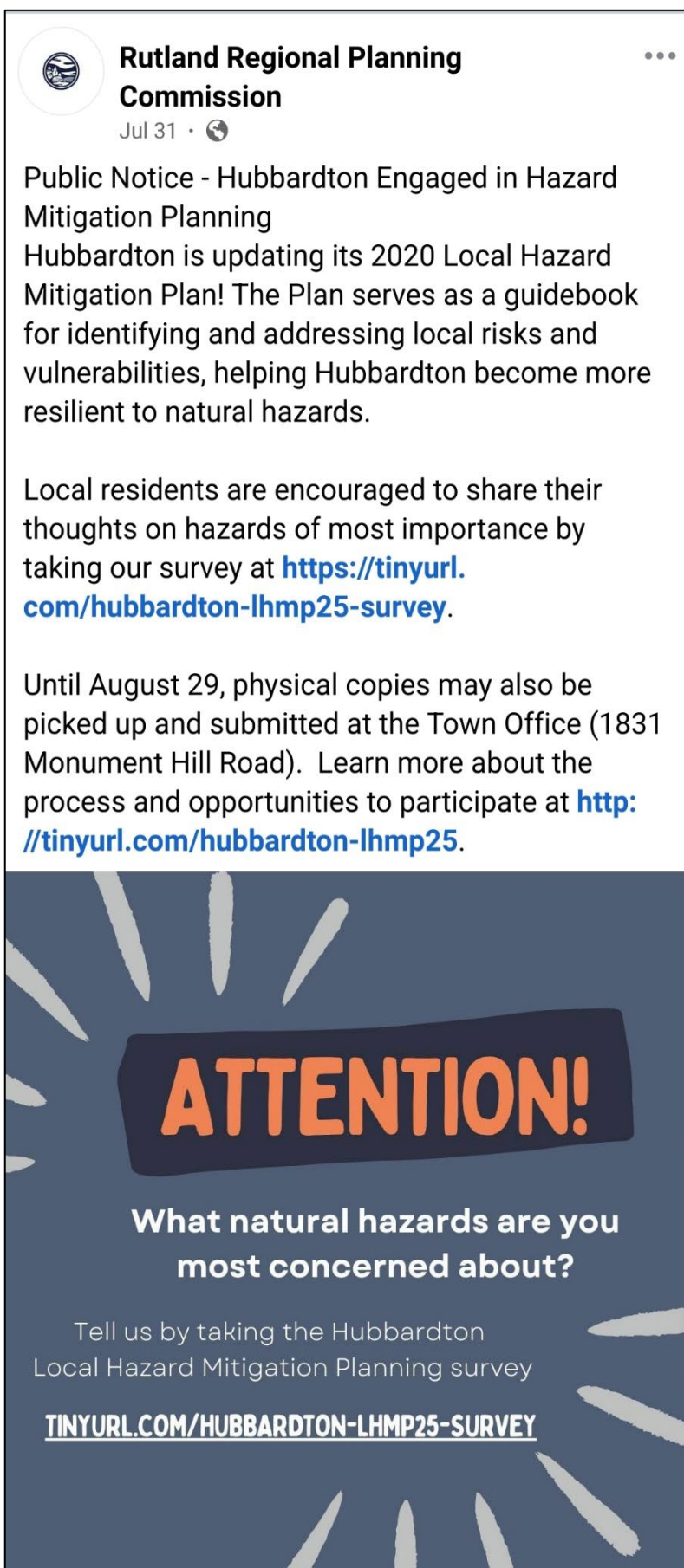
- It qualifies us for a higher rate of reimbursement for work we do after declared disasters.
- It makes us eligible for a variety of State and Federal grant programs.
- Most importantly, it helps us focus Town time and investments on the hazards that are most likely to occur, and most likely to have economic and public-safety impacts.

The Rutland Regional Planning Commission will guide us through the renewal of our LHMP, thanks to a grant we received from Vermont Emergency Management. The Town's planning team includes: Bob Gibbs, Selectboard Chair; Rick Grabowski, Emergency Management Director; Katje Hewes, Town Clerk; Ricky Mead, Road Commissioner; Kellee Saari, Town Administrator; and Mike Wetmore, Emergency Management Coordinator.

Throughout the planning process, we have targeted opportunities for community input. As we get the plan update underway in August, we'll be completing a risk assessment and identifying the natural hazards that are of greatest concern. We want to hear from our residents about what natural hazards you are most concerned about! Share your feedback by taking our online survey: tinyurl.com/hubbardton-lhmp25-survey. The survey will remain open until **August 29, 2025**.

For more information visit: tinyurl.com/hubbardton-lhmp25

KICK-OFF SOCIAL MEDIA POSTS



Rutland Regional Planning Commission
Jul 31 • 🌐

Public Notice - Hubbardton Engaged in Hazard Mitigation Planning

Hubbardton is updating its 2020 Local Hazard Mitigation Plan! The Plan serves as a guidebook for identifying and addressing local risks and vulnerabilities, helping Hubbardton become more resilient to natural hazards.

Local residents are encouraged to share their thoughts on hazards of most importance by taking our survey at <https://tinyurl.com/hubbardton-lhmp25-survey>.

Until August 29, physical copies may also be picked up and submitted at the Town Office (1831 Monument Hill Road). Learn more about the process and opportunities to participate at <http://tinyurl.com/hubbardton-lhmp25>.

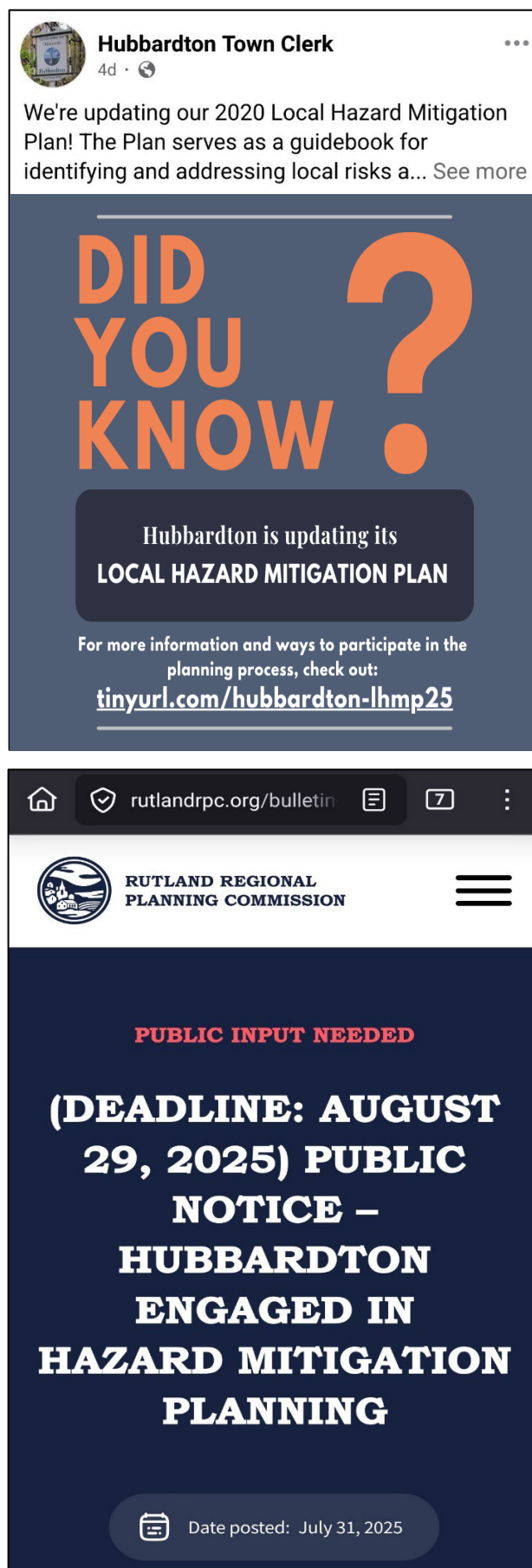


ATTENTION!

What natural hazards are you most concerned about?

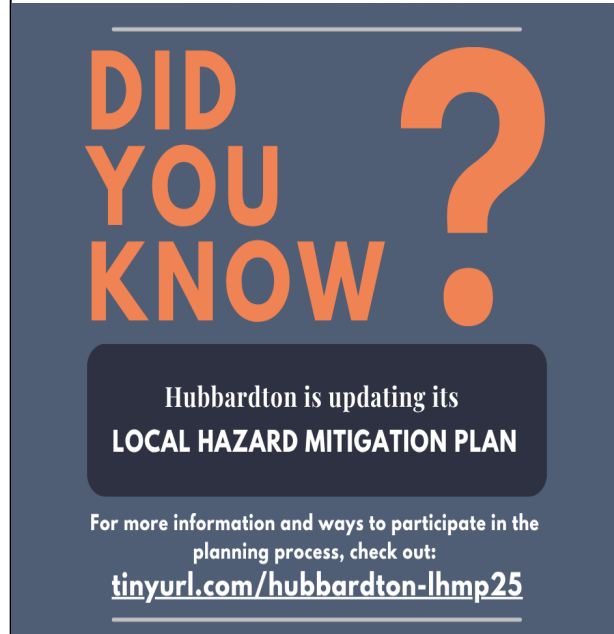
Tell us by taking the Hubbardton Local Hazard Mitigation Planning survey

[TINYURL.COM/HUBBARDTON-LHMP25-SURVEY](https://tinyurl.com/hubbardton-lhmp25-survey)



Hubbardton Town Clerk
4d • 🌐

We're updating our 2020 Local Hazard Mitigation Plan! The Plan serves as a guidebook for identifying and addressing local risks a... See more



DID YOU KNOW?

Hubbardton is updating its
LOCAL HAZARD MITIGATION PLAN

For more information and ways to participate in the planning process, check out:
tinyurl.com/hubbardton-lhmp25



rutlandrpc.org/bulletin

RUTLAND REGIONAL PLANNING COMMISSION

PUBLIC INPUT NEEDED

(DEADLINE: AUGUST 29, 2025) PUBLIC NOTICE – HUBBARDTON ENGAGED IN HAZARD MITIGATION PLANNING

Date posted: July 31, 2025

KICK-OFF TAX BILL INSERT

We're updating our 2020 Local Hazard Mitigation Plan!



The Plan serves as a guidebook for identifying and addressing local risks and vulnerabilities, helping Hubbardton become more resilient to natural hazards.

Share your feedback by taking our online survey at <https://tinyurl.com/hubbardton-lhmp25-survey>. Paper copies are also available at the Town Office and must be submitted to the Town Clerk by **August 29, 2025**.

Get Important Updates from the Town via our Hubbardton Town Clerk Facebook page.



Looking for a way to get involved in the community? Have you considered joining the Hubbardton



Volunteer Fire Department? You can call the office or message them on the Hubbardton Vermont Fire Department Facebook page.

You can also find us on Front Porch Forum. If you're not already a member, consider signing up with Front Porch Forum. It's a great communication platform for many area residents.

**Hubbardton Town Office**

1831 Monument Hill Rd
Castleton, VT 05735

Hours:

9:00A—4:00P Mon/Wed/Fri

Hubbardton Town Garage

66 Hortonia Rd
Fair Haven, VT 05743

Summer Hours:

6:00A-4:00P Mon to Thurs

Winter Hours:

6:00A-2:00P Mon to Fri



Bone Builders
Tuesday and Thursday
10:00-11:00A

Select Board Meetings
4th Monday of each Month
6:00P

PHASE 1 EMAIL BLASTS

 Maggie O'Brien 

To:  Maggie O'Brien Thu 7/31/2025 3:13 PM

Cc: winnerspass@myottmail.com; **+2 others**

Hello, Local and Regional Hazard Mitigation Agencies,

On behalf of the Town of Hubbardton, we are announcing the official launch of the 2025 update to the Town's Local Hazard Mitigation Plan (LHMP). The local Planning Team is committed to providing targeted opportunities for community input, and we would like to hear from you throughout the plan development process. See the graphic below for more information.

From **7/31 – 8/29**, we are seeking your input on the natural hazards and risks of most importance to Hubbardton. You can access the survey directly at <https://tinyurl.com/hubbardton-lhmp25-survey>. Copies may also be picked up and submitted at the Town Office (1831 Monument Hill Road).

The project's landing page will be kept up to date with public involvement opportunities and can be reached at <http://tinyurl.com/hubbardton-lhmp25>. Questions should be directed to me, Maggie O'Brien, at maggie@rutlandrpc.org.

 Maggie O'Brien 

To:  Maggie O'Brien Thu 9/18/2025 3:00 PM

Cc:  rgibbbps@shoreham.net; **+2 others**

Hello, Local Hubbardton Officials,

On behalf of your Town, we are notifying key members of the community that the local Planning Team has reached a critical milestone in the Local Hazard Mitigation Plan (LHMP) update process. The draft Plan, including work completed to date, will be presented at the Town's Selectboard meeting on **Monday, September 22 @ 6:00 PM** at the Town Office (1831 Monument Hill Road).

After this meeting, you will receive notice that we are seeking public comments on the draft - more information will follow. You may also visit <https://tinyurl.com/hubbardton-lhmp25> to remain current on public involvement opportunities. Questions should be directed to me, Maggie O'Brien, at maggie@rutlandrpc.org.

 Maggie O'Brien 

To:  Maggie O'Brien Mon 9/22/2025 4:00 PM

Cc: hubbardtonrd <hubbardtonrd@gmail.com>; **+1 other**

Bcc: Benson Roads <bensonroads@gmail.com>; **+24 others**

Hello, Local Officials in Neighboring Communities

On behalf of the Town of Hubbardton, we are notifying key members of the community that the Public Comment period is now open for the Hubbardton Local Hazard Mitigation Plan (LHMP). We are seeking comments on how the local Planning Team assessed the Town's risk to natural hazards. View the draft plan online at <https://tinyurl.com/hubbardton-lhmp25>. Physical copies are also available at the Town Office @ 1831 Monument Hill Road.

The Public Comment period will close on **October 6, 2025**. Email all comments to me, Maggie O'Brien, at maggie@rutlandrpc.org. You may also give your comments in person at the special Selectboard meeting planned for October 6. We look forward to hearing from you!

PHASE 1 SOCIAL MEDIA POSTS

COMMUNITY BULLETIN BOARD

NEWS, EVENTS AND MORE

Keep up to date on all the happenings of the Rutland Regional Planning Commission so your community doesn't miss out on the many new events, programs, and opportunities!

Contact RRPC Today!

PUBLIC COMMENTS

Seeking public comments on the draft natural hazard risk assessment section of the Hubbardton Local Hazard Mitigation Plan!

View the draft plan at the Town Office or online at: tinyurl.com/hubbardton-lhmp25

PUBLIC INPUT NEEDED

(SEPTEMBER 22 – OCTOBER 6, 2025) LOCAL HAZARD MITIGATION DRAFT PLAN- OPEN COMMENT PERIOD – TOWN OF HUBBARDTON

 Date posted: September 22, 2025

Hubbardton residents: the current draft of the 2025 Local Hazard Mitigation Plan is available for your review! From September 22 to October 6, submit any comments you may have regarding the 2025 Local Hazard...

[Read More >](#)



Rutland Regional Planning Commission

Sep 18 • 

Come to the Hubbardton Selectboard meeting on 9/22 to learn about what the Town has accomplished so far for their 2025 Loc... See more

DRAFT PLAN PRESENTATION

The Draft Risk Assessment & Natural Hazard Identification section of the Hubbardton Local Hazard Mitigation Plan will be presented to the Selectboard.



MONDAY
Sept 22, 2025



6:00 PM



Town Office
1831 Monument Hill Road
Hubbardton, VT

LOCAL HAZARD MITIGATION PLAN UPDATE



Hubbardton Town Clerk

Sep 24 • 

Hubbardton residents, we want to hear from you! From September 22 to October 6, submit any comments you may have regarding the... See more

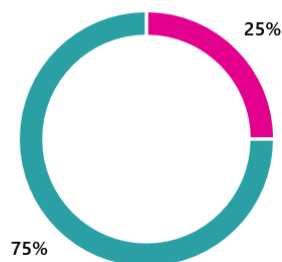
PUBLIC COMMENTS

Seeking public comments on the draft natural hazard risk assessment section of the Hubbardton Local Hazard Mitigation Plan!

View the draft plan at the Town Office or online at: tinyurl.com/hubbardton-lhmp25

PHASE 1 SURVEY RESULTS – 4 SURVEYS RECEIVED**1. How long have you lived in or owned a business or property in Hubbardton?**

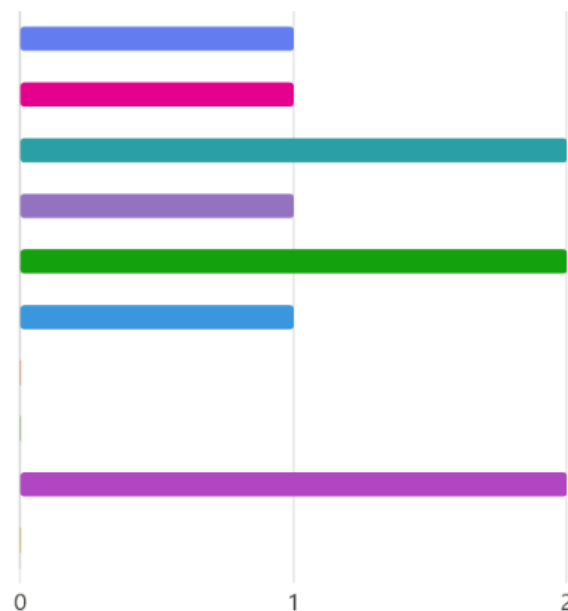
● Less than one year	0
● One to five years	1
● More than 5 years	3

**2. Is your home or business property located in a FEMA designated floodplain?**

● Yes	0
● No	4
● I don't know	0

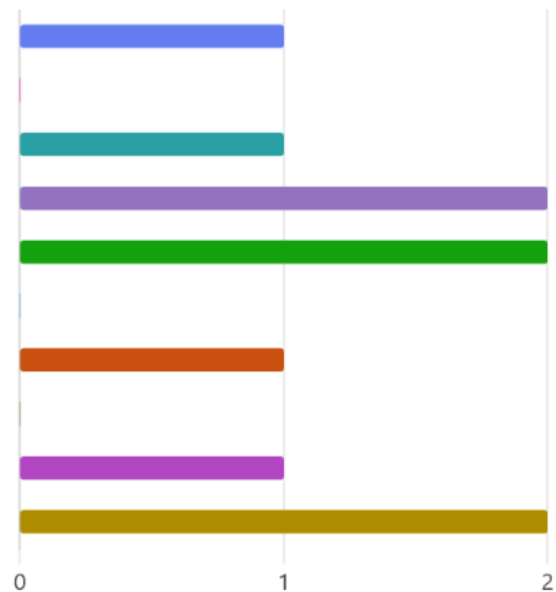
**3. Which of the following natural hazards have you or some you know experienced while living or doing business in Hubbardton? (10 answers)**

● Drought	1
● Earthquake	1
● Extreme Cold/Snow/Ice	2
● Extreme Heat	1
● Flash Flood/Fluvial (Stream) Erosion	2
● Hail	1
● Inundation Flood	0
● Landslide	0
● Strong Wind	2
● Wildfire	0



4. Of the natural hazards listed in Question 3, what are the top three you think are likely to occur in the next five years? (10 answers)

● Drought	1
● Earthquake	0
● Extreme Cold/Snow/Ice	1
● Extreme Heat	2
● Flash Flood/Fluvial (Stream) Erosion	2
● Hail	0
● Inundation Flood	1
● Landslide	0
● Strong Wind	1
● Wildfire	2



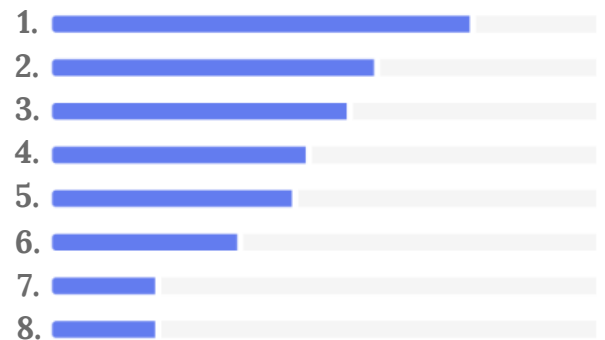
#1 Extreme Heat 20%

#2 Flash Flood/Fluvial Erosion 20%

#3 Wildfire 20%

5. Which potential natural hazard impacts are most concerning to you? Rank from 1 to 8. It would be most concerning to experience damage or loss in regards to...

- 1 Loss of life or injuries, especially among vulnerable populations
- 2 Damage or loss of roads, bridges, public utilities (e.g., sewer)
- 3 Damage to environmental resources (e.g., wetlands, lakes, ponds, rivers, forests)
- 4 Loss of wildlife
- 5 Loss or damage to agricultural operations
- 6 Damage to schools and other public properties (e.g., parks, buildings)
- 7 Business closure or loss
- 8 Damage or loss of cultural/historic properties



6. Are you aware of any location(s) in Hubbardton that appear more prone to the impacts of flooding, ice, wind, or wildfires? Describe any past damages or recurring incidents in these areas. (1 response)

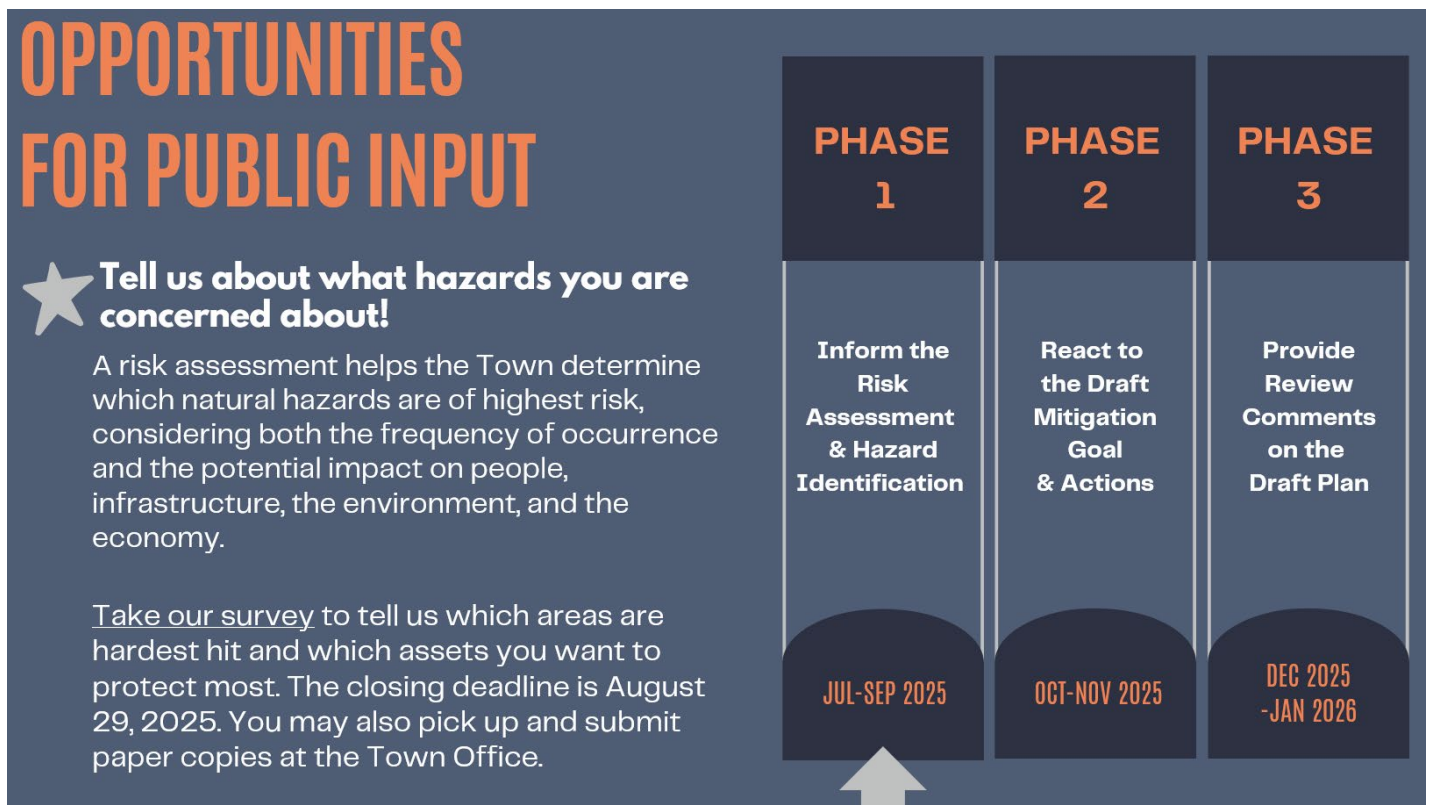
Flash floods

7. List any specific community assets you are concerned about losing because of natural hazard impacts. Examples might include a local business or employer, a community gathering place, or a cultural or historical site. (1 response)

Town Hall

8. Anything else related to natural hazard risks or impacts you would like to provide for consideration and incorporation into the Hubbardton Local Hazard Mitigation Plan? (1 response)

Culverts



Advertisement of the survey on the Hubbardton LHMP Landing Page.

PHASE 1 PUBLIC COMMENTS SUMMARY

Comment 1:

After reviewing the Hubbardton Disaster Mitigation Report, I would like to submit the following comments. The report states that beavers are a recurring concern for Hubbardton and as a result beavers and their dams are frequently removed from the streams. This action has traditionally been taken in Vermont despite much current research showing the tremendous benefits that beavers provide for disaster prevention and mitigation. Other states such as New Hampshire and Maine in New England and multiple states in the western US have recognized the benefits that beavers provide in preventing flash flooding and mitigating the effects of severe drought.

It is true that beavers will dam unprotected culverts causing localized flooding. However, this problem is easily prevented by installing flow devices such as beaver deceivers, pond levelers or diversion gates that are inexpensive to install and protect culverts from beavers for many years without any maintenance required.

Once the culverts are protected and the beavers are allowed to exist, the extensive network of dams and channels that beavers build act to slow water flow in a stream during heavy downpours by allowing the water to expand into a flood plain. This slowing of the water flow gives each of the downstream culverts a chance to handle the large amount of water without being overwhelmed, thereby preventing the stream from flooding.

Streams in Hubbardton such as Giddings Brook which runs along Monument Hill Road have no houses or buildings within the flood plain which makes them ideal for flood mitigation by beavers. Since the town stopped removing the beavers in Giddings Brook about 10 years ago a wide complex flood plain has formed and flooding of Monument Hill Road has not occurred even though we have experienced record rain storms. In fact, during most heavy downpours the water level of the stream hardly changes since the wide flood plain absorbs the excess water and slows the flow so that downstream culverts are not overwhelmed. All three land owners along the stream from Gannson Hill road northeast to the Long farm a distance of about 2 miles have installed beaver deceivers to successfully protect their culverts crossing the stream.

During times of drought such as we are experiencing now, the only areas of streams that are not dry are those where beavers are found. Research has shown that the water in these areas is constantly being absorbed into the stream bank to keep the forest hydrated and then recirculated back down to recharge the ground water. Research done in Idaho and Montana has shown that these areas of forest are protected during wild fires and they provide green oasis areas where wildlife congregate after widespread fires. Ranchers in Montana are major proponents of protecting beavers since the water provided by the beavers is absorbed into their fields to allow grass to grow to feed their cattle during severe drought.

I feel that instead of destroying beaver dams and removing beavers, the town of Hubbardton should invest that money into the relatively inexpensive cost of protecting culverts on town roads (such as Ganson Hill Road, Bresee Pond and Walker Pond) so beavers can exist and the town can reap the benefits that they provide for disaster protection from floods and drought. The national expert on flow device design and installation, Skip Lisle, lives in Grafton Vermont. Each year he is hired throughout the US including Alaska to install the devices as states are recognizing the benefits of coexisting with beavers. Skip has installed all three Beaver Deceivers on privately owned land along Giddings Brook in Hubbardton. The town should take advantage of Skip's 40 years of expertise to hire him to protect the culverts on town roads so we can take advantage of the benefits provided by the beavers. Thank you.

Response 1: The Local Planning Team acknowledges the ecological services provided by beavers, especially in relation to other natural hazards such as drought. The Town wants to stress that it avoids the eradication of beaver dams except as a last resort. A dam is only cleared if both of the following are true: 1) it is near or interferes with a culvert or drainage mechanism in the municipal road right of way, *and* 2) all other methods (such as “beaver deceivers” and exclusionary fences) have failed to remediate the conflict. We recognize this distinction was not clearly made in the flooding hazard profile, so the language on page 16 has been updated to better reflect the balance between ecological harmony and public safety.

Comment 2:

I would like to provide feedback back on the Hubbardton Hazard Mitigation Plan with regard to the benefits of beavers in mitigating flood and drought hazards by sharing my personal experience.

Prior to the beavers creating a flood plain on our property that is adjacent to Monument Hill, our driveway washed out and had to be repaired three times due to the rapid flow of the water during heavy rains. The four culverts on our driveway could not handle the heavy water flow. After the beavers made the flood plain and since we had a beaver deceiver installed in our largest culvert, there have been no issues. The flood plain created and maintained by the beavers slow down the water flow and make space for the water to expand during heavy rains.

With this year's drought, the areas on Monument Hill that have water are primarily due to the work of the beavers. It is likely that this flood plain helped our well from not running dry. The water in the flood plain circulates through the ground water and provides water stability in the surrounding areas.

In short, I believe it is important to have beavers be a part of our ecosystem to help mitigate future floods and droughts with the expectation that effective beaver deceivers would need to be installed to protect the culverts along the roads as needed. Thank you.

Response 2: This comment is very similar in nature to Comment #1; refer to the answer given on the previous page.

Examples of Phase 2 Engagement Materials

Email Blasts
Social Media Postings
Survey with Results

PHASE 2 EMAIL BLASTS

 Maggie O'Brien 😊 ↩️ ↶️ ↷️ 🗑️ 🚩 📎 📁 ⋮

To: 📧 Maggie O'Brien Wed 12/3/2025 12:00 PM

Cc: Hubbardton Town Clerk <clrkhubb@gmail.com>; **+1 other**

Hello, Local Officials in Neighboring Municipalities,

On behalf of the Town of Hubbardton, we are notifying key members of the community that the local Planning Team has reached the next milestone in updating their Local Hazard Mitigation Plan (LHMP). The Town has developed a draft goal and actions to mitigate the impacts of natural hazards in Hubbardton. Let us know what you think about the proposed goal and actions by taking the online survey at <https://tinyurl.com/hubbardton-lhmp25-survey2>. Physical copies may also be picked up and submitted at the Town Office (1831 Monument Hill Road). **As a thank you for taking the survey, you may choose to enter a raffle for \$25 gift cards for Shaw's, Price Chopper, and Beverage King!**

The survey will be open until **Monday, December 22**. Questions should be directed to me, Maggie O'Brien, at maggie@rutlandrpc.org. For more information on the Hubbardton LHMP update process, visit <https://tinyurl.com/hubbardton-lhmp25>.

 Maggie O'Brien 😊 ↩️ ↶️ ↷️ 🗑️ 🚩 📎 📁 ⋮

To: 📧 Maggie O'Brien Fri 1/23/2026 3:03 PM

Cc: Hubbardton Town Clerk <clrkhubb@gmail.com>; **+1 other**

Hello, Community Organizations and Partners,

On behalf of the Town of Hubbardton, we are notifying key members of the community that the local Planning Team has reached the next critical milestone in the Local Hazard Mitigation Plan (LHMP) update process. The draft Plan, as approved by the Local Planning Team, will be presented at the Town's Selectboard meeting on **Monday, January 26 at 6:00 PM**. The in-person meeting location is the Town Office at 1831 Monument Hill Road.

*****There are currently NO plans to reschedule despite the weather. This may change on the day of the meeting. If the meeting is rescheduled, it will likely be for Tuesday, January 27 at 6:00 PM. Please watch for updates from the Town on the status of the meeting. Hubbardton is unfortunately unable to accommodate a virtual/hybrid set up, so if the roads are too hazardous, please stay off them!! A recording of the meeting will be available upon request from the Town Office.*****

Following this meeting, you will receive notice that we are seeking public comments on the final draft – more information to follow. You may also visit <http://tinyurl.com/hubbardton-lhmp25> to remain current on public involvement opportunities. Questions should be directed to me, Maggie O'Brien, at maggie@rutlandrpc.org.

 Maggie O'Brien 😊 ↩️ Reply ↶️ Reply all ↷️ Forward 🗑️ 🚩 📎 📁 ⋮

To: 📧 Maggie O'Brien Tue 1/27/2026 8:00 AM

Cc: Mike Wetmore <mwet63@yahoo.com>; winnerspass@myottmail.com; **+1 other**

 Hubbardton Presentation 2.p...
193 KB

Hello, Local and Regional Hazard Mitigation Agencies,

On behalf of the Town of Hubbardton, we are pleased to announce that the final draft of the updated Hubbardton Local Hazard Mitigation Plan (LHMP) is now available for public review and comment. To review the Draft Plan, [click here](#) to download. Physical copies are also available for viewing at the Town Office @ 1831 Monument Hill Road.

The Public Comment period will close on **Monday, February 23**. Email all comments to me, Maggie O'Brien, at maggie@rutlandrpc.org.

Please share this information with other local colleagues in your community! For more information on the Hubbardton LHMP update process, visit <http://tinyurl.com/hubbardton-lhmp25>.

PHASE 2 SOCIAL MEDIA POSTINGS

Hubbardton Town Clerk
Dec 3, 2025 • 🌐

Our Planning Team for our Local Hazard Mitigation Plan Update has developed a draft goal and actions to mitigate the impacts of ... See more



ATTENTION!

We have a draft mitigation strategy! Did we get it right?

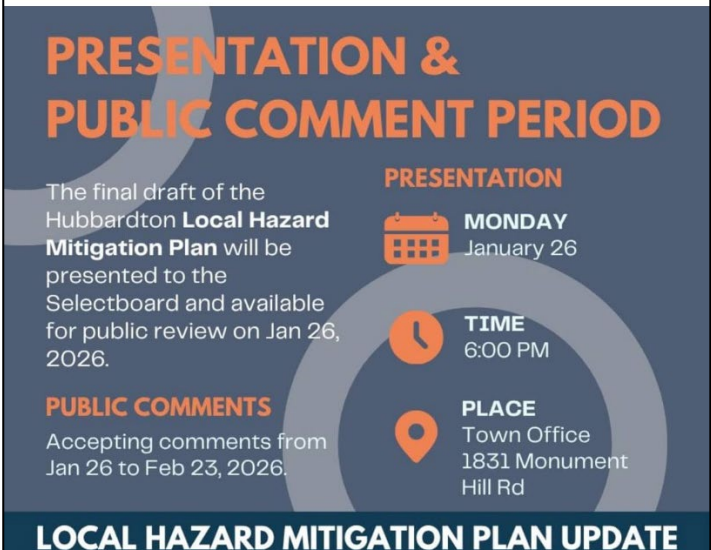
Tell us by taking the Hubbardton Local Hazard Mitigation Strategy survey

**COMPLETE THE SURVEY
FOR A CHANCE TO WIN
A \$25 GIFT CARD!**

5

Rutland Regional Planning Commission
Jan 26 • 🌐

The final draft of the Hubbardton Local Hazard Mitigation Plan will be presented to the Selectboard on Monday, January 26 at ... See more



PRESENTATION & PUBLIC COMMENT PERIOD

The final draft of the Hubbardton Local Hazard Mitigation Plan will be presented to the Selectboard and available for public review on Jan 26, 2026.

PRESENTATION

MONDAY
January 26

TIME
6:00 PM

PLACE
Town Office
1831 Monument Hill Rd

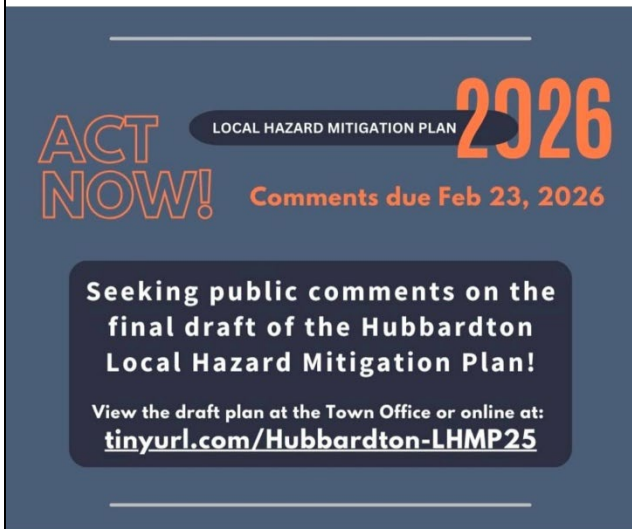
PUBLIC COMMENTS
Accepting comments from Jan 26 to Feb 23, 2026.

LOCAL HAZARD MITIGATION PLAN UPDATE

View the draft Plan at: tinyurl.com/Hubbardton-LHMP25

Hubbardton Town Clerk
Jan 28 • 🌐

View the final draft Plan at the Town Office or visit <http://tinyurl.com/hubbardton-lhmp25> to download a copy. All comments should be directed to maggie@rutlandrpc.org. If you prefer, you may also provide in-person comments at the February 23, 2026 Selectboard meeting. We look forward to hearing from you!



ACT NOW! LOCAL HAZARD MITIGATION PLAN **2026**
Comments due Feb 23, 2026

Seeking public comments on the final draft of the Hubbardton Local Hazard Mitigation Plan!

View the draft plan at the Town Office or online at: tinyurl.com/Hubbardton-LHMP25

3

RUTLAND REGIONAL PLANNING COMMISSION

COMMUNITY BULLETIN BOARD

NEWS, EVENTS AND MORE

(JANUARY 26 – FEBRUARY 23, 2026) PUBLIC COMMENT PERIOD FOR THE FINAL DRAFT OF THE HUBBARDTON LOCAL HAZARD MITIGATION PLAN

 Date posted: January 27, 2026

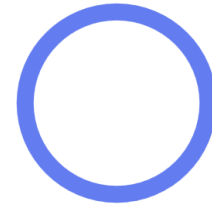
The final draft of the Hubbardton Local Hazard Mitigation Plan (LHMP) is now available to...

[Read More >](#)

PHASE 2 SURVEY RESULTS – 11 SURVEYS SUBMITTED

1. Evaluate the community's primary mitigation goal: "To increase Hubbardton's resilience to natural hazards by advancing mitigation investments. These investments will ultimately reduce or avoid long-term risks to people; homes and neighborhoods; the local economy; cultural and historic resources; ecosystems and natural resources; and Community Lifelines such as transportation, energy, and communications."

● I AGREE with the direction of the goal statement	11
● I DISAGREE with the direction of the goal statement	0



2. If you disagree with the goal statement, explain why. Is there something missing we should consider?

No responses submitted.

3. Indicate if you agree or disagree that the following Planning and Regulatory mitigation actions are acceptable and practical for Hubbardton to implement over a five-year period. These actions include plans, policies, or regulations that influence the way land and buildings are developed and built.

● AGREE ● DISAGREE

Integrate Mitigation into Capital Improvement Programs and Planning

Plan for and Maintain Adequate Road and Debris Clearing Capabilities

Update Road Erosion and Culvert Inventories

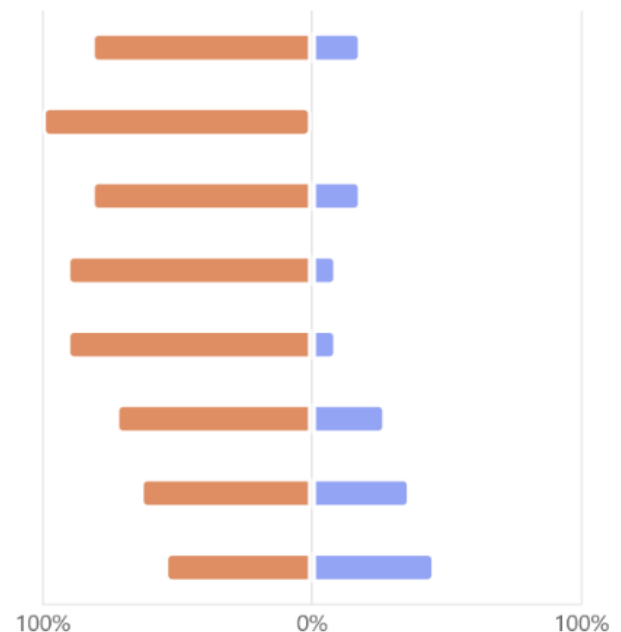
Inspect Bridges and Plan for Repairs to Prevent Flood-related Impacts

Plan for Road Right-of-Way Vegetation Management

Update the 2016 Lake Bomoseen Stormwater Master Plan to Identify Additional Opportunities to Improve Stormwater...

Improve Extreme Temperature Resilience With Cold/Hot Weather Response Plan

Update Personnel Policy to **RECOMMEND** Vaccinations



4. Is there anything missing we should consider? (3 responses)

Yearly tree limping maintenance to keep road ways safe from falling limbs

Culvert and erosion inventory is a large undertaking that I am not confident the town has the funding or capacity to take on within 5 years. This should be done in coordination with other organizations such as Poultney Mettowee NRC or RRPC. Hubbardton should support an update to the 2016 Lake Bomoseen SWMP, but not lead the effort for the same reasons

More ecosystem management and conservation, the ecosystem brings us life and without it we are dead.

5. Indicate if you agree or disagree that the following Structure & Infrastructure Project mitigation actions are acceptable and practical for Hubbardton to implement over a five-year period. These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area.

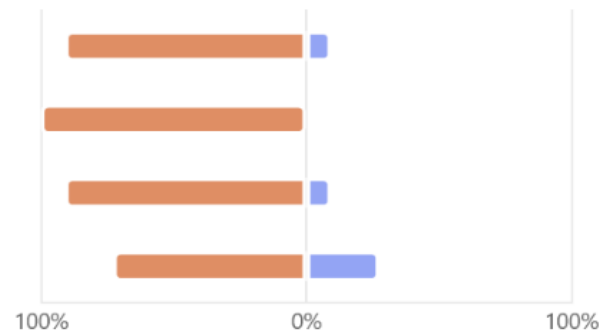
● AGREE ● DISAGREE

Protect Power Lines and Roads by Inspecting and Removing Hazardous Trees in Road Right-of-Way

Routinely Clean and Repair Stormwater Infrastructure

Install/Re-establish Roadside Ditches

Increase Dimension of Drainage Culverts in Stormwater/Flood-Prone Areas



6. Is there something missing we should consider? (5 responses)

Road erosion into lakes and ponds

Practical but funding via grants not from taxes

All these actions are only practical with additional support from RRPC/other partners and state granting agency funds. GMP and internet companies should be doing much of the powering work.

Be careful about increasing size of culverts. That happened several years ago for Breese Pond and it almost drained the pond. We had to build a dam to block half the culvert to restore proper water level.

The two I disagreed to. If you are cutting down individual problem trees then yes I agree. But it seems that they usually clear cut in and around the lines. When the town cut our ditch they destroyed a endangered tree. And the culverts I would agree if the run off from the culverts is addressed for erosion and where it actually ends up. It shouldn't be going into a protected wet land.

7. Natural Systems Protection projects help minimize damage and losses and preserve or restore the functions of natural systems. Hubbardton currently has no known locations requiring these actions. However, if the Town monitors and seeks to implement projects as needed, would you be in support of any of the following?

● AGREE ● DISAGREE

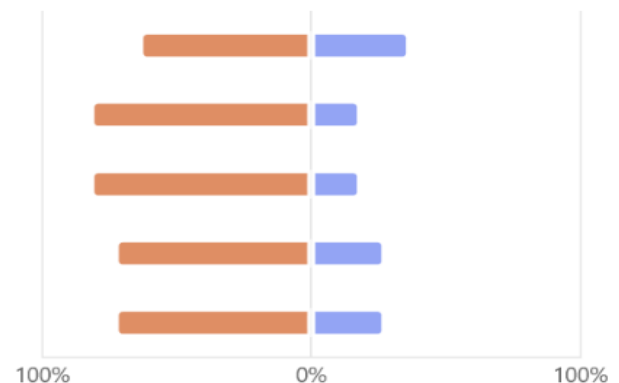
Stabilize Stream Banks

Remove Berms and/or Accumulated Debris from Stream to Restore Flood Capacity

Establish Vegetative Buffers in Riparian Areas

Restore Floodplains

Restore Incision Areas (i.e, where the river severely undercuts the streambank)



8. Is there something missing we should consider? (3 responses)

We should protect wetlands that exist and enforce or report those land owners who are actively damaging them.

Remove unused dams to enhance beaver activity for natural flood and fire mitigation.

You do have known locations that require said actions... It's public info. Nothing has been done for years.

9. Indicate if you agree or disagree that the following Outreach and Education mitigation actions are acceptable and practical for Hubbardton to implement over a five-year period. These actions inform and educate the public about hazards and potential ways to mitigate them.

● AGREE ● DISAGREE

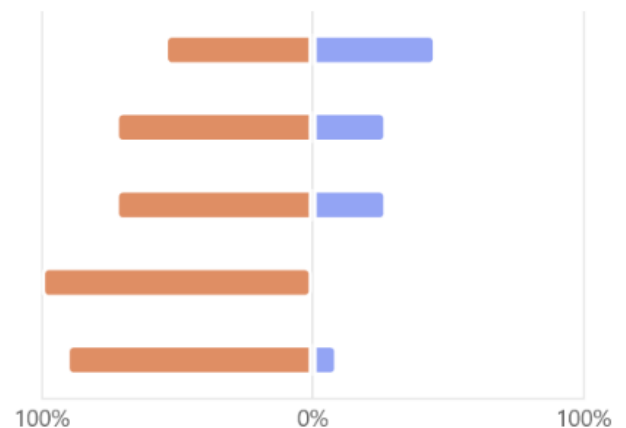
Educate the Public on Preparing for Extreme Temperatures (Hot and Cold)

Educate the Public on the Importance of Keeping Municipal Roadside Ditches Free of Yard Waste and Other Debris

Educate the Public on the Availability of Flood Insurance through the National Flood Insurance Program and How to Prepare For/...

Educate the Public on Identifying and Reporting Invasive Species

Educate the Public on Drought-related Hazards and Water Saving Techniques



10. Is there something missing we should consider? (1 response)

Monitoring and clean up at boat accesses

11. Out of all the mitigation actions presented, which three (3) are the most important for Hubbardton to implement? (See next page for bar graph.)

1. Ties for **first place** with **four votes**:

- Integrate Mitigation into Capital Improvement Programs and Planning
- Protect Power Lines and Roads by Inspecting and Removing Hazardous Trees in Road ROW

2. Ties for **second place** with **three votes**:

- Educate the Public on Identifying and Reporting Invasive Species
- Educate the Public on Drought-related hazards and Water-Saving Techniques

3. Ties for **third place** with **two votes**:

- Plan for and Maintain Adequate Road & Debris Clearing Capabilities
- Inspect Bridges and Plan for Repairs to Prevent Flood-related Impacts
- Routinely Clean and Repair Stormwater Infrastructure
- Install/Re-establish Roadside Ditches
- Establish Vegetative Buffers in Riparian Areas
- Restore Floodplains

Question #11 Results

● Integrate Mitigation into Capital Improvement Programs and Planning	4
● Plan for and Maintain Adequate Road and Debris Clearing Capabilities	2
● Update Road Erosion and Culvert Inventories	1
● Inspect Bridges and Plan for Repairs to Prevent Flood-related Impacts	2
● Plan for Road Right-of-Way Vegetation Management	0
● Update the 2016 Lake Bomoseen Stormwater Master Plan to Identify Additional...	1
● Improve Extreme Temperature Resilience with Cold/Hot Weather Response Plan	1
● Update Personnel Policy to RECOMMEND Vaccinations	0
● Protect Power Lines and Roads by Inspecting and Removing Hazardous Trees in Road ROW	4
● Routinely Clean and Repair Stormwater Infrastructure	2
● Install/Re-establish Roadside Ditches	2
● Increase Dimension of Drainage Culverts in Flood-prone Areas	0
● Stabilize Stream Banks	0
● Remove Berms and/or Accumulated Debris from Stream to Restore Flood Capacity	1
● Establish Vegetative Buffers in Riparian Areas	2
● Restore Floodplains	2
● Restore Incision Areas	1
● Educate the Public on Preparing for Extreme Temperatures (Hot and Cold)	1
● Educate the Public on the Importance of Keeping Municipal Roadside Ditches Free of...	0
● Educate the Public on the Availability of Flood Insurance through the National Flood...	1
● Educate the Public on Identifying and Reporting Invasive Species	3
● Educate the Public on Drought-related Hazards and Water Saving Techniques	3

