

Campton

Hazard Mitigation Plan Update 2021



This plan integrates the following:

- Hazard Mitigation Plan Update (FEMA)
- Community Wildfire Protection Plan (DNCR)

March 3, 2021
Final Plan

Prepared for the Town of Campton and NH Homeland Security &
Emergency Management

By
The Campton Planning Team

With assistance from Mapping and Planning Solutions

**C
A
M
P
T
O
N**

“Plans are worthless, but planning is everything. There is a very great distinction because when you are planning for an emergency you must start with this one thing: The very definition of “emergency” is that it is unexpected, therefore it is not going to happen the way you are planning.”

-Dwight D. Eisenhower

HAZARD MITIGATION PLAN DEFINITIONS

“A natural hazard is a source of harm or difficulty created by a meteorological, environmental, or geological event.”

“Hazard mitigation is any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards (44CFR 201.2). Hazard mitigation activities may be implemented prior to, during, or after an event. However, it has been demonstrated that hazard mitigation is most effective when based on an inclusive, comprehensive, long-term plan that is developed before a disaster occurs.”

(Source: Local Mitigation Plan Review Guide, FEMA, October 1, 2011)



Plan Prepared and Authored By

June E. Garneau, Owner/Planner
Mapping and Planning Solutions
PO Box 283
91 Cherry Mountain Place
Twin Mountain, NH 03595
jgarneau@mappingandplanning.com

Cover Photo: Judy Avery DuBois
<http://www.camptonnh.org/nh/>

Table of Contents

ACKNOWLEDGMENTS	5
EXECUTIVE SUMMARY	7
CHAPTER 1: HAZARD MITIGATION PLANNING PROCESS	9
A. AUTHORITY & FUNDING	9
B. PURPOSE & HISTORY OF THE FEMA MITIGATION PLANNING PROCESS	9
C. JURISDICTION.....	10
D. SCOPE OF THE PLAN & FEDERAL & STATE PARTICIPATION	10
E. PUBLIC & STAKEHOLDER INVOLVEMENT	11
F. INCORPORATION OF EXISTING PLANS, STUDIES, REPORTS AND TECHNICAL INFORMATION	13
G. HAZARD MITIGATION GOALS	14
H. HAZARD MITIGATION PLANNING PROCESS & METHODOLOGY	16
I. HAZARD MITIGATION BUILDING BLOCKS & TABLES	17
J. NARRATIVE DESCRIPTION OF THE PROCESS.....	18
CHAPTER 2: COMMUNITY PROFILE	25
A. INTRODUCTION	25
B. EMERGENCY SERVICES.....	26
C. CAMPTON’S CURRENT & FUTURE DEVELOPMENT TRENDS.....	27
Table 2.1: Town Statistics	29
CHAPTER 3: HAZARD IDENTIFICATION, RISK ASSESSMENT & PROBABILITY	33
A. HAZARD IDENTIFICATION	33
B. RISK ASSESSMENT	33
C. PROBABILITY.....	34
Table 3.1: Hazard Identification & Risk Assessment (HIRA).....	35
D. NATIONAL FLOOD INSURANCE PROGRAM (NFIP) STATUS.....	36
Table 3.2: Historic Hazard Identification	38
CHAPTER 4: CRITICAL INFRASTRUCTURE & KEY RESOURCES (CIKR)	51
Table 4.1 - Emergency Response Facilities (ERF) & Evacuation	51
Table 4.2 – Non-Emergency Response Facilities (NERF)	53
Table 4.3 – Facilities & Populations to Protect (FPP)	54
Table 4.4 – Potential Resources (PR)	55
CHAPTER 5: HAZARD EFFECTS IN CAMPTON	57
A. IDENTIFYING VULNERABLE CRITICAL INFRASTRUCTURE & KEY RESOURCES (CIKR)	57
B. CALCULATING THE POTENTIAL LOSS	58
C. NATURAL HAZARDS	59
D. TECHNOLOGICAL HAZARDS.....	68
E. HUMAN-CAUSED HAZARDS	71

CHAPTER 6: CURRENT POLICIES, PLANS & MUTUAL AID.....	73
A. ANALYSIS OF EFFECTIVENESS OF CURRENT PROGRAMS	73
<i>Table 6.1: Current Policies, Plans & Mutual Aid.....</i>	<i>73</i>
CHAPTER 7: LAST MITIGATION PLAN.....	81
A. DATE OF LAST PLAN.....	81
<i>Table 7.1: Accomplishments since the Last Plan.....</i>	<i>81</i>
CHAPTER 8: NEW MITIGATION STRATEGIES & STAPLEE	87
A. MITIGATION STRATEGIES BY TYPE.....	87
B. POTENTIAL MITIGATION STRATEGIES BY HAZARD.....	88
C. STAPLEE METHODOLOGY.....	90
D. TEAM’S UNDERSTANDING OF HAZARD MITIGATION ACTION ITEMS.....	91
<i>Table 8.1: Potential Mitigation Action Items & the STAPLEE.....</i>	<i>91</i>
CHAPTER 9: IMPLEMENTATION SCHEDULE FOR PRIORITIZED ACTION ITEMS.....	99
A. PRIORITY METHODOLOGY	99
B. WHO, WHEN, HOW?	100
<i>Table 9.1: The Mitigation Action Plan</i>	<i>100</i>
CHAPTER 10: ADOPTING, MONITORING, EVALUATING AND UPDATING THE PLAN	111
A. HAZARD MITIGATION PLAN MONITORING, EVALUATION AND UPDATES.....	111
B. INTEGRATION WITH OTHER PLANS	111
C. PLAN APPROVAL & ADOPTION.....	112
CHAPTER 11: SIGNED COMMUNITY DOCUMENTS AND APPROVAL LETTERS	113
A. PLANNING SCOPE OF WORK & AGREEMENT.....	113
B. APPROVED PENDING ADOPTION (APA) & FORMAL APPROVAL EMAILS FROM HSEM	117
C. SIGNED CERTIFICATE OF ADOPTION.....	119
D. FORMAL APPROVAL LETTER FEMA	121
E. CWPP APPROVAL LETTER FROM DNCR	122
F. ANNUAL REVIEW OR POST HAZARD CONCURRENCE FORMS	123
CHAPTER 12: APPENDICES.....	131
APPENDIX A: BIBLIOGRAPHY.....	133
APPENDIX B: TECHNICAL & FINANCIAL ASSISTANCE FOR HAZARD MITIGATION.....	135
APPENDIX C: THE EXTENT OF NATURAL HAZARDS.....	139
APPENDIX D: NH MAJOR DISASTER & EMERGENCY DECLARATIONS.....	159
APPENDIX E: HAZARD MITIGATION PLANNING – LIST OF ACRONYMS	164
APPENDIX F: POTENTIAL MITIGATION IDEAS	165

Acknowledgments

This plan integrates elements to qualify it as a Community Wildfire Protection Plan (CWPP), according to the US Forest Service and the NH Department of Natural & Cultural Resources (DNCR). The plan was created through a grant from NH Homeland Security & Emergency Management (HSEM). The following organizations have contributed invaluable assistance and support for this project:

- NH Homeland Security & Emergency Management (HSEM)
- Federal Emergency Management Agency (FEMA)
- NH Office of Strategic Initiatives (OSI)
- Mapping and Planning Solutions (MAPS)
- NH Forests & Lands (DNCR)

**This plan is an update to the most recent Campton Hazard Mitigation Plan, approved on December 4, 2014.
This plan was funded under the Pre-disaster Mitigation Grant Program (PDM17)**

Approval Notification Dates for 2021 Update

Approved Pending Adoption (APA):..... January 14, 2021
Jurisdiction Adoption: February 1, 2021
CWPP Approval: June 1, 2021
Plan Approval Date (HSEM): March 3, 2021
Receipt of FEMA Letter March 8, 2021
Plan Distribution (MAPS): June 8, 2021

TOWN OF CAMPTON HAZARD MITIGATION PLANNING TEAM (HMPT)

The Town of Campton would like to thank the following people for the time and effort spent to complete this plan. The following people have attended meetings or been instrumental in completing this plan:

- Carina ParkCampton Town Administrator
- Karl KellyCampton Select Board & EMD
- Butch Bain.....Campton Road Agent
- Chris WarnCampton Police Chief
- Daniel DefossesCampton Fire Chief
- Kevin FossCampton Police Sergeant
- Chris YaegarCampton Fire Department
- Lisa VincentCampton Town Office
- Josh Fitz.....Campton Fire Department
- Ron Farnsworth.....Campton Highway Department
- James Morton..... Campton Police Department
- Chantalle Forgues Campton Police Department
- Corey Davenport Campton Administrative Asst.
- Angel Ekstrom CNHRPHN
- Jennifer Gilbert NH OSI
- Kayla Henderson NH HSEM
- Paul Hatch NH HSEM
- June Garneau MAPS
- Olin Garneau MAPS

Many thanks for all the hard work and effort given by every one of you. This plan would not exist without your knowledge and experience. The Town of Campton also thanks the Federal Emergency Management Agency and NH Homeland Security & Emergency Management as the primary funding sources for this plan.

Acronyms associated with the above list:

Asst. Assistant
CNHRPHN Central NH Regional Public Health Network
EMD Emergency Management Director
HSEM Homeland Security & Emergency Management
MAPS Mapping and Planning Solutions
OSI Office of Strategic Initiatives

THIS PAGE INTENTIONALLY LEFT BLANK

Executive Summary

The Campton Hazard Mitigation Plan Update 2021 was compiled to assist the Town of Campton in reducing and mitigating future losses from natural, technological or human-caused hazardous events. The plan was developed by participants of the Campton Hazard Mitigation Planning Team (HMPT), interested stakeholders, the general public and Mapping and Planning Solutions (MAPS). The plan contains the tools necessary to identify specific hazards and aspects of existing and future mitigation efforts.



This plan is an **update** to the 2014 Campton Hazard Mitigation Plan. To produce an accurate and current planning document, the planning team used the 2014 plan as a foundation, building upon that plan to provide more timely information.

It must be noted that all planning meetings for this project's development were completed before the arrival of COVID-19 in the United States. This plan's final writing has been completed during the COVID-19 outbreak; therefore, there are some references to the virus, particularly in Chapter 5, Section C, Infectious Diseases. This section of the plan was reviewed with the Campton Hazard Mitigation Planning Team before the final draft was presented.

Mitigation action items for natural hazards are the main focus of this plan. However, this plan addresses technological and human-caused hazards in addition to natural hazards, as shown below.

NATURAL HAZARDS

- | | |
|--------------------------------------|------------------------|
| 1) Severe Winter Weather | 6) Lightning |
| 2) High Wind Events | 7) Wildfires |
| 3) Inland Flooding | 8) Earthquakes |
| 4) Extreme Temperatures | 9) Infectious Diseases |
| 5) Tropical & Post-Tropical Cyclones | 10) Drought |

TECHNOLOGICAL HAZARDS

- | | |
|-----------------------------|------------------------|
| 1) Long Term Utility Outage | 4) Hazardous Materials |
| 2) Aging Infrastructure | 5) Conflagration |
| 3) Dam Failure | |

HUMAN-CAUSED HAZARDS

- | | |
|----------------------------|-------------------------|
| 1) Mass Casualty Incidents | 3) Terrorism & Violence |
| 2) Cyber Events | 4) Transport Accidents |

Some hazards that are listed in the 2018 New Hampshire Hazard Mitigation Plan were not included in this plan as the team felt they were unlikely to occur in Campton or not applicable. These hazards, along with an explanation for their omission, can be seen in Chapter 3, Section A.

This plan also provides a list of Critical Infrastructure & Key Resources (CIKR) categorized as follows: Emergency Response Facilities (ERF), Non-Emergency Response Facilities (NERF), Facilities and Populations to Protect (FPP) and Potential Resources (PR). Also, this plan addresses the town's involvement in the National Flood Insurance Program (NFIP).

When faced with an array of hazards, some communities can cope with the impact of these hazards. For example, although severe winter weather is often a common hazard in New Hampshire and one that is likely to occur, most New Hampshire communities handle two to three-foot snowstorms with little or no disruption of services. On the other hand, an unexpected ice storm can have disastrous effects on a community. Mitigation for this type of sudden storm is difficult to achieve: establishing warming and cooling centers, establishing notification systems, providing public outreach, tree trimming, opening shelters and perhaps burying overhead power lines are just a few of the action items that may be put in place.

In summary, finding mitigation action items for every hazard that affects a community is challenging. With today's economic constraints, cities and towns are less likely to have the financial ability to complete some mitigation action items, such as burying power lines. In preparing this plan, the Campton HMPT has considered a comprehensive list of mitigation action items that could diminish the impact of hazards but has also decided to maintain a list of preparedness action items for future reference and action.

The following abbreviations and acronyms will be used to simplify the language in the plan:

Campton Hazard Mitigation Plan Update 2021	the plan or this plan
Campton.....	the town or the community
Hazard Mitigation Planning Team.....	the team or HMPT
Hazard Mitigation Plan.....	HMP
Emergency Operations Plan	EOP
Mapping and Planning Solutions	MAPS
Mapping and Planning Solutions Planner.....	the planner
NH Homeland Security & Emergency Management	HSEM
Federal Emergency Management Agency	FEMA

For more acronyms, please refer to Appendix E: Acronyms

Mission Statement:

To make Campton less vulnerable to the effects of hazards through the effective administration of hazard mitigation planning, wildfire hazard assessments, and a coordinated approach to mitigation policy and planning activities.

Vision Statement:

The Town of Campton will reduce the impacts of natural hazards and other potential disasters through implementing mitigation measures, public education and deliberate capital expenditures within the community. Homes and businesses will be safer and the community's ISO rating may be improved.

Chapter 1: Hazard Mitigation Planning Process

A. AUTHORITY & FUNDING

The Campton Hazard Mitigation Plan Update 2021 was prepared following the Disaster Mitigation Act of 2000 (DMA), Section 322 Mitigation Planning, signed into law by President Clinton on October 30, 2000. This hazard mitigation plan was prepared by the Campton Hazard Mitigation Planning Team (HMPT) under contract with New Hampshire Homeland Security & Emergency Management (HSEM) operating under the guidance of Section 206.405 of 44 CFR Chapter 1 (10-1-97 Edition) and with the assistance and professional services of Mapping and Planning Solutions (MAPS). HSEM funded this plan through grants from the Federal Emergency Management Agency (FEMA). Matching funds for team members' time were also part of the funding formula.

B. PURPOSE & HISTORY OF THE FEMA MITIGATION PLANNING PROCESS

The ultimate purpose of the Disaster Mitigation Act of 2000 (DMA) is to:

"...establish a national disaster hazard mitigation program -

- To reduce the loss of life and property, human suffering, economic disruption and disaster assistance costs resulting from natural disasters; and*
- To provide a source of pre-disaster hazard mitigation funding that will assist States and local governments (including Indian tribes) in implementing effective hazard mitigation measures that are designed to ensure the continued functionality of critical services and facilities after a natural disaster".¹*

DMA 2000 amends the Robert T. Stafford Disaster Relief and Emergency Assistance Act by, among other things, adding a new section "322 – Mitigation Planning" which states:

"As a condition of receipt of an increased Federal share for hazard mitigation measures under subsection (e), a State, local, or tribal government shall develop and submit for approval to the President a mitigation plan that outlines processes for identifying the natural hazards, risks, and vulnerabilities of the area under the jurisdiction of the government."²

HSEM's goal is to have all New Hampshire communities complete a local hazard mitigation plan as a means to reduce future losses from natural hazards before they occur. HSEM outlined a process whereby communities throughout the state may be eligible for grants and other assistance upon completing this hazard mitigation plan.

The Campton Hazard Mitigation Plan Update 2021 is a planning tool used to reduce future losses from natural, technological and human-caused hazards as required by the Disaster Mitigation Act of 2000. This plan does not constitute a section of the town's Master Plan. However, mitigation action items from this plan may be incorporated into future Master Plan updates.

The DMA places emphasis on local mitigation planning. It requires local governments to prepare and adopt jurisdiction-wide hazard mitigation plans as a condition for receiving Hazard Mitigation Grant Program (HMGP) project grants. Local governments must review this plan yearly and update this plan every five years to continue program eligibility.

¹ Disaster Mitigation Act (DMA) of 2000, Section 101, b1 & b2

² Disaster Mitigation Act (DMA) of 2000, Section 322a

C. JURISDICTION

This plan addresses one jurisdiction – the Town of Campton, NH.

D. SCOPE OF THE PLAN & FEDERAL & STATE PARTICIPATION

A community's hazard mitigation plan often identifies many natural hazards and is somewhat broad in scope and outline. The scope and effects of this plan were assessed based on the impact of hazards and wildfire on *Critical Infrastructure & Key Resources (CIKR)*, *current residential buildings, other structures within the town, future development, administrative, technical and physical capacity of emergency response services and response coordination between federal, state and local entities.*

In seeking approval as a Hazard Mitigation Plan and a Community Wildfire Protection Plan (CWPP), the planning effort included participation of NH Homeland Security & Emergency Management (HSEM), the United States Department of Agriculture-Forest Service (USDA-FS), the NH Department of Natural & Cultural Resources (DNCR), and the NH Office of Strategic Initiatives (OSI) as well as routine notification of upcoming meetings to state and federal entities above. Designation as a CWPP may allow a community to gain federal funding for hazardous fuel reduction and other mitigation projects supported by the USDA-FS. By merging the two federal planning processes (hazard and wildfire), duplication is eliminated, and the town has access to a larger pool of resources for pre-disaster planning.

The Healthy Forest Restoration Act (HFRA) of 2003 includes statutory incentives for the US Forest Service to consider local communities as they develop and implement forest management and hazardous fuel reduction projects. For a community to take advantage of this opportunity, it must first prepare a CWPP. This hazard mitigation planning process not only satisfies FEMA's criteria regarding wildfires and all other hazards but also addresses the minimum requirements for a CWPP:

- **Collaboration:** *A CWPP must be collaboratively developed by local and state government representatives, in consultation with federal agencies and other interested parties.*
- **Prioritized Fuel Reduction:** *A CWPP must identify and prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatment that will protect one or more at-risk communities and essential infrastructure.*
- **Treatment of Structural Ignitability:** *A CWPP must recommend measures that homeowners and communities can take to reduce the ignitability of structures throughout the areas addressed by the plan.³*

Finally, as required under Code of Federal Regulations (CFR), Title 44, Part 201.6(c) (2) (ii) and 201.6(c) (3) (ii), the plan must address the community's participation in the National Flood Insurance Program (NFIP) and its continued compliance with the program. As part of the vulnerability assessment, the plan must address the NFIP insured structures that have been repetitively damaged due to floods.

³ Healthy Forest Restoration Act; HR 1904, 2003; Section 101-3-a.b.c; http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=108_cong_bills&docid=f:h1904enr.txt.pdf

E. PUBLIC & STAKEHOLDER INVOLVEMENT

Public and stakeholder involvement was stressed during the initial meeting, and community officials were given a matrix of potential team members (page 18). Community officials were urged to contact as many people as possible to participate in the planning process, including residents and officials and residents from surrounding communities. The Town of Campton understands that natural hazards do not recognize political boundaries.

Campton is part of SAU 48. Students in grades PreK-8 attend Campton Elementary School, while students in grades 9-12 attend Plymouth Regional High School with Ashland, Waterville Valley, Holderness, Rumney, Thornton, Wentworth and Plymouth. Although invited to the meetings, no one from Campton Elementary School or SAU 48 attended meetings.

The team also provided excellent public and stakeholder notification. Many interested citizens and stakeholders had the opportunity to become aware of the hazard mitigation planning taking place in Campton. A Press Release (see right) was posted at several locations in the community and on the town's website (see below).

*Mapping and Planning Solutions
105 Union Street, Suite 1
Whitefield, NH 03598*

Press Release

FOR IMMEDIATE RELEASE
Updated: April 9, 2019

Contact: June Garneau
603-837-7122

**TOWN OF CAMPTON COMMENCES
HAZARD MITIGATION PLANNING**

The Emergency Management Director of the Town of Campton recently met with June Garneau, of Mapping and Planning Solutions and other Team members from Campton, to begin work on the required five-year update to the **2014 Campton Hazard Mitigation Plan**. As a result of this meeting, Mapping and Planning Solutions is conducting a series of meetings on the Hazard Mitigation Plan over the next few months.

Through this series of public meetings, the Team will address issues such as flooding, hurricanes, drought, landslides and wildfires, and determine efforts the Town can undertake to mitigate the effects of both natural and human-caused hazards. The Team will also examine potential shelter sites and the need for generators at those sites.

By examining critical infrastructure and key resources, along with past hazards, the team will establish priorities for future mitigation projects and steps that can be taken to increase public awareness of hazards in general.

As mandated by the Disaster Mitigation Act of 2000, all municipalities are required to complete a local Hazard Mitigation Plan in order to qualify for Federal Emergency Management Administration funding should a natural disaster occur. The planning processes are made possible by grants from FEMA.

The Hazard Mitigation Planning Team is currently being formed; Campton citizens and any interested stakeholders are invited to participate. All interested parties should contact Carina Park, the Campton Town Administrator, at 723-3223 if they wish to be included in the process.


The next meeting is scheduled for **Wednesday, May 1** from **1:00-3:00 PM** at the Campton Town Offices. The general public is encouraged to attend all meetings, regardless of whether they are a part of the Planning Team.

More information on the hazard mitigation planning process is available from June Garneau at Mapping and Planning Solutions, 603-837-7122.


PUBLIC NOTICES

- [Planning Board Work Session Agenda 10/01/19](#)
- [CIP Committee Agenda 10/09/19](#)
- [Beebe River CCR Report 2019](#)
- [Beebe River CCR Table 2019](#)
- [Campton Hazard Mitigation Plan- PRESS RELEASE](#)

Lastly, the planner sent a monthly calendar to NH EMDs, Police Chiefs, Fire Chiefs, Rangers and other state, federal and private officials, including stake-holders for the town (example is shown below).



Upcoming Meetings
(Highlighted by "Counties" as of March 7, 2019)



Day	Date	Time	Town/Location	Plan Type	HSEM Field Rep	County
Wednesday	3/13/19	3:00 PM	Shelburne Town Offices	EOP	Heidi Lawton	Coos
Friday	3/15/19	9:30 AM	Lisbon Fire Station	EOP	Paul Hatch	Grafton
Tuesday	3/19/19	10:00 AM	Greenfield Fire Station	HMP	Liz Gilboy	Hillsboro
Tuesday	3/19/19	4:00 PM	Groton Town Offices	HMP	Paul Hatch	Grafton
Wednesday	3/20/19	9:00 AM	Woodstock Town Offices	HMP	Paul Hatch	Grafton
Wednesday	3/20/19	6:30 PM	Randolph Town Offices	HMP	Heidi Lawton	Coos
Monday	3/25/19	7:00 PM	Landaff Town Hall	HMP	Paul Hatch	Grafton
Tuesday	3/26/19	12:30 PM	Colebrook Fire Station	HMP	Heidi Lawton	Coos
Tuesday	3/26/19	3:30 PM	Pittsburg Police Station	HMP	Heidi Lawton	Coos
Friday	3/29/19	9:30 AM	Haverhill Town Offices	EOP	Paul Hatch	Grafton
Tuesday	4/2/19	9:00 AM	Piermont Old Church Building	HMP	Paul Hatch	Grafton
Wednesday	4/3/19	9:00 AM	Waterville Valley Town Offices	HMP	Paul Hatch	Grafton
Wednesday	4/3/19	1:00 PM	Campton Town Offices	HMP	Paul Hatch	Grafton

It was noted that team composition is expected to be lower in smaller communities because of the small population base and the fact that many people "wear more than one hat". It is often very challenging to attract individual citizens to participate in town government—those who do generally hold full-time jobs and work as volunteers in various town positions. Due to the availability of jobs and other economic factors, the town has a relatively high elderly population and a dwindling number of young people interested in politics.

Campton had excellent participation in the development of this plan. Emergency Response and the Highway Department were represented at each meeting. Members of the Select Board and town government were also active participants in meetings. Comments made by all team members were integrated into the narrative discussion and incorporated into the document's essence. Although the general public was informed about the planning meetings, no one from the general public attended any of Campton's meetings.

§201.6(b) requires that there be an open public involvement process in the formation of a plan. This process shall provide an opportunity for the public to comment on the plan during its formation as well as an opportunity for any neighboring communities, businesses, and others to review any existing plans, studies, reports, and technical information and incorporation of those in the plan, to assist in the development of a comprehensive approach to reducing losses from natural disasters.

F. INCORPORATION OF EXISTING PLANS, STUDIES, REPORTS AND TECHNICAL INFORMATION

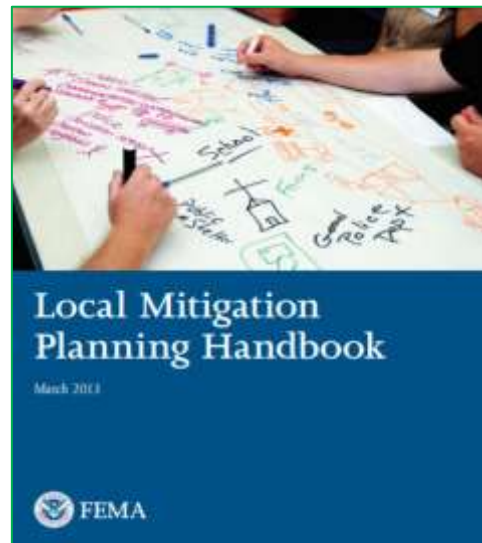
The planning process included a complete review of the Campton Hazard Mitigation Plan of 2014 for updates, development changes and accomplishments. Also, as noted in the bibliography and footnotes throughout the plan, many other documents were used to create this mitigation plan. Some, but not all, of those plans and documents are listed below:

The Campton Hazard Mitigation Plan of 2014.....	Compare & Contrast
Campton Master Plan (2016).....	Community Information
Campton Annual Report (2019).....	Fire Report & Development
Other Hazard Mitigation Plans (Waterville Valley, Sandwich, Woodstock)	Formats & Mitigation Ideas
The Campton Subdivision Regulations (2016)	New Development Regulations
The Campton Zoning Ordinance (2019).....	Zoning Regulations
Flood Plain Development Ordinance (Part of Zoning)	Floodplain Regulations
Census 2010 Data	Population Data
The NH DRA Summary of Inventory of Valuation MS-1 2018 for Campton.....	Structure Evaluation
The Economic & Labor Market Information Bureau Community Profile.....	Population Trends
The American Community Survey (ACS 2014-2018).....	Population Trends
Mitigation Ideas, FEMA, January 2013.....	Mitigation Strategies
The Department of Cultural & Natural Resources (DNCR)	DNCR Fire Report
The NH Office of Strategic Initiatives (OSI)	Flood Losses
Property Tax Valuation (Department of Revenue Administration).....	Property Information

Other technical manuals, federal and state laws, and research data, were combined with these elements to produce this integrated hazard mitigation plan. Please refer to the Bibliography in *Appendix A: Bibliography* and the plan's footnotes.



<https://www.fema.gov/media-library/assets/documents/30627>



<https://www.fema.gov/media-library/assets/documents/31598>

G. HAZARD MITIGATION GOALS

Before identifying new mitigation action items, the team reviewed and agreed to the goals in the State of New Hampshire Multi-Hazard Mitigation Plan, Update 2018. These goals are detailed below.

OVERARCHING GOALS

The following are the five overarching goals of this plan:

- *Minimize loss and disruption of human life, property, the environment and the economy due to natural, technological and human-caused hazards through a coordinated and collaborative effort between federal, state and local authorities to implement appropriate hazard mitigation measures.*
- *Enhance the protection of the general population, citizens and guests of the community before, during and after a hazard event through public education about disaster preparedness and resilience and expanded awareness of the threats and hazards which face the community.*
- *Promote continued comprehensive hazard mitigation planning at local levels to identify, introduce and implement cost-effective hazard mitigation measures.*
- *Address the challenges posed by climate change as they pertain to increasing the risk and impacts of the hazards identified within this plan.*
- *Strengthen Continuity of Operations and Continuity of Government at the local level to ensure the continuation of essential services*

NATURAL HAZARD OBJECTIVES

- *Reduce long-term flood risks through assessment, identification and strategic mitigation of at-risk or vulnerable infrastructure (dams, stream crossings, roadways, coastal levees, etc.).*
- *Minimize illnesses and deaths related to events that present a threat to human and animal health.*
- *Assist communities with plan development, outreach and public education to reduce the impact of natural disasters.*
- *Ensure mitigation strategies consider the protection and resiliency of natural, historical and cultural resources.*

TECHNOLOGICAL HAZARD OBJECTIVES

- *Ensure technological hazards are responded to appropriately and to mitigate the effect on citizens.*
- *Build upon state and local capabilities to identify and respond to emerging contaminants.*
- *Effectively collaborate between federal, state and local agencies and private partners, Non-Governmental Organizations (NGOs) and Volunteer Organizations Active in Disaster (VOADs).*

- Enhance public education of technological hazards to assist in preventing and mitigating hazard impacts on the population.
- Ensure hazardous material (HazMat) teams are adequately equipped and trained to respond, contain and mitigate incidents involving technological hazards.
- Reduce the possibility of long-term utility outages by planning, training and exercising on utility failure events.
- Lessen the effects of technological hazards on communications infrastructure by building more resilient voice and data systems.

HUMAN-CAUSED HAZARD OBJECTIVES

- Ensure that grant-related funding processes allow for reasonable and practical actions at the community and state levels.
- Identify Critical Infrastructure & Key Resources (CIKR) risks or vulnerabilities and protect or harden infrastructure against hazards.
- Improve the ability to respond and mitigate Cyber Events through increased training, exercising, improved equipment and utilizing the latest technologies.
- Foster collaboration between federal, state and local agencies on training, exercising and preparing for mass casualty incidents and terrorism.
- Ensure that state and community assets (i.e., hospitals, state agencies, non-profits, universities, nursing homes, prisons, etc.) are prepared for all phases of emergency management, including training, reunification and exercising.



FEMA E-Brief, April 12, 2017

H. HAZARD MITIGATION PLANNING PROCESS & METHODOLOGY

The planning process consisted of twelve steps; some steps were accomplished independently while other areas were interdependent. Many factors affected the planning process's ultimate sequence, such as the number of meetings, community preparation, attendance and other community needs. The planning process resulted in significant cross-talk regarding all types of natural, technical and human-caused hazards by team members.



All steps were included but not necessarily in the numerical sequence listed. The list of steps is as follows:

PLANNING STEPS

Step 01: Team formation, orientation and goals

Step 02: Identify hazards and their risk and probability

Table 3.1 – Hazard Identification & Risk Assessment (HIRA)

Step 03: Profile and list historic and potential hazards

Table 3.2 – Historic Hazard Identification

Step 04: Profile, list, and establish risk for Critical Infrastructure & Key Resources (CIKR)

Tables 4.1 to 4.4 – Critical Infrastructure & Key Resources

Step 05: Assess the community's participation in the National Flood Insurance Program (NFIP)

Chapter 3, Section D

Step 06: Prepare an introduction to the community, discuss emergency service capabilities and development trends and review statistical information about the town

Chapter 2, Sections A, B and C & Table 2.1, Town Statistics

Step 07: Review current plans, policies & mutual aid & brainstorm to identify improvements

Table 6.1 – Current Plans, Policies & Mutual Aid

Step 08: Examine the mitigation actions items from the last plan

Table 7.1 – Accomplishments since the last Plan

Step 09: Evaluate and categorize potential mitigation action items

Tables 8.1 - Potential Mitigation Strategies & the STAPLEE

Step 10: Prioritize mitigation action items to determine an action plan

Table 9.1 – The Mitigation Action Plan

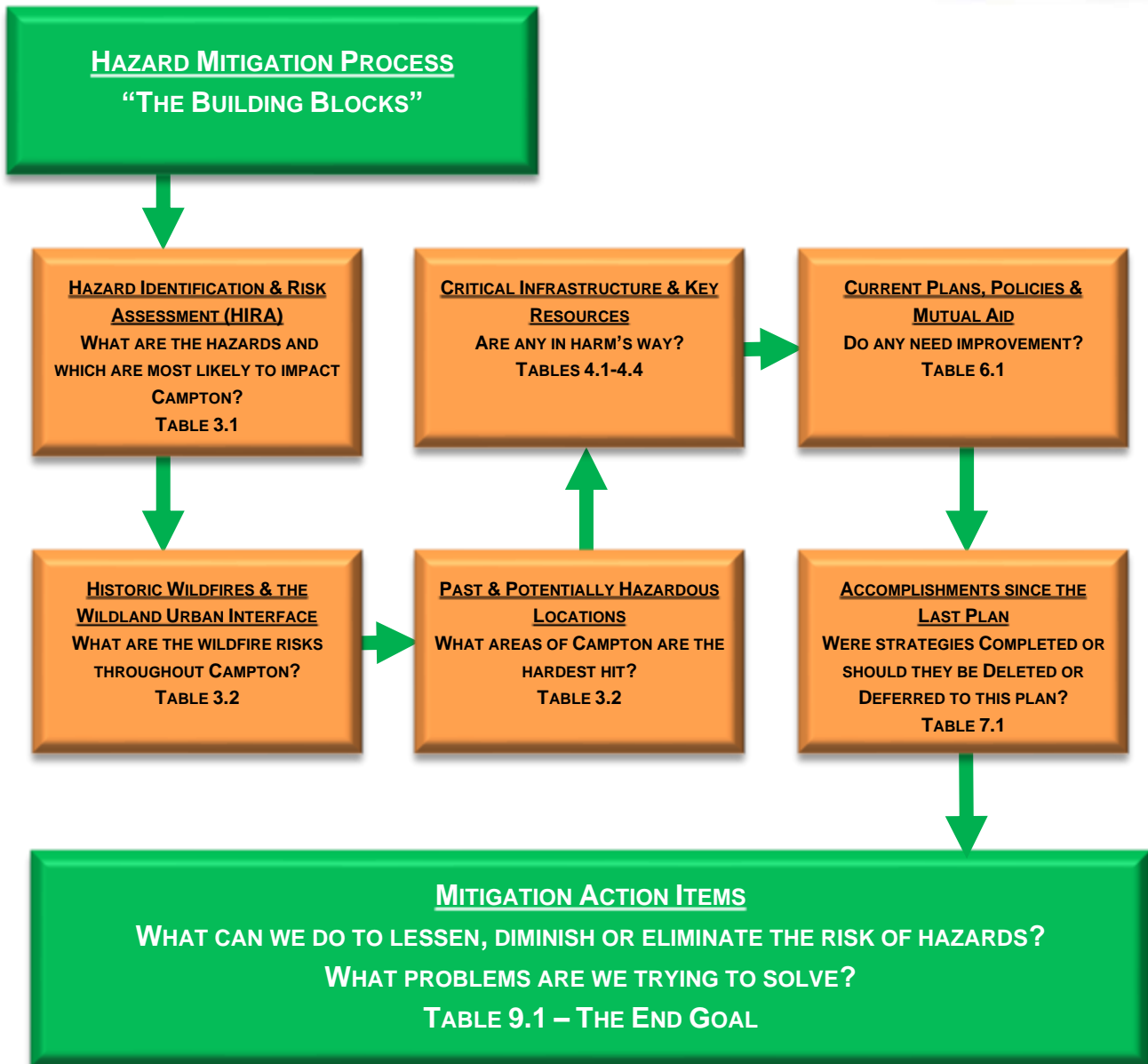
Step 11: Review the plan before submission to HSEM for APA (Approved Pending Adoption)

Step 12: Adopt and monitor the plan

I. HAZARD MITIGATION BUILDING BLOCKS & TABLES

Using a “building block” approach, the base, or foundation, for the mitigation plan update was the prior plan. Each table that was completed had its starting point with the last hazard mitigation plan completed by the community.

Ultimately, the “building blocks” led to the final goal, the development of prioritized mitigation “action items” that would lessen or diminish the impact of natural hazards on the town when put into an action plan.



J. NARRATIVE DESCRIPTION OF THE PROCESS

The plan was developed with substantial local, state and federal coordination. Completion of this new hazard mitigation plan required significant planning preparation. All meetings were geared to accommodate brainstorming, open discussion and increased awareness of potentially hazardous conditions in the town.

The planning process included a complete review of the 2014 Campton Hazard Mitigation Plan. Each element of the old plan was examined and revised to reflect changes that had taken place in development and the priorities of the community. Also, referring to the 2014 plan, strategies from the past were reassessed and improved upon for the future.

The following narrative explains how the 2014 Campton Hazard Mitigation Plan was used during each step of the planning process to make revisions that resulted in this plan.

MEETING 1, APRIL 3, 2019

The first full meeting of the Campton Hazard Mitigation Team was held on April 3, 2019. Meeting attendance included Carina Park (Town Administrator), Karl Kelly (Select Board & Emergency Management Director), Butch Bain (Road Agent), Chris Warn (Police Chief), Dan Defosses (Fire Chief), Paul Hatch (Homeland Security & Emergency Management), Olin Garneau (Mapping & Planning Solutions) and June Garneau (Mapping & Planning Solutions).

To introduce the team to the planning process, June reviewed the evolution of hazard mitigation plans, the funding, the 12 Step Process (handout), the collaboration with other agencies and the Goals (handout). June also explained the need to sign-in, track time (handout), and provide a public notice to encourage community involvement.

Work then began on *Table 2.1, Town Statistics*. Most of the work on this table was complete at this meeting except for a few items that June would either determine through GIS or get at a later date. There was some discussion about the seasonal population change in Campton with summer and winter homes; it was determined that Campton has an approximately 30% increase in population during summer and winter weekends.

HAZARDS MITIGATION POTENTIAL TEAM MEMBERS

FEDERAL

USDA Forest Service

STATE

Department of Transportation (DOT)

Department of Natural & Cultural
Resources (DNCR)

Office of Strategic Initiatives (OSI)

LOCAL

Select Board Members (Past/Present)

Town Manager/Administrator

Town Planner

Police Chief

Fire Chief

Emergency Management Director

Emergency Medical Services

Fire Warden

Health Officer

Building Inspector

Code Enforcement Officer

Education/School

Recreation Director

Public Works Director

Road Agent

Water Management

Public Utilities

Waste Management

Dam Operator(s)

Major Employer(s)

LOCAL - SPECIAL INTEREST

Land Owners

Home Owners

Forest Management

Timber Management

Tourism & Sportsman's Groups

Developers & Builders

EXPERTS

GIS Specialists

Next on the Agenda were hazard identification and the completion of *Table 3.1, Hazard Identification & Risk Assessment (HIRA)*. After the hazards had been identified, the team then assessed the risk severity and probability by ranking each hazard on a scale of 1-5 (5 being very high or catastrophic) based on the following:

The Human ImpactProbability of Death or Injury
 The Property ImpactPhysical Losses and Damages
 The Business ImpactInterruption of Service
 The ProbabilityLikelihood of this occurring within 25 years

The rankings were then calculated to reveal the hazards which pose the most significant risks to the community. Ten natural hazards, five technological hazards and four human-caused hazards were identified. After analyzing these hazards in Table 3.1, Severe Winter Weather, High Wind Events, Inland Flooding, Extreme Temperatures, Long Term Utility Outage, Aging Infrastructure and Tropical & Post Tropical Cyclones were designated “High Risk” hazards for the town.

Having completed Table 3.1, the team started working on descriptions of each hazard and how they could impact the community. To gain more knowledge of the impact of these hazards, June asked the team to describe each hazard as it relates to Campton. For example, some of the questions asked were:

- *How often do these hazards occur?*
- *Do the hazards damage either the roads or structures?*
- *Have the hazards resulted in the loss of life?*
- *Are the elderly and functional needs populations, particularly at risk?*
- *What has been done in the past to cope with the hazards?*
- *Was outside help requested?*
- *Are the hazards further affected by an extended power failure?*
- *What mitigation steps can we take to eliminate the hazard or diminish its impact?*

In addition to bringing more awareness to the hazards, these questions provided information to further analyze the impact of the hazards in the community. June noted that these descriptions would be used in Chapter 5.

With time running out before the hazard descriptions were completed, June advised the team that the remaining hazard descriptions would be completed at the next meeting. June thanked the team for their work and assigned “homework” to team members, including requesting that the Road Agent prepare a list of road/culvert projects that would need to be completed within the next five years.

Meeting 1 – April 3, 2019

1) Introduction

- a) Evolution of Hazard Mitigation Plans & Community Wildfire Protection Plans
- b) Reasons for Hazard Mitigation and Update
- c) Community involvement to solicit input on how to mitigate the effects of hazards
- d) Devise a plan that lessens, diminishes or completely eliminates the threat of Hazards to the town

2) The Process

- a) Funding
- b) Review of 12 Step Process & The Team (handout)
- c) Collaboration with other Agencies (HSEM, WMNF)

3) Meetings

- a) Community Involvement - Public Notice, Press Release
- b) Stakeholders
- c) Signing In, Tracking Time, Agendas, Narrative (handout)

4) Today's Topics

- a) Table 2.1, Town Information
- b) Table 3.1, Hazard Identification & Analysis
- c) Hazard Descriptions
- d) Table 4.1-4.4, Critical Infrastructure & Key Resources
- e) Table 3.2, Historic Hazard Identification (time allowing)

5) Homework

- a) Homework – Critical Infrastructure & Key Resources
- b) Digital Photos – contributions welcome

6) Future Meetings

- a) Wednesday May 1, 2019 @ 1:00 PM
- b) Wednesday May 22, 2019 @ 1:00 PM
- c) Wednesday June 26, 2019 @ 1:00 PM

June also asked the team to think about Critical Infrastructure & Key Resources (CIKR) and past events that have affected the town. The next meeting was scheduled for Wednesday, May 1, 2019.

MEETING 2, MAY 1, 2019

Meeting attendance included Butch Bain, Chris Warn, Daniel Defosses, Kevin Foss (Police Sergeant), Kayla Henderson (NH Homeland Security & Emergency Management), Paul Hatch, Olin Garneau and June Garneau.

The meeting began with a review of the work that was done at the previous meeting. June reviewed *Table 2.1, Town Statistics*, to ensure that the town data was accurate; no changes were made. Next June, reviewed *Table 3.1, Hazard Identification & Risk Assessment (HIRA)* to ensure that the hazards were in the correct order.

Next on the agenda was the completion of the Hazard Descriptions that were started at the previous meeting. While doing the Hazard Descriptions, development trends were also discussed.

The team then began work on *Table 3.2, Historic Hazard Identification*, which lists past and potentially hazardous locations and events. First, they looked at the hazards that were listed in the last plan and determined which they would like to see kept in this plan. Next, the team examined the record of Major Disaster and Emergency Declarations that have taken place in recent years.

With time running out, Table 3.2 was not completed. June reviewed what would take place at the next meeting and thanked the team. The next meeting was set for May 22, 2019.

MEETING 3, MAY 22, 2019

Meeting attendance included Karl Kelly, Daniel Defosses, Kevin Foss, Angel Ekstrom (Central NH Regional Public Health Network), Chris Yaegar (Fire Department), Lisa Vincent (Town Offices), Josh Fitz (Fire Department), Ron Farnsworth (Highway Department), James Morton (Police Department), Paul Hatch, Olin Garneau and June Garneau.

First on the agenda was the completion of *Table 3.2, Historic Hazard Identification*, started at the previous meeting. While reviewing Table 3.2, June took the opportunity to explain the Wildland Urban Interface (WUI); this area is determined to be the area in which the urban environment interfaces with the wildland environment and the most prone area for wildfires. If determined using the 1,320-foot buffer method, the WUI would cover nearly the entire Town of Campton. Also, because the town is so heavily forested, it is thought that the entire town would be designated at the Wildland Urban Interface. Mitigation strategies were discussed to protect structures and educate the town's citizens about the wildfire risk.

Meeting 2 – May 1, 2019

1) Last Meeting

- a) Reviewed planning process, purpose, funding & collaboration.
- b) Reviewed of community involvement and stakeholders
- c) Worked on Table 2.1, Town Information
- d) Worked Table 3.1, Hazard Identification & Analysis
- e) Worked on Hazard Descriptions (Did not finish)

2) Today's Topics

- a) Review....
 - i) Table 2.1, Town Statistics
 - ii) Table 3.1, Hazard Identification & Analysis
- b) Finish Hazard Descriptions
- c) Work on....
 - i) Table 3.2, Historic Hazard Identification
 - ii) Table 4.1-4.4, Critical Infrastructure & Key Resources
 - iii) Table 6.1, Current Plans, Policies & Mutual Aid (time allowing)
 - iv) Table 7.1, Accomplishments since the prior Plan (time allowing)

3) Homework

- a) Review materials sent by MAPS
- b) Digital Photos – contributions welcome

4) Future Meetings

- a) Wednesday May 22, 2019 @ 1:00 PM
- b) Wednesday June 26, 2019 @ 1:00 PM

Next on the agenda were *Tables 4.1–4.4, Critical Infrastructure & Key Resources (CIKR)*. The Emergency Response Facilities, the Non-Emergency Response Facilities, the Facilities & Populations to Protect and the Potential Resources from the 2014 plan were examined; a few minor adjustments were made for this plan. Also, the evacuation routes, helicopter landing zones and bridges on the evacuation routes were defined. Lastly, each of the Critical Infrastructure & Key Resources were analyzed for their “Hazard Risk”.

Next, the team began working on *Table 6.1, Current Plans, Policies & Mutual Aid*; like other tables, this table was also pre-populated with information from the 2014 plan. Based on the “Key to Effectiveness” found in Chapter 6, the team determined if each plan, policy or mutual aid system should be designated as “No Improvements Needed” or “Improvements Needed”.

It was explained to the team that those items that needed improvement would become new “Action Items” for this plan and be discussed again and prioritized when we got to our final table, *Table 9.1, The Mitigation Action Plan*.

Table 6.1 was not finished before the meeting ended. June promised to write statements to support the concepts and ideas that were expressed for Table 6.1 and adjourned the meeting. The next meeting was scheduled for June 26, 2019.

MEETING 4 – JUNE 26, 2019

Meeting attendance included Carina Park, Karl Kelly, Butch Bain, Chris Warn, Daniel Defosses, Angel Ekstrom, Chantalle Forgues (Police Department), Olin Garneau and June Garneau.

June first led the team through a review of the work done at the last meeting, including a review of the Critical Infrastructure & Key Resources that were listed in Tables 4.1-4.4. The review also included a complete review of Table 6.1 to ensure that the team's comments and ideas were fully represented.

Next, June worked with the team to finish what was left in *Table 6.1, Current Plans, Policies & Mutual Aid* from the previous meeting. June took notes and promised to create action items for each strategy discussed.

Meeting 3 – May 22, 2019

1) Last Meeting

- a) Reviewed....
 - i) Table 2.1, Town Information
 - ii) Table 3.1, Hazard Identification & Analysis
- b) Finished....
 - i) Hazard Descriptions
- c) Worked on....
 - i) Table 3.2, Historic Hazard Identification (did not finish)

2) Today's Topics

- a) Finish....
 - i) Table 3.2, Historic Hazard Identification
- b) Work on....
 - i) Table 4.1-4.4, Critical Infrastructure & Key Resources
 - ii) Table 6.1, Current Plans, Policies & Mutual Aid
 - iii) Table 7.1, Accomplishments since the prior Plan (time allowing)

3) Homework

- a) Review materials sent by MAPS
- b) Digital Photos – contributions welcome

4) Future Meetings

- a) Wednesday June 26, 2019 @ 1:00 PM

Meeting 4 – June 26, 2019

1) Last Meeting

- a) Finished....
 - i) Table 3.2, Historic Hazard Identification
- b) Worked on....
 - i) Table 4.1-4.4, Critical Infrastructure & Key Resources
 - ii) Table 6.1, Current Plans, Policies & Mutual Aid (did not finish)

2) Today's Topics

- a) Finish....
 - i) Table 6.1, Current Plans, Policies & Mutual Aid
- b) Work on....
 - i) Table 7.1, Accomplishments since the prior Plan
 - ii) Start thinking about Mitigation Ideas

3) Homework

- a) Review materials sent by MAPS
- b) Digital Photos – contributions welcome

4) Future Meetings

- a) _____

Next on the agenda was *Table 7.1, Accomplishments since the Last Plan*, which was also pre-populated with data from the 2014 plan. June led the team through each strategy to determine which of these was “Completed” should be “Deleted” or should be “Deferred” to this plan as a new mitigation action item. Some of the action items from the 2014 plan had been completed or partially completed by the town, while some were deleted as they were no longer useful or considered emergency preparedness, not mitigation. Still, others were “deferred” for consideration as new “Action Items” for this plan.

To end the meeting, June provided the team with handouts detailing a comprehensive list of possible mitigation action items (see Chapter 8, Section A & B and Appendix E). June also encouraged team members to explore the link on their agendas for the FEMA Mitigation Idea booklet to see if any of the book’s strategies would be useful in Campton (see right).

Link to explore:

FEMA Mitigation Ideas Book

https://www.fema.gov/media-library-data/20130726-1904-25045-0186/fema_mitigation_ideas_final508.pdf

The next meeting was scheduled for September 18, 2019.

MEETING 5 – SEPTEMBER 18, 2019

Meeting attendance included Carina Park, Karl Kelly, Butch Bain, Daniel Defosses, Corey Davenport (Administrative Assistant), Olin Garneau and June Garneau.

To begin the meeting, June took the team through an overall recap of work that had already been done. The recap included a brief look at each of the following completed tables:

- *Table 2.1 – Town Statistics*
- *Table 3.1 – Hazard Identification & Risk Assessment (HIRA)*
- *Table 3.2 – Historic Hazard Identification*
- *Tables 4.1-4.4 – Critical Infrastructure & Key Resources*
- *Table 6.1 – Current Plans, Policies & Mutual Aid*
- *Table 7.1 – Accomplishments since the Last Plan*

This review helped the team understand how each of these tables served as a building block for the final two tables, *Table 8.1, Potential Mitigation Strategies & the STAPLEE* and *Table 9.1, The Mitigation Action Plan*.

The team then reviewed additional potential action items in addition to the action items identified in Tables 6.1 and 7.1. Using handouts from the last meeting, the team reviewed a comprehensive list of mitigation strategies. These strategies were derived from several sources, including the FEMA document “Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards, January 2013” (see Chapter 8, Sections A & B and Appendix E).

Meeting 5 – September 18, 2019

1) Last Meeting

- a) Reviewed....
 - i) Table 3.2, Historic Hazard Identification
 - ii) Table 4.1-4.4, Critical Infrastructure & Key Resources
- b) Finished....
 - i) Table 6.1, Current Plans, Policies & Mutual Aid
- c) Worked on....
 - i) Table 7.1, Accomplishments since the prior Plan

2) Today's Topics

- a) Review....
 - i) Table 6.1, Current Plans, Policies & Mutual Aid
 - ii) Table 7.1, Accomplishments since the prior Plan
- b) Work on....
 - i) Table 8.1, Mitigation Action Plan
 - ii) STAPLEE

3) Homework

- a) Review materials sent by MAPS
- b) Digital Photos – contributions welcome

4) Future Meetings

- a) _____

Next, the team began work on *Table 8.1, Potential Mitigation Action Items & the STAPLEE* and *Table 9.1, The Mitigation Action Plan*. June explained to the team that these tables were combined for the meeting but that they would become separate tables in the final plan. Having pre-populated these tables with the action items that had been deferred while working on Tables 6.1 and 7.1, the team was able to look closely at each “Action Item” to assign responsibility, the time frame for completion, the type of funding that would be required and the estimated cost of the action (see Chapter 9, Section B).

Work on this table included the STAPLEE process, as shown in Chapter 8. Using the handouts provided by the planner, the team was able to go through the STAPLEE process for the action items that had been identified. The STAPLEE analysis would then become *Table 8.1, Potential Mitigation Action Items & the STAPLEE*. Most importantly, the STAPLEE process enabled the team to consider the cost-benefit of each action item.

With time running out and Tables 8.1 and the STAPLEE complete, June explained the next step would be the “ranking” and “prioritizing” of each action item. June thanked the team and adjourned the meeting.

The next meeting was scheduled for October 16, 2019.

MEETING 6 – OCTOBER 16, 2019

Meeting attendance included Carina Park, Karl Kelly, Kayla Henderson, Olin Garneau and June Garneau.

The mitigation action items had been determined at the previous meeting, and the STAPLEE was completed for each. The team was now ready for the ranking & prioritizing of the action items that had been identified.

Before the meeting, June had pre-ranked the action items based on the time frame, the town’s authority to get the strategy accomplished, the type of strategy and the STAPLEE score and placed them in four categories as shown in Chapter 9, Section A. A handout with all of the identified action items was made for the team. Using this handout, the team could see all of the action items and determine any changes needed, including the “rank”.

Within each rank, the team assigned a priority; for example, if seven action items were ranked “1” then the priority rank was 1-7. In this fashion, the team determined which action items were the most important within their rankings and in which order the action items would be accomplished.

With Tables 8.1 and 9.1 completed, the team’s work was complete, except for the final review. June agreed to put the final “draft” plan together and email a copy for the town’s review. June explained the process from this point forward and thanked the team for their hard work. No additional meeting was scheduled.

Meeting 6 – October 16, 2019

1) Last Meeting

- a) Reviewed....
 - i) Table 2.1, Town Statistics
 - ii) Table 3.1, Hazard Identification & Risk Assessment
 - iii) Table 3.2, Historic Hazard Identification
 - iv) Table 4.1-4.4, Critical Infrastructure & Key Resources
 - v) Table 6.1, Current Plans, Policies & Mutual Aid
 - vi) Table 7.1, Accomplishments since the prior Plan
- b) Worked on....
- c) Table 8.1, Mitigation Action Plan
- d) STAPLEE

2) Today’s Topics

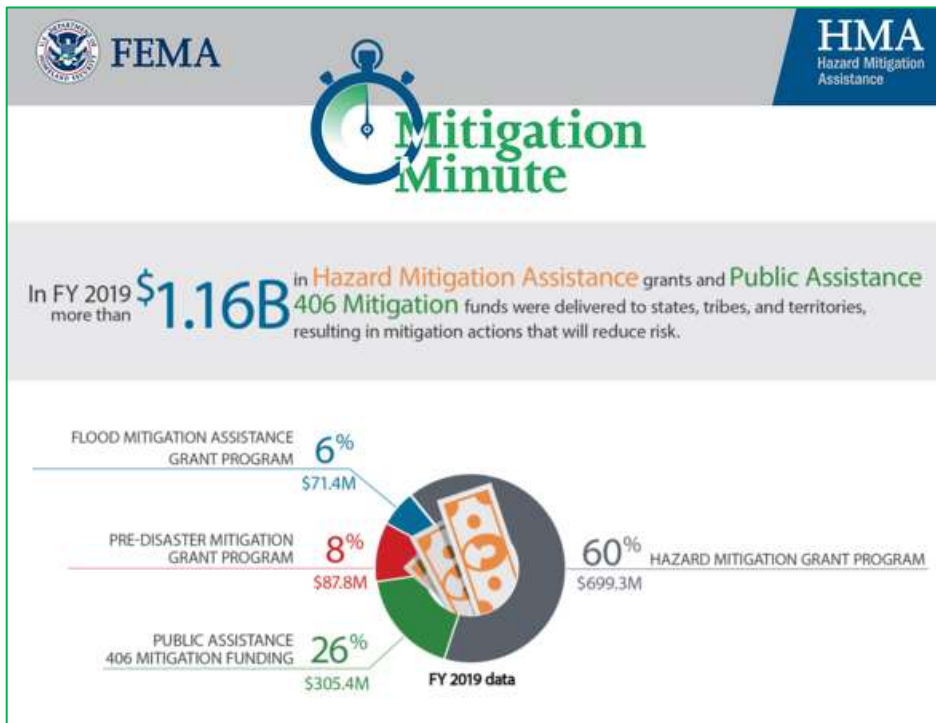
- a) Work on....
 - i) Ranking and Priority
 - ii) Process going forward

3) Homework

- a) Review materials sent by MAPS
- b) Digital Photos – contributions welcome

4) Future Meetings

- a) _____



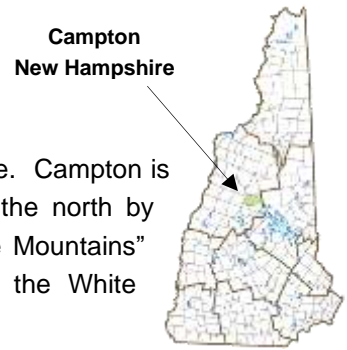
Mitigation Minute for January 15, 2020
Federal Emergency Management Agency (FEMA)

Documentation for the planning process, including public involvement, is required to meet DMA 2000 (44CFR§201. (c) (1) and §201.6 (c) (1)). The plan must include a description of the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how other agencies participated. A description of the planning process should include how the planning team or committee was formed, how input was sought from individuals or other agencies who did not participate on a regular basis, what the goals and objectives of the planning process were, and how the plan was prepared. The description can be in the plan itself or contained in the cover memo or an appendix.

Chapter 2: Community Profile

A. INTRODUCTION

Campton is a beautiful community located in Grafton County in central New Hampshire. Campton is bordered to the east by Sandwich, to the south by Holderness and Plymouth, to the north by Thornton and to the west by Ellsworth and Rumney. As a community in the “White Mountains” tourism region of New Hampshire, Campton is located in the scenic beauty of the White Mountains.



TOWN GOVERNMENT

A five-member Select Board governs the Town of Campton, with a Town Administrator overseeing the day-to-day operations. The town's departments include, but are not limited to, Fire, Police, Public Works, Planning, Zoning, and Conservation. The largest employer in Campton is Owl's Nest Golf Course, with 60+ employees.

DEMOGRAPHICS & HOUSING

Over the last 30 years, the population of Campton has increased drastically; the population change from 1980 (1,694) to 2010 (3,333) showed an increase of 1,639 according to US Census 2010. This data represents a growth rate of approximately 96.75%. Campton's population in 2018 was estimated to be 3,308.⁴

The American Community Survey (2014-2018) estimates 2,356 housing units, most of which are single-family (1,889). Multiple-family structures total 279, and mobile homes and other housing units number 188. The median household income is estimated to be \$68,182, and the median age is 46.4 years.⁵ Census 2010 estimates that of the 801 vacant housing units, 656 are used for recreational, seasonal, or occasional use, thus confirming the presence of second home and seasonal residents.

EDUCATION & CHILD CARE

Campton students in grades PK-8 attend Campton Elementary School in Campton. Students in grades 9-12 are part of Pemi-Baker Cooperative with Ashland, Holderness, Plymouth, Rumney, Thornton and Wentworth. There are no colleges or universities in Campton; however, there are five childcare facilities with a capacity of 110 children.

Incorporated: 1761 Origin: First chartered in 1761, the town may have been named for a friend of Governor Benning Wentworth, Spencer Compton, Earl of Wilmington. Another source indicates that when surveyors came to the area, they built a camp here, and the name Campton comes from that. Conditions of the 1761 charter were not met, and a new charter was issued in 1767. An early settler was John Marsh, whose grandson Sylvester was born in Campton. Sylvester Marsh, a founder of the Chicago meat-packing industry, came up with the idea of building a railway to the summit of Mount Washington. Marsh invented the cog rail mechanism and special brakes so the locomotive could scale the steep terrain, completing the railway in July 1869.

Villages and Place Names: Beebe River, Blair, Campton Hollow, Campton Lower Village, Campton Station, Campton Upper Village, West Campton.

Population, Year of the First Census Taken: 395 residents in 1790.

Population Trends: Population change for Campton totaled 2,229 over 57 years, from 1,058 in 1960 to 3,287 in 2017. The largest decennial percent change was a 45 percent increase between 1970 and 1980, followed by a 40 percent increase over the next decade. The 2017 Census estimate for Campton was 3,287 residents, which ranked 105th among New Hampshire's incorporated cities and towns.

Population Density and Land Area, 2017 (US Census Bureau): 63.3 persons per square mile of land area, which tied with Deering. Campton contains 51.9 square miles of land area and 0.6 square miles of inland water area.

Source: Economic & Labor Market Information Bureau, NH Employment Security, November 2018; Received 6/11/2018

⁴ Economic & Labor Market Information Bureau, NH Employment Security, March 2020. Community Response 7/10/2019.

⁵ American Community Survey, 2014-2018; the Census Bureau

NATURAL FEATURES

The Town of Campton covers approximately 51.9 square miles of land area and 0.6 square miles of inland water. The community is dominated by the lakes, rivers and streams of central New Hampshire. The highest peak is Mount Weetamoo, at 2,548' above sea level. The lowest elevation in town is 676' above sea level in the center of town near the Pemigewasset River.

Vegetation is typical of northern New England, including deciduous and conifer forests, open fields, swamp and riverine areas. The terrain lends itself to an abundance of small ponds, streams and rivers, most notably the Pemigewasset River, Beebe River, Campton Pond, Moosilauke Pond, Little Perch Pond and Perch Pond

TRANSPORTATION

Four significant roadways run through Campton. They are NH Routes 175 and 49, US Route 3 and Interstate 93 (I-93). NH Route 175, US Route 3 and I-93 travel from Plymouth in the south to Thornton in the north. NH Route 49 travels from Waterville Valley in the north-east to Ellsworth in the west. Other smaller and less traveled roadways lend access to other areas of the town.

B. EMERGENCY SERVICES

EMERGENCY OPERATIONS CENTER & EMERGENCY MANAGEMENT DIRECTOR

The Town of Campton has a designated Emergency Management Director (EMD) and a Deputy EMD. The EMD maintains an Emergency Operations Center (EOC) as part of the town's emergency preparedness program. The EOC is where the EMD, department heads, government officials and volunteer agencies gather to coordinate their response to a major emergency or disaster event. In Campton, the designated EOC is the Town Office. If the need arises and the Town Office is not available, a secondary EOC would be at the Lower Campton Fire Station.

CAMPTON FIRE & EMS

Campton-Thornton Fire Rescue is a full-time fire department providing quality fire services and emergency medical services to Campton residents and visitors 24 hours a day, 365 days a year. The department staffs a full-time Chief, four full-time Firefighters/EMTs, a full-time secretary, 25 paid-on-call firefighters, and operates two stations, one in Campton and one in Thornton. Campton-Thornton Fire Rescue participates in Lakes Region Fire Mutual Aid along with other area departments. The Fire Department provides emergency medical services and transportation.

CAMPTON POLICE DEPARTMENT

The Campton Police Department is a full-time department providing quality law enforcement services to Campton residents and visitors. The department staffs a full-time Chief, six full-time officers and a full-time secretary. The Campton Police Department has mutual aid agreements with surrounding towns, the NH State Police and the Grafton County Sheriff's Office.

CAMPTON DEPARTMENT OF PUBLIC WORKS

The Campton Department of Public Works (DPW) operates on a year-round, 24-hour basis as needed. The department staffs a full-time Director, two full-time and two part-time (one seasonal) employees. The DPW's mission is to support Campton citizens through the safe operation, proper maintenance and future development of highways, supporting infrastructure and utilities in a cost-conscious manner without sacrificing quality. The department belongs to the NH Public Works Mutual Aid Association.

MEDICAL FACILITIES

Campton's closest medical facility is Speare Memorial Hospital in Plymouth (9 miles, 25 beds). If the need arises, alternative medical facilities are Lakes Region General in Laconia and Littleton Regional Healthcare in Littleton.

EMERGENCY SHELTER(S)

The primary shelter is the location to which evacuees are directed at the time of an emergency. In Campton, the designated primary shelter is the Campton Elementary School, which offers a large sleeping area, restrooms, showers and kitchen facilities. The Elementary School has a permanent generator. The designated secondary shelters for the town are the Baptist Church or the Congregational Church.

C. CAMPTON'S CURRENT & FUTURE DEVELOPMENT TRENDS

Over the last ten years, development in Campton has been consistent with development trends in the rest of New Hampshire. Nearly every New Hampshire community has experienced a significant drop in new home construction since the mid-2000s and the Great Recession of 2007-2008. This trend is only now beginning to change, but in Campton, change has been slow. Information provided by City-Data.com (see chart to the right) supports this trend in Campton.⁶

The team reported that development in Campton over the past five years has been slow; however, a few small subdivisions, lot line revisions and several new single-family homes have been built. In the 2018 Annual Report, the Planning Board states, "*The Planning Board approved two Site Plan Reviews, two Subdivisions, two Boundary Line Adjustments and two Voluntary Mergers*"⁷. However, no major subdivisions have been requested, and no large-scale development is anticipated in the immediate future. No development has occurred in hazard-prone areas or has impacted the town's hazard vulnerability.

The Planning Board and the Select Board will monitor Campton's growth using existing regulatory documents such as the Zoning Ordinance, including the Flood Plain Zone Ordinance (Section H), the

Single-family new house Construction building permits

- 1997: 13 buildings, average cost: \$75,700
- 1998: 11 buildings, average cost: \$73,600
- 1999: 12 buildings, average cost: \$137,600
- 2000: 14 buildings, average cost: \$95,200
- 2001: 16 buildings, average cost: \$111,600
- 2002: 30 buildings, average cost: \$101,400
- 2003: 42 buildings, average cost: \$126,600
- 2004: 82 buildings, average cost: \$138,800
- 2005: 19 buildings, average cost: \$150,200
- 2006: 38 buildings, average cost: \$171,000
- 2007: 23 buildings, average cost: \$181,200
- 2008: 11 buildings, average cost: \$106,800
- 2009: 2 buildings, average cost: \$162,500
- 2010: 7 buildings, average cost: \$50,000
- 2011: 5 buildings, average cost: \$75,000
- 2012: 3 buildings, average cost: \$83,300
- 2013: 7 buildings, average cost: \$193,300
- 2014: 8 buildings, average cost: \$130,800
- 2015: 5 buildings, average cost: \$150,400
- 2016: 12 buildings, average cost: \$214,700
- 2017: 8 buildings, average cost: \$103,100

⁶ City-Data.com; <http://www.city-data.com/city/Campton-New-Hampshire.html>

⁷ Annual Report, Town of Campton, 2018, Campton Planning Board 2018, page 49

Subdivision Regulations and the Campton Master Plan. Building Permits are required in Campton. As a relatively small community, Planning Board and Select Board members and other town officials are almost always aware of the building that is taking place.

The Planning Board will follow town zoning, building and subdivision regulations to ensure that any building in hazardous areas will be built to minimize vulnerability to the hazards identified in this plan. The town recognizes the importance of growth and understands the impact that hazards can have on new facilities and homes if built within hazardous areas of the community. Town officials will continue to monitor any new growth and development, including new critical facilities, regarding potentially hazardous events.

Campton's Conserved Land as a Percent of Land in the community
(GIS Analysis; 2019Conservation Files, Granit, UNH)

	Square Miles	Percent of Town Land
<i>Approximate Square Miles in the community</i>	51.90	100.0%
<i>Approximate Total Un-Conserved Land</i>	46.05	88.7%
<i>Approximate Total Conserved Land</i>	5.85	11.3%
<i>Municipal/County Land (1)</i>	0.05	0.1%
<i>Federal Owned Land (2)</i>	3.85	7.4%
<i>State-Owned Land (3)</i>	0.55	1.1%
<i>Quasi Private (4)</i>	0.00	0.0%
<i>Private Land (5)</i>	1.40	2.7%

- Municipal/County
- Federal
- State
- Other Public/Quasi Private
- Private

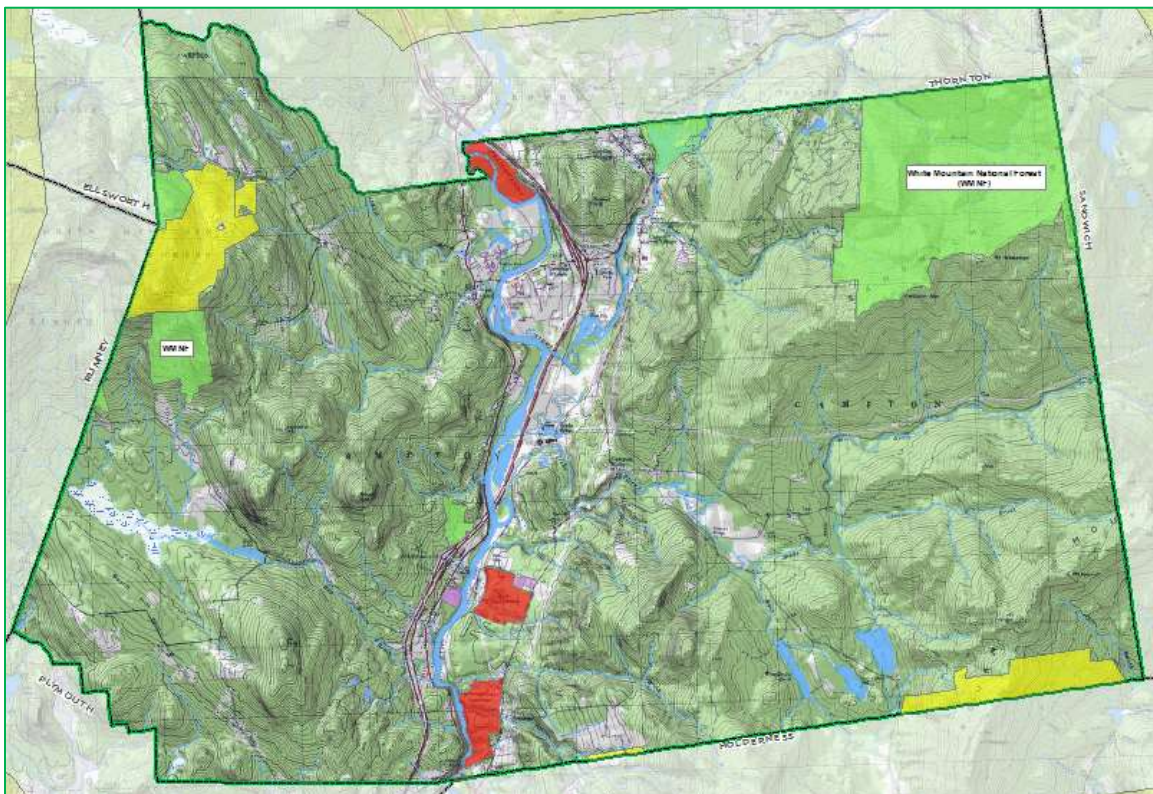


TABLE 2.1: TOWN STATISTICS

Table 2.1 - Town Statistics				
Census Population Data	2010	2000	1990	1980
Campton, NH - Census Population Data	3,333	2,723	2,379	1,694
Grafton County	89,118	81,826	74,998	65,806
Population Estimate for 2018 (US Census)	3,308			
Elderly Population-% over 65 (*ACS 2014-2018)	17.9%			
Median Age (*ACS 2014-2018)	46.4			
Median Household Income (*ACS 2014-2018)	\$68,182			
Individuals below the poverty level (*ACS 2014-2018)	4.6%			
Change in Population-Summer Weekends & Vacation Weeks (%)	30%			
Change in Population-Winter Weekends & Vacation Weeks (%)	27%			
Housing Statistics (2010 Census)				
Total Housing Units	2,208			
Occupied Housing Units	1,407 (1,122 Owner Occupied; 285 Renter Occupied)			
Vacant Housing Units	801 (656 Seasonal, Recreation, Occasional Use; 44 All Other Vacant Housing Units)			
**Assessed structure value (2018-MS1)	Value		1% Damage	5% Damage
Residential	\$230,860,201		\$2,308,602	\$11,543,010
Manufactured Housing	\$8,346,200		\$83,462	\$417,310
Commercial	\$19,576,600		\$195,766	\$978,830
Tax Exempt	\$11,564,400		\$115,644	\$578,220
Utilities	\$11,380,600		\$113,806	\$569,030
Totals	\$281,728,001		\$2,817,280	\$14,086,400
Regional Coordination				
County	Grafton			
Tourism Region	White Mountains			
Municipal Services & Government				
Town Administrator or Manager	Yes (Town Administrator)			
Select Board (5 members)	Yes; elected			
Planning Board	Yes; appointed			
School Board	Yes; elected			
Zoning Board of Adjustment	Yes; appointed			
Conservation Committee	Yes; appointed			
Master Plan	Yes; 2016			
Emergency Operation Plan (EOP)	Yes; 2015			

Table 2.1 - Town Statistics

<i>Hazard Mitigation Plan (HMP)</i>	Yes; 2014
<i>Zoning Ordinances</i>	Yes; 1974; updated annually most recent in 2019
<i>Subdivisions Regulations</i>	Yes; 1981/1992/1997/2016
<i>Site Plan Review Regulations</i>	Yes; 1981; 2018 (review)
<i>Capital Improvement Plan</i>	Yes
<i>Capital Reserve Funds</i>	Yes
<i>Building Permits Required</i>	Yes
<i>Town Web Site</i>	Yes; www.camptonnh.org
<i>Floodplain Ordinance</i>	Yes; part of Zoning
<i>Member of NFIP</i>	April 2, 1986
<i>Flood Insurance Rate Maps (DFIRMS)</i>	February 20, 2008
<i>Flood Insurance Rate Study (FIS)</i>	February 20, 2008
Percent of Local Assessed Valuation by Property Type-2018 (NH Department of Revenue)	
<i>Residential Buildings</i>	90.3%
<i>Commercial Land & Buildings</i>	7.1%
<i>Other (including Utilities)</i>	3.3%
Emergency Services	
<i>Town Emergency Warning System(s)</i>	CodeRED
<i>School Emergency Warning System(s)</i>	Blackboard Connect by PowerSchool & Elerts (for emergencies)
<i>Emergency Page</i>	No
<i>Social Media</i>	Town, Library, Police, Fire & Elementary School (Facebook)
<i>ListServ</i>	Email through subscription
<i>Local Newspapers</i>	Plymouth Record, Union Leader, Laconia Citizen
<i>Public Access TV</i>	No; but can use Plymouth Public Access if needed
<i>Local TV Stations</i>	WMUR Channel 9
<i>Local Radio</i>	WLKC 105.7 FM (Campton), WPHN 100.1 FM (Plymouth)
<i>Police Department</i>	Yes; full-time Chief, six full-time, one full-time Administrator
<i>Police Dispatch</i>	Plymouth Dispatch
<i>Police Mutual Aid</i>	Surrounding towns, NH State Police & Grafton County Sheriff's Office
<i>Animal Control Officer</i>	Yes
<i>Fire Department</i>	Yes; full-time Chief, four full-time, 25 paid-on-call firefighters, full-time Secretary
<i>Fire Dispatch</i>	Lakes Region Fire Mutual Aid
<i>Fire Mutual Aid</i>	Lakes Region Fire Mutual Aid
<i>Fire Stations</i>	Two in Campton & one in Thornton
<i>Fire Warden</i>	Yes

Table 2.1 - Town Statistics

<i>Emergency Medical Services</i>	Yes; Campton-Thornton Fire Rescue
<i>EMS Dispatch</i>	Lakes Region Fire Mutual Aid
<i>Emergency Medical Transportation</i>	Campton-Thornton Fire Rescue
<i>HazMat Team</i>	Central NH HazMat Team
<i>Established EMD</i>	Yes
<i>Established Deputy EMD</i>	Yes
<i>Public Health Network</i>	Central NH Regional Public Health Network
<i>Health Officer</i>	Yes
<i>Code Enforcement Officer</i>	Yes
<i>Established Public Information Officer (PIO)</i>	No
<i>Nearest Hospital</i>	Speare Memorial Hospital, Plymouth (9 miles, 25 beds)
<i>Alternate Hospital(s)</i>	Lake Region General Hospital; Littleton Regional Healthcare
<i>Local Humane Society or Veterinarians</i>	Plymouth Animal Hospital
<i>Primary EOC</i>	Town Offices (generator)
<i>Secondary EOC</i>	Lower Campton Fire Station (Station 3-generator)
<i>Primary Shelter</i>	Campton Elementary School (generator)
<i>Secondary Shelter</i>	Town Offices (generator)
<i>Other Shelters</i>	Baptist Church or Congregational Church
Utilities	
<i>Town Sewer</i>	Private septic (except in Beebe River Village)
<i>Highway Department</i>	Yes; full-time Director, two full-time, two part-time (one seasonal)
<i>Public Works Mutual Aid</i>	Yes
<i>Class V Roads</i>	36 Paved, 16 Gravel, 52 Total
<i>Water Supply</i>	Campton Village Precinct, Deer Run, Town Office Campus, Waterville Estate, Beebe River Village; all others on individual wells
<i>Waste Water Treatment Plant</i>	No
<i>Electric Supplier</i>	Eversource & NH Electric Coop
<i>Natural Gas Supplier</i>	None
<i>Cellular Telephone Access</i>	Yes
<i>Pipelines</i>	No
<i>High-Speed Internet</i>	Yes
<i>Telephone Company</i>	Consolidated Communications & Spectrum

Table 2.1 - Town Statistics

Transportation

<i>Primary Evacuation Routes</i>	I-93, NH Route 49, US Route 3, NH Route 175
<i>Secondary Evacuation Routes</i>	Ellsworth Hill Road, Perch Pond Road, Goose Hollow Road
<i>Nearest Interstate</i>	I-93, Exit 27-28 (local access)
<i>Nearest Airstrip</i>	Plymouth Regional Airport (2,380' turf runway)
<i>Nearest Commercial Airport(s)</i>	Lebanon Municipal Airport, Lebanon (52 miles)
	Manchester-Boston Regional Airport, Manchester (67 miles)
<i>Public Transportation</i>	No
<i>Railroad</i>	State-owned Line; Hobo Railroad leases for passenger trains; NE Southern Railroad has freight rights, but currently, no freight is being run

Education & Childcare

<i>Elementary/Middle School</i>	Campton Elementary School (grades PreK-8)
<i>High School</i>	Grades 9-12 attend school at Plymouth Regional High School are part of Pemi-Baker Cooperative with Ashland, Holderness, Plymouth, Rumney, Thornton and Wentworth)
<i>School Administrative Unit</i>	SAU 48
<i>Licensed Childcare Facility</i>	Five facilities, 110 capacity

Fire Statistics (NH Division of Forests & Lands, Fire Warden Report, 2018 and the town)

<i>Wildfire Fires (2014-2018)</i>	6 fires (Class B), 2.75 acres (.25 to 1.0 acres)
<i>Grafton County Fire Statistics (2018)</i>	8 fires, 7 acres
<i>State Forest Fires Statistics (2018)</i>	53 fires, 46 acres

*ACS: The American Community Survey, a five-year average of randomly mailed long-form surveys from the Census Bureau

** The Assessed structure value table indicates the value of structures only and the likely loss value based on either a loss of 1% or 5% of structures. Source: Annual Report, Campton, NH 2018, Year Ending December 31, 2018

Information found in Table 2.1, unless otherwise noted, was derived from the Economic & Labor Market Information Bureau, NH Employment Security, March 2020. Community Response Received 7/10/2019; <https://www.nhes.nh.gov/elmi/products/cp/profiles-pdf/campton.pdf>

Chapter 3: Hazard Identification, Risk Assessment & Probability

A. HAZARD IDENTIFICATION

The first step in hazard mitigation is to identify hazards. The team determined that ten natural hazards have the potential to affect the community. *Table 3.1, Hazard Identification & Risk Assessment (HIRA)*, provides estimates of the level of impact that each listed hazard could have on humans, property and business and averages them to establish an index of “severity”. The estimate of “probability” for each hazard is multiplied by its severity to establish an overall “relative threat” factor.

The NH State Hazard Mitigation Plan includes many of the same potential hazards that have been identified in Campton. Several of the state’s hazards, however, were excluded from this plan. These include the following:

<u>State Hazard</u>	<u>Reason for exclusion from this plan</u>
Coastal Flooding	Distance away from the sea
Landslide	No known areas subject to landslide in the town
Solar Storm & Space Weather	The team felt this was not something the town can manage
Avalanches	No known areas of avalanches
Radiological	Distance away from any radiological sites
Known & Emerging Contaminants	Homeowners would handle mitigation

Specific hazards that have affected the town, the region and the state in the past are detailed in *Table 3.2, Historic Hazard Identification* and Chapter 5.

B. RISK ASSESSMENT

The hazards listed in Table 3.1 were classified based upon the “Relative Threat” score as calculated in Column F; these were then separated into three categories using Jenks’ Optimization, also known as the natural breaks classification⁸. The “Relative Threat” score was then labeled into three categories, *High Risk, Medium Risk and Low Risk*, as shown in Table 3.1, Column G; these categories are also indicated in Chapter 5, Sections B-D. Using this grouping process, the plan demonstrates each hazard’s likelihood of occurrence combined with its potential effect on the town. This process illustrates a comprehensive hazard statement and helps the town understand which hazards should receive the most attention.

In addition to the relative threat analysis determined in Table 3.1, the team used *Tables 4-1-4.4, Critical Infrastructure & Key Resources (CIKR)*, to identify and analyze the potential hazard risk based on a scale of 1-3 for each CIKR.

⁸ The natural breaks classification process is a method of manual data classification partitions data into classes based upon natural groups within the data distribution; ESRI, <http://support.esri.com/en/knowledgebase/GISDictionary/term/natural%20breaks%20classification>

C. PROBABILITY

The determination of the probability of occurrence is contained within Column D in Table 3.1, which assesses hazards based upon the likelihood of the hazard's manifestation within 25 years. The probability scores indicate whether the identified hazard has a *Very Low, Low, Moderate, High or Very High* probability. Probability categories are also indicated in Chapter 5, Sections B-D.

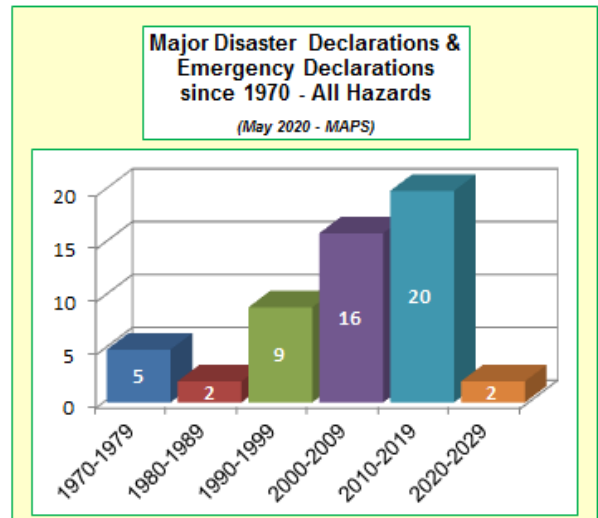
Overall, the Town of Campton is reasonably safe from the effects of natural, technological and human-caused hazards. However, due to Campton's geographic location, forested lands, hills, heavy snowpack and topography, there is always a probability that future hazards will occur.

HAZARD PROBABILITY & CLIMATE CHANGE

Although not identified as a natural hazard in this plan, no plan can be considered complete today without discussing the impact of climate change on weather patterns. *"The challenges posed by climate change, such as more intense storms, frequent heavy precipitation, heat waves, drought, extreme flooding, and higher sea levels, could significantly alter the types and magnitudes of hazards impacting states in the future"*, FEMA stated in its new State Mitigation Plan Review Guide⁹. By including climate change in the new hazard mitigation guide for state planners, FEMA recognizes the reality of climate change.

The chart to the right shows the increased frequency of Major Disaster Declarations and Emergency Declarations in the State of New Hampshire, which may indicate climate change.¹⁰ COVID-19 is indicated for the decade beginning in 2020.

Communities in New Hampshire, such as Campton, should become increasingly aware of climate change's effects on the hazards already being experienced and anticipate an increase in probability in the future.



HAZARD PROBABILITY COMBINED WITH LONG TERM UTILITY OUTAGE

Any potential disaster in Campton is particularly impactful if combined with a long-term utility outage, as would most likely be the case with severe winter storms, blizzards and ice storms, hurricanes, tropical storms and windstorms. The food supply of individual citizens could become quickly depleted should a power failure last for a week or more. During the winter months, an outage could result in frozen pipes and the lack of water and heat, a particular concern for the town's elderly and vulnerable citizens. When combined with a long-term utility outage, the effects of any hazard could result in a higher probability of damaging effects on the community.

⁹ State Mitigation Pan Review Guide, FEMA, Released March 2015, Effective March 2016, Section 3.2, page 13

¹⁰ Derived from FEMA's record of disasters; categorized by decade since 1970 by the planner; 2020-2029 includes COVID-19

TABLE 3.1: HAZARD IDENTIFICATION & RISK ASSESSMENT (HIRA)

Table 3.1 - Hazard Identification & Risk Assessment (HIRA)							
Scoring for Probability (Columns A, B & C)	Column A	Column B	Column C	Column D	Column E (A+B+C)/3	Column F D x E	Column G Risk
1=Very Low (0-20%)	What is the probability of death or injury?	What is the probability of physical losses & damage?	What is the probability of interruption of service?	What is the probability of this occurring within 25 years?	Average of Human, Property & Business Impact	Relative Threat	High 9-17 Medium 5-8.9
2=Low (21-40%)							
3=Moderate (41-60%)							
4=High (61-80%)	Human Impact	Property Impact	Business Impact	Probability of Occurrence	Severity	Risk Severity x Occurrence	Low 0-4.9
5=Very High (81-100%)							
Natural Hazards							
1) Severe Winter Weather	3.00	4.00	3.00	5.00	3.33	16.67	High
2) High Wind Events	2.00	4.00	3.00	5.00	3.00	15.00	High
3) Inland Flooding	2.00	4.00	3.00	5.00	3.00	15.00	High
4) Extreme Temperatures	2.00	3.00	2.00	5.00	2.33	11.67	High
5) Tropical & Post-Tropical Cyclones	3.00	3.00	3.00	3.00	3.00	9.00	High
6) Lightning	5.00	3.00	3.00	2.00	3.67	7.33	Medium
7) Wildfires	3.00	3.00	2.00	2.00	2.67	5.33	Medium
8) Earthquakes	4.00	4.00	4.00	1.00	4.00	4.00	Low
9) Infectious Diseases	4.00	1.00	3.00	1.00	2.67	2.67	Low
10) Drought	1.00	2.00	1.00	1.00	1.33	1.33	Low
Technological Hazards							
1) Long Term Utility Outage	2.00	2.00	3.00	5.00	2.33	11.67	High
2) Aging Infrastructure	2.00	4.00	1.00	4.00	2.33	9.33	High
3) Dam Failure	4.00	4.00	4.00	1.00	4.00	4.00	Low
4) Hazardous Materials	3.00	3.00	3.00	1.00	3.00	3.00	Low
5) Conflagration	3.00	5.00	1.00	1.00	3.00	3.00	Low
Human-Caused Hazards							
1) Mass Casualty Incidents	4.00	2.00	2.00	3.00	2.67	8.00	Medium
2) Cyber Events	1.00	1.00	3.00	4.00	1.67	6.67	Medium
3) Terrorism & Violence	4.00	4.00	4.00	1.00	4.00	4.00	Low
4) Transport Accidents	4.00	3.00	2.00	1.00	3.00	3.00	Low

D. NATIONAL FLOOD INSURANCE PROGRAM (NFIP) STATUS

Campton has been a member of the National Flood Insurance Program (NFIP) since April 2, 1986. Campton has approximately 3.9 miles of land in the 100-year floodplain, .06 square miles of which is inland water¹¹. Campton's floodplain areas are primarily along the Pemigewasset River, the Mad River and the Beebe River; there are other small streams and brooks throughout the town that may also experience flooding. The latest Flood Insurance Rate Studies (FIRS) and Digital Flood Insurance Rate Maps (DFIRMS) are dated February 20, 2008.

According to the New Hampshire Office Strategic Initiatives, there are ten NFIP residential policies in effect in Campton for a total of \$2,204,700 of insurance in force. Twenty-six losses have been paid for a total of \$392,245. There have been 18 repetitive losses claimed for a total of \$323,917 for three buildings, all of which are single-family units¹². Action Item #31 in this plan addresses several homes on Canoe Run that have been repeatedly flooded.

The floodplain is discussed in the Town of Campton Zoning Ordinance¹³, Article III, Zoning Districts, Sections D and H. Section D states, *"This zone shall consist of all lands designated as flood hazard areas by the Federal Emergency Management Agency on the Flood Plain Hazard Boundary Map of the Town of Campton, dated February 20, 2008, as amended, which is declared to be part of this Ordinance."* Section H details the definitions and other requirements for the flood plain zone. In March 2007, Section H replaced the flood plain zone amendments in Article IV, Section I.

A brief synopsis of each element included in Article III, H. Flood Plain Zone is below; items in *italics* are taken directly from the Zoning Ordinance:

- **Item I-Definition of Terms:** includes the definition of a "Special flood hazard area".
- **Item II, Permits:** requires a permit for all proposed development in a special flood hazard zone.
- **Item III, Permit Review:** requires a review of all building applications by the Board of Selectmen *"to determine whether proposed building sites will be reasonably safe from flooding..."* Item III goes on to discuss design and construction requirements to prevent flood damage.
- **Item IV, Water and Sewer Systems:** requires *"assurances that these systems will be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems in floodwaters...to avoid impairment to them or contamination from them during periods of flooding."*



In 1968, although well-intentioned government flood initiatives were already in place, Congress established the National Flood Insurance Program (NFIP) to address both the need for flood insurance and the need to lessen the devastating consequences of flooding. The goals of the program are twofold: to protect communities from potential flood damage through floodplain management, and to provide people with flood insurance.

For decades, the NFIP has been offering flood insurance to homeowners, renters and business owners, with the one condition that their communities adopt and enforce measures to help reduce the consequences of flooding.

Source:
http://www.floodsmart.gov/floodsmart/pages/about/nfip_overview.isp

¹¹ GIS Analysis of Grafton County DFIRM (Digital Flood Insurance Rate Map)

¹² NH Office of Strategic Initiatives; Jennifer Gilbert, February 8, 2018

¹³ Town of Campton Zoning Ordinance, Adopted February, 1974, Amended, March 8, 1988, Most recent amendment, March 2018

- **Item V, New Structures:** requires the applicant to provide the Board of Selectmen with the "as-built elevation" and "certification of flood-proofing".
- **Item VI, Approved Permits:** states that "all necessary permits have been received from those governmental agencies from which approval is required..." before granting a building permit.
- **Item VII, Watercourse Course Alteration:** details requirements for building in riverine situations and states, "No encroachments, including fill, new construction, substantial improvements and other development are allowed within the floodway that would result in any increase in flood levels within the community during the base flood discharge."
- **Item VIII, One Hundred Year Flood Plain Zone:** details the use of 100-year flood elevation data and the requirements for new construction or substantial improvement for residential, non-residential, manufactured homes and recreational vehicles within Zone A.
- **Item IX, Variances and Appeals:** details the appeals process through the Zoning Board of Adjustment and in section 5, states that the "Flood Insurance Study for the County of Grafton, NH" dated 2/20/08, together with the associated Flood Insurance Rate Maps dated 2/20/08, are declared to be part of the Town of Campton's Zoning Ordinance and hereby incorporated by reference."

Severe Repetitive Loss (SRL) Properties--NFIP- insured buildings that, on the basis of paid flood losses since 1978, meet either of the loss criteria described on page SRL 1. SRL properties with policy effective dates of January 1, 2007, and later will be afforded coverage (new business or renewal) only through the NFIP Servicing Agent's Special Direct Facility so that they can be considered for possible mitigation activities.

Source: <http://www.fema.gov/national-flood-insurance-program/definitions#R>

Although not addressed in the floodplain ordinance, erosion from flooding, including road and culvert washouts, is a concern in Campton, although many of these problems have been mitigated. With any significant rainfall, particularly when combined with rapid snowmelt, roads, ditches and culverts within the town may become overwhelmed.

The Town of Campton, through Article III, Section H of the Zoning Ordinance and other best practices, complies with the National Flood Insurance Program requirements. The Campton Select Board, the Planning Board, and the hazard mitigation planning team are almost always aware of new construction or substantial improvements in town. The team also understands that the benefits of the NFIP extend to structures that are not in the 100-year floodplain. The town will continue to work with the NH Office of Strategic Planning (OSI) and carefully monitor its continued compliance with the NFIP.

The team felt that it is worthwhile to have NFIP brochures and information available at the Town Offices for current homeowners and potential developers (see *Table 9.1, The Mitigation Action Plan*).

Table 3.1, Table 3.2 and Chapter 5, Section B provide more information on past and potential hazards in Campton.

TABLE 3.2: HISTORIC HAZARD IDENTIFICATION

2014 HMPT = 2014 Hazard Mitigation Planning Team
2021 HMPT = 2021 Hazard Mitigation Planning Team

DR Major Disaster Declarations (DR) since 1953
EM Emergency Declarations (EM) since 1953

Table 3.2 includes the following sections:

- | | |
|--------------------------|--------------------------|
| A. Inland Flooding | E. Earthquakes |
| B. Wildfires | F. Drought |
| C. High Wind Events | G. Miscellaneous Hazards |
| D. Severe Winter Weather | H. Other Hazards |

Type of Event	Date of Event	Location	Description	Source
A. Inland flooding includes riverine flooding, heavy rainfall, rapid snowmelt, ice jam flooding, flooding due to dam failure & local road flooding: Riverine flooding is the most common disaster event in the State of NH. Significant riverine flooding in some areas of the state occurs in less than ten-year intervals and seems to be increasing with climate change. The entire State of NH has a high flood risk. Flood events have the potential to impact the community on a townwide basis. No significant flooding events have taken place in Campton since July 2019.				
Summary of flood events including Major Disaster & Emergency Flood Declarations in the state & regionwide				
Inland Flooding Before 1970	1927, 1936, 1938, 1943 (2), 1953, 1955, 1959		Spring and fall flooding events resulting from severe storms or heavy snowmelt	See below
Inland Flooding 1970-1979	1972 (DR-327), 1973 (DR-399), 1974 (DR-411), 1976, 1978 (DR-549), 1979 (EM-3073)			
Inland Flooding 1980-1989	1986 (DR-771), 1987 (DR-789)			
Inland Flooding 1990-1999	1990 (DR-876), 1991 (DR-923), 1991 (DR -917), 1995, 1996 (DR-1077), 1996 (DR-1144), 1998 (DR-1231)			
Inland Flooding 2000-2009	2003 (DR-1489), 2005 (DR-1610), 2006 (DR-1643), 2007 (DR-1695), 2008 (DR-1787), 2008 (DR-1799)			
Inland Flooding 2010 - Present	2010 (DR-1892), 2010 (DR-1913), 2011 (DR-4006), 2012 (DR-4065), 2013 (DR-4139), 2015 (DR-4206), 2017 (DR-4329), 2017 (DR-4355), 2018 (DR-4370)			
Detailed summary of flood events in the community				
Inland Flooding Heavy Rain	Past & Potential	Canoe Run Road (off Blair Road) off the Pemi	Building and private road damage in the floodplain	2008 HMPT 2021 HMPT
Inland Flooding Heavy Rain	Past & Potential	Bumps Intervale (Beebe River)	Road damage, covered bridge damage, impact on pasture	2008 HMPT 2021 HMPT
Inland Flooding Heavy Rain	Past & Potential	Turnpike Road	Road damage	2008 HMPT 2021 HMPT

Type of Event	Date of Event	Location	Description	Source
Inland Flooding Heavy Rain	Past & Potential	Branch Brook	Ice jams and regular seasonal flooding, homes and businesses impacted	2008 HMPT 2021 HMPT
Inland Flooding Heavy Rain	Past & Potential	The Woods (Elderly Housing)	State road damage impedes emergency vehicle access to S & SE Campton	2008 HMPT 2021 HMPT
Inland Flooding Heavy Rain	Past Annual Flooding	Spokesfield / Springhill intersection	Culvert washout caused road damage; this culvert has now been replaced with a new and larger culvert (no longer an issue)	2008 HMPT 2021 HMPT
Inland Flooding Heavy Rain	Past & Potential	Cook's corner	Ice jams (on Route 3 so of Blair Road 1.5 miles)	2008 HMPT 2021 HMPT
Inland Flooding Heavy Rain	Past	11-Aug	Tropical Storm Irene; see High Wind Events, Section C below	2014 HMPT
Inland Flooding Heavy Rain	July 29-August 10, 1986	Campton	Major Disaster Declaration DR-771: Holderness Road was underwater as a result of this rain event.	FEMA & 2021 HMPT
Inland Flooding Heavy Rain	March 30-April 11, 1987	Campton	Major Disaster Declaration DR-789: The "Great Flood"; Holderness Road was underwater due to this rain event.	FEMA & 2021 HMPT
Inland Flooding	2004	Brayman Road	Culvert washout caused road damage; this culvert has now been replaced with a new and larger culvert.	2008 HMPT 2021 HMPT
Inland Flooding Heavy Rain	October 7-18, 2005	Belknap, Cheshire, Grafton, Hillsborough, Merrimack & Sullivan	Major Disaster Declaration DR-1610: State and federal disaster assistance reached more than \$3 million to help residents and business owners in New Hampshire recover from losses resulting from the severe storms and flooding in October. Campton received heavy rain but no significant flooding or damage.	FEMA & 2021 HMPT
Inland Flooding Heavy Rain	May 12-23, 2006	Belknap, Carroll, Grafton, Hillsborough, Merrimack, Rockingham & Strafford	Major Disaster Declaration DR-1643: Flooding occurred during May 12-23, 2006. (aka Mother's Day Storm) Campton received heavy rain but no significant flooding or damage.	FEMA & 2021 HMPT
Inland Flooding Heavy Rain	April 15-23, 2007	All Ten NH Counties	Major Disaster Declaration DR-1695: FEMA & SBA obligated more than \$27.9 million in disaster aid for flood damages following the April nor'easter (aka Tax Day Storm). Campton received heavy rain, wind and fallen trees down, which caused power outages but no significant flooding or damage.	FEMA & 2021 HMPT

Type of Event	Date of Event	Location	Description	Source
Inland Flooding Heavy Rain & Tornado	July 24-August 14, 2008	Belknap, Carroll & Grafton & Coos	Major Declaration DR-1787: A period of severe storms and flooding for July 24-August 14, which also spawned a tornado on July 24, 2008. Campton received heavy rain but no significant flooding or damage, except on Chandler Hill Road, which experienced road washouts and closure.	FEMA & 2021 HMPT
Inland Flooding Heavy Rain	February 23 - March 3, 2010	Grafton, Hillsborough, Merrimack, Rockingham, Strafford & Sullivan	Major Disaster Declaration: DR-1892: Flood and wind damage occurred in southern NH, including six counties resulting in 330,000 homes without power. More than \$2 million was obligated by FEMA by June 2010. Campton received heavy rain but no significant flooding or damage.	FEMA & 2021 HMPT
Inland Flooding Heavy Rain	May 26-30, 2011	Coos & Grafton County	Major Disaster Declaration DR-4006: Flooding and hail occurred due to a severe storm on May 26th-30th 2011 in Coos & Grafton County (aka Memorial Day Weekend Storm). Campton received heavy rain but no significant flooding or damage.	FEMA & 2021 HMPT
Inland Flooding Tropical Storm Irene	August 26-September 6, 2011	EM 3333: All Ten NH Counties DR-4026: Carroll, Coos, Grafton, Merrimack, Belknap, Strafford, & Sullivan	Major Disaster Declaration DR-4026 & Emergency Declaration EM-3333: See below, Section C	FEMA 2014 HMPT 2021 HMPT
Inland Flooding Heavy Rain	July 9-10, 2013	Cheshire, Sullivan & Grafton	Major Emergency Declaration DR-4139: Severe storms, flooding, and landslides occurred from June 26 to July 3, 2013, in Cheshire and Sullivan Counties and southern Grafton County. Campton received heavy rain but no significant flooding or damage.	FEMA & 2021 HMPT
Inland Flooding Heavy Rain Long Term Utility Outages	July 1-2, 2017	Grafton & Coos	Major Disaster Declaration DR-4329: The Federal Emergency Management Agency (FEMA) announced that federal disaster assistance was available to supplement state and local recovery efforts in the areas affected by severe storms and flooding from July 1 through July 2, 2017, in two New Hampshire Counties. The July 2017 rain event was significant in Campton. Emergency responders performed water rescue at campgrounds, some property damage occurred at Branch Brook Campground, and a few travel trailers and cars received water damage. The Pemigewasset and Mad Rivers, as well as Branch Brook, flooded. Some roads in Campton washed out, including Cook Hill, Chandler Hill, Spring Hill, Spokesfield, Miclon Road, Eastern Corners, Page Road, Perch Pond Road and Puckerbrush Road. Power was out for up to five days in some areas. The town opened the EOC and the shelter, but nobody utilized the shelter. FEMA funding was provided to the town after the disaster.	FEMA 2021 HMPT

Type of Event	Date of Event	Location	Description	Source
Inland Flooding Heavy Rain Long Term Utility Outages	October 29-November 1, 2017	Sullivan, Grafton, Coos, Carroll, Belknap & Merrimack	Major Declaration, DR-4355: The Federal Emergency Management Agency (FEMA) announced that federal disaster assistance was available to supplement state and local recovery efforts in the areas affected by severe storms and flooding from October 29-November 1, 2017 in five New Hampshire Counties. Like the July 2017 rain event, Campton received significant damage during this rain event. Many of the same roads (Cook Hill, Chandler Hill, Spring Hill, Spokesfield, Miclon Road, Eastern Corners, Page Road, Perch Pond Road and Puckerbrush Road) that had washouts in July also experienced washouts in October. The town opened the shelter at the school and a "holding place" at the Town Offices. Beebe River Village and Six Flags Mobile Home Park were evacuated, and several people were rescued from Canoe Run. Power was out some for up to 5 days, including at Fire Station 3. FEMA money was received post-disaster.	FEMA & 2021 HMPT
Inland Flooding Heavy Rain	April 21, 2019	Bumps Intervale (Beebe River) & Canoe Road	Flooding occurs in the area of Bumps Intervale Road and Canoe Road virtually every time there is heavy rain. Flooding occurred to structures in this area on April 21, 2019; however, there was no personal injury and no calls regarding the amount, if any, of damage.	FEMA & 2021 HMPT
Inland Flooding Heavy Rain	July 11-12, 2019	Grafton	Major Disaster Declaration, DR 4457: The Federal Emergency Management Agency announced a major disaster declaration for a period of severe storms and flooding July 11-12, 2019, in Grafton County. In Campton, several road washouts in the western part of town occurred. FEMA provided \$28,431 in post-disaster funding.	FEMA & 2021 HMPT
B. Wildfires: New Hampshire is heavily forested and is therefore vulnerable to wildfire, particularly during periods of drought. The proximity of many populated areas to the state's forested land exposes these areas to wildfire's potential impact. Wildfires have the potential to impact the Jurisdiction on a townwide basis. No significant wildfire events have taken place in Campton since the prior hazard mitigation plan.				
Summary of wildfire events including Major Disaster & Emergency Wildfire Declarations in the state				
Wildfire (Shaw Mountain)	July 2, 1953	Carroll County	Major Disaster Declaration DR-11: This wildfire occurred in Carrol County at Shaw Mountain and did not reach Grafton County or Campton.	FEMA & 2021 HMPT
Wildfire (Bayle Mountain)	May 2015	Carroll County	The Bayle Mountain Fire: This Class D fire burned 275 acres and took five days to put out on rocky and steep terrain in Ossipee, NH. Blackhawk and private helicopters and fire crews from all over the state assisted in extinguishing this fire. The Bayle Mountain Fire did no damage to homes. This fire did not reach Grafton County or Campton.	Local Resources
Wildfire (Stoddard)	April 2016	Cheshire County	Fire Management Assistance Declaration, FM-5123: Stoddard, NH. The Stoddard Fire burned 190 acres in April 2016 and caused the evacuation of 17 homes; Class D fire. This fire did not reach Grafton County or Campton.	FEMA & 2021 HMPT

Type of Event	Date of Event	Location	Description	Source
Wildfire (Covered Bridge Fire)	November 2016	Carroll County	The Covered Bridge Fire: A brush fire near the Albany Covered Bridge grew to 329 acres, primarily on White Mountain National Forest land. No structures were lost; Class E fire. This fire did not reach Grafton County or Campton.	Local Resources
Wildfire (Dilly Cliff)	October 2017	Grafton	The Dilly Cliff Fire occurred along the Lost River Gorge Trail in North Woodstock (off Route 112, Lost River Road); Class C: Human-caused; 75 acres. The Dilly Cliff Fire was determined to be extinguished 36 days after it began. This fire did not reach Campton, but crews from Campton assisted with the fire.	Local Resources & 2021 HMPT
Detailed summary of wildfire events in the community				
Wildfire	March 2002- June 2007	Townwide	A total of 25 fires were listed in the 2008 HMP between March 2002 and June 2007. Of these, 9 were Class A fires (less than .25 acres), and 16 were Class B fires (25 acres to 10 acres). No fires greater than a Class B were reported. Causes of these fires included: arson (1), unattended or out-of-control brush fires (12), children with matches (7), unattended campfire (1), electric lines (1), improper ash disposal (2) and welding (1). The locations of these fires were townwide; however, at least five were on NH Route 175. No injuries, deaths or structure damage was reported in the 2008 plan. The number of reported fires by year is 2002(3), 2003 (3), 2004 (8), 2005 (4), 2006 (1), 2007 (5). For more detail, please refer to the Campton Hazard Mitigation Plan 2008.	2008 HMPT 2021 HMPT
Wildfire	April 2009	Waterville Estates	5 Acres; Woodstove ashes	2014 HMPT 2021 HMPT
Wildfire	July 2010	Route 3	Fireworks; 4 acres (Thornton)	2014 HMPT 2021 HMPT
Wildfire	June 8, 2014	Branch Brook Road	Class B: Combustion of compost pile; .5 acres	2021 HMPT
Wildfire	July 18, 2014	Back Street	Class B: Equipment fire; .25 acres	2021 HMPT
Wildfire	May 2, 2015	US Route 3	Class B: Fireworks; .5 acres	2021 HMPT
Wildfire	April 14, 2016	US Route 3	Class B: Equipment fire; .25 acres	2021 HMPT
Wildfire	April 25, 2016	Lower Beech Hill Road	Class B: Children; 1 acre	2021 HMPT
Wildfire	April 22, 2018	Ellsworth Hill Road	Class B: Debris burning; .25 acres	2021 HMPT

Type of Event	Date of Event	Location	Description	Source
C. High Wind Events including Tropical & Post-Tropical Cyclones, Tornadoes, Downbursts & Windstorms: Tornadoes are spawned by thunderstorms and occasionally hurricanes; tornadoes may occur singularly or in multiples. A downburst is a severe localized wind blasting down from a thunderstorm. Downburst activity is prevalent throughout NH and is becoming more common with climate change; most downbursts go unrecognized unless significant damage occurs. Hurricanes develop from tropical depressions that form off the coast of Africa. New Hampshire's exposure to direct and indirect impacts from hurricanes is real, but modest, compared to other states in New England. A hurricane that is downgraded to a Tropical Storm is more likely to impact New Hampshire. Tornadoes and other wind events have the potential to impact the community on a townwide basis. No significant high wind events have taken place in Campton since Tropical Storm Irene in 2011.				
Summary of high wind events & tropical & post-tropical cyclone events including Major Disaster & Emergency High Wind Declarations in the state & nationwide				
Tropical & Post-Tropical Cyclones	1804, 1869, 1938, 1944, 1954 (2), 1960, 1976, 1978, 1985, 1991 (DR-917), 1999 (DR-1305), 2005 (EM-3258), 2011 (EM-3333 & DR-4026), 2012 (EM-3360)		Number 4 (1938), Number 7 (1944), Carol (1954), Edna (1954), Donna (1960), Belle (1976), Amelia (1978), Gloria (1985), Bob (1991), Floyd (1999), Katrina (2005), Irene (2011), Sandy (2012)	See below
High Wind Events Tornadoes	1814, 1890, 1951, 1953, 1957, 1961, 1963, 2008 (DR-1782)		All listed tornadoes were reported as F2 tornadoes except for the June 1953 tornado, which was reported as an F3.	See below
Detailed summary of high wind & tropical & post-tropical cyclone events in the community				
Tropical & Post-Tropical Cyclone Great New England Hurricane	September 21, 1938	State & Regionwide	The Great New England Hurricane: Statewide, there were multiple deaths, and damages in NH were about \$12.3 million in 1938 dollars (about \$200 million now). Throughout New England, 20,000 structures were damaged and 26,000 automobiles, 6,000 boats and 325,000 sugar maples were lost. 80% of NH's residents lost power. Although there was no local recollection, it was expected that in Campton, the damage would have been similar to the rest of the state. (Source http://nhpr.org/post/75th-anniversary-new-englands-greatest-hurricane)	FEMA & 2021 HMPT
Tropical & Post-Tropical Cyclone Hurricanes Carol & Edna	August 31, 1954	State & Regionwide	Hurricanes Carol & Edna: Hurricane Carol resulted in an extensive number of trees blown down and large crop losses. Localized flooding and winds measuring over 100 mph also occurred. Hurricane Carol was followed by Hurricane Edna just 12 days later, which caused already weakened trees to fall. Although there was no local recollection, it was expected that in Campton, the damage would have been similar to the rest of the state. (Source: http://www.wmur.com/Timeline-History-Of-NH-Hurricanes/11861310)	FEMA & 2021 HMPT
Tropical & Post-Tropical Cyclone Hurricane Bob	August 18-20, 1991	State & Regionwide	Major Disaster Declaration DR-917: Heavy rain and strong winds occurred in Campton, but no significant flooding or damage.	FEMA & 2021 HMPT

Type of Event	Date of Event	Location	Description	Source
Tropical & Post-Tropical Cyclone Tropical Storm Floyd	September 16-18, 1999	Belknap, Cheshire & Grafton	Major Disaster Declaration DR-1305: The declaration covers damage to public property from the storm that spawned heavy rains, high winds and flooding over the period of September 16-18. Heavy rain and strong winds occurred in Campton but no significant flooding or damage.	FEMA & 2021 HMPT
Tropical & Post-Tropical Cyclone Hurricane Katrina (evacuation)	August 29-October 1, 2005	All Ten NH Counties	Major Emergency Declaration EM-3258: Assistance was provided to evacuees from the area struck by Hurricane Katrina and to provide emergency assistance to those areas beginning on August 29, 2005, and continuing. The president's action made Federal funding available to the state and all 10 New Hampshire counties. No evacuees or pets came to Campton.	FEMA & 2021 HMPT
High Wind Events High Wind Long Term Utility Outage	2007	Campton	A significant wind event in Campton in 2007 resulted in trees down, telephones out, power outages of up to 5 days.	2008 HMPT
Tropical & Post-Tropical Cyclone Tropical Storm Irene Long Term Utility Outage	August 26-September 6, 2011	EM 3333: All Ten NH Counties DR-4026: Carroll, Coos, Grafton, Merrimack, Belknap, Strafford, & Sullivan	Major Disaster Declaration DR-4026 & Emergency Declaration EM-3333: Tropical Storm Irene, August 26th-September 6, 2011, occurred in seven New Hampshire counties causing flood and wind damage. In addition, an Emergency Declaration was declared for all ten New Hampshire counties. Tropical Storm Irene caused concern on the Mad, the Pemigewasset and the Beebe Rivers. The storm caused the evacuation of 200 people from campgrounds and mobile home parks. The Campton Elementary School was cut off because of flooding on Route 175, a tree spiked through the historic Blair Covered Bridge and the Turkey Jim Covered Bridge was lost entirely. In addition, campers at Branch Brook Campground were stranded because of flood waters.	FEMA 2014 HMPT 2021 HMPT
Tropical & Post-Tropical Cyclone Hurricane Sandy	October 26-November 8, 2012	Belknap, Carroll, Coos, Grafton, Rockingham & Sullivan	Major Disaster Declaration DR-4095 & Emergency Declaration EM-3360: The declaration covers damage to property from the storm that spawned heavy rains, high winds, high tides and flooding over the period of October 26-November 8, 2012. Hurricane Sandy came ashore in NJ and brought high winds, power outages and heavy rain to six New Hampshire counties. Campton received heavy rain and significant wind but no flooding or wind damage occurred.	FEMA & 2021 HMPT
D. Severe Winter Weather including Nor'easters, Blizzards & Ice Storms: Severe winter weather in NH may include heavy snowstorms, blizzards, Nor'easters and ice storms, particularly at elevations over 1,000 feet above sea level. Generally speaking, NH will experience at least one of these hazards during any winter season, however most NH communities are well prepared for such hazards. Severe winter weather and ice storms have the potential to impact the community on a townwide basis. No significant winter weather events have taken place in Campton since March 13-14, 2018.				
Summary of severe winter weather events including Major Disaster & Emergency Severe Winter Weather Declarations in the state & regionwide				

Type of Event	Date of Event	Location	Description	Source
Severe Winter Weather Ice Storms	1942, 1969, 1970, 1979, 1991, 1998 (DR-1199), 2008 (DR-1812)		Major ice storms that have occurred causing major disruptions to power, transportation, public and private utilities.	FEMA & 2021 HMPT
Severe Winter Weather Snowstorms	1920, 1929, 1940, 1950, 1952, 1958 (2), 1960, 1961, 1969, 1978, 1982, 1993 (EM-3101), 2001 (EM-3166), 2003 (EM-3177), 2003 (EM-3193), 2004, 2005 (EM-3207), 2005 (EM-3208), 2005 (EM-3211), 2008 (EM-3297), 2009, 2011 (EM-3344 & DR-4049), 2013 (EM-1405), 2015 (DR-4209), 2017 (DR-4316), 2018 (DR-4371)		Major severe winter weather events marked by snowfalls exceeding 2' in parts of the state which resulted in disruptions to power and transportation systems.	FEMA & 2021 HMPT
Detailed summary of severe winter storm events in the community				
Severe Winter Weather Snowstorm	Winter of 1968-69	State & Regionwide	The winter of 1968-69 brought record amounts of snow to all of New Hampshire. Pinkham Notch at the base of Mount Washington recorded more than 75" of snowfall in a four-day period at the end of February 1969 in addition to snow that had already fallen in previous storms. All of NH experienced difficulty with snow removal because of the great depths that had fallen from December 1968 to April 1969. Heavy snow accumulation in Campton was handled by the Highway Department.	2021 HMPT
Severe Winter Weather High Winds, Tidal Surge, Coastal Flooding & Snow	February 16, 1978	State & Regionwide	Major Disaster Declaration DR-549: The Blizzard of '78, a regionwide Blizzard severely affecting southern New England, resulted in high accumulations of snow throughout all of New England and New Hampshire. Recorded accumulations show up to 28" in northeast New Hampshire, 25" in west central New Hampshire and 33" along coastal New Hampshire. This storm also brought hurricane-force winds which made this storm one of the more intense to occur this century across the northeastern United States. Heavy snow accumulation in Campton was handled by the Highway Department.	FEMA & 2021 HMPT
Severe Winter Weather Ice Storm Long Term Utility Outage	January 7-25, 1998	State & Regionwide	Major Disaster Declaration DR-1199: A significant ice storm struck nearly every part of the state with a more significant impact in northern communities and in areas over 1,000 feet above sea level; Campton and most of Northern New Hampshire was hit extremely hard by this storm; in Campton power outages, road closures and damage to homes.	FEMA 2014 HMPT 2021 HMPT
Severe Winter Weather Snowstorm	February 2, 2000	Campton	36" of snow overnight. Heavy snow accumulation in Campton was handled by the Highway Department.	FEMA & 2021 HMPT

Type of Event	Date of Event	Location	Description	Source
Severe Winter Weather Snowstorm	March 5-7, 2001	Cheshire, Coos, Grafton, Hillsborough, Merrimack, & Strafford	Emergency Declaration EM-3166: The emergency declaration covers jurisdictions with record and near-record snowfall from a late winter storm that occurred March 2001 and affected six New Hampshire counties. Heavy snow accumulation in Campton was handled by the Highway Department.	FEMA & 2021 HMPT
Severe Winter Weather Snowstorm	December 6-7, 2003	Belknap, Carroll, Cheshire, Coos, Grafton, Hillsborough, Merrimack & Sullivan	Emergency Declaration EM-3193: The emergency declaration covers jurisdictions with record and near-record snowfall that occurred over the period of December 6-7, 2003 and affected eight New Hampshire counties. Heavy snow accumulation in Campton was handled by the Highway Department.	FEMA & 2021 HMPT
Severe Winter Weather Snowstorms	January 22-23, 2005 February 10-11, 2005 March 11-12, 2005	EM-3208-002 (Jan, Feb & Mar): All Ten NH Counties EM-3207 (Jan): Nine Counties EM-3208 (Feb): Five Counties EM-3211 (Mar): Five Counties	Emergency Declaration EM 3208-002: The Federal Emergency Management Agency (FEMA) had obligated more than \$6.5 million to reimburse state and local governments in New Hampshire for costs incurred in three snowstorms that hit the state in 2005. The total aid for all three storms was \$6,892,023.87 (January: \$3,658,114.66; February: \$1,121,727.20; March: \$2,113,182.01). Emergency Declaration EM-3207: The total aid for the January storm was \$3,658,114.66 (Grafton: \$137,118.71; State of NH: \$1,107,426.59); Emergency Declaration EM-3208: The total aid for the February storm was \$1,121,727.20 (Grafton: \$213,539.52; State of NH: \$521,536.78). Emergency Declaration EM-3211: The total aid for the March storm was \$2,112,182.01 (Grafton County was not declared; State of NH: \$697,501.41). Heavy snow accumulation in Campton was handled by the Highway Department. However, there was a report that one building roof collapsed on Owl Street.	FEMA & 2021 HMPT
Severe Winter Weather Snowstorm & Ice Storm	December 11-23, 2008	All Ten NH Counties	Major Disaster Declaration DR-1812 & Emergency Declaration EM-3297: Damaging ice storm impacted the entire state including all 10 New Hampshire counties resulting in fallen trees and large-scale power outages. Nearly \$15 million in federal aid was been obligated by May 2009. The 2008 Ice Storm had no significant impact in Campton.	FEMA 2014 HMPT 2021 HMPT
Severe Winter Weather Snowstorm	October 29-30, 2011	DR-4049: Hillsborough & Rockingham EM-3344: All Ten NH Counties	Major Disaster Declaration DR-4049 & Emergency Declaration EM-3344: A severe winter storm occurred on October 29-30, 2011 in two New Hampshire counties. EM-3344: The emergency declaration for snow removal and damage repair included all ten NH countries. (aka: Snowtober) Heavy snow accumulation handled by the Highway Department.	FEMA & 2021 HMPT
Severe Winter Weather Snowstorm	February 8, 2013	All Ten NH Counties	Major Emergency Declaration DR-4105: Severe winter storm Nemo resulted in heavy snow in February 2013 in all ten New Hampshire counties. Heavy snow accumulation in Campton was handled by the Highway Department.	FEMA & 2021 HMPT

Type of Event	Date of Event	Location	Description	Source
Severe Winter Weather Snowstorm	March 14-15, 2017	Belknap & Carroll	Major Emergency Declaration DR-4316: A severe winter storm and snowstorm occurred in two New Hampshire counties resulting in disaster aid to supplement state and local recovery efforts. Although this "Town Meeting Day" declaration was not declared in Grafton County, heavy snow accumulation fell in Campton and was handled by the Highway Department. Town Meeting was held as usual.	FEMA & 2021 HMPT
Severe Winter Weather Snowstorm	March 13-14, 2018	Carroll, Strafford & Rockingham	Major Disaster Declaration, DR 4371: The Federal Emergency Management Agency announced a major disaster declaration on June 8, 2018 for a period of a severe winter storm from March 13-14, 2018. Although this "Town Meeting Day" declaration was not declared in Grafton County, heavy snow accumulation fell in Campton and was handled by the Highway Department. Town Meeting was held as usual.	FEMA & 2021 HMPT

E. Earthquakes: According to the NH State Hazard Mitigation Plan, New Hampshire is considered to lie in an area of "Moderate" seismic activity when compared to other areas of the United States. New Hampshire is bordered to the north and southwest by areas of "Major" activity. Generally, earthquakes in NH cause little or no damage and have not exceeded a magnitude of 5.5 since 1940. Earthquakes have the potential to impact the community on a townwide basis. No significant earthquakes have taken place in Campton since the last hazard mitigation plan.

Summary of Earthquakes with a magnitude of 4.0 or greater in the state & regionwide

Earthquakes	6/11/1638 (Central NH, 6.5), 10/29/1727 (Off Coastline, 6.0-6.3), 11/18/1755 (Off Coastline, 5.8), 11/10/1810 (Portsmouth, NH, 4.0), 7/23/1823 (Off Hampton, NH, 4.1), 12/19/1882 (Concord, NH, Unknown), 3/5/1905 (Lebanon, NH, Unknown), 8/30/1905 (Rockingham County, Unknown), 11/09/1925 (Ossipee, NH, 4.0), 3/18/1926 (New Ipswich, NH, Unknown), 11/10/1936 (Laconia, NH, Unknown), 12/20/1940 (Ossipee, NH, 5.5-5.8), 12/24/40 (Ossipee, NH, 5.5-5.8), 1/19/1982 (Laconia, NH, 4.0), 11/20/1988 (Berlin, NH, 4.0), 4/6/1989 (Berlin, NH, 4.1), 10/16/2012 (Hollis Center, ME, 4.0)	Occurrences of earthquakes with a magnitude of 4.0 or greater in recorded New Hampshire History	State of NH Multi-Hazard Mitigation Plan, Update 2018
-------------	--	---	---

Detailed summary of earthquakes that were felt in the community since 1940 with a magnitude of 3.0 or greater.

Earthquake	December 20, 1940	Ossipee, NH	Magnitude 5.5	State of NH Multi-Hazard Mitigation Plan,
Earthquake	December 24, 1940	Ossipee, NH	Magnitude 5.5	

Type of Event	Date of Event	Location	Description	Source
Earthquake	June 15, 1973	Quebec Border / NH	Magnitude 4.8	Update 2018 & 2014 HMPT & 2021 HMPT
Earthquake	January 19, 1982	West of Laconia, NH	Magnitude 4.5	
Earthquake	November 20, 1988	Berlin, NH	Magnitude 4.0	
Earthquake	April 6, 1989	Berlin, NH	Magnitude 4.1	
Earthquake	April 20, 2002	Plattsburgh, NY	Magnitude 5.1; felt in Campton, but no reported damage	
Earthquake	June 23, 2010	Ontario-Quebec Border	Magnitude 5.0	
Earthquake	June 26, 2010	Boscawen, NH	Magnitude 3.1	
Earthquake	October 16, 2012	Hollis Center, ME	Magnitude 4.0; felt in Campton, but no reported damage.	
F. Drought: Droughts are generally not as damaging or disruptive as floods and other hazards and they are more difficult to define. A drought is a natural hazard that evolves over months or even years and can last as long as several years to as short as a few months. According to the NH State Hazard Mitigation Plan, New Hampshire has a low probability, severity and overall risk for drought. Droughts have the potential to impact the community on a townwide basis. No significant droughts have occurred in Campton since the 2016 drought.				
Summary of Drought in the state & regionwide				
Drought	1775, 1840, 1882, 1910's, 1929-1936, 1939-1944, 1947-1950, 1960-1969, 1999; 2001-2002, 2016-2017		Occurrences of serious droughts in recorded New Hampshire history.	State of NH Multi-Hazard Mitigation Plan, Update 2018
Summary of Drought in the community since 1929				
Drought	1929-1936	State & Regionwide	Regional	State of NH Multi-Hazard Mitigation Plan, Update 2018 & 2021 HMPT
Drought	1939-1944	State & Regionwide	Severe in southeast and moderate elsewhere	
Drought	1947-1950	State & Regionwide	Moderate	
Drought	1960-1969	State & Regionwide	Regional longest recorded continuous spell of less than normal precipitation	
Drought	2001-2002	State & Regionwide	Third worst drought on record	
Drought	2016-2017	State & Regionwide	Declared drought for the summer of 2016 and into 2017, moderating from extreme in southern New Hampshire to dry in the most northern communities. The drought affected Campton with no known loss of dug wells or springs.	
Drought	2020	State & Regionwide	Declared drought for the summer of 2020, moderating from extreme in southern New Hampshire to dry in the most northern communities. The drought affected Campton with loss of some dug wells.	

Type of Event	Date of Event	Location	Description	Source
G. Miscellaneous Past or Potential Hazards: Natural, Technological and Human-caused hazards and other unusual hazardous events have been noted throughout New Hampshire. Among others, one concern is the transport of hazardous material through communities by rail and tractor-trailer. Other natural or human-caused hazards have the potential to impact the community on a townwide basis. No additional hazards have taken place in Campton since the hazard materials incident in 2016.				
Hazardous Materials	2008	Page Road	Propane gas leak; 2-story house leveled	HMPT 2014
Transport Accidents	January 2010	Interstate 93	Truck with home oxygen bottles (900) strewn all over the highway; no damage (Thornton)	HMPT 2014
Hazardous Materials	2016	Two Residences in Six Flags	Oil tanks at two residences in the Six Flags Mobile Home Park tipped over during spring thaw and burst open spilling contents. Clean Harbors was called in to do the cleanup.	HMPT 2021
Transport Accidents	April 2019	Interstate 93	Tractor trailer truck slid off 93 during snowstorm and punctured its fuel tank. Diesel fuel went into the Beebe River but was contained with "booms". Clean Harbors was called in to do the cleanup.	HMPT 2021
Infectious Disease	January 20, 2020 – ongoing	All Ten NH Counties	Major Disaster Declaration, DR-4516: The Federal Emergency Management Agency ("FEMA") within the US Department of Homeland Security is giving public notice of its intent to provide assistance to the State of New Hampshire, local and tribal governments, and certain private nonprofit organizations under the major disaster declaration issued by the president on April 3, 2020, as a result of the Coronavirus Disease 2019 ("COVID-19").	FEMA & 2021 HMPT
Infectious Disease	January 20, 2020 – ongoing	All Ten NH Counties	Emergency Declaration EM-3445: Ten county declaration to provide individual assistance and public assistance as a result of the impact of COVID-19	FEMA & 2021 HMPT
H. Other Hazards: Identified hazards with no specific example of occurrences since the last hazard mitigation plan. In addition, no dam breaches or failures at the only high hazard dam, the Campton Pond Dam, have occurred since the last hazard mitigation plan; the Campton Pond Dam, though threatened, held up to the flood waters of Tropical Storm Irene in 2011.				
Natural Hazards		Although the team did not identify specific examples or past occurrences of these hazards, it was felt worthwhile to list them as potential hazards to the town. These hazards have the potential to impact the community either locally or on a townwide basis. See Table 3.1, Hazard Threat Analysis and Chapter 5 for more details on these hazards.		
Extreme Temperatures				
Lightning				
Infectious Diseases				
Technological Hazards				
Aging Infrastructure				
Dam Failure				
Conflagration				
Human Caused				
Mass Casualty Incidents				
Cyber Events				

*Historic hazard events were derived from the following sources unless noted otherwise:

- Website for NH Disasters: <http://www3.gendisasters.com/mainlist/newhampshire/Tornadoes>
- FEMA Disaster Information: <http://www.fema.gov/disasters>
- The Tornado Project: <http://www.tornadoproject.com/alltorns/nhtorn.htm>
- The Tornado History Project: <http://www.tornadohistoryproject.com/>
- The Disaster Center (NH): <http://www.disastercenter.com/newhamp/tornado.html>
- EarthquakeTrack.com; <http://www.Earthquaketrack.com>

For more information on state and county-wide past events, see Major Disaster and Emergency Declarations, Appendix D, *NH Major & Emergency Declarations*.



Blair Covered Bridge over the Pemigewasset River
Photo Credit: MAPS

Chapter 4: Critical Infrastructure & Key Resources (CIKR)

With team discussion and brainstorming, Critical Infrastructure & Key Resources (CIKR) within Campton were identified. The Hazard Risk rating was based on a scale of 1-3 with 1 indicating little or no risk.

TABLE 4.1 - EMERGENCY RESPONSE FACILITIES (ERF) & EVACUATION

EMERGENCY RESPONSE FACILITIES (ERF)			
ERFs are primary facilities and resources that may be needed during an emergency response.			
Facility	Type of Facility	Hazard Risk	
Police Station & Town Offices (generator)	Emergency Operations Center; Town Records; Secondary Shelter	Terrorism & All Hazards	2
Fire Station (generator)	Fire, EMS, Ambulance	Terrorism & All Hazards	2
Station #3 (Blair) (generator this summer grant)	Fire Station (Secondary EOC)	All Hazards	1
Public Works Garage (portable generator)	Heavy Equipment; Plows; Diesel; Sand & Salt	All Hazards	1
Campton Elementary School (generator)	Primary Shelter	All Hazards	1
Helicopter LZ (Exit 28 off-ramp, southbound)	Helicopter Landing Zone	All Hazards	1
Helicopter LZ (NH DOT, Thornton-Exit 29)	Helicopter Landing Zone	All Hazards	1
Fire/EMS Radio Tower at Pegwood Hill (Waterville Estates) (stand-by generator)	Communications	Wind, Lightning, Wildfire, Ice Storm & All Hazards	2
Off Southmayd Road (Cell Tower)	Communications	Wind, Lightning, Wildfire Ice Storm & All Hazards	2
Off Bog Road (Radio Tower)	Communications	Wind, Lightning, Wildfire Ice Storm & All Hazards	2
Speare Memorial Hospital (Plymouth)	Health & Medical	All Hazards	1
Pemi-Baker Home Health (Plymouth)	Health & Medical	All Hazards	1
Durham Bus Services (Thornton)	Mass Transportation	All Hazards	1
Plymouth Police Department (Plymouth)	Communications Tower	Wind, Lightning, Wildfire Ice Storm & All Hazards	1
Dispatch Center (Lakes Region Dispatch—Laconia)	Communications	All Hazards	1
Evacuation Routes			
Primary: I—93 (North/South)	Primary Evacuation Route	Flooding & All Hazards	2
Route 49 (East – West)/Primary for Waterville Valley	Primary Evacuation Route	Flooding & All Hazards	2
Route 3 (North/South)	Primary Evacuation Route	Flooding & All Hazards	2
Route 175 (North/South)	Primary Evacuation Route	Flooding & All Hazards	2
Ellsworth Hill Road (East/West)/Primary for Ellsworth	Secondary Evacuation Route (Seasonal through route)	Flooding & All Hazards	1

EMERGENCY RESPONSE FACILITIES (ERF)			
ERFs are primary facilities and resources that may be needed during an emergency response.			
Facility	Type of Facility	Hazard Risk	
Bridges & Culverts on Evacuation Routes			
Bridge near Chesley's Route 3	Bridge on Evac Route	Flooding & All Hazards	2
Bridge on Ellsworth Hill Road	Bridge on Evac Route	Flooding & All Hazards	2
Bridge at Wishman Hill, Route 175 x Beebe River	Bridge on Evac Route	Flooding & All Hazards	2
Route 175 to Route 49	Bridge on Evac Route	Flooding & All Hazards	2
Bridge Near Persons Concrete, Route 49	Bridge on Evac Route	Flooding & All Hazards	2
(N to S) I-93: Campton/ (Thornton)	Bridge on Evac Route	Flooding & All Hazards	2
Owl Street Overpass Interstate 93	Bridge on Evac Route	Flooding & All Hazards	2
Exit 28/Route 49 Overpass 93	Bridge on Evac Route	Flooding & All Hazards	2
Bridge at Exit 27	Bridge on Evac Route	Flooding & All Hazards	2
Beaver Brook Bridge at I-93	Bridge on Evac Route	Flooding & All Hazards	2
Eastern Corner Road	Bridge on Evac Route	Flooding & All Hazards	2
Perch Pond Road – ¼ miles east of Page Road	Bridge on Evac Route	Flooding & All Hazards	2
Culvert that crosses Winter Brook on Route 175	Culvert on Evac Route	Flooding & All Hazards	2
Culvert by Cascade Lodge on Ellsworth Hill Road	Culvert on Evac Route	Flooding & All Hazards	2
Dams			
Campton Pond Dam Mad River Power Associates	High Hazard Hydro Dam	Flooding & All Hazards	2
Campton Bog Dam	Low Hazard Dam	Flooding & All Hazards	1
Locke 1 Dam	Low Hazard Dam	Flooding & All Hazards	1
Locke 2 Dam	Low Hazard Dam	Flooding & All Hazards	1
Deer Run Pond Dam	Low Hazard Dam	Flooding & All Hazards	1
Beebe River Dam	Non-Menacing Dam	Flooding & All Hazards	1

EMERGENCY RESPONSE FACILITIES (ERF)			
ERFs are primary facilities and resources that may be needed during an emergency response.			
Facility	Type of Facility	Hazard Risk	
Perch Pond Dam	Non-Menacing Dam	Flooding & All Hazards	1
Farm Pond Dam	Non-Menacing Dam	Flooding & All Hazards	1
Winter Brook Dam	Non-Menacing Dam	Flooding & All Hazards	1
Meadowloft Dam	Non-Menacing Dam	Flooding & All Hazards	1
ENID STARR RECREATION POND DAM	Non-Menacing Dam	Flooding & All Hazards	1
Owls Nest GC Pond A1 Dam	Non-Menacing Dam	Flooding & All Hazards	1
Owls Nest GC Pond A4 Dam	Non-Menacing Dam	Flooding & All Hazards	1
Owls Nest GC Pond A5 Dam	Non-Menacing Dam	Flooding & All Hazards	1
Owls Nest GC Pond A6 Dam	Non-Menacing Dam	Flooding & All Hazards	1
Owls Nest GC Pond A7 Dam	Non-Menacing Dam	Flooding & All Hazards	1
Owls Nest GC Pond C1A Dam	Non-Menacing Dam	Flooding & All Hazards	1
Owls Nest GC Pond C1 Dam	Non-Menacing Dam	Flooding & All Hazards	1
Beebe River Waste Lagoons	Non-Menacing Dam	Flooding & All Hazards	1
Mason Road Pond Dam	Non-Menacing Dam	Flooding & All Hazards	1

TABLE 4.2 – NON-EMERGENCY RESPONSE FACILITIES (NERF)

NON-EMERGENCY RESPONSE FACILITIES (NERF)			
NERF'S are facilities, that although they are critical, they are not necessary for the immediate emergency response efforts. This would include facilities to protect public health and safety and to provide backup emergency facilities.			
Facility	Type of Facility	Hazard Risk	
Baptist Church	Possible shelter	All Hazards	1
Congregational Church	Possible shelter	All Hazards	1
Telephone Switch Station/Owl Street	Switching Station	All Hazards	1
Campton Village District Water Supply Pumping Station (Vintinner Road)	Water Supply (Pump Station)	Flooding & All Hazards	2
Waterville Estates Water District; Pegwood Hill (300,000); several sites are located at WVE	Water Supply	All Hazards	1

NON-EMERGENCY RESPONSE FACILITIES (NERF)			
NERF'S are facilities, that although they are critical, they are not necessary for the immediate emergency response efforts. This would include facilities to protect public health and safety and to provide backup emergency facilities.			
Facility	Type of Facility	Hazard Risk	
Well at Beebe River (Beebe Water Supply)	Water Supply	Flooding & All Hazards	2
Beebe River Septic System	Waste Water Infrastructure (Treatment)	Flooding & All Hazards	2
NH Electric Co-op & Eversource Substation (at Town line Campton-Holderness)	Electric Substation	All Hazards	1
Water Tank (150,000 gal)/Campton Village District Water Storage (Off Mad River Road, Thornton)	Water Supply (Well)	All Hazards	1
Eversource Substation (Route 175, Thornton)	Electric Substation	All Hazards	1
Mid-State Health (Plymouth)	Health & Medical	All Hazards	1
NH Electric Co-op Substation (Thornton Route 3)	Electric Substation	All Hazards	1

TABLE 4.3 – FACILITIES & POPULATIONS TO PROTECT (FPP)

FACILITIES & PEOPLE TO PROTECT (FPP)			
FPPs are facilities that need to be protected because of their importance to the town and to residents who may need help during a hazardous event.			
Facility	Type of Facility	Hazard Risk	
Campton Elementary School	School Children & Preschool	All Hazards	1
Beckett House (two sites)	Residential School/At risk students	All Hazards	1
Montessori School (Southmayd Road)	Preschool	All Hazards	1
Te-lo-ca (Telcoa Road)	Preschool	All Hazards	1
Baptist Church	Preschool, Homeless Housing, Historic & Gathering of People	All Hazards	1
Congregational	Gathering of People	All Hazards	1
Campton Commons; Owl Street	Low Income Elderly Housing	All Hazards	1
The Woods (Retirement Community) (Route 175)	Retirement Community	Flooding & All Hazards	2
Blair Bridge Covered Bridge	Historic Significance (NH Registry)	Fire, Flooding & All Hazards	3
Bumps Bridge (Covered Bridge)	Historic Significance	Fire, Flooding & All Hazards	3
Historical Society Building/Campton Town House (Route 175)	Historic Significance (NH Registry)	All Hazards	1
Livermore Falls (Historical Factory Site)	Historic Significance	All Hazards	1
School House (Livermore)	Historic Significance	All Hazards & Inland Flooding	1
School House (Route 3)	Historic Significance	All Hazards	1
Little Red School House (Route 3)	Historic Significance	All Hazards	1

FACILITIES & PEOPLE TO PROTECT (FPP)			
FPPs are facilities that need to be protected because of their importance to the town and to residents who may need help during a hazardous event.			
Facility	Type of Facility	Hazard Risk	
School House on Route 175 and Perch Pond Road	Historic Significance	All Hazards	1
Village School (Town Offices, Route 175)	Historic Significance	All Hazards	1
Blair Cemetery (back end near river)	Historic Significance	All Hazards	1
Branch Brook Campground	Campground/Population	Flooding & All Hazards	3
Six Flags	Mobile Home Parks	Flooding & All Hazards	3
Mountain Vista Mobile Home Park	Mobile Home Parks	Flooding & All Hazards	3
Norman & Marion Perry House (Ellsworth Hill Road)	Historic (NH & National Registries)	All Hazards	1
Chesley's Mobile Home Park	Mobile Home Parks	Flooding & All Hazards	2
Livermore Mobile Home Park	Mobile Home Parks	All Hazards	1
Waterville Estates Community Center	Concentration of People	All Hazards	1

TABLE 4.4 – POTENTIAL RESOURCES (PR)

POTENTIAL RESOURCES (PR)			
PRs are potential resources that could be helpful for emergency response in the case of a hazardous event.			
Campton Cupboard	Food & Water	All Hazards	1
Chesley's (Route 3) (Gas & Diesel Fuel As well)	Food & Water & Gas & Diesel	All Hazards	1
Mad River Tavern	Food & Water	All Hazards	1
Sunset Grill	Food & Water	All Hazards	1
Covered Bridge Farm Table	Food & Water	Flood	2
Durham Bus Service (Route 3) Thornton	Busses	All Hazards	1
Dollar General	Food & Water	All Hazards	1
Day's Inn	Lodging	All Hazards	1
White Mountain Propane (Route 3)	Propane	All Hazards	1
Mobil at Exit 28	Gas	All Hazards	1
Gulf Oil at Exit 28	Gas	All Hazards	1
Andrew's Construction	Heavy Equipment	All Hazards	1
Handy Man Hardware	Building materials	All Hazards	1
LE Johnston Construction and Gravel	Heavy Equipment	All Hazards	1
Cargill Construction (Building Trades)	Building Trades	All Hazards	1
NH DOT Shed (Thornton, Route 3)	Diesel & Gas	All Hazards	1
For additional resources, please refer to the Resource Inventory List in the 2015 Campton-Ellsworth Emergency Operations Plan.			

THIS PAGE INTENTIONALLY LEFT BLANK

Chapter 5: Hazard Effects in Campton

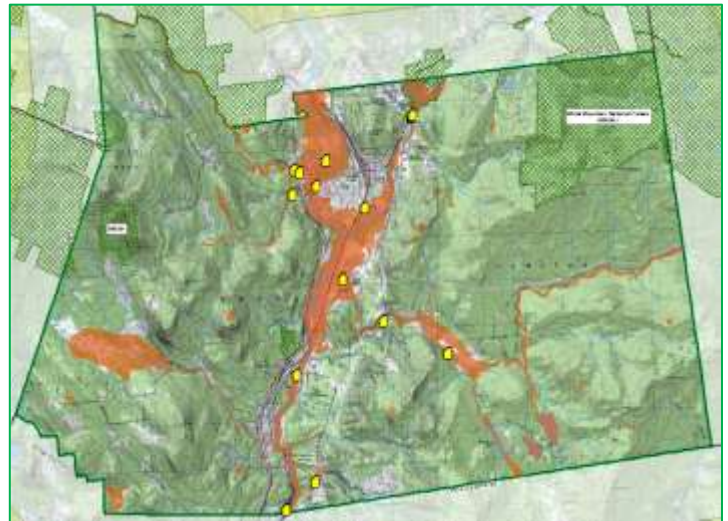
A. IDENTIFYING VULNERABLE CRITICAL INFRASTRUCTURE & KEY RESOURCES (CIKR)

Because damages from floods and wildfires are more predictable than damages from other disasters, it is essential to identify the Critical Facilities & Key Resources (CIKR) that are most likely to be damaged by these events.

The Flood Risk to CIKR

Campton's CIKR were identified and listed in Chapter 4; each of these CIKR was analyzed for their potential for flooding. This analysis and available GIS data indicate that Campton's primary CIKR, the Town Offices, the Police and Fire Stations, the Elementary School and the Highway Garage are not located in the 100-year floodplain. However, as shown in the table and map to the right, several other CIKR (yellow houses) are located in the floodplain (red shading). Many of these are expected to be at or near water, including five bridges, two covered bridges and two dams. The town's water supply pumping station, the Branch Brook Campground, Livermore Falls, the historic schoolhouse in Livermore and two mobile home parks are also in the FEMA floodplain. Also listed in Table 4.1, but not listed in the table above, is one additional mobile home park, Six Flags, which is at risk for flooding. All of these at-risk CIKR should be closely monitored during a significant flooding event.

ALL	H	NAME	Hazmit_Type
ERFB		Route 175 to Route 49 (Bridge)	Bridge on Evac
ERFB		Bridge Rt 49 (Persons Concrete)	Evac Bridge
ERFB		Bridge/Ellsworth Hill Rd	Evac Bridge
ERFB		Bridge near Chesley's	Evac Bridge
ERFB		175 Bridge/Beebe River	Evac Bridge
ERFD		Campton Dam	Dam
FPP		Branch Brook Campground	Campground
FPP		Blair Bridge (Historic Covered Bridge)	Historic
FPP		Bumps Bridge (Covered Bridge)	Historic
FPP		Livermore Falls (Historical Factory Site)	Historic
FPP		School House - Livermore	Historic
FPP		Chesley's MHP	Mobile Home Park
FPP		Mountain Vista MHP	Mobile Home Park
NERF		Town Water Supply Pumping Station (Vintinner Rd)	Water Supply
NERF		Mad River Associates	Hydro Dam



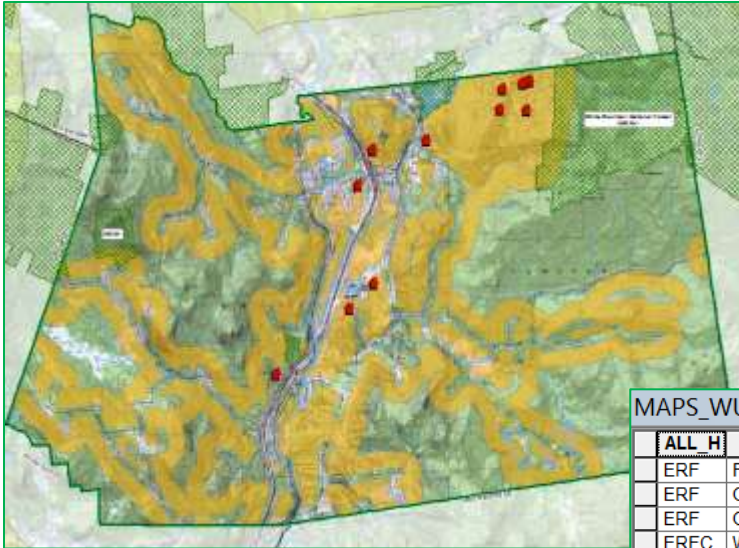
No additional CIKR were found to be in the designated FEMA floodplain, although it is expected that there may be non-CIKR structures within the flood zone. Although the floodplain is primarily along rivers and within swampy areas, town officials should keep all at-risk properties in mind when a flood hazard is likely.

The Wildfire Risk to CIKR

CIKR falling within the Wildland Urban Interface (WUI) were reviewed and identified; identifying these facilities helped the team create and prioritize wildfire mitigation action items. It is essential to determine which Critical Infrastructure & Key Resources are most vulnerable to wildfires.

Several of Campton's CIKR were found in the traditional WUI. However, the town's primary CIKR were within the 300-foot WUI buffer of roadways, therefore accessible by fire apparatus and hoses (see WUI methodology in Section C, Item 7, Wildfire, in this chapter).

It appears that the areas most susceptible to wildfires and which should be monitored closely by town officials are The Woods (retirement community) and Waterville Estates in the northeast corner of the town (where the WUI has been altered). However, many other Campton structures could be subject to wildfire, particularly in neighborhoods with limited egress and a canopy of old-growth trees. Therefore, all structures in town can be assumed to be in the WUI.



The Wildland Urban Interface (WUI) indicated by orange symbology
At risk CIKR indicated by small red houses

MAPS_WUIStructures			
ALL H	NAME	Hazmit_Type	
ERF	Fire/EMS Radio Tower at Pegwood Hill	Communications	
ERF	Off Southmayd Rd (Cell Tower)	Communications	
ERF	Off Bog Road (Cell Tower)	Communications	
ERFC	Winter Brook Culvert (36")	Culvert on Evac	
ERFD	Waterville Estates Dam	Dam	
ERFD	WVE CC Pond Dam	Dam	
FPP	The Woods (Retirement Comm) Rt. 175	Retirement Community	
FPP	WE Community Center	Concentration of People	
NERF	Well at Beebe River (Beebe Water District Supply)	Water Supply	
NERF	Beebe River Septic System	Waste Water	
NERF	WE Water District/Pegwood	Water Supply	
PR	LE Johnston Construction	Heavy Equipment	

B. CALCULATING THE POTENTIAL LOSS

It is difficult to ascertain the amount of damage that could be caused by hazards because the damage will depend on the hazard's extent and severity, making each hazard event somewhat unique. Therefore, we have assumed that hazards could result in damage to 0-1% or 1-5% of the town's structures. Structure damage is dependent upon the nature of the hazard and whether or not the impact is localized.

MS-1 Assessed Value of All Structures			
2018-MS1	Value	1% Damage	5% Damage
Residential	\$230,860,201	\$2,308,602	\$11,543,010
Manufactured Housing	\$8,346,200	\$83,462	\$417,310
Commercial	\$19,576,600	\$195,766	\$978,830
Tax Exempt	\$11,564,400	\$115,644	\$578,220
Utilities	\$11,380,600	\$113,806	\$569,030
Total	\$281,728,001	\$2,817,280	\$14,086,400
Campton 2018 Town Report			

This plan assumes that the potential loss from the identified natural hazards would range from **\$0 to \$2,817,280** or **\$2,817,280 to \$14,086,400**, based on the 2018 MS1 total structure value of **\$281,728,001**. (See chart above)

Human loss of life was not included in the potential loss estimates but could be expected to occur depending on the severity and type of the hazard. Although descriptions are given for technological and human-caused hazards, no potential loss estimates for these hazards are provided in this plan.

C. NATURAL HAZARDS

Descriptions below represent the “**local impact**” to the community for the hazards that were identified by the team. The “**extent**” of these hazards is shown in *Appendix C, The Extent of Hazards*. Charts such as the Saffir-Simpson Hurricane Wind Scale, the Beaufort Wind Scale, the National Weather Service Heat Index, the Sperry-Piltz Ice Accumulation Index and the Enhanced Fujita Scale for tornadoes are included in Appendix C.

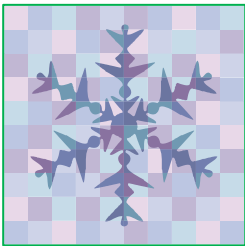
Table 3.1, The Hazard Identification & Risk Assessment (HIRA), is used to evaluate the probability and the potential impact of all hazards.

The “Hazard Identification & Risk Assessment (HIRA)” and the “Probability” noted for each hazard below, are taken from analysis done in *Table 3.1, Hazard Identification & Risk Assessment (HIRA)*. The numbers preceding the hazard name in this section correspond to the numbers in Table 3.1 and are ordered by “Relative Threat”. The estimated loss is determined using the methodology and table that are explained in Section B of this chapter.

1) SEVERE WINTER WEATHER

Hazard Identification & Risk Assessment (HIRA) High
 Probability Very High
 Estimated Structure Loss Value \$2,817,280 to \$14,086,400

Snowstorms, Blizzards & Nor’easters



Heavy snowstorms typically occur from December through April. New England usually experiences at least one or two heavy snowstorms with varying degrees of severity each year. Power outages, extreme cold and impacts on infrastructure are all effects of winter storms that have been felt in Campton in the past. These impacts are a risk to the community, including isolation, especially of the elderly (17.9% of the population) and other vulnerable populations. The ability to get in and out of town and emergency service access can be hindered. Damage caused by severe winter snowstorms varies according to wind velocity, snow accumulation, duration and moisture content. Seasonal accumulation can also be as significant as an individual snowstorm. Heavy overall winter accumulations can impact the roof-load of some buildings. Significant snowstorms, nor’easters and blizzards could diminish food supplies within two days.

In 2005 a series of severe snowstorms in January, February and March dumped heavy snow on Campton. The Highway Department was able to handle the accumulation, but there was one roof collapse on Owl Street. More recently, in both March 2017 and March 2018, snowstorms with unusually high spring accumulation received Major Disaster Declarations (DR-4316 and DR-4371). In both cases, the scheduled Town Meeting was held, and voting continued. The 2017 storm dropped 18-20 inches of snow, and the 2018 storm dropped 27 inches. The Highway Department handled the heavy snow accumulation.

Although Campton’s road crew generally handles usual snow amounts without difficulty, Campton’s roads are often impacted by poor weather conditions, and, this combined with heavy traffic on Campton’s roads, can make travel difficult. The geography of Campton is such that mountain storms often threaten the community; poor road conditions may hinder fire and other emergency response.

Ice Storms

Of more concern in Campton than 2-4' snowstorms are ice storms, though the probability of the occurrence of a significant ice storm is lower than that of a significant snowstorm. A significant ice storm can inflict several million dollars of damage to forests and structures. Unlike typical snowstorms that are generally handled well by the Highway Department, ice storms present significant problems. Downed power lines and fallen trees make it difficult for the Highway Department and emergency responders. School buses are also at risk.

In Campton, significant damage occurred during the 1998 ice storm mostly on Cook Hill Road and at Waterville Estates. There was significant damage to the higher elevations of Campton causing ice on trees, downed power lines, closed roads, limited EMS access and power outages. The 2008 ice storm and the 2010 ice storm did not affect Campton like the 1998 ice storm did. Due to the widespread nature of severe winter weather, particularly from ice storms, the potential loss value is estimated to be between 1% and 5% of the total assessed value of all structures in town.

2) HIGH WIND EVENTS

Hazard Identification & Risk Assessment (HIRA)	High
Probability	Very High
Estimated Structure Loss Value	\$0 to \$2,817,280

Isolated High Wind Events

Isolated high winds and downdrafts often occur in Campton. These wind events are unpredictable and could fall timber, which in turn could block roadways, down power lines and impair emergency response. Old-growth softwood is affected by these unexpected windstorms, particularly in the spring, when the water table is high. As with other wind events, the emergency response could be difficult.

Due to the geographic location of Campton and its location in the White Mountains of New Hampshire, isolated high winds are common occurrences within the town. Wind tends swoop down the mountain sides creating "wind tunnels" or winds follow the Pemigewasset River as it meanders through the town. High winds have brought down trees and power lines and have caused power failures and road closures. Gusts of over 30 mph are not uncommon in the Town of Campton.

Tornadoes & Downbursts

The most significant difference between tornadoes, microbursts and macrobursts is the direction, size and location that the wind comes from, but all can cause significant damage. A tornado generally covers a large area, perhaps even several miles. It has winds that blow in a circular fashion leaving behind downed trees that lie in a swirling pattern. Straight-line winds and winds that burst downward are indicative of a microburst; the fallen trees that are left behind lay in roughly the same direction. A microburst must be 2.5 miles in width or less, whereas a macroburst is a similar wind event that is greater than 2.5 miles wide and generally lasts longer than a microburst.

In Campton, a microburst would be more likely than a tornado. Microbursts are becoming more frequent and often result in damage. Campton has experienced high wind events in the past that may have been microbursts, but the National Weather Service did not provide this official designation.

Although the incidence of downbursts is becoming more common, damaging high wind events are relatively uncommon natural hazards in New Hampshire. On average, only about six tornadoes touch down each year. Damage from high wind events largely depends on where the hazard strikes. If a high wind event were to strike a densely populated or commercial area, the impact could be significant and could result in personal injury and property damage. Based on the rareness of tornadoes and the localized nature of downbursts, the potential loss value was determined to be between 0% and 1% of the total structure value.

3) INLAND FLOODING

Hazard Identification & Risk Assessment (HIRA) High
 Probability Very High
 Estimated Structure Loss Value \$2,817,280 to \$14,086,400

100-Year Flood Events, Riverine Flooding & Ice Jams

Riverine flooding and 100-year flood events can occur as result of hurricanes, tropical and post-tropical cyclones, heavy summer and fall rains as well ice jams. Nearly every spring the banks of the town's rivers and streams overflow, at times causing the closure of some of the town's roads. Ice jams, particularly on the Pemigewasset, the Mad and the Beebe Rivers have created flooding of Campton's roads and road closures. Branch Brook Campground is also affected every spring by the Pemigewasset River and the West Branch Brook; these two rivers meet at the campground.

Tropical Storm Irene, the remnants of Hurricane Irene, brought heavy rain and local flooding to Campton; the town reported that 11 inches of rain fell in an eight-hour period. The Pemigewasset, the Mad and the Beebe Rivers all overflowed their banks during Tropical Storm Irene. Winter Brook and Bog Brook also flooded and flood waters undermined and eroded parts of Bog Road.

During an extraordinary rain event on July 1-2, 2017 (DR-4329), Campton experienced severe flooding. The Pemigewasset River, the West Branch Brook and the Mad River all overflowed their banks. There were road washouts on Cook Hill, Chandler Hill, Spring Hill, Spokesfield, Miclon Road, Eastern Corners Road, Page Road, Perch Pond Road and Puckerbrush Road. Power was out for up to five days in some places and there was minor property damage; water damaged a travel trailer at Branch Brook Campground. The Fire Department also performed water rescues at Branch Brook Campground. The town opened the shelter, but no one utilized it. The town's EOC was also open.

Another major rain event took place on October 29-30, 2017 (DR-4355). During this storm Campton received similar damage as the July storm listed above. All of the same roads washed out again along with another five days without power. The Fire Department had to evacuate and rescue people from Beebe River Village and Six Flag Mobile Home Park.

Flooding resulting from ice jams has happened in Campton in the past, primarily along the Pemigewasset River. Ice jams have caused the Pemi River to overflow its banks, but the impact is minimal.

Also noted by the team, a beaver dam in Waterville Estates caused a culvert to become overwhelmed. The Fire Department attempted to pump water from the affected area, yet portions of the road to Waterville Estates experienced erosion.

Local Road Flooding

Local road flooding is often the result of rapid snowmelt and heavy spring or autumn rain events. It is estimated that the town experiences stormwater problems whenever two or more inches of rain falls in a short period of time. Heavy rain from tropical downpours, hurricanes or severe thunderstorms along with rapid snowmelt often cause culverts to be overwhelmed and roads to wash out. Additionally, timber harvesting, undersized or aging culverts and inadequate ditching are some of the major causes of local road flooding in Campton.

Many of the roads in Campton are long and winding and subject to some of the most severe weather in the state. There are approximately 138 miles of roads in Campton, 62 of which are gravel; often these roads have aging or undersized culverts and poor engineering designs. The continuous erosion of roads makes for a daunting task of “up-keep” by the Highway Department. Fortunately, Interstate 93 and several other roads are the responsibility of the state.

As stated above, several roads have been affected in the past and were closed due to flooding, but fortunately, no roads were lost or completely washed-out.

4) EXTREME TEMPERATURES

Hazard Identification & Risk Assessment (HIRA) High
 Probability Very High
 Estimated Structure Loss Value Not estimated

Extreme Cold & Heat

Winter temperatures can fall below -30°F and summer temperatures, laden with high humidity can soar to nearly 100°F. In the past, there was more concern about cold temperatures, but with improved heating systems and local communications, most New Hampshire residents can cope with extreme cold. Additionally, many New Hampshire residents have equipped their homes with generators and woodstoves, and many cities and towns offer warming centers or have established a functional needs list to check on vulnerable citizens. In one instance in January of 2018 an elderly lady nearly froze to death due to her furnace malfunctioning, luckily, she was found in time and the issue was resolved.

Of concern today are extreme heat conditions, which seem to be more likely with climate change; temperatures above 95° for a week or more, can impact the elderly and other vulnerable populations. Few residents, particularly vulnerable populations, have air conditioners and are less able to cope with extreme heat. The estimated elderly population in Campton is 17.9%, and the estimated poverty rate is 4.6% of the total population¹⁴.

Extreme Temperatures combined with Long Term Utility Outage

Extreme temperatures, when combined with power failure, are of the most concern; power failure could result in no water, heat and air conditioning for the town’s most vulnerable populations. Town Officials and the community as a whole should be concerned; officials should look after the town’s citizens to ensure that extreme temperatures do not create a life or property threatening disaster. The town provides warnings and recommendations regarding extreme temperatures on the fire, police and town Facebook pages and through the town’s email subscription list.

¹⁴ US Census Bureau, American Community Survey, ACS, 2014-2018

The cost of extreme temperatures is difficult to calculate as it is not based on the loss of structures. The expected loss value would be primarily on the economic impact on the community and the time and cost of emergency response. Based on the assumption that damage would not occur to structures, the structure loss value due to extreme temperatures was not estimated.

5) TROPICAL & POST-TROPICAL CYCLONES

Hazard Identification & Risk Assessment (HIRA) High
 Probability Moderate
 Estimated Structure Loss Value \$0 to \$2,817,280

Wind damage due to tropical and post-tropical cyclones (hurricanes) is a consideration because of the forest and valley floors in Campton. Like the 1938 hurricane, and hurricanes Carol and Edna in 1954, significant forest damage could occur. Although tropical and post-tropical cyclones could fit into several different categories (wind and flooding), the team considered tropical and post-tropical cyclones to be separate events. Tropical and post-tropical cyclones are rare in New Hampshire, but they should not be ruled out as potential hazards. In most cases, tropical cyclones have been down-graded to post-tropical cyclones by the time they reach New Hampshire.

Like other parts of New Hampshire and Vermont, which received considerable damage during Tropical Storm Irene in 2011, Irene brought heavy rain to Campton and several road washouts as well. Tropical Storm Irene caused a high hazard concern on the Mad River which was made worse by sediment brought down with the flood waters. Five-foot barriers were raised at the Campton Pond Dam to enable a higher-than-normal lift of the height of the water; without these, NH Route 49 would have been washed out. The storm caused the evacuation of 200 people, some from the Six Flags mobile home park and others from the Beebe Village area of Town and the area of Blair Road. The Campton Elementary School was cut off because of flooding on Route 175, a tree spiked through the historic Blair Covered Bridge and the Turkey Jim Covered Bridge was lost entirely. In addition, campers at Branch Brook Campground were stranded because of flood waters. Tropical Storm Sandy also impacted Campton, but flooding was not as severe as it was in Irene.

The probability that a tropical and post-tropical cyclone would remain a Category 1 or higher in this part of the state is low. Therefore, the potential loss value due to tropical and post-tropical cyclones was determined to be between 0% and 1% of the total assessed structure value.

6) LIGHTNING

Hazard Identification & Risk Assessment (HIRA) Medium
 Probability Low
 Estimated Structure Loss Value \$0 to \$2,817,280

Lightning

Severe lightning has occurred in Campton. Some of the town's structures are older and historic buildings, as detailed in Table 4.3. Other vulnerable structures are surrounded by forest. Dry timber on the forest floor, some of which remains from past ice or windstorms and the age of many buildings and out-buildings combined with lightning strikes, can pose a significant disaster threat. Lightning could do damage to specific structures, injure or kill an individual, but the direct damage would not be widespread.

Although lightning is a potential problem, the town reports few occurrences, none of which were severe. In one instance in 2014 or 2015, a bolt of lightning struck between the Town Offices and the Fire Station. Minor damage included damage to the radios and other electronic devices in both the Fire and Police Departments. Part of the Owl's Nest Golf Course is in Campton, but no injury-producing or damaging lightning strikes have been reported.

It was noted that severe thunder and lightning storms seem to happen more often in recent years, perhaps the result of climate change. Also concerning are the heavy rains that thunderstorms can produce and the subsequent erosion of ditches and roadways.

Hail

Although not common in Campton, hailstorm events resulting from significant thunder and lightning storms can occur at any time. Summer storms may produce hail large enough to damage roofs, siding and automobiles. Damage from hail could also result in failed crops, thus creating an economic impact on the local economy and individual citizens; although it should be noted that Campton is not a heavily farmed community. Overall, it was felt that a hailstorm event would be unlikely and would cause minimal damage. No significant hailstorms have impacted Campton since the last hazard mitigation plan.

Based on the localized nature of lightning strikes and the minimal damage that can be expected from hail, the potential loss value was determined to be 0-1% of the total assessed structure value.

7) WILDFIRES

Hazard Identification & Risk Assessment (HIRA)	Medium
Probability	Low
Estimated Structure Loss Value	\$2,817,280 to \$14,086,400

There are two main potential losses with a wildfire, the forest itself and the threat to the built-up human environment and structures within the Wildland Urban Interface (WUI). In many cases, the only time it is feasible for a community to control a forest fire is when it threatens the built-up human environment.

Any wildfire discussion must include a discussion of the Wildland Urban Interface (WUI). The WUI can be determined in a variety of ways; however, it basically represents the area in which the forest and human habitation intersect. At times the WUI is defined as the area out of reach of available fire hoses (1,320' from a 300' buffer of Class V roads) and water resources, while other times, it is determined to be areas with substantial tree cover and limited egress. For many New Hampshire communities, entire towns are considered to be in the WUI because of the abundance of hardwood and softwood trees. In more populated areas, the WUI is often determined to be in densely populated neighborhoods where a towering canopy of old-growth trees and limited access make people and structures more vulnerable. All structures within the WUI are assumed to be at some level of risk and, therefore, vulnerable to wildfire.

The potential exists for wildfires throughout Campton, but of major concern is Waterville Estates. This and other small developments have tightly packed homes on hillsides, which create the perfect conditions for a wildfire to spread. Fortunately, no significant wildfires have occurred in Campton in many years.

The team described the forests of Campton as consisting of primarily a combination of softwoods and northern hardwoods. With a low probability of drought and high humidity, it was felt that most fires are “duff” fires, the burning of *“the layer of decomposing organic materials lying below the litter layer of freshly fallen twigs, needles, and leaves and immediately above the mineral soil.”*¹⁵ Burn permits are required in Campton, as they are throughout the state, but often burning takes place without the proper permits. The steep terrain and heavily forested areas of the town are difficult to monitor. Therefore, the occasional unauthorized burn will take place.

Due to the abundance of slash on the forest floor left by past ice storms, logging operations, blowdowns and the mixture of hardwood and softwood trees throughout the northern forests, there is potential for fast-burning fuels, and a wildfire could potentially occur. Also, the recreational use of woods-trails by snowmobilers, ATV operators, campers and other outdoor enthusiasts creates an opportunity for sparks and out-of-control fires to ignite the town’s forested areas. To help combat fire, Campton maintains and improves firefighting equipment and continuously maintains dry hydrants and fire ponds.

Significant wildfires in New Hampshire are uncommon. However, four large fires have occurred in the state in recent years, the Dilly Cliff Fire in Woodstock, the Covered Bridge Fire in Albany, the Bayle Mountain Fire in Ossipee and the Stoddard Fire in Stoddard. No large fires have occurred in Campton; however, given the right set of conditions (drought, lightning, human interface), the potential for a significant wildfire is good. Because the Town of Campton is heavily forested, the potential loss value was determined to be between 1% and 5% of the total assessed structure value.

8) EARTHQUAKES

Hazard Identification & Risk Assessment (HIRA)	Low
Probability	Very Low
Estimated Structure Loss Value	\$2,817,280 to \$14,086,400

Earthquakes can cause buildings and bridges to collapse, disrupt gas, electric and phone lines and are often associated with landslides and flash floods. Since 1940, only two earthquakes with a magnitude greater than 5.0 have occurred in New Hampshire; both of these earthquakes occurred in Ossipee in December of 1940 (5.5-5.8). Since 1982, three earthquakes with a magnitude greater than 4.0 have occurred in the state. One of these earthquakes occurred in Laconia (4.0); two occurred in Berlin, one in 1988 (4.0) and another in 1989 (4.1). The most recent earthquake to be felt by many New Hampshire residents occurred in October 2012 with its epicenter in nearby Hollis Center, ME. This earthquake was felt in Campton, but no damage occurred.

It is well documented that fault lines run throughout New Hampshire, but high magnitude earthquakes have not been frequent in New Hampshire history. More recently, many small earthquakes have occurred, but none of these were felt in Campton.

Although historically earthquakes have been rare in northern New Hampshire, the potential does exist, and depending on the location, the impact could be significant. Therefore, the potential structure loss value due to earthquakes was determined to be between 1% and 5% of the total assessed structure value.

¹⁵ <http://www.fs.fed.us/nwacfire/home/terminology.html>

9) INFECTIOUS DISEASES

Hazard Identification & Risk Assessment (HIRA) Low
 Probability Very Low
 Estimated Structure Loss Value \$0 to \$2,817,280

“Infectious diseases are disorders caused by organisms — such as bacteria, viruses, fungi or parasites. Many organisms live in and on our bodies. They’re normally harmless or even helpful, but under certain conditions, some organisms may cause disease.

Some infectious diseases can be passed from person to person. Some are transmitted by bites from insects or animals. And others are acquired by ingesting contaminated food or water or being exposed to organisms in the environment.”¹⁶

Campton’s unique geography of mountains, rivers and lakes provides summer and winter recreation enthusiasts many opportunities to visit the town. The community’s population shows a modest increase during the summer and on weekends. Also, the town’s high school students attend school at Plymouth Regional High School, along with students from the neighboring towns of Ashland, Holderness, Plymouth, Rumney, Thornton and Wentworth, thus enabling infection and viruses to be transmitted from elsewhere. Because of these factors, the team decided that infectious diseases and epidemics or pandemics could threaten Campton. With the occurrence of world-wide pandemics such as SARS, the Zika Virus, H1N1 and Avian Flu, Campton could be susceptible to an epidemic and subsequent quarantine.

In fact, as of this plan’s writing, the world is coping with the COVID-19 pandemic. COVID-19 closed all non-essential businesses and schools throughout New Hampshire and most of the United States during the pandemic’s early months. As of December 3, 2020, New Hampshire reported 22,295 cases of COVID-19 and 544 deaths, as seen in the chart to the right.¹⁷

Number of Persons with COVID-19 ¹	22,925
Recovered	18,039 (79%)
Deaths Attributed to COVID-19	544 (2%)
Total Current COVID-19 Cases	4,342
Persons Who Have Been Hospitalized for COVID-19	844 (4%)
Current Hospitalizations	156

As of December 3, 2020, the state also reported seven active and 41 cumulative cases in Campton¹⁸. As of November 17, 2020, the town reported no deaths due to Covid-19, making Campton one of the least impacted communities in Grafton County. These numbers may be due to the absence of nursing homes, colleges or other group facilities in the community. In contrast, the state reports 12 active cases and 111 cumulative cases as of December 3 in the neighboring Town of Plymouth, host to Plymouth State University.

The Campton Town Offices closed in March of 2020, reopening with restrictions after installing safety glass and plexiglass. The town continues to practice safe mitigation, including the proper use of Personal Protective Equipment (PPE), social distancing and performing daily wellness checks.

¹⁶ Infectious diseases, Overview, <https://www.mayoclinic.org/diseases-conditions/infectious-diseases/symptoms-causes/syc-20351173>

¹⁷ <https://www.nh.gov/covid19/news/documents/covid-19-update-08152020.pdf>

¹⁸ <https://www.nh.gov/covid19/index.htm>

Campton-Thornton Fire Rescue has applied for Public Assistance through FEMA. The town is also working with the State of New Hampshire Governor's Office for Emergency Relief and Recovery (GOFERR) for additional relief assistance. Points of Distribution (POD) to administer the Covid vaccine are being planned. The Central NH Public Health Network is working closely with the Emergency Management Director and the Health Officer to ensure the public's safety and to safeguard vaccination procedures.



As part of our discussion about infectious disease, it makes sense to discuss the opioid epidemic affecting the state and the nation in general. According to the National Institute on Drug Abuse, *“New Hampshire has the second-highest rate of opioid-related overdose deaths in the country. In 2016, there were 437 opioid-related overdose deaths...from 2013 through 2016, opioid-related deaths in New Hampshire tripled”*¹⁹.

The team felt that an epidemic or pandemic, such as the pandemic we are experiencing today, has the potential to threaten the community's citizens. However, because there would be no direct impact on the town structures, the structure loss value was not estimated. Campton's emergency service personnel continue to maintain extensive pandemic planning to prepare for and respond to infectious diseases.

10) DROUGHT

Hazard Identification & Risk Assessment (HIRA) Low
 Probability Very Low
 Estimated Structure Loss Value \$0 to \$2,817,280

An extended period without precipitation, or drought, could elevate the risk for wildfire and blow-downs in the forested areas of the community. With an extreme drought, the water supply and aquifer levels could be threatened. Some of Campton's residents rely on private wells while the rest rely on town water. Fortunately, significant droughts rarely occur in New Hampshire or Campton. According to the NH Department of Environmental Services, only six significant droughts had occurred since 1929,²⁰ including the drought of 2016 (see Table 3.2).

The 2016 drought in New Hampshire was significantly worse in the southern part of the state than in the northern region. The image to the right from WMUR-TV in September 2016 shows drought conditions in New Hampshire during the summer of 2016²¹.



WMUR Archives; September 15, 2016

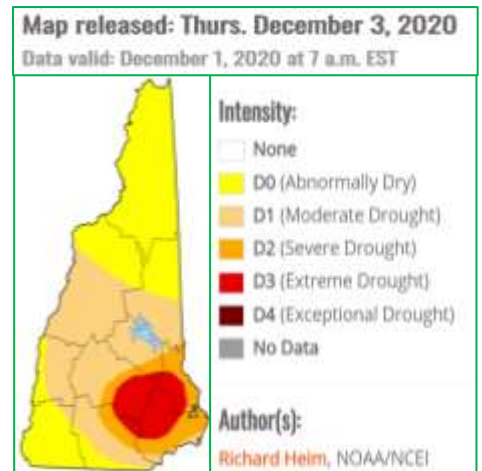
¹⁹NH Opioid Summary, National Institute on Drug Abuse; <https://www.drugabuse.gov/drugs-abuse/opioids/opioid-summaries-by-state/new-hampshire-opioid-summary>

²⁰ NH DES; <http://des.nh.gov/organization/divisions/water/dam/drought/documents/historical.pdf>

²¹ <https://www.wmur.com/article/extreme-drought-conditions-worsen-in-new-hampshire/5269231>

During the 2016 drought, a few dug-wells dried up and were replaced with artesian wells in Campton. Artesian well companies from all over the east coast remained busy for several weeks in southern New Hampshire. The 2016 drought also impacted the availability of water resources for fire suppression. The 2016 drought continued into 2017 with dry conditions throughout the summer in some communities, but the impact was not as significant as the prior year. Drought conditions are again present in New Hampshire, as shown in the figure to the right, but they are abating as the winter nears.

The cost of future droughts in Campton is difficult to calculate as any cost would likely result from associated fire risk, crop loss and diminished water supply. Based on these assumptions, the loss value was estimated to be between 0-1% of the total assessed structure value.



D. TECHNOLOGICAL HAZARDS

The following technological hazards were also considered while developing this hazard mitigation plan. Though these hazards are not analyzed in more detail as part this plan, they are nonetheless worth mentioning as real and possible hazards that could occur in Campton. The estimated structure loss was not determined for technological hazards.

1) LONG TERM UTILITY OUTAGE

Hazard Identification & Risk Assessment (HIRA) High
 Probability Very High

Long term utility outages of five or more days have occurred in Campton, both as a result of local line damage from high winds and storms and problems with the power grid. Some electric poles are accessible only by foot, and because Campton is served by two different power companies, Eversource and NH Electric Coop, the entire town is not generally serviced at one time. If a significant or extended power outage occurs and lasts for more than a week, a significant hardship on individual residents could result, particularly those citizens who are elderly, disabled or poor. The team reported that long term power outages have diminished as a result of continued efforts by public utility companies to trim trees and branches near power lines, but the problem still exists.

Long term utility outage is a concern, particularly when combined with any of the natural hazards detailed above. However, the team felt that many residents were somewhat self-sufficient, as many are now equipped with generators and woodstoves. The most significant impact of an expended power failure would be the inconvenience caused by the inability to pump water for residents who rely on wells. It is also noted that driving can be difficult due to weather conditions and steep terrain and that virtually all services, including pharmacies and grocers, are located out of town.

As a small, close-knit community, town officials are aware of persons who may need help in emergencies. Nonetheless, a long-term utility outage causing frozen pipes and a lack of heat and water is potentially a serious hazard for the community.

2) AGING INFRASTRUCTURE

Hazard Identification & Risk Assessment (HIRA) High
Probability High

“Infrastructure is the backbone of our community. While we don’t always acknowledge it, the condition of our infrastructure has a very real impact on our lives. We all depend on roads and bridges to get us where we are going, water infrastructure that delivers clean on-demand water, electricity to light our home and office, and schools that will facilitate a learning environment.”²²

Aging infrastructure is the continued deterioration of roads, bridges, culverts, ports, railroads, waste water facilities, airports, dams, utilities and public water and sewage systems. The American Society of Civil Engineers gave NH a C- rating overall in its 2017 report card.²³ The State Multi-Hazard Mitigation Plan states that the average lifespan of a bridge is 50 years; the current average age of state-owned bridges in New Hampshire is 52-56 years.²⁴

Aging infrastructure is a concern in Campton as it is throughout New Hampshire and the United States. In Campton, of particular concern are red listed bridges, aging culverts and the water system at the Beebe River Development. The state-owned bridge by Branch Brook Campground and the town-owned Spencer’s Brook Bridge are both red listed and are in need of repair. Multiple culverts throughout the town are in need of replacing or general cleaning before they fail and create flooding issues. These culverts are located near Spring Hill and Spokesfield Roads (10 culverts) and Cook Hill and Chandler Roads (12 culverts). These roads are steep roads with ledge under the road, so blasting is necessary.

Another concern for aging infrastructure in Campton is the aging water system and sewer lagoons at the Beebe River Development. If the system were to fail, it could cause water line breaks, flooding on roads and to structures and the possibility of a hazardous materials spill with a failure of the sewer lagoons.

3) DAM FAILURE

Hazard Identification & Risk Assessment (HIRA) Low
Probability Very Low

The Department of Environmental Services lists 36 dams in Campton, most of which are labeled active/non-menace, ruins, breached, not built or exempt. Four of Campton’s dams are considered active/low-hazard; these include the Campton Bog Pond Dam, Locke 1 Dam, Locke 2 Dam and Deer Pond Dam. There is only one active/high-hazard dam, the Campton Pond Dam. The failure of the Campton Pond Dam could result in flooding and structure damage, particularly to the Six Flags Mobile Home Park.

There are roadways on either side of the Campton Pond Dam, making no room for a spillway; however, floodwaters from the Mad River could be partially diverted using these adjacent roadways. This diversion, managed by the US Forest Service, may create flooding issues elsewhere and cause the closure of NH Route 49.

²² <https://www.infrastructurereportcard.org/wp-content/uploads/2016/10/2017-NH-Report-Card-hq-with-cover.pdf>

²³ Ibid

²⁴ NH Multi-hazard Mitigation Plan, 2018, page 156

Although structural damage could occur with the failure of the Campton Pond Dam, even during Tropical Storm Irene in 2011, the dam held up. The USDA-Forest Service and Mad River Power Associates have developed an Emergency Action Plan (EAP), which includes an adequate notification process to residents who may be impacted by a dam breach or failure. Drills and exercises have been done and continue to take place to practice the emergency response.

Mad River Power Associates manages the long-term vulnerabilities at the Campton Pond Dam; the public's risk has been largely mitigated. The dam does not currently pose an unacceptable risk to the public, and no mitigation action items for the dam have been identified at this time.

4) HAZARDOUS MATERIALS

Hazard Identification & Risk Assessment (HIRA) Low
Probability Very Low

Hazardous material in fixed locations is a concern in many of New Hampshire's communities. Manufacturers, gas stations, fuel depots, small businesses and even homes can be found to have hazardous chemicals, explosive materials or poisons on site. Breaches in the storage, use, production or disposal can affect the groundwater, aquifers and water supply of a community as well as the air we breathe.

Campton has areas that were noted as susceptible to damage from a fixed hazardous material event. These include, but are not limited to propane and other petroleum product storage at White Mountain Oil and the Beebe River substation. The team did not report any hazardous material spills in the past.

If the ignition of hazardous materials took place, entire buildings could be susceptible to explosion and fire. The resulting losses could be substantial, not only in terms of structure loss but also loss of business revenue for local merchants.

5) CONFLAGRATION

Hazard Identification & Risk Assessment (HIRA) Low
Probability Very Low

"Conflagration is an uncontrolled burning that threatens human life, health, property or ecology. A conflagration can be accidentally or intentionally created".²⁵

In Campton, the risk of a large uncontrolled fire is particularly threatening in the Beebe River Development area where there is a high density of older properties that are very close together. These factors, when combined with high winds and a lack of water resources, could potentially result in a sizeable uncontrolled fire that could spread from building to building across the development. A fire of this sort could result in an explosion, affect the transportation infrastructure and hamper communication and power systems.

The impact on communication, power and transportation would likely be temporary, but damage to homes and businesses could be significant.

²⁵ Fire Definitions; HotAsBlazes.com

E. HUMAN-CAUSED HAZARDS

The following human-caused hazards were also considered while developing this hazard mitigation plan. Though these hazards are not analyzed in more detail as part of this plan, they are nonetheless worth mentioning as real and possible hazards that could occur in Campton. The estimated structure loss was not determined for human-caused hazards.

1) MASS CASUALTY INCIDENTS

Hazard Identification & Risk Assessment (HIRA) Medium
Probability Moderate

A Mass Casualty Incident is a situation where the number of casualties exceeds the emergency resources that are normally available locally. MCIs have been known to occur as a result of bus, auto, train and aircraft accidents, and incidents involving large crowds. MCIs can also be a result of natural hazards such as hurricanes, floods, earthquakes and tornadoes.

In Campton, an MCI could happen anywhere, but more likely on Interstate 93, US Route 3 and NH Routes 49 and 175. These roads are busy roads carrying goods and people all day, every day. Due to high speeds and road conditions, an MCI has the potential to happen along these roads. Other roads in Campton are twisty, steep and busy roads that often see animal crossings and poor weather. With the influx of tourists both in the summer and the winter and tour bus activity, an MCI is a genuine possibility for the town.

2) CYBER EVENTS

Hazard Identification & Risk Assessment (HIRA) Medium
Probability High

Presidential Policy Directive (PDD-41) describes a cyber incident as *“An event occurring on or conducted through a computer network that actually or imminently jeopardizes the integrity, confidentiality, or availability of computers, information or communications systems or networks, physical or virtual infrastructure controlled by computers or information systems, or information resident thereon. For purposes of this directive, a cyber incident may include vulnerability in an information system, system security procedures, internal controls, or implementation that could be exploited by a threat source.”*²⁶

With the increased use of computers and the internet, cyber events could include targets such as banks, hospitals, schools, churches, town, city and state government operations, emergency operations and critical infrastructure. Cyber events have been known to take place almost anywhere, from very small towns to large facilities in New Hampshire, causing large expenditures, disruption in normal business practices and the loss of data.

The Campton planning team reported one cyber-attack in the past. The Fire Department got hacked and held for ransom. The department sent two computers out to be cleaned and reloaded; they did not pay the ransom. Several other communities in the State of New Hampshire have had their data held for ransom. Added security on computer networks and user education on cyber threats is vital to protect sensitive town information and data.

²⁶ PDD-41; <https://obamawhitehouse.archives.gov/the-press-office/2016/07/26/presidential-policy-directive-united-states-cyber-incident>

3) TERRORISM & VIOLENCE

Hazard Identification & Risk Assessment (HIRA) Low
 Probability Very Low

Terrorism is a fear throughout our country and the world, but Campton is not host to any known soft-targets. As with many small towns, the terrorism threat is minimal. If a terrorist incident were to occur, it would most likely be a home-grown terrorist event; some residents may not share the same views as others and may not see the need for certain town projects, thus creating unrest.

The town's major roads, I-93 and US Route 3, also provide access to the rest of New England and Canada, and as such, could be used as a primary route for terrorists.

4) TRANSPORT ACCIDENTS

Hazard Identification & Risk Assessment (HIRA) Low
 Probability Very Low

Interstate 93 (I-93), US Route 3, NH Route 49 and NH Route 175 are often travelled by trucks and busses carrying goods and people to and from other parts of the state. Some of Campton's roads are narrow and winding and subject to severe winter weather; when affected by flooding, winter snow conditions and ice, they become treacherous. In these conditions, vehicular accidents, wildlife collisions and truck accidents involving hazardous materials are always a possibility. A major ice storm or another significant event can make egress and access difficult for individuals and first responders. All roadways in Campton are susceptible to hazards such as road flooding and high winds leading to downed trees in the roadways and potentially hazardous materials spills.



The possibility of vehicular accidents involving hazardous materials is identified as a significant hazard in Campton. In particular, I-93 and US Route 3, which run north-south through the entire town, experience heavy truck and vehicular traffic daily. Trucks carrying contents such as compressed natural gas frequent Campton's roads and the potential for a hazardous materials spill is very real. Factors affecting the likelihood of a vehicular or truck accident involving hazardous material include icy roads, snow accumulation, heavy rains and other environmental factors.

Depending on the location of a hazardous material accident, the losses could be quite high, both in property and structural damage. However, the losses are expected to be localized and are unlikely to happen in a densely populated part of town.

Chapter 6: Current Policies, Plans & Mutual Aid

A. ANALYSIS OF EFFECTIVENESS OF CURRENT PROGRAMS

After researching historic hazards, identifying CIKR and determining potential hazards, the team determined what is already being done to protect its citizens and structures. Once identified, the team addressed each current policy or plan to determine its effectiveness and to determine whether or not improvements were needed. This analysis became one of the tools the team used to identify mitigation action items for this plan.

With the knowledge of what regulations Campton currently had in place, creating new action items was less challenging. This process helped identify current plans and policies that were working well and those that should be addressed as a new “Action Item” as well as the responsible departments. The table that follows, *Table 6.1, Policies, Plans & Mutual Aid*, shows the analysis that resulted from discussion with the team.

Existing policies, plans and mutual aid that were designated as “Improvements Needed” were added to **Table 9.1, Mitigation Action Items** as new strategies and were reprioritized to meet the current needs of the town.

TABLE 6.1: CURRENT POLICIES, PLANS & MUTUAL AID

KEY TO EFFECTIVENESS

Excellent The existing program works as intended and is exceeding its goals.

Good The existing program works as intended and meets its goals.

Average The existing program does not work as intended or does not meet its goals.

Poor The existing program does not work as intended, often falls short of its goals or may present unintended consequences.

Current Program or Activity	Description	Managing Department	Effectiveness	Improvements Needed
Grafton County Code Red	Grafton County CodeRED is a reverse calling warning system that uses listed phone numbers. CodeRED does not include cell and unlisted numbers or email addresses. The Campton Elementary School uses Blackboard Connect by PowerSchool & Elerts (for emergencies).	Emergency Management Director	Good	Improvements Needed: Grafton County CodeRED is an excellent warning system but it only stores resident phone numbers that are listed in the phone book. The town has continuously provided information to residents on CodeRED but this is deferred to continue to provide public outreach to encourage all residents to contact CodeRED to add cell numbers, emails, unlisted numbers and to verify information; use the website, a possible brochure at the Town Office, social media platforms or a sign up at Town Meeting. Action Item #6 (also in Table 7.1)
Emergency Operation Plan (2015)	This plan identifies the response procedures and capabilities of the Town of Campton/Ellsworth in the event of a natural, technological or human-caused hazard.	Emergency Management Director	Good	Improvements Needed: The Campton-Ellsworth Multi-Jurisdictional Emergency Operations Plan (EOP) was last updated in 2015 and should be updated again in 2021 based on the 5-year recommendation by the state. The new EOP will include an EOC Call Alert List as well as a detailed Resource Inventory List and Player Packets. This is deferred to this plan to update the EOP. Action Item #19 (also in Table 7.1)

Current Program or Activity	Description	Managing Department	Effectiveness	Improvements Needed
E-911	E-911 signage compliance includes markers at driveway entrances that identify residence locations in conjunction with the E-911 alerting system.	Police Chief & Fire Chief	Good	Improvements Needed: The town is about 80% compliant with E-911 signage; a Town ordinance that places a \$250 fine for non-compliance (enforceable by the Police Department) is in place. This is deferred to this plan to consider ways to get this signage more compliant so that emergency responders can better assist the public at the time of need. Use public outreach opportunities such as the website or social media to promote better compliance or develop other means of establishing more compliance. Action Item #7 (also in Table 7.1)
NIMS & ICS Training	The National Incident Management System (NIMS) and the Incident Command System (ICS) provide training that can help ensure effective command, control, and communications during emergencies	Emergency Management Director	Average	Improvements Needed: NIMS & ICS training has been done by most first responders. Although this is preparedness, this is deferred to this plan to continue to provide NIMS (IS-700) & ICS (ICS 100 & ICS 200) training to new first responders and to new Town officials as they become elected and/or appointed. Action Item #3 (also in Table 7.1)
Culvert & Storm Water Maintenance Plan	A Culvert & Stormwater Maintenance Plan includes an inventory of all culverts and ditches in the community along with a record of location, size, etc. The Campton Highway Department and NH DOT clean the drainage basins once a year and after major flooding events and culverts are repaired as needed.	Highway Department	Good	Improvements Needed: 90% of Campton's culverts have been upgraded; culvert maintenance and upgrades continue to be done on as needed basis; a road committee has been formed to look at all the paved and dirt roads in Town. Although the Campton Department of Public Works does a good job cleaning and repairing drainage basins and culverts, a written Culvert & Stormwater Maintenance Plan should be developed to ensure continuity of actions and efficient stormwater management. This is deferred for continued maintenance and the development of a written Culvert & Stormwater Maintenance Plan detailing such items as the size, material, date of installation, recommended date for improvement, GPS location and any problems associated with the location (i.e., flooding). Several culverts and drainage systems in Town need improvement. Action Items #15 & #16 (also in Table 7.1)
Tree Removal Program	Tree Removal Program to reduce damage from fallen trees and limbs to power lines and structures	Townwide	Average	Improvements Needed: As trees become damaged and threaten power lines and structures on town roads, the Highway department removes them. The NH DOT, Eversource and the NH Electric Coop do this for state roads as needed. This is deferred to continue local tree removal efforts to help mitigate the effects of high wind events, ice storms and other natural hazards. Action Item #2 (also in Table 7.1)

Current Program or Activity	Description	Managing Department	Effectiveness	Improvements Needed
Floodplain Regulation (Zoning)	The minimum National Flood Insurance Program (NFIP) requirements (Section 60.3(c)) have been adopted. Campton has been a member of the NFIP since April 2, 1986. The Flood Ordinance regulates all new and substantially improved structures located in the 100-year floodplain, as identified on the FEMA Flood Maps dated February 20, 2008.	Planning Board & Select Board	Average	Improvements Needed: The town's Flood Ordinance (part of Zoning) works well to successfully prohibit or force compliance to the ordinance for building and substantial improvements to structures within the FEMA flood zone. This is deferred to this plan to continue compliance with the National Flood Insurance Program, obtain NFIP brochures to have available at the Town Office and to provide public outreach regarding the benefits of membership in the NFIP, whether or not properties are in the FEMA floodplain. Also deferred to provide robust information on flood mitigation techniques that can be taken to protect individual homes and properties and links to the NFIP, ready.gov and other pertinent websites. Action Item #5 (also in Table 7.1).
Master Plan (2016)	A Master Plan includes goals, objectives and expectations for the future development of the town	Select Board	Good	Improvements Needed: The Campton Master Plan was last updated in 2016 and will not be ready for a recommended complete update until 2026, which is not within the scope of this plan. This is deferred to review this Hazard Mitigation Plan and to consider including a Natural Hazards Section and Action Items from this plan in any future updates of the Master Plan. Action Item #13 (also in Table 7.1)
Pressurized, Dry Hydrants & other Water Resources	There are 35 pressurized hydrants and 20 dry hydrants & cisterns in the community as well as multiple locations available for water drafting.	Campton Village Water District & Fire Department	Average	Improvements Needed: Pressurized hydrants, dry hydrants and drafting sites throughout Campton are utilized to provide water resources for firefighting. This is deferred to continue to maintain not only the pressurized hydrants (Water Department) but also the dry hydrants and other water resources (Fire Department) in the community to help mitigate the effects of both structure fires and wildfires. Action Item #1 (also in Table 7.1)
Land Subdivision Regulations (2016)	The purpose of subdivision regulations is to provide for the orderly present and future development of the town by promoting the public health, safety, convenience and welfare of the town's residents.	Planning Board	Good	Improvements Needed: The Campton Subdivision Regulations, most recently updated in 2016 are in good shape. The Subdivision Regulations address setbacks, road frontage and size of the lot. The regulations also address the availability of water resources for fire suppression, regulations on the steepness of driveways and roads or maintaining adequate stormwater flow to prevent flooding. The regulations do not address building homes or structures on steep slopes. This is deferred to review the regulations to determine if new regulations are needed to address hazards identified in this plan and to consider regulations on building on steep slopes. Action Item #23

Current Program or Activity	Description	Managing Department	Effectiveness	Improvements Needed
Multi-Hazard Mitigation Plan (2014)	Addresses all potential hazards, natural, human-caused and wildland fires.	Emergency Management Director	Good	Improvements Needed: The Campton Hazard Mitigation Plan (2014) is being updated with this plan. This is deferred to review the Hazard Mitigation Plan 2021 on an annual basis, evaluate the progress of the "Action Items" and to update the plan again in 2024. Action Item #21
Radio Communications	Provides interoperability. Uses Lakes Region Mutual Fire Aid/Plymouth Police Dispatch. All three Emergency departments in Campton (Police/Fire/Highway Dept.) have radio interoperability.	Police & Fire Departments	Good	Improvements Needed: Campton's communications systems and radios are up to date with both state and federal requirements and work as intended. There are still some "dead-zones", but the town is currently working on solutions and is considering the installation of repeaters and additional towers. The town is discussing the possibility of installing a townwide repeater system. This is deferred to this plan to continue to these discussions to help eliminate "dead spots" in Town. Action Item #27
Site Plan Review Regulations 2018	Regulations that ensure that uses permitted by zoning are constructed on a site in such a way that they fit into the area in which they are being constructed without causing drainage, traffic or lighting problems.	Planning Board & Select Board	Average	Improvements Needed: The town's site plan review regulations apply to all non-residential and multi-family; these regulations do what they are meant to do. This is deferred to this plan to review and update the Site Plan Regulations to make the regulations more defined and up-to-date. Action Item #17
Bridge Maintenance Program	There is currently one bridge on the state Red List (green bridge on Route 49). Inspection and clean-up occur annually. The state inspects all bridges every other year and maintains them on a regular basis.	Highway Department	Good	Improvements Needed: Currently, there are two "red-listed" bridges in town, one is state-owned and the other is town-owned. This is deferred to establish an Infrastructure Maintenance Plan to address the conditions of town-owned bridges, one of which is red-listed. Action Item #22
CERT Program	A Citizens Emergency Response Team (CERT), developed by Central NH Regional Health Network, provides assistance during emergencies.	Central NH Regional Public Health Network	Good	Improvements Needed: The Central NH Regional CERT Program has been established but the team is seeking recruits. This is deferred to provide public outreach to recruit people who are willing to volunteer with the Central NH Regional CERT Program. Action Item #12
Zoning Ordinances (2019)	Regulations dealing with land use including rural, residential, agriculture and timber management; constantly updated, they are considered current. Include drainage and infrastructure provisions.	Planning Board	Good	Improvements Needed: The Campton Zoning Ordinance was last updated in 2018. The Zoning Ordinance is a working document that is reviewed and updated whenever an issue arises that needs the attention of the Planning or Select Board. This is deferred to this plan to completely review the Zoning Ordinance and update it according to the hazards identified in this plan and other issues that have arisen in the community. Action Item #18

Current Program or Activity	Description	Managing Department	Effectiveness	Improvements Needed
Emergency Generators	The town has emergency back-up power at many of the town's Critical Infrastructure & Key Resources (CIKR) including the Town Office/Police Station/EOC, the Fire Station, the Elementary School and the Public Works Garage (portable). A new generator is scheduled for installation at Station #3.	Emergency Management Director	Good	No Improvements Needed: Campton has emergency backup power at many of the town's Critical Infrastructure & Key Resources (CIKR), including the Town Offices/EOC, the Fire Station, the Campton Elementary School and the Highway Garage. In addition, a generator has been installed at the Blair Fire Station #3. No additional permanent generators are needed at this time. (also in Table 7.1)
HazMat Training of Emergency Personnel	A Hazardous Materials Response Team is a specialized team of individuals who have the skill and expertise to successfully manage HazMat related incidents. Most local fire departments are trained to offer a "defensive position" until HazMat experts arrive on scene.	Fire Department	Good	No Improvements Needed: Although Campton does not have a HazMat Team, Firefighters are trained in the basic response to HazMat incidents and are adept at maintaining perimeters until specialized teams arrive. Campton-Thornton Fire Rescue would call on the Central NH HazMat Team; four HazMat Techs on the Central NH HazMat Team are members of the Fire Department. HazMat preparedness training for Fire Fighters will continue as part of a continuous training program.
Shoreland Water Quality Protection Act (formerly the Comprehensive Shoreland Protection Act)	The Shoreland Water Quality Protection Act establishes minimum standards for the use and development of shore lands adjacent to the state's public water bodies; the Shoreland Water Quality Protection Act includes changes to vegetation requirements within the natural woodland and waterfront buffers, the impervious surface limitations and included a new shore land permit by notification process.	State of NH	Good	No Improvements Needed: Campton follows the regulations detailed in the Shoreland Water Quality Protection Act. Compliance to the Act is encouraged.
Mutual Aid Agreements (Fire, Police, Highway & EMS)	Mutual Aid agreements provide communications capabilities and cooperative assistance between area cities and towns; mutual aid provides access to resources that are appropriate to the scope of the emergency.	Police, Fire & Highway Departments & EMS	Good	No Improvements Needed: Campton-Thornton Fire Rescue has a mutual aid agreement with Lakes Region Fire Mutual Aid and provides fire, EMS services and medical transportation for Campton, Thornton & Ellsworth. The Campton Police Department has mutual aid agreements with surrounding towns, the NH State Police (Troop F), the Grafton County Sheriff's Office and Fish & Game. The Highway Department is a member of the NH Public Works Mutual Aid Association. All mutual aid systems in Campton work well.

Current Program or Activity	Description	Managing Department	Effectiveness	Improvements Needed
State Health Department Public Health Plan	State plan, "Influenza, Pandemic, Public Health Preparedness and Response Plan" written by state health department to be prepared for any public health emergency; the town is part of Central NH Regional Public Health Emergency Annex	Central NH Regional Public Health Network	Good	No Improvements Needed: The State Public Health Plan, although not controlled by the town, provides service as part of the Central NH Regional Public Network; The Health Emergency Annex does what it was designed to do. Campton's Health Officer attends public health meetings whenever possible.
Flood Warning of a Dam Breach	Mad River Power Associates has a plan to ensure proper notification of dam breach	Mad River Power, USFS, Fire Chief	Good	No Improvements Needed: The plan for the Campton Pond Dam, a high hazard dam on the Mad River, was reviewed in 2017. The dam's Emergency Action Plan (EAP) is exercised and used in order to provide the town with adequate notice at the time of an emergency.
Life Safety & Fire Codes	Provides guidance for all buildings for life safety and fire codes.	Fire Department	Good	No Improvements Needed: The National Fire Protection Association (NFPA) along with NH safety and fire codes provide guidance to Campton's fire department for inspection of all public assembly facilities. Campton-Thornton Fire Rescue does the best it can to provide timely inspections based on available manpower.
Lakes Region Statewide Task Force Fire, Emergency, Medical	Respond to natural disaster, wildfires throughout New England	Fire Department	Good	No Improvements Needed: The Lakes Region Statewide Task Force is available to assist Campton as needed.
Campton / Thornton / Ellsworth Fire / EMS Shared Resources	Responsible for fire and emergency response medical services	Fire Department	Good	No Improvements Needed: The system of shared emergency resources with Thornton & Ellsworth works well; the contracts between all three towns are updated on a 3-year basis and are current.
Local Road Design Standards	Local road design standards are specifications for the construction of roads. Town will not assume ownership of substandard roads.	Planning Board & Select Board	Good	No Improvements Needed: Local road standards have been established as part of the Subdivision Regulations for new roads. The town will not assume ownership of substandard roads that are not built to Class V standards. Acceptance of new roads is voted at Town Meeting as a Warrant Article.
NH Amateur Radio Emergency Service	Amateur radio (ham radio) operators can be of great assistance to the town during emergency situations as an augment to the town's own communication resources.	Emergency Management Director	Good	No Improvements Needed: There are several ham radio operators in the town who are willing and able to assist Emergency Responders when needed.

Current Program or Activity	Description	Managing Department	Effectiveness	Improvements Needed
Burning Index	New Hampshire Forests & Lands (DNCR) has a burning index which measures the risk for wildfires and how likely fires are to start on a given day. It also evaluates the potential damages wildfires can create, the number of people that will be needed to fight it and the type of equipment that might be needed as well.	NH Hampshire Forests & Lands (DNCR) & Fire Department	Excellent	No Improvements Needed: The Fire Department receives regular notification of the burning index via text and/or email from NH Forests & Lands. This notification is made daily during the fire danger season and a Fire Danger Sign is located in front of the Fire Station.
Capital Improvement Program (CIP)	A decision-making tool used to plan and schedule town improvements over at least a six-year period. A CIP provides a suggested timeline for budgeting and implementing needed capital improvements.	CIP Committee	Good	No Improvements Needed: A review of the Campton Capital Improvement Program is a part of the annual budget review process. The CIP is reviewed to ensure that the goals of the program will be achieved to assist the town's departments with planned purchases or equipment and supplies. The process is working well and keeps the town on task. <i>(also in Table 7.1)</i>
Emergency Trailers	An Emergency Command and an American Red Cross Trailer may provide mobile emergency communications and supplies to all town, regional, county-wide and state emergency response resources.	Emergency Management Director	Good	No Improvements Needed: Campton owns and has access to several Emergency Command Trailers (one is located at the Campton Fire Station) and an American Red Cross Trailer (one at the Town Offices).
School Emergency Response Plan	A School Emergency Operations Plan provides guidance on response to emergency situations in the school.	School Safety Committee; Fire, Police & School Officials	Excellent	No Improvements Needed: The Campton Elementary School has completed the school's Emergency Operations Plan according to the annual requirements of the state. The School's plan is current and will be updated in the future according to the state's requirements. Drills and exercises are done on a monthly basis and include participation of the town's emergency responders.
Wellhead Protection Program	Campton has identified a wellhead protection area. The purpose is to prevent the contamination of groundwater used for drinking water. The area is the surface and subsurface area surrounding the public water supply where contaminants are likely to reach.	Select Board	Good	No Improvement Needed: Campton's Town well is protected and DES regulations prohibit building within 1,000 feet of the well.

Current Program or Activity	Description	Managing Department	Effectiveness	Improvements Needed
State Division of Forest and Lands Fire Permits	NH Forest & Lands, a division of the NH Department of Natural & Cultural Resources (DNCR) regulates open burning and permits.	NH Forests & Lands (DNCR) & Local Fire Warden	Excellent	No Improvements Needed: The system that is in place with NH Forests & Lands (DNCR) and the local fire warden works well. The public is aware of fire permitting requirements and the ability to get permits online (\$3.00 fee required).
Capital Reserve Funds (CRF)	A type of account on a town's balance sheet that is reserved for long-term capital investment projects or any other large and anticipated expense(s) that will be incurred in the future. Reserve funds are set aside to ensure adequate funding to at least partially finance future projects, equipment and other expenditures.	Select Board	Good	No Improvements Needed: The town's Capital Reserve Funds are set aside each year at budget time to assist the town's departments with planned purchases of equipment and supplies or in emergency situations. The Campton Capital Reserve Funds work well and are part of the town warrant at the annual Town Meeting.
Fire Department Training	Fire Department and EMS personnel training for wildfire suppression and other fire related issues.	Fire Chief	Good	No Improvements Needed: Training of all fire responders is coordinated by the Fire Chief and includes the many aspects of emergency response. Training is done at the Fire House, State Fire Academy and through Lakes Region Fire Mutual Aid as required. Preparedness training for Fire Fighters will continue as part of a continuous training program.

Chapter 7: Last Mitigation Plan

A. DATE OF LAST PLAN

Based on the Disaster Mitigation Act (DMA) of 2000, Campton has participated in the development of hazard mitigation plans in the past. The most recent update was formally approved in 2014. This plan, the “Campton Hazard Mitigation Plan Update 2021” is an update to the 2014 plan.

Below are the action items that were identified in the 2014 plan. The team identified the current status of each strategy based on three sets of questions:

COMPLETED

- Has the strategy been completed?
- If so, what was done?

Strategies “deferred” from the prior plan, were added to **Table 9.1, Mitigation Action Plan** as new strategies and were reprioritized to meet the current needs of the town.

DELETED

- Should the strategy be deleted?
- Is the strategy mitigation or preparedness?
- Is the strategy useful to the town under the current circumstances?

DEFERRED

- Should the strategy be deferred for consideration in this plan?
- If the strategy was not completed, should this strategy be reconsidered and included as a new action item for this plan?

In *Table 7.1: Accomplishments since the Last Plan*, the team was able to assess what had been accomplished and to determine what additional work may be needed. Items in **red font** were extracted word-for-word from the 2014 Hazard Mitigation Plan and do not represent a time frame for this plan. Two additional columns that are not shown here – *Funding or Support* and *Time Frame* – can be found in the 2014 Hazard Mitigation Plan.

TABLE 7.1: ACCOMPLISHMENTS SINCE THE LAST PLAN

Rank	New Mitigation Project	Responsibility or Oversight	Completed, Deleted or Deferred
0-1	Action Item #1: Review E-911 system to determine compliance with regards to signage and community participation and provide more public outreach for education and awareness to encourage homeowners to place 911 markers in appropriate locations to ensure compliance. (Table 6.1)	Police Department	Completed & Deferred: Through public outreach, the town has increased compliance to about 80% with E-911 signage. This is deferred to this plan to consider ways to get this signage even more compliant so that emergency responders can better assist the public at the time of need. Use public outreach opportunities such as the website or social media to promote better compliance or develop other means of establishing more compliance. Action Item #7 (also in Table 6.1)

Rank	New Mitigation Project	Responsibility or Oversight	Completed, Deleted or Deferred
0-2	Action Item #2: Since the development of the last Hazard Mitigation Plan, five drills have been done in coordination with the School, Fire and Police Departments. Continue to hold drills at the Campton Elementary School on an annual basis. (Table 7.1)	Emergency Management Director	Completed & Deleted: Drills have been and continue to take place with the Campton Elementary School. This preparedness activity will continue into the future, it is deleted from this plan as it is preparedness, not mitigation.
0-3	Action Item #3: NIMS & ICS Training for Town Officials in order to have better trained individuals handling disaster events so that the effects of the event can be mitigated. (ICS 100 & 200; NIMS 700) (Tables 6.1 & 7.1)	Emergency Management Director	Completed & Deferred: NIMS & ICS training has been done by most first responders. Although this is preparedness, this is deferred to this plan to continue to provide NIMS (IS-700) & ICS (ICS 100 & ICS 200) training to new first responders and to new Town officials as they become elected and/or appointed. Action Item #3 (also in Table 6.1)
0-4	Action Item #4: Develop and keep up-to-date, a stormwater maintenance program to improve the flow of stormwater and to mitigate flooding with particular attention to ditches in Town that are not performing adequately; fund and repair ditches that are not adequately directing the flow of rain water and snow melt on Windmill Road, Springhill Road, Lower Beech Hill Road, the Stickney Hill area, Holderness end of Pulsifer Road, Mountain View/Spokesville area and Winter Brook Road. (F5)	Highway Department	Completed & Deferred: Although approximately 90% of the town's culverts have been upgraded, a few culverts remain in need of repair. This is deferred for the development of a written Culvert & Stormwater Maintenance Plan detailing such items as the size, material, date of installation, recommended date for improvement, GPS location and any problems associated with the location (i.e., flooding). Several culverts and drainage systems in Town need improvement. Action Items #15 & #16 (also in Table 6.1)
0-5	Action Item #5: Develop and maintain program to cut tree canopy and limbs to prevent damage to the town's emergency response vehicles and to maintain safe access for fire apparatus to wildland-urban interface neighborhoods and properties. (WF8) (Tables 7.1 & 6.1)	Highway Department	Completed & Deferred: Although tree trimming has been done in the past, this is deferred to continue local tree removal efforts to help mitigate the effects of high wind events, ice storms and other natural hazards and to maintain access for fire apparatus. Action Item #2 (also in Table 6.1)
1-1	Action Item #6: Complete the repair of Blair Bridge using state, federal and local funding so that it is better able to withstand hazards. (MU13) (Table 7.1)	Board of Selectmen & Highway Department	Completed & Deleted: The Blair Bridge was repaired and restored and updated for fire suppression and security using local and grant funding. The Bridge was already in some disrepair prior to Tropical Storm Irene, during which more damage was done.
1-2	Action Item #7: Join NH Municipal Mutual Aid for Public Works. (Table 6.1)	Highway Department	Completed & Deleted: The town has joined the NH Public Works Mutual Aid Program. This strategy from the prior plan is deleted as this is complete.

Rank	New Mitigation Project	Responsibility or Oversight	Completed, Deleted or Deferred
1-3	Action Item #8: Develop an emergency information brochure and a "welcome packet" and add an emergency page to the town's website; Establish an interactive webpage for educating the public on hazard mitigation and preparedness measures (MU14) by adding a page to the town's recently enhanced website that will include such information as emergency contacts, shelter locations, evacuation routes (SW7, WF11 & T3), methods of emergency alerting, 911 compliance, water saving techniques (D9), earthquake risk and mitigation activities that can be taken in residents' homes (EQ7), steps homeowners can take to protect themselves and their properties when extreme temperatures occur (ET1 & ET4), safety measures that can be taken during hail (HA3) and lightning storms (L2), mitigation techniques for property protection and links to available sources; educate homeowners regarding the risks of building in hazard zones and encourage homeowners to install carbon monoxide monitors and alarms (WW5).	Fire Department	Completed & Deferred: Although Campton has provided some information to the general public on mitigation, more can be done. This is deferred to continue to provide not only emergency preparedness information but also mitigation strategies that residents can use to lessen the impact of hazards. Use the town's website, and Emergency Services "webpage" and available social media platforms. Action Item #4
1-4	Action Item #9: Advise residents who live on private roads of the importance of maintaining their roads for first responders by adding reminders to the town's website. (WF8)	Administrative Assistant	Completed & Deferred: Although Campton has provided some information to the general public on the importance of maintaining private roads, more can be done. This is deferred to continue to provide reminders to residents about the importance of maintaining private roads for access by emergency responders. Use the town's website, and Emergency Services "webpage" and available social media platforms. The town has established a waiver of liability for residents who live on Class VI roads and are not accessible. Action Item #8
1-5	Action Item #10: Advise the public about the local flood hazard, flood insurance and flood protection measures (F10) by obtaining and keeping on hand a supply of NFIP brochures to have available in the Town Offices; give NFIP materials to homeowners and builders when proposing new development or substantial improvements; encourage property owners to purchase flood insurance (F22), whether or not they are in the flood zone and provide appropriate links to the NFIP and Ready.gov on the town's website.	Administrative Assistant	Completed & Deferred: Although flood education has been provided in the past, this is deferred to this plan to continue compliance with the National Flood Insurance Program, obtain NFIP brochures to have available at the Town Offices and to provide public outreach regarding the benefits of membership in the NFIP, whether or not properties are in the FEMA floodplain. Also deferred to provide robust information on flood mitigation techniques that can be taken to protect individual homes and properties and links to the NFIP, ready.gov and other pertinent websites... Action Item #5 (also in Table 6.1)

Rank	New Mitigation Project	Responsibility or Oversight	Completed, Deleted or Deferred
1-6	Action Item #11: Obtain and have available "Firewise" brochures to educate homeowners on methods to reduce fire risk around their homes (WF10); provide "Firewise" brochures to those residents seeking burn permits; advise residents of the importance of maintaining defensible space, the safe disposal of yard and household water and the removal of dead or dry leaves, needles, twigs and combustible materials from roofs, decks, eaves, porches and yards. (WF12) (Table 7.1)	Fire Department	Completed & Deferred: Although Campton has provided some information on fire mitigation and has had "Firewise" brochures available for residents and those seeking burn permits, more can be done. This is deferred to obtain "Firewise" or other fire danger related brochures to have available at the Town Offices and to give to residents who are requesting burn permits in person. Action Item #9
1-7	Action Item #12: Update and incorporate a natural hazards section into Town's Master Plan and include a way to measure and / or adjust the objectives that have been laid out. (MU6) (Tables 6.1 & 7.1)	Planning Board	Completed & Deferred: The Campton Master Plan was last updated in 2016 and will not be ready for a recommended complete update until 2026, which is not within the scope of this plan. This is deferred to review this Hazard Mitigation Plan and to consider including a Natural Hazards Section and Action Items from this plan in any future updates of the Master Plan. Action Item #13 (also in Table 6.1)
1-8	Action Item #13: Incorporate wildfire mitigation into land use regulations by amending to include a steep slope ordinance for new construction and driveways. (WF3) (Table 6.1 & 7.1)	Planning Board	Completed & Deferred: Steep slopes for driveways is addressed in the town's regulations, however steep slopes for buildings has not been established. This is deferred to consider adding new regulations to address building slopes according to agreed criteria. Action Item #23 (also in Table 6.1)
1-9	Action Item #14: Ensure the US Forest Service approves this Hazard Mitigation Plan as a Community Wildfire Protection Plan. (Table 7.1)	Emergency Management Director & MAPS	Completed & Deferred: The 2014 Campton Hazard Mitigation Plan was approved as a Community Wildfire Protection Plan (CWPP). This is deferred for Mapping and Planning Solutions (MAPS) to once again seek approval from the Department of Natural & Cultural Resources (DNCR) for this plan to be a CWPP. Action Item #20
2-1	Action Item #15: Work with Mad River Power Associates to update the dam EAP; include a notification procedure in updated Plan. (Table 6.1)	Emergency Management Director	Completed & Deleted: The dam plan was last updated in March 2016 and the call list was updated in March of 2017. The Police Chief has provided an update to the call list and provided it to the Forest Service. This is deleted as the project is complete.
2-2	Action Item #16: Obtain EMPG Grant money for equipment to outfit the Emergency Operations Center at the new Campton Town Offices. (Table 7.1)	Emergency Management Director	Completed & Deleted: The EOC at the Town Office has been very well equipped using EMPG funding. This is deleted as no further equipment is needed at this time.

Rank	New Mitigation Project	Responsibility or Oversight	Completed, Deleted or Deferred
2-3	Action Item #17: Contact the Grafton County Sheriff's Office to request participation in a Public Outreach program explaining CodeRED to emergency responders and the citizens of Campton to improve household disaster preparedness; provide information on the town's emergency website page. (MU15) (Tables 6.1 & 7.1)	Emergency Management Director	Completed & Deferred: The town has continuously provided information to residents on CodeRED but this is deferred to continue to provide public outreach to encourage all residents to contact CodeRED to add cell numbers, emails, unlisted numbers and to verify information; use the website, a possible brochure at the Town Office, social media platforms or a sign up at Town Meeting. Action Item #6 (also in Table 6.1)
2-4	Action Item #18: Obtain funding for the installation of a new generator or a quick-connect emergency generator hook-up at Blair Fire Station #3. (MU13) (Table 6.1)	Emergency Management Director	Completed & Deleted: A new permanent generator is planned for installation during the summer of 2019 at the Blair Fire Station #3. No other generators are needed at this time; the town has good emergency power capabilities at its critical facilities.
2-5	Action Item #19: Update the Emergency Operations Plan to increase the town's ability to respond to disasters and to mitigate future or continued occurrences; incorporate this plan as an annex to the Emergency Operations Plan. (Tables 6.1 & 7.1)	Emergency Management Director	Completed & Deferred: The Campton-Ellsworth Multi-Jurisdictional Emergency Operations Plan (EOP) was last updated in 2015 and should be updated again in 2021 based on the 5-year recommendation by the state. The new EOP will include an EOC Call Alert List as well as a detailed Resource Inventory List and Player Packets. This is deferred to this plan to update the EOP. Action Item #19 (also in Table 6.1)
2-6	Action Item #20: Upgrade and replace the aging culvert on Beech Hill Road at the Bog Dam on Robart Wood Pond to mitigate flooding issues and to improve stormwater flow. (Table 6.1)	Highway Department	Deferred: The overflow culvert at Bog Pond on Robart Wood Pond has not been upgraded, as other priorities arose. This is deferred to upgrade this culvert by replacing the 3' metal culvert with a 4' plastic culvert to improve the flow of stormwater. Action Item #16
3-1	Action Item #21: Develop and maintain a Capital Improvement Plan (CIP) to integrate hazard mitigation into the needs of all municipal departments; include "action items" from this hazard mitigation plan. (MU6) (Tables 6.1 & 7.1)	Board of Selectmen	Completed & Deleted: A Capital Improvement Plan (CIP) has been developed since the last hazard mitigation plan. A review of the Campton Capital Improvement Program is a part of the annual budget review process. The CIP is reviewed to ensure that the goals of the program will be achieved to assist the town's departments with planned purchases or equipment and supplies. The process is working well and keeps the town on task. (also in Table 6.1)
3-2	Action Item #22: Use the state RSA (RSA 231: 59-A) to declare "emergency lanes" on several Class VI and Private Roads and take the issue to Town Meeting to obtain funding for basic road maintenance of particular roads determined by the Fire Chief. (Table 7.1)	Board of Selectmen & Fire Chief	Completed & Deleted: The strategy from the last plan to declare "emergency lanes" on several Class VI and Private Roads was not done due to oversight. The 2021 team felt that this strategy from the last plan is no longer needed, therefore, it is deleted.

Rank	New Mitigation Project	Responsibility or Oversight	Completed, Deleted or Deferred
3-3	Action Item #23: Improve and upgrade the existing culvert on Pond Road in order to better direct the flow of stormwater and to mitigate flooding and road erosion. (F13). (Tables 6.1 & 7.1)	Highway Department	Deleted: After the development of the last hazard mitigation plan, the improvement of the culvert on Pond Road was determined to not be needed; therefore, this strategy from the last hazard mitigation plan was not completed. A flooding problem no longer exists on Pond Road; therefore, this strategy is deleted.
3-4	Action Item #24: Hire a part or full-time Building Inspector (Table 6.1)	Board of Selectmen	Completed & Deleted: The Town of Campton currently has a per diem Code Enforcement Officer. This strategy from the last plan is deleted as the team felt no additional hiring was necessary at this time.
3-5	Action Item #25: Develop a water resource program that will Identify and locate strategic sites to install dedicated cisterns for use in fire suppression as recommended by the Fire Department. (WF6) (Table 7.1)	Fire Department	Partially Completed & Deferred: Some sites been identified, but this needs to be done again. Action Item #1 (also in Table 6.1)

Chapter 8: New Mitigation Strategies & STAPLEE

A. MITIGATION STRATEGIES BY TYPE

The following list of mitigation categories and possible strategy ideas was compiled from a number of sources including the USFS, FEMA, other planners and past hazard mitigation plans. This list was used during a brainstorming session to discuss what issues there may be in town. Team involvement and the brainstorming sessions proved helpful in bringing new ideas, better relationships and more in-depth knowledge of the community.



Prevention

- Forest fire fuel reduction programs
- Special management regulations
- Fire Protection Codes NFPA 1
- Firewise® landscaping
- Culvert and hydrant maintenance
- Planning and zoning regulations
- Building Codes
- Density controls
- Driveway standards
- Slope development regulations
- Master Plan
- Capital Improvement Plan
- Rural Fire Water Resource Plan
- NFIP compliance

Public Education & Awareness

- Hazard information centers
- Public education and outreach programs
- Emergency website creation
- Firewise® training
- National Flood Insurance Program (NFIP) awareness
- Public hazard notification
- Defensible space brochures

Emergency Service Protection

- Critical facilities protection
- Critical infrastructure protection
- Emergency training for town officials
- Ongoing training for first responders

Property Protection

- Current use or other conservation measures
- Transfer of development rights
- Firewise® landscaping
- Water drafting facilities
- High-risk notification for homeowners
- Structure elevation
- Real estate disclosures
- Floodproofing
- Building codes
- Development regulations

Natural Resource Protection

- Best management practices within the forest
- Forest and vegetation management
- Forestry and landscape management
- Wetlands development regulations
- Watershed management
- Erosion control
- Soil stabilization
- Open space preservation initiatives

Structural Projects

- Structure acquisition and demolition
- Structure acquisition and relocation
- Bridge replacement
- Dam removal
- Culvert up-size or realignment

B. POTENTIAL MITIGATION STRATEGIES BY HAZARD

In order to further promote the concept of mitigation, the team was provided with a handout that was developed by Mapping and Planning Solutions and used to determine what additional mitigation action items might be appropriate for the town. The mitigation action items from that handout are listed below and on the following page. Each item from this comprehensive list of possible mitigation action items was considered by the planning team to determine if any of these action items could be put in place for Campton with particular emphasis on new and existing buildings and infrastructure.

Strategies that may apply to more than one hazard

Type of Project

- *Community Outreach and Education*..... *Public Awareness*
- *Changes to Zoning Regulations* *Prevention*
- *Changes to Subdivision Regulations* *Prevention*
- *Steep Slopes Ordinance* *Prevention*
- *Density Controls*..... *Prevention*
- *Driveway Standards*..... *Prevention*
- *Emergency Website Creation* *Public Awareness*
- *Critical Infrastructure & Key Resources* *Emergency Service Protection*
- *Emergency Training for Town Officials*..... *Emergency Service Protection*
- *High-risk Notification to Homeowners*..... *Property Protection*
- *Master Plan Update or Development*..... *Prevention*
- *Capital Improvement Plan* *Prevention*

Flood Mitigation Ideas

Type of Project

- *Stormwater Management Ordinances* *Prevention*
- *Floodplain Ordinances* *Prevention*
- *Updated Floodplain Mapping* *Prevention*
- *Watershed Management* *Natural Resource Protection*
- *Drainage Easements* *Prevention*
- *Purchase of Easements*..... *Prevention*
- *Wetland Protection*..... *Natural Resource Protection*
- *Structural Flood Control Measures* *Prevention*
- *Bridge Replacement* *Structural Project*
- *Dam Removal* *Structural Project*
- *NFIP Compliance*..... *Prevention*
- *Acquisition, Demolition & Relocation* *Structural Project*
- *Structure Elevation*..... *Structural Project*
- *Floodproofing* *Property Protection*
- *Erosion Control* *Natural Resource Protection*
- *Floodplain/Coastal Zone Management*..... *Prevention*
- *Building Codes Adoption or Amendments* *Prevention*
- *Culvert & Hydrant Maintenance*..... *Prevention*
- *Culvert & Drainage Improvements*..... *Structural Protection*
- *Transfer of Development Rights* *Property Protection*

Natural Hazard Mitigation Ideas

Type of Project

Landslide & Erosion

- Slide-Prone Area Ordinance..... Prevention
- Drainage Control Regulations..... Prevention
- Grading Ordinances..... Prevention
- Hillside Development Ordinances..... Prevention
- Open Space Initiatives..... Prevention
- Acquisition, Demolition & Relocation..... Structural Project
- Vegetation Placement and Management..... Natural Resource Protection
- Soil Stabilization..... Natural Resource Protection

Lightning & Hail

- Building Construction..... Property Protection

High Wind Events

- Construction Standards and Techniques..... Property Protection
- Safe Rooms..... Prevention
- Manufactured Home Tie Downs..... Property Protection
- Building Codes..... Property Protection

Wildfire

- Building Codes..... Property Protection
- Defensible Space..... Prevention
- Forest Fire Fuel Reduction..... Prevention
- Burning Restriction..... Property Protection
- Water Resource Plan..... Prevention
- Firewise® Training & Brochures..... Public Awareness
- Woods Roads Mapping..... Prevention

Extreme Temperatures

- Warming & Cooling Stations..... Prevention

Severe Winter Weather

- Snow Load Design Standards..... Property Protection

Subsidence

- Open Space..... Natural Resource Protection
- Acquisition, Demolition & Relocation..... Structural Project

Earthquake

- Construction Standards and Techniques..... Property Protection
- Building Codes..... Property Protection
- Bridge Strengthening..... Structural Project
- Infrastructure Hardening..... Structural Project

Drought

- Water Use Ordinances..... Prevention

C. STAPLEE METHODOLOGY

Table 8.1, *Potential Mitigation Items & the STAPLEE*, reflects the newly identified potential hazard mitigation action items as well as the results of the STAPLEE evaluation, as explained below. Some areas identified as “All Hazards”, would also apply indirectly to wildfire response. Many of these potential mitigation action items overlap.

The goal of each proposed mitigation action item is “to reduce or eliminate the long-term risk to human life and property from hazards”. To determine the effectiveness of each mitigation action item in accomplishing this goal, a set of criteria that was developed by FEMA, the STAPLEE method, was applied to each proposed action item.

The STAPLEE method analyzes the Social, Technical, Addministrative, Political, Legal, Economic and Environmental characteristics of a project. It is commonly used by public administration officials and planners for making planning decisions. The following questions were asked about the proposed mitigation action items discussed in Table 8.1.

- Social**..... Is the proposed action item socially acceptable to the community? Is there an equity issue involved that would result in one segment of the community being treated unfairly?
- Technical**..... Will the proposed action item work? Will it create more problems than it solves?
- Administrative** Can the community implement the action item? Is there someone to coordinate and lead the effort?
- Political** Is the action item politically acceptable? Is there public support both to implement and to maintain the project?
- Legal**..... Is the community authorized to implement the proposed action item? Is there a clear legal basis or precedent for this activity?
- Economic** What are the costs and benefits of this action item? Does the cost seem reasonable for the size of the problem and the likely benefits?
- Environmental** How will the action item impact the environment? Will it need environmental regulatory approvals?

Each proposed mitigation action item was then evaluated and assigned a score based on the above criteria. Each of the STAPLEE categories was discussed and was awarded one of the following scores:

1 - Poor 2 - Average..... 3 - Good

An evaluation chart with total scores for each new action item is shown in Table 8.1.

The “Type” of Action Item was also considered (see section A of this chapter for reference):

- **Prevention**
- **Public Education & Awareness**
- **Emergency Service Protection**
- **Property Protection**
- **Natural Resource Protection**
- **Structural Projects**

D. TEAM'S UNDERSTANDING OF HAZARD MITIGATION ACTION ITEMS

The team determined that any strategy designed to reduce personal injury or damage to property that could be done prior to an actual disaster would be listed as a potential mitigation action item. This decision was made even though not all projects listed in Table 8.1 and Table 9.1, *The Mitigation Action Plan*, are fundable under FEMA pre-mitigation guidelines. The team determined that this plan was primarily a management document designed to assist the Select Board and other town officials in all aspects of managing and tracking potential emergency planning action items. For instance, the team was aware that some of these action items are more appropriately identified as preparedness or readiness issues. As there are no other established planning mechanisms that recognize some of these issues, the team did not want to “lose” any of the ideas discussed during these planning sessions and thought this method was the best way to achieve that objective.

The town understands that the action items for a town of 200 may not be the same as the action items for a town of 30,000. Also, the action items for a town in the middle of predominantly hardwood forests are not the same as the action items for a town on the Jersey Shore. Therefore the Town of Campton has accepted the “Mitigation Action Items” in Tables 8.1 and 9.1 as the complete list of “Mitigation Action Items” for this town and only this town. Furthermore, the Town of Campton indicates that having considered a comprehensive list of possible mitigation action items (see sections A & B of this chapter) for this plan, there are no additional “Mitigation Action Items” to add at this time.

Potential mitigation action items in Table 8.1 are listed in numerical order and indicate if they were derived from prior tables in this plan, i.e., (Table 7.1).

Items in green such as (MU14) represent mitigation action items taken from Mitigation Ideas, A Resource for Reducing Risk to Natural Hazards, FEMA, January 2013; see Appendix F: *Potential Mitigation Ideas*, for more information.

TABLE 8.1: POTENTIAL MITIGATION ACTION ITEMS & THE STAPLEE

Action Items are listed in numerical order.

Proposed Mitigation Action Items	Location Type of Activity	S	T	A	P	L	E	E	TTL
Action Item #1: Inspect the functionality of fire hydrants, both pressurized and dry and continue the maintenance and repair of all hydrants and other water resources in Campton. Consider other areas of the community that have limited water resources and address these issues by installing new hydrants, fire ponds and/or cisterns as needed. (WF8, MU12 & MU13) (Tables 6.1 & 7.1)	<u>Location</u> Townwide <u>Type of Activity</u> •Prevention •Emergency Service Protection •Property Protection •Natural Resource Protection •Structural Project	2	3	1	3	2	2	3	16
Action Item #2: In addition to work that is done by and with local utility companies, monitor and maintain brush cutting, drainage system maintenance and tree removal as part of a tree maintenance program and continue to create defensible space around power lines, oil and gas lines and other infrastructure; continue to work to reduce wildfire risk by clearing dead vegetation, cutting high grass and other fuel loads in the community. (SW4, WF7, WF9 & F14) (Tables 6.1 & 7.1)	<u>Location</u> Townwide <u>Type of Activity</u> •Prevention •Emergency Service Protection •Property Protection •Natural Resource Protection	3	3	2	2	2	3	2	17

Proposed Mitigation Action Items	Location Type of Activity	S	T	A	P	L	E	E	TTL
Action Item #3: The Emergency Management Director (EMD) to encourage all town officials who may be required to respond to an emergency and any new emergency responders to take NIMS 700 (S-700) & ICS (ISC100 & ISC200). (Tables 6.1 & 7.1)	<u>Location</u> Townwide <u>Type of Activity</u> •Emergency Service Protection	3	3	3	3	3	3	3	21
Action Item #4: Provide robust information on a town emergency webpage and on available Facebook pages (town, library, police, fire & school) for educating the public on hazard mitigation and preparedness measures (MU14) by adding to the town's website a webpage that will include such information as emergency contacts, shelter locations, evacuation routes (SW7, WF11 & T3), methods of emergency alerting, 911 compliance, water-saving techniques (D9), earthquake risk and mitigation activities that can be taken in residents' homes (EQ7), steps homeowners can take to protect themselves and their properties when extreme temperatures occur (ET1 & ET4), safety measures that can be taken during hail (HA3) and lightning storms (L2), mitigation techniques for property protection and links to available sources. Educate homeowners regarding the risks of building in hazard zones, provide pertinent information on infectious disease and encourage homeowners to install carbon monoxide monitors and alarms (WW5). Continue to develop ways to provide notification to citizens. (Table 7.1)	<u>Location</u> Townwide <u>Type of Activity</u> •Prevention •Public Education & Awareness	2	3	3	3	3	3	3	20
Action Item #5: Advise the public about the local flood hazard, flood insurance and flood protection measures (F10) by obtaining and keeping on hand a supply of NFIP brochures to have available in the Town Offices. Give NFIP materials to homeowners and builders when proposing new development or substantial improvements. Encourage property owners to purchase flood insurance (F22), whether or not they are in the flood zone and provide appropriate links to the NFIP and Ready.gov on the emergency webpage or available Facebook pages. Through public outreach, educate homeowners regarding the risks of building in the flood zone and measures that can be taken to reduce the chance of flooding, such as securing debris, propane tanks, yard items or stored objects that may otherwise be swept away, damaged, or pose a hazard if picked up and washed away by floodwaters. Add links and info to the website and available social media platforms and work with residents to ensure they comply with the town's floodplain ordinance. (F23) (Tables 6.1 & 7.1)	<u>Location</u> Townwide <u>Type of Activity</u> •Prevention •Public Education & Awareness	2	3	3	3	3	3	3	20
Action Item #6: Provide public outreach to encourage all residents to contact CodeRED to add cell numbers, unlisted numbers and emails and to verify their information. Use the website, a possible brochure, available social media platforms or a sign up at Town Meeting. (MU14) (Tables 6.1 & 7.1)	<u>Location</u> Townwide <u>Type of Activity</u> •Prevention •Emergency Service Protection •Public Education & Awareness	2	3	3	3	3	3	3	20

Proposed Mitigation Action Items	Location Type of Activity	S	T	A	P	L	E	E	TTL
Action Item #7: Consider additional ways to improve 911 signage compliance so that emergency responders can better assist the public at the time of need. Consider the purchase of signs by the town or through continued public outreach. (MU14) (Tables 6.1 & 7.1)	<u>Location</u> Townwide <u>Type of Activity</u> •Prevention •Emergency Service Protection •Public Education & Awareness	3	3	3	2	3	3	3	20
Action Item #8: Provide additional information to the residents of Campton of the importance of maintaining private roads for access by emergency responders. Use the town website and/or other available social media platforms. (MU14) (Table 7.1)	<u>Location</u> Townwide <u>Type of Activity</u> •Prevention •Emergency Service Protection •Property Protection •Natural Resource Protection •Public Education & Awareness	2	3	3	2	3	3	3	21
Action Item #9: Post important information on the town's emergency website and notices of red flag burning days. Obtain and have available Firewise® brochures to educate homeowners on methods to reduce fire risk around their homes (WF10) and provide a link to Firewise® on an emergency page of the town's website. Provide Firewise® brochures to those residents seeking burn permits (if not obtained on-line). Advise residents of the importance of maintaining defensible space, the safe disposal of yard and household waste and the removal of dead or dry leaves, needles, twigs, and combustible materials from roofs, decks, eaves, porches and yards. (WF12) (Table 7.1)	<u>Location</u> Townwide <u>Type of Activity</u> •Prevention •Emergency Service Protection •Property Protection •Natural Resource Protection •Public Education & Awareness	2	3	3	3	3	3	3	21
Action Item #10: Take measures to protect the town's digital information from cyber-attacks by using off-site servers and the use of the "cloud". Encourage homeowners through public outreach and best practices to protect their personal digital information.	<u>Location</u> Townwide <u>Type of Activity</u> •Prevention •Emergency Service Protection •Public Education & Awareness	3	3	3	3	3	3	3	21
Action Item #11: Provide public outreach to the citizens of Campton regarding the availability of the Town Office as a "cooling or warming center" during times of extreme temperatures, both hot and cold, and severe winter weather. (ET3 & WW6)	<u>Location</u> Town Offices <u>Type of Activity</u> •Emergency Service Protection •Public Education & Awareness	3	3	3	3	3	3	3	21

Proposed Mitigation Action Items	Location Type of Activity	S	T	A	P	L	E	E	TTL
Action Item #12: Provide public outreach to recruit people who are willing to volunteer with the Central NH Regional CERT Program. (Table 6.1)	<u>Location</u> Townwide <u>Type of Activity</u> •Emergency Service Protection •Public Education & Awareness	2	3	3	3	3	3	3	20
		Social: Some may not have access to a computer or the internet							
Action Item #13: Review the Campton Hazard Mitigation Plan 2021 whenever an annual review of the Campton Master Plan is done and consider incorporating a natural hazards section, a discussion on climate change and mitigation action items from this plan. (MU6) (Tables 6.1 & 7.1)	<u>Location</u> Townwide <u>Type of Activity</u> •Prevention	3	3	3	2	3	3	3	20
		Political: Some people may doubt the need or the existence of Climate Change							
Action Item #14: Receive and monitor Tier II reports and provide frequent inspections of Tier II facilities and other facilities in the community that store or use hazardous materials. Inspect the installation of new tanks and furnaces and encourage the installation of pads under tanks to mitigate spills.	<u>Location</u> Facilities that use or store hazardous materials <u>Type of Activity</u> •Prevention •Property Protection •Natural Resource Protection	3	3	3	3	3	3	3	21
		No apparent difficulty with this action item							
Action Item #15: Maintain culverts and ditches in the community and develop and maintain a written stormwater maintenance plan to ensure more efficient stormwater management; include the location, date of installation, GPS coordinates, material, type, size, age and expected replacement date of all culverts, catch basins and drainage ditches in the community. (F5) (Tables 6.1 & 7.1)	<u>Location</u> Townwide <u>Type of Activity</u> •Prevention •Emergency Service Protection •Property Protection •Natural Resource Protection	3	2	1	3	3	3	3	18
		Technical: May need extra equipment Administrative: Staff time may be limited							
Action Item #16: Upgrade the 3' corrugated metal culvert on Beech Hill Road at Bog Pond by replacing it with a 4' plastic culvert to improve the flow of stormwater and prevent future flooding potential. (F13) (Table 7.1)	<u>Location</u> Bog Pond at Beech Hill Road <u>Type of Activity</u> •Prevention •Emergency Service Protection •Property Protection •Natural Resource Protection •Structural Project	3	3	2	3	3	3	3	20
		Administrative: Time and staffing may be an issue							
Action Item #17: Review and update the site plan regulations to determine changes that can be made to reduce the impact of hazards identified in this plan. Further define the regulations and bring them up-to-date with current trends and climate change. (MU6) (Table 6.1)	<u>Location</u> Townwide <u>Type of Activity</u> •Prevention •Emergency Service Protection •Property Protection •Natural Resource Protection	3	3	3	3	3	3	3	21
		No apparent difficulty with this action item							

Proposed Mitigation Action Items	Location Type of Activity	S	T	A	P	L	E	E	TTL
Action Item #18: Review the Campton Zoning Ordinance and update it according to the hazards identified in this plan and the impact of climate change. Determine if changes should be made to the zoning ordinance that can help mitigate the occurrence and impact of natural hazards. (MU6) (Table 6.1)	<u>Location</u> Townwide <u>Type of Activity</u> •Prevention	3	3	3	3	3	3	3	21
Action Item #19: Update the Campton-Ellsworth Multi-Jurisdictional Emergency Operations Plan 2015 to coincide with the state ESF format. Include an analysis of the impact of natural hazards on critical Infrastructure and key resources that may be needed during an emergency. Like the current EOP, the new EOP will include an EOC Call Alert List as well as a detailed Resource Inventory List and Player Packets. (MU6) (Tables 6.1 & 7.1)	<u>Location</u> Townwide <u>Type of Activity</u> •Emergency Service Protection	3	3	3	3	3	3	3	21
Action Item #20: Request approval from the Department of Natural & Cultural Resources (DNCR) to make this plan, the 2021 Campton Hazard Mitigation Plan, a Community Wildfire Protection Plan (CWPP). (MU6) (Table 7.1)	<u>Location</u> Townwide <u>Type of Activity</u> •Prevention •Natural Resource Protection	3	3	3	3	3	3	3	21
Action Item #21: Provide an annual review of The Campton Hazard Mitigation Plan Update 2021 including a review of the status of "Action Items" listed in this plan to encourage completion; get approval from the local elected body on an annual basis. Complete a full update of this hazard mitigation plan five years from its formal approval date. (MU11)	<u>Location</u> Townwide <u>Type of Activity</u> •Prevention •Emergency Service Protection •Property Protection •Natural Resource Protection	3	3	3	3	3	3	3	21
Action Item #22: Establish an Infrastructure Maintenance Plan to address the condition of the town's infrastructure and to plan for the repair of town-owned bridges, highways and other infrastructure and key resources. (MU13) (Table 6.1)	<u>Location</u> Infrastructure Townwide <u>Type of Activity</u> •Prevention •Emergency Service Protection •Property Protection •Natural Resource Protection	3	3	2	3	3	3	3	20
Action Item #23: Review the Campton Subdivision Regulations to consider changes to the regulations that could potentially reduce the impact hazards identified in this plan have on the community and consider changes in regulations to address building homes or structures on steep slopes. (WF2, F1 & MU6) (Tables 6.1 & 7.1)	<u>Location</u> Townwide <u>Type of Activity</u> •Prevention •Emergency Service Protection •Property Protection •Natural Resource Protection	3	3	3	1	3	3	3	19

Proposed Mitigation Action Items	Location Type of Activity	S	T	A	P	L	E	E	TTL
Action Item #24: Assess the need to install lightning rods at town-owned facilities, including the Town Office building, the Campton Elementary School and the Old Town Hall, which also houses the Historical Society. Install lightning rods as needed to protect electronics and to help ensure continued use of these critical facilities. (L1)	Location Townwide Type of Activity •Prevention •Emergency Service Protection •Property Protection	3	3	3	3	3	3	3	21
Action Item #25: Improve the ten culverts in the Spring Hill and Spokesfield area of the town by blasting the ledge and then elevating the road surface to allow for larger culverts. Steep terrain and ledge prohibit increasing the size of these culverts without blasting and extensive road reconstruction. (F13)	Location Spring Hill & Spokesfield Type of Activity •Prevention •Emergency Service Protection •Property Protection •Natural Resource Protection •Structural Project	3	3	2	3	3	2	3	19
Action Item #26: Improve the 12 culverts on Chandler Road and Cook Hill Road by blasting the ledge and then elevating the road surfaces to allow for larger culverts. Steep terrain and ledge prohibit increasing the size of these culverts without blasting and extensive road reconstruction. (F13)	Location Chandler Road Type of Activity •Prevention •Emergency Service Protection •Property Protection •Natural Resource Protection •Structural Project	3	3	2	3	3	2	3	19
Action Item #27: Work to improve communications in Campton by eliminating "dead zones" where communications capabilities are limited or non-existent. Consider the installation of a townwide repeater system or other mechanisms to eliminate "dead zones". (Table 6.1)	Location Townwide Type of Activity •Prevention •Emergency Service Protection •Property Protection •Natural Resource Protection	3	3	3	3	3	1	3	19
Action Item #28: Lobby the state of New Hampshire to schedule the replacement of the red-listed bridge on NH Route 49 over the Pemigewasset, soon than later. (MU13) (Table 6.1)	Location NH Route 49 over the Pemigewasset River Type of Activity •Prevention •Emergency Service Protection •Structural Project	3	3	3	3	3	3	3	21

Proposed Mitigation Action Items	Location Type of Activity	S	T	A	P	L	E	E	TTL
Action Item #29: Obtain funding and replace the single town-owned red-listed bridge, Ryan Brook Bridge, on Perch Pond Road. (MU13) (Table 6.1)	<u>Location</u> Ryan Brook Bridge on Perch Pond Road <u>Type of Activity</u> •Prevention •Emergency Service Protection •Structural Project	3	3	3	3	3	1	3	19
		Economical: Budget constraints							
Action Item #30: Seek funding from FEMA to remove existing structures in the Six Flags Mobile Home Park (5-7 homes) from the flood hazard area along the Mad River. Demolish and relocate structures from property owners willing to relocate and preserve lands subject to repetitive flooding. (F12)	<u>Location</u> Canoe Run <u>Type of Activity</u> •Property Protection •Structural Project	1	2	1	2	1	1	3	11
		Social: Residents may not be willing to move Technical: Will need to find an alternative location to move the affected residents Administrative: Will require grant funding and the involvement of FEMA Political: Others in the community may not see the need for this Legal: The town does not own the property Economical: Budget constraints							
Action Item #31: Seek funding from FEMA to remove existing structures on Canoe Run Road (2-3 homes) from the flood hazard area along the Pemigewasset River. Demolish and relocate structures from property owners willing to relocate and preserve lands subject to repetitive flooding. (F12)	<u>Location</u> Canoe Run <u>Type of Activity</u> •Property Protection •Structural Project	1	2	1	2	1	1	3	11
		Social: Residents may not be willing to move Technical: Will need to find an alternative location to move the affected residents Administrative: Will require grant funding and the involvement of FEMA Political: Others in the community may not see the need for this Legal: The town does not own the property Economical: Budget constraints							

THIS PAGE INTENTIONALLY LEFT BLANK

Chapter 9: Implementation Schedule for Prioritized Action Items

A. PRIORITY METHODOLOGY

After reviewing the finalized STAPLEE numerical ratings, the team prepared to develop *Table 9.1, The Mitigation Action Plan*. To do this, team members created four categories into which they would place the potential mitigation action items.

CATEGORY 0

Category 0 includes those items which are being done and will continue to be done in the future.

CATEGORY 1

Category 1 includes those items under the direct control of town officials, within the financial capability of the town using only town funding, those already being done or planned and those that could generally be completed within one year.

CATEGORY 2

Category 2 includes those items that the town does not have sole authority to act upon, those for which funding might be beyond the town's capability and those that would generally take between 13-36 months to complete.

CATEGORY 3

Category 3 includes those items that would take a major funding effort, those that the town has little control over the final decision and those that would take more than 37 months to complete.

Each potential mitigation action item was placed in one of these four categories and then those action items were prioritized within each category according to cost-benefit, time frame and capability. Actual cost estimates were unavailable during the planning process. However, using the STAPLEE process along with the methodology detailed above and a Low Cost to High-Cost estimate (see the following page), the team was able to come up with a consensus on cost-benefit for each proposed action item.

The team also considered the following criteria while ranking and prioritizing each action item:

- *Does the action reduce damage?*
- *Does the action contribute to community objectives?*
- *Does the action meet existing regulations?*
- *Does the action protect historic structures?*
- *Does the action keep in mind future development?*
- *Can the action be implemented quickly?*

The prioritization exercise helped the committee seriously evaluate the new hazard mitigation action items that they had brainstormed throughout the hazard mitigation planning process. While all actions would help improve the town's hazard and wildfire responsiveness capability, funding availability will be a driving factor in determining what and when new mitigation action items are implemented.

B. WHO, WHEN, HOW?

Once this was completed, the team developed an action plan that outlined who is responsible for implementing each action item, as well as when and how the actions will be implemented. The following questions were asked in order to develop a schedule for the identified mitigation action items.

WHO? Who will lead the implementation efforts? Who will put together funding requests and applications?

WHEN? When will these actions be implemented and in what order?

HOW? How will the community fund these projects? How will the community implement these projects? What resources will be needed to implement these projects?

In addition to the prioritized mitigation action items, *Table 9.1, The Mitigation Action Plan*, includes the responsible party (WHO), how the project will be supported (HOW) and what the time frame is for implementation of the project (WHEN).

Once the plan is approved, the community will begin working on the action items listed in *Table 9.1, The Mitigation Action Plan* (see below and on the following pages). An estimation of completion for each action item is noted in the "Time Frame" column of Table 9.1. Some projects, including most training and education of residents on emergency and evacuation procedures, could be tied into the emergency operations plan and implemented through that planning effort.

TABLE 9.1: THE MITIGATION ACTION PLAN

Table 9.1, The Mitigation Action Plan, located on the next page, includes problem statements that were expressed by the planning team. These action items are listed in order of priority and indicate if they were derived from other tables in this plan.

The estimated cost was determined using the following criteria:

- **Low Cost** \$0 - \$1,000 or staff time only
- **Medium Cost** \$1,000-\$10,000
- **High Cost** \$10,000 or more

The time frame was determined using the following criteria:

- **Short Term** Ongoing for the life of the plan
- **Short Term** Less than 1 year (0-12 months)
- **Medium Term** 1-3 years (13-36 months)
- **Long Term:** 3-5 years (37-60 months)

Items in green such as (MU14) represent mitigation action items taken from Mitigation Ideas, A Resource for Reducing Risk to Natural Hazards, FEMA, January 2013; see *Appendix F: Potential Mitigation Ideas*, for more information.

Mitigation Action Items are listed in order of priority.

Final R/P	Problem Statement New Mitigation Action Item	Type of Hazard	Managing Department	Funding or Support	Time Frame	Est. Cost
0-1	<p>Problem Statement: <i>The Village District water system located in Campton includes pressurized hydrants. There are also dry hydrants and water drafting sites located in town. These systems should be maintained on a regular basis.</i></p> <p>Action Item #1: Inspect the functionality of fire hydrants, both pressurized and dry and continue the maintenance and repair of all hydrants and other water resources in Campton. Consider other areas of the community that have limited water resources and address these issues by installing new hydrants, fire ponds and/or cisterns as needed. (WF8, MU12 & MU13) (Tables 6.1 & 7.1)</p>	Wildfire & Conflagration	Village Water District & Fire Department	Local	Short Term Ongoing (For the life of the plan)	<p>Low Cost (\$0 - \$1,000 or staff time only)</p> <p>High Cost (\$10,000 or more) for installation of hydrants and cisterns)</p>
0-2	<p>Problem Statement: <i>As tree limbs fall into or near roadways and water systems and as vegetation grows around utilities, there is a need to continue to work to keep this hazard to a minimum.</i></p> <p>Action Item #2: In addition to work that is done by and with local utility companies, monitor and maintain brush cutting, drainage system maintenance and tree removal as part of a tree maintenance program and continue to create defensible space around power lines, oil and gas lines and other infrastructure; continue to work to reduce wildfire risk by clearing dead vegetation, cutting high grass and other fuel loads in the community. (SW4, WF7, WF9 & F14) (Tables 6.1 & 7.1)</p>	Severe Wind, Wildfire, Ice Storms & Flooding	Highway Department	Local	Short Term Ongoing (For the life of the plan)	<p>Low Cost (\$0 - \$1,000 or staff time only)</p>
0-3	<p>Problem Statement: <i>Although first responders, including firefighters, have received NIMS & ICS training, not all of Campton's town officials have.</i></p> <p>Action Item #3: The Emergency Management Director (EMD) to encourage all town officials who may be required to respond to an emergency and any new emergency responders to take NIMS 700 (S-700) & ICS (ISC100 & ISC200). (Tables 6.1 & 7.1)</p>	All Hazards	Emergency Management Director	Local	Short Term Ongoing (For the life of the plan)	<p>Low Cost (\$0 - \$1,000 or staff time only)</p>

Final R/P	Problem Statement New Mitigation Action Item	Type of Hazard	Managing Department	Funding or Support	Time Frame	Est. Cost
0-4	<p><i>Problem Statement: Although the town has made a good effort in providing public education, more can be done to provide not only emergency preparedness but also hazard mitigation techniques that residents can take to protect their homes and properties.</i></p> <p>Action Item #4: Provide robust information on a town emergency webpage and on available Facebook pages (town, library, police, fire & school) for educating the public on hazard mitigation and preparedness measures (MU14) by adding to the town's website a webpage that will include such information as emergency contacts, shelter locations, evacuation routes (SW7, WF11 & T3), methods of emergency alerting, 911 compliance, water-saving techniques (D9), earthquake risk and mitigation activities that can be taken in residents' homes (EQ7), steps homeowners can take to protect themselves and their properties when extreme temperatures occur (ET1 & ET4), safety measures that can be taken during hail (HA3) and lightning storms (L2), mitigation techniques for property protection and links to available sources. Educate homeowners regarding the risks of building in hazard zones, provide pertinent information on infectious disease and encourage homeowners to install carbon monoxide monitors and alarms (WW5). Continue to develop ways to provide notification to citizens. (Table 7.1)</p>	All Hazards including: Severe Wind, Drought, Earthquake, Extreme Temperatures, Hail, Lightning, Severe Winter Weather, Tornado & Wildfire	Town Administrator, Police Department & Fire Department	Local	Short Term Ongoing (For the life of the plan)	Low Cost (\$0 - \$1,000 or staff time only)

Final R/P	Problem Statement New Mitigation Action Item	Type of Hazard	Managing Department	Funding or Support	Time Frame	Est. Cost
0-5	<p>Problem Statement: Residents and builders may not be aware of flood regulations & the availability of flood insurance through the NFIP. They also may not be aware of the risk of building in the floodplain and the steps they can take to reduce flooding.</p> <p>Action Item #5: Advise the public about the local flood hazard, flood insurance and flood protection measures (F10) by obtaining and keeping on hand a supply of NFIP brochures to have available in the Town Offices. Give NFIP materials to homeowners and builders when proposing new development or substantial improvements. Encourage property owners to purchase flood insurance (F22), whether or not they are in the flood zone and provide appropriate links to the NFIP and Ready.gov on the emergency webpage or available Facebook pages. Through public outreach, educate homeowners regarding the risks of building in the flood zone and measures that can be taken to reduce the chance of flooding, such as securing debris, propane tanks, yard items or stored objects that may otherwise be swept away, damaged, or pose a hazard if picked up and washed away by floodwaters. Add links and info to the website and available social media platforms and work with residents to ensure they comply with the town's floodplain ordinance. (F23) (Tables 6.1 & 7.1)</p>	Inland Flooding	Town Administrator	Local	Short Term Ongoing (For the life of the plan)	Low Cost (\$0 - \$1,000 or staff time only)
0-6	<p>Problem Statement: CodeRED is an excellent warning system, but it only stores resident phone numbers listed in the phone book; residents may not be aware that they can add cell numbers, emails and unlisted numbers.</p> <p>Action Item #6: Provide public outreach to encourage all residents to contact CodeRED to add cell numbers, unlisted numbers, emails and to verify their information. Use the website, a possible brochure, available social media platforms or a sign up at Town Meeting. (MU14) (Tables 6.1 & 7.1)</p>	All Hazards	Police Department & Emergency Management Direct	Local	Short Term Ongoing (For the life of the plan)	Low Cost (\$0 - \$1,000 or staff time only)

Final R/P	Problem Statement New Mitigation Action Item	Type of Hazard	Managing Department	Funding or Support	Time Frame	Est. Cost
0-7	<p>Problem Statement: The town has used public outreach to advise residents of the need for proper 911 signage; however, the town is currently only about 80% compliant with the proper 911 signage. The town also has a 911 ordinance that is enforced as needed.</p> <p>Action Item #7: Consider additional ways to improve 911 signage compliance so that emergency responders can better assist the public at the time of need. Consider the purchase of signs by the town or through continued public outreach. (MU14) (Tables 6.1 & 7.1)</p>	All Hazards	Town Administrator & Emergency Management Director	Local	Short Term Ongoing (For the life of the plan)	Low Cost (\$0 - \$1,000 or staff time only)
0-8	<p>Problem Statement: Although some public outreach has been done since the prior hazard mitigation plan, the citizens of Campton should be reminded on the importance of maintaining private roads for access by emergency responders.</p> <p>Action Item #8: Provide additional information to the residents of Campton of the importance of maintaining private roads for access by emergency responders. Use the town website and/or other available social media platforms. (MU14) (Table 7.1)</p>	All Hazards	Town Administrator & Highway Department	Local	Short Term Ongoing (For the life of the plan)	Low Cost (\$0 - \$1,000 or staff time only)
0-9	<p>Problem Statement: Although the town does a good job using its current resources to promote preparedness, residents may not be aware of the steps they can take to reduce the risk of fire at their homes.</p> <p>Action Item #9: Post important information on the town's emergency website and notices of red flag burning days. Obtain and have available Firewise® brochures to educate homeowners on methods to reduce fire risk around their homes (WF10) and provide a link to Firewise® on an emergency page of the town's website. Provide Firewise® brochures to those residents seeking burn permits (if not obtained on-line). Advise residents of the importance of maintaining defensible space, the safe disposal of yard and household waste and the removal of dead or dry leaves, needles, twigs, and combustible materials from roofs, decks, eaves, porches and yards. (WF12) (Table 7.1)</p>	Wildfire	Town Administrator & Fire Chief	Local	Short Term Ongoing (For the life of the plan)	Low Cost (\$0 - \$1,000 or staff time only)

Final R/P	Problem Statement New Mitigation Action Item	Type of Hazard	Managing Department	Funding or Support	Time Frame	Est. Cost
0-10	<p>Problem Statement: <i>Cyber Events in both public and private facilities are becoming more and more common.</i></p> <p>Action Item #10: Take measures to protect the town's digital information from cyber-attacks by using off-site servers and the use of the "cloud". Encourage homeowners through public outreach and best practices to protect their personal digital information.</p>	Cyber Events	Town Administrator	Local	Short Term Ongoing (For the life of the plan)	Low Cost (\$0 - \$1,000 or staff time only)
0-11	<p>Problem Statement: <i>Although public outreach has been done to advise the citizens of Campton of the possibility of using the Town Office as a cooling or warming shelter in times of extreme temperatures. Additional public outreach needs to be done.</i></p> <p>Action Item #11: Provide public outreach to the citizens of Campton regarding the availability of the Town Office as a "cooling or warming center" during times of extreme temperatures, both hot and cold, and severe winter weather. (ET3 & WW6)</p>	Extreme Temperatures & Severe Winter Weather	Town Administrator & Emergency Management Director	Local	Short Term Ongoing (For the life of the plan)	Low Cost (\$0 - \$1,000 or staff time only)
0-12	<p>Problem Statement: <i>The Central NH Regional CERT Program has been established, but the team is seeking recruits.</i></p> <p>Action Item #12: Provide public outreach to recruit people who are willing to volunteer with the Central NH Regional CERT Program. (Table 6.1)</p>	All Hazards	Town Administrator & Emergency Management Director	Local	Short Term Ongoing (For the life of the plan)	Low Cost (\$0 - \$1,000 or staff time only)
0-13	<p>Problem Statement: <i>The Campton Master Plan was recently updated (2016), but it does not include a section on natural hazards.</i></p> <p>Action Item #13: Review the Campton Hazard Mitigation Plan 2021 whenever an annual review of the Campton Master Plan is done and consider incorporating a natural hazards section, a discussion on climate change and mitigation action items from this plan. (MU6) (Tables 6.1 & 7.1)</p>	All Hazards	Planning Board	Local	Short Term Ongoing (For the life of the plan)	Low Cost (\$0 - \$1,000 or staff time only)

Final R/P	Problem Statement New Mitigation Action Item	Type of Hazard	Managing Department	Funding or Support	Time Frame	Est. Cost
0-14	<p>Problem Statement: Several Tier II hazardous materials reporting facilities are in Campton. These need to be monitored to ensure safety.</p> <p>Action Item #14: Receive and monitor Tier II reports and provide frequent inspections of Tier II facilities and other facilities in the community that store or use hazardous materials. Inspect the installation of new tanks and furnaces and encourage the installation of pads under tanks to mitigate spills.</p>	Hazardous Materials	Fire Department	Local	Short Term Ongoing (For the life of the plan)	Low Cost (\$0 - \$1,000 or staff time only)
1-1	<p>Problem Statement: Although the Campton Highway Department works to clean and repair drainage basins, ditches and culverts, a written stormwater maintenance plan should be developed to ensure continuity of actions and efficient stormwater management.</p> <p>Action Item #15: Maintain culverts and ditches in the community and develop and maintain a written stormwater maintenance plan to ensure more efficient stormwater management; include the location, date of installation, GPS coordinates, material, type, size, age and expected replacement date of all culverts, catch basins and drainage ditches in the community. (F5) (Tables 6.1 & 7.1)</p>	Inland Flooding	Highway Department	Local	<p>Short Term (1 year or less: 0-12 months, for development of Stormwater Maintenance Plan)</p> <p>Short Term Ongoing (For the life of the plan and to maintain this list)</p>	Low Cost (\$0 - \$1,000 or staff time only)
1-2	<p>Problem Statement: The overflow culvert at Bog Pond has not been upgraded. There is potential for flooding as the 3' metal culvert is aging and could become overwhelmed with more intense rain events.</p> <p>Action Item #16: Upgrade the 3' corrugated metal culvert on Beech Hill Road at Bog Pond by replacing it with a 4' plastic culvert to improve the flow of stormwater and prevent future flooding potential. (F13) (Table 7.1)</p>	Inland Flooding	Highway Department	Local	Short Term (1 year or less: 0-12 months)	Medium Cost (\$1,000 - \$10,000)

Final R/P	Problem Statement New Mitigation Action Item	Type of Hazard	Managing Department	Funding or Support	Time Frame	Est. Cost
1-3	<p>Problem Statement: The town's site plan review regulations, most recently reviewed in 2018, apply to all non-residential and multi-family units. These regulations should be reviewed upon approval of this plan to determine if changes should be made to address the hazards identified and to further define and update the regulations.</p> <p>Action Item #17: Review and update the site plan regulations to determine changes that can be made to reduce the impact of hazards identified in this plan. Further define the regulations and bring them up-to-date with current trends and climate change. (MU6) (Table 6.1)</p>	All Hazards	Planning Board	Local	Short Term (1 year or less: 0-12 months)	Low Cost (\$0 - \$1,000 or staff time only)
1-4	<p>Problem Statement: The Campton Zoning Ordinance was last updated in 2018. The zoning ordinance should be reviewed upon approval of this plan to determine if changes to the zoning ordinance can help mitigate the occurrence and impact of natural hazards.</p> <p>Action Item #18: Review the Campton Zoning Ordinance and update it according to the hazards identified in this plan and the impact of climate change. Determine if changes should be made to the zoning ordinance that can help mitigate the occurrence and impact of natural hazards. (MU6) (Table 6.1)</p>	All Hazards	Planning Board	Local	Short Term (1 year or less: 0-12 months)	Low Cost (\$0 - \$1,000 or staff time only)
1-5	<p>Problem Statement: The Campton-Ellsworth Multi-Jurisdictional Emergency Operations Plan (EOP) was last updated in 2015 and will need to be updated again in 2021.</p> <p>Action Item #19: Update the Campton-Ellsworth Multi-Jurisdictional Emergency Operations Plan 2015 to coincide with the state ESF format. Include an analysis of the impact of natural hazards on critical Infrastructure and key resources that may be needed during an emergency. Like the current EOP, the new EOP will include an EOC Call Alert List as well as a detailed Resource Inventory List and Player Packets. (MU6) (Tables 6.1 & 7.1)</p>	All Hazards	Emergency Management Director	Local & Grants	Short Term (1 year or less: 0-12 months)	Medium Cost (\$1,000 - \$10,000)
1-6	<p>Problem Statement: The Campton Hazard Mitigation Plan 2014 was approved as a Community Wildfire Protection Plan (CWPP). This plan, the Campton Hazard Mitigation Plan 2021, should also be approved as a CWPP.</p> <p>Action Item #20: Request approval from the Department of Natural & Cultural Resources (DNCR) to make this plan, the 2021 Campton Hazard Mitigation Plan, a Community Wildfire Protection Plan (CWPP). (MU6) (Table 7.1)</p>	Wildfire & Conflagration	Mapping and Planning Solutions (MAPS)	Local	Short Term (1 year or less: 0-12 months)	Low Cost (\$0 - \$1,000 or staff time only)

Final R/P	Problem Statement New Mitigation Action Item	Type of Hazard	Managing Department	Funding or Support	Time Frame	Est. Cost
1-7	<p>Problem Statement: This plan, The Campton Hazard Mitigation Plan Update 2021, will require an annual review and a complete update in five years.</p> <p>Action Item #21: Provide an annual review of The Campton Hazard Mitigation Plan Update 2021 including a review of the status of "Action Items" listed in this plan to encourage completion; get approval from the local elected body on an annual basis. Complete a full update of this hazard mitigation plan five years from its formal approval date. (MU11) (Table 6.1)</p>	All Hazards	Emergency Management Director	Local	<p>Short Term (1 year or less: 0-12 months, for initial annual review)</p> <p>Long Term 3-5 years; 37-60 months, for complete update</p>	Low Cost (\$0 - \$1,000 or staff time only)
2-1	<p>Problem Statement: The town does not currently have an Infrastructure Maintenance Plan for roads, bridges and other major infrastructure.</p> <p>Action Item #22: Establish an Infrastructure Maintenance Plan to address the condition of the town's infrastructure and to plan for the repair of town-owned bridges, highways and other infrastructure and key resources. (MU13) (Table 6.1)</p>	Aging Infrastructure	Highway Department	Local & Grants	Medium Term (1-3 years: 13-36 months)	Low Cost (\$0 - \$1,000 or staff time only)
2-2	<p>Problem Statement: The Campton Subdivision Regulations, most recently updated in 2016, are in good shape. The subdivision regulations address set-backs, road frontage and size of the lot. The regulations also address the availability of water resources for fire suppression, regulations on the steepness of driveways and roads and maintaining adequate stormwater flow to prevent flooding. The regulations do not address building homes or structures on steep slopes.</p> <p>Action Item #23: Review the Campton Subdivision Regulations to consider changes to the regulations that could potentially reduce the impact hazards identified in this plan have on the community and consider changes in regulations to address building homes or structures on steep slopes. (WF2, F1 & MU6) (Tables 6.1 & 7.1)</p>	Wildfire & Flooding	Planning Board	Local	Medium Term (1-3 years: 13-36 months)	Low Cost (\$0 - \$1,000 or staff time only)
2-3	<p>Problem Statement: Lightning has struck town buildings in the past and has caused damage to electronics and power outages.</p> <p>Action Item #24: Assess the need to install lightning rods at town-owned facilities, including the Town Office building, the Campton Elementary School and the Old Town Hall, which also houses the Historical Society. Install lightning rods as needed to protect electronics and to help ensure continued use of these critical facilities. (L1)</p>	Lightning	Emergency Management Director & Fire Chief	Local	Medium Term (1-3 years: 13-36 months)	Low Cost (\$0 - \$1,000 or staff time only)

Final R/P	Problem Statement New Mitigation Action Item	Type of Hazard	Managing Department	Funding or Support	Time Frame	Est. Cost
3-1	<p>Problem Statement: The Spring Hill and Spokesfield area have ten culverts that are not adequately sized to mitigate flooding.</p> <p>Action Item #25: Improve the ten culverts in the Spring Hill and Spokesfield area of the town by blasting the ledge and then elevating the road surface to allow for larger culverts. Steep terrain and ledge prohibit increasing the size of these culverts without blasting and extensive road reconstruction. (F13)</p>	Aging Infrastructure	Highway Department	Local & Grants	Long Term (3-5 years: 37-60 months)	High Cost (\$10,000 or more)
3-2	<p>Problem Statement: Chandler Road and Cook Hill Road have 12 culverts that are not adequately sized to mitigate flooding.</p> <p>Action Item #26: Improve the 12 culverts on Chandler Road and Cook Hill Road by blasting the ledge and then elevating the road surfaces to allow for larger culverts. Steep terrain and ledge prohibit increasing the size of these culverts without blasting and extensive road reconstruction. (F13)</p>	Aging Infrastructure	Highway Department	Local & Grants	Long Term (3-5 years: 37-60 months)	High Cost (\$10,000 or more)
3-3	<p>Problem Statement: Campton's communications systems and radios are up to date with both state and federal requirements and work as intended. However, there are still some "dead-zones" in town that limit communications.</p> <p>Action Item #27: Work to improve communications in Campton by eliminating "dead zones" where communications capabilities are limited or non-existent. Consider the installation of a townwide repeater system or other mechanisms to eliminate "dead zones". (Table 6.1)</p>	All Hazards	Emergency Management Director & Fire Chief	Local & Grants	Long Term (3-5 years: 37-60 months)	High Cost (\$10,000 or more)
3-4	<p>Problem Statement: There are currently two "red-listed" bridges in Campton, one is state-owned and the other is town-owned. The bridge on NH Route 49 over the Pemigewasset River is state-owned.</p> <p>Action Item #28: Lobby the state of New Hampshire to schedule the replacement of the red-listed bridge on NH Route 49 over the Pemigewasset, soon than later. (MU13)</p>	Aging Infrastructure	Town Administrator & Highway Department	Local & Grants	Long Term (3-5 years: 37-60 months)	High Cost (\$10,000 or more, state costs)
3-5	<p>Problem Statement: There are currently two "red-listed" bridges in Campton, one is state-owned and the other is town-owned. The town should replace the town-owned Ryan Brook Bridge on Perch Pond Road.</p> <p>Action Item #29: Obtain funding and replace the single town-owned red-listed bridge, Ryan Brook Bridge, on Perch Pond Road. (MU13)</p>	Aging Infrastructure	Highway Department	Local & Grants	Long Term (3-5 years: 37-60 months)	High Cost (\$10,000 or more)

Final R/P	Problem Statement New Mitigation Action Item	Type of Hazard	Managing Department	Funding or Support	Time Frame	Est. Cost
3-6	<p>Problem Statement: Five to seven homes on Riverside Drive, also known as Six Flags Mobile Home Park, have flooded in the past and are subject to future flooding.</p> <p>Action Item #30: Seek funding from FEMA to remove existing structures in the Six Flags Mobile Home Park (5-7 homes) from the flood hazard area along the Mad River. Demolish and relocate structures from property owners willing to relocate and preserve lands subject to repetitive flooding. (F12)</p>	Inland Flooding	Town Administrator & Emergency Management Director	Local & Grants	Long Term (3-5 years: 37-60 months)	High Cost (\$10,000 or more, state costs)
3-7	<p>Problem Statement: Two to three homes on Canoe Run Road have flooded in the past and are subject to future flooding.</p> <p>Action Item #31: Seek funding from FEMA to remove existing structures on Canoe Run Road (2-3 homes) from the flood hazard area along the Pemigewasset River. Demolish and relocate structures from property owners willing to relocate and preserve lands subject to repetitive flooding. (F12)</p>	Inland Flooding	Town Administrator & Emergency Management Director	Local & Grants	Long Term (3-5 years: 37-60 months)	High Cost (\$10,000 or more, state costs)

Chapter 10: Adopting, Monitoring, Evaluating and Updating the Plan

A. HAZARD MITIGATION PLAN MONITORING, EVALUATION AND UPDATES

A good mitigation plan must allow for updates where and when necessary and will incorporate periodic monitoring and evaluation mechanisms to allow for review of successes and failures or even just simple updates.

The Campton Hazard Mitigation Plan Update 2021 is considered a work in progress. There are three situations which will prompt revisiting this plan:

- *First, as a minimum, it will be reviewed annually or after any emergency event to assess whether the existing and suggested mitigation action items were successful. This review will focus on the assessment of the plan's effectiveness, accuracy and completeness in the monitoring of the implementation action items. The review will also address recommended improvements to the plan as contained in the FEMA plan review checklist and address any weaknesses the town identified that the plan did not adequately address.*
- *Second, the plan will be thoroughly updated every five years.*
- *Third, if the town adopts any major modifications to its land-use planning documents, the jurisdiction will conduct a plan review and make changes as applicable.*

In keeping with the process of adopting this hazard mitigation plan, the public and stakeholders will have the opportunity for future involvement as they will be invited to participate in all future reviews or updates of this plan. Public notice before any review or update will be given by such means as press releases in local papers, using available social media, posting meeting information on the town website and at the Town Offices, sending letters to federal, state and local organizations impacted by the plan and posting notices in public places in the town. This will ensure that all comments and revisions from the public and stakeholders will be considered. The Emergency Management Director is responsible for initiating plan reviews and will consult with members of the hazard mitigation planning team identified in this plan.

Concurrence forms to be used for post-hazard or annual reviews are available in Chapter 11 of this plan. The town is encouraged to use these forms to document any changes and accomplishments since the development of this plan. Forms are available for years 1-4, with expectation that the five-year annual update will be in process during the fifth year.

B. INTEGRATION WITH OTHER PLANS

This plan will only enhance mitigation if balanced with all other town plans. Campton completed its last hazard mitigation plan in 2014 and has completed many of projects from that plan. Examples of these can be found in Table 7.1 and include items such as providing CodeRED education, repaired Blair Bridge and ongoing flood and fire education. The town was able to integrate these actions into other town activities, budgets, plans and mechanisms.

The town will incorporate elements from this plan into the following documents:

CAMPTON MASTER PLAN

Traditionally, Master Plans are updated every 5 to 10 years and detail the use of capital reserves funds and capital improvements within the town. A complete update of the Campton's Master Plan was completed in 2016 and is due for a recommended update in 2026. Future updates of the Master Plan will include a Natural Hazards section and will integrate concepts, ideas and action items from this Hazard Mitigation Plan (**Action Item #13**).

CAMPTON EMERGENCY OPERATIONS PLAN 2015 (EOP)

The EOP is designed to allow the town to respond more effectively to disasters as well as mitigate the risk to people and property. EOPs are generally reviewed after each hazardous event and updated on a five-year basis. The last Campton EOP was completed in 2015. An update for the Emergency Operations Plan is expected to be completed in 2021. The new EOP will include elements from this hazard mitigation plan (**Action Items #19**).

TOWN BUDGET, CAPITAL IMPROVEMENT PLAN & CAPITAL RESERVE FUNDS

The Town of Campton maintains Capital Reserve Funds for major expenditures. The Capital Reserve Fund is adjusted annually in coordination with the Select Board and the town's department heads at budget time. The budget is then voted on at the annual Town Meeting. During the annual budget planning process, specific mitigation actions identified in this plan that require town fiscal support will be reviewed for incorporation into the budget. **Refer to those Action Items that require local money or match money (multiple Action Items) or address the CIP and CRF.**

THE CAMPTON ORDINANCES & SUBDIVISION REGULATIONS

As time goes by and the needs of the town change, the town's planning mechanisms will be reviewed and updated. In coordination with these actions, the Planning Board will review this plan and incorporate any changes that help mitigate the susceptibility of the community and its citizens to the dangers of natural or human-caused disasters. An example of this integration can be seen in this plan's mitigation action item (**Action Items #17, #18 & 23**).

The local governments will modify other plans and actions as necessary to incorporate hazard or wildfire issues. The Select Board ensures this process will be followed in the future. In addition, the town will review and make a note of instances when this has been done and include it as part of their annual review of the plan.

C. PLAN APPROVAL & ADOPTION

This plan was completed in a series of open meetings beginning on April 3, 2019. The plan was presented to the town for review, submitted to HSEM for Conditional Approval (*APA, Approved Pending Adoption*), formally adopted by the Select Board and resubmitted to HSEM for Final Approval. Once Final Approval from HSEM was met, copies of the plan were distributed to the town, HSEM, FEMA, DNCR and the USDA-FS; the plan was then distributed as these entities saw fit. Copies of the plan remain on file at Mapping and Planning Solutions (MAPS) in both digital and paper formats.

Chapter 11: Signed Community Documents and Approval Letters

A. PLANNING SCOPE OF WORK & AGREEMENT

PLANNING SCOPE OF WORK & AGREEMENT

HAZARD MITIGATION PLAN UPDATE



PARTIES TO THE AGREEMENT

Mapping and Planning Solutions
Town of Campton, NH

Current Plan Expiration: 12/3/19
PDM Grant Expiration: 1/30/2021

This agreement between the Town of Campton (the town) or its official designee and Mapping and Planning Solutions (MAPS) outlines the town's desire to engage the services of MAPS to assist in planning and technical services in order to produce the 2020 Hazard Mitigation Plan Update (the plan).

Agreement

This agreement outlines the responsibilities that will ensure that the plan is developed in a manner that involves town members and local, federal and state emergency responders and organizations. The agreement identifies the work to be done by detailing the specific tasks, schedules and finished products that are the result of the planning process.

The goal of this agreement is that the plan and planning process be consistent with town policies and that it accurately reflects the values and individuality of the town. This is accomplished by forming a working relationship between the town's citizens, the planning team and MAPS.

The plan created as a result of this agreement will be presented to the town for adoption once conditional approval is received from FEMA. When adopted, the plan provides guidance to the town, commissions, and departments; adopted plans serve as a guide and do not include any financial commitments by the town. Additionally, all adopted plans should address mitigation strategies for reducing the risk of natural, man-made, and wildfire disasters on life and property and written so that they may be integrated within other Town planning initiatives.

Scope of Work

MAPS - Responsibilities include, but are not limited to, the following:

- MAPS will collect data that is necessary to complete the plan and meet the requirements of the FEMA Plan Review Tool by working with the planning team (the team) and taking public input from community members.
- With the assistance of the team, MAPS will coordinate and facilitate meetings and provide any materials, handouts and maps necessary to provide a full understanding of each step in the planning process.
- MAPS will assist the team in the development of goals, objectives and implementation strategies and clearly define the processes needed for future plan monitoring, educating the public and integrating the plan with other town plans and activities.
- MAPS will coordinate and collaborate with other federal, state and local agencies throughout the process.

- MAPS will explain and delineate the town's Wildland Urban Interface (WUI) and working with the team, will establish a list of potential hazards and analyze the risk severity of each.
- MAPS will author, edit and prepare the plan for review by the team prior to submitting the plan to FEMA for conditional approval. Upon conditional approval by FEMA, MAPS will assist the planning team as needed with presentation of the plan to the Campton Select Board and/or Planning Board and continue to work with the town until final approval and distribution of the plan is complete, unless extraordinary circumstances prevail.
- MAPS shall provide, at its office, all supplies and space necessary to complete the Campton Hazard Mitigation Plan.
- After final approval is received from FEMA, MAPS will provide the town with a two copies of the plan containing all signed documents, approvals and GIS maps along with CDs containing these same documents in digital form, for distribution by the town as it sees fit. Additional CDs may be requested at no additional cost. CD copies of the plan will be distributed by MAPS to collaborating agencies including, but not limited to, NH Homeland Security (HSEM) and FEMA.
- MAPS will provide Plan maintenance reminders and assistance on an annual basis leading up to the next five-year plan update at no cost to the town, if requested by the town.

The Town - Responsibilities include but are not limited to the following:

- The town shall insure that the planning team includes members who are able to support the planning process by identifying available town resources including people who will have access to and can provide pertinent data. The planning team should include, but not be limited to, such town members as the local Emergency Management Director, the Fire, Ambulance and Police Chiefs, members of the Select Board and the Planning Board, the Public Works Director or Road Agent, representatives from relevant federal and state organizations, other local officials, property owners, and relevant businesses or organizations.
- The town shall determine a lead contact to work with MAPS. This contact shall assist with recruiting participants for planning meetings, including the development of mailing lists when and if necessary, distribution of flyers, and placement of meeting announcements. In addition, this contact shall assist MAPS with organizing public meetings to develop the plan and offer assistance to MAPS in developing the work program which will produce the plan.
- The town shall gain the support of stakeholders for the recommendations found within the plan.
- The town shall provide public access for all meetings and provide public notice at the start of the planning process and at the time of adoption, as required by FEMA.
- The proposed plan shall be submitted to the Select Board and/or Planning Board for consideration and adoption.
- After adoption and final approval from FEMA is received, the town will:
 - *Distribute copies of the plan as it sees fit throughout the local community.*
 - *Develop a team to monitor and work toward plan implementation.*
 - *Publicize the plan to the community and insure citizen awareness.*
 - *Urge the Planning Board to incorporate priority projects into the town's Capital Improvement Plan (if available).*
 - *Integrate mitigation strategies and priorities from the plan into other town planning documents.*

Terms

- **Fees & Payment Schedule:** The contract price is limited to \$7,500; an invoice will be sent to the town for each payment as outlined below.
 - 1. Initial payment upon signing of this contract and receipt of first invoice\$3,700.00
 - 2. Second payment upon Plan submittal to FEMA for Conditional Approval.....\$3,600.00
 - 3. Final payment upon project completion and receipt of final Plan copy\$200.00
 - Total Fees.....\$7,500.00

- **Payment Procedures:** The payment procedure is as follows:
 - MAPS will invoice the town
 - The town will pay MAPS
 - The town will forward the MAPS invoice along with an invoice from the town on letterhead to HSEM
 - HSEM will reimburse the town for the monies paid to MAPS

All payments to MAPS are fully reimbursable to the town by Homeland Security & Emergency Management.

- **Required Matching Funds:** The Town of Campton will be responsible to provide and document any and all resources to be used to meet the FEMA required matching funds in the amount of \$2,500. Matching funds are the responsibility of the Town of Campton, not MAPS. Mapping and Planning Solutions will however assist the town with attendance tracking by asking meeting attendees to “sign in” at all meetings and to “log” any time spent outside of the meetings working on this project. MAPS will provide the town with final attendance records in spreadsheet form at project’s end for the town to use in its match fulfillment.

- **Project Period:** This project shall begin upon signing this agreement by both parties and continue through a date yet to be determined or whenever the planning process is complete. The project period may be extended by mutual written agreement between the town, MAPS and Homeland Security if required. The actual project end date is dependent upon timely adoptions and approvals which may be outside of the control of MAPS and the town. It is anticipated that five or six two-hour meetings will be required to gather the necessary information to create the updated the plan.

The grant provided for this project is funded through PDM17; per the grant agreement between the town and HSEM, all work must be completed by January 30, 2021. It is expected that this project will be completed long before the grant expiration date of January 30, 2021.

- **Ownership of Material:** All maps, reports, documents and other materials produced during the project period shall be owned by the town; each party may keep file copies of any generated work. MAPS shall have the right to use work products collected during the planning process; however, MAPS shall not use any data in such a way as to reveal personal or public information about individuals or groups which could reasonably be considered confidential.

- **Termination:** This agreement may be terminated if both parties agree in writing. In the event of termination, MAPS shall forward all information prepared to date to the town. MAPS shall be entitled to recover its costs for any work that was completed.

- **Limit of Liability:** MAPS agrees to perform all work in a diligent and efficient manner according to the terms of this agreement. MAPS' responsibilities under this agreement depend upon the cooperation of the Town of Campton. MAPS and its employees, if any, shall not be liable for opinions rendered, advice, or errors resulting from the quality of data that is supplied. Adoption of the plan by the town and final approval of the plan by FEMA, relieve MAPS of content liability. Mapping and Planning Solutions carries annual general liability insurance.

- **Amendments:** Changes, alterations or additions to this agreement may be made if agreed to in writing between both the Town of Campton and Mapping and Planning Solutions.
- **About Mapping and Planning Solutions:** Mapping and Planning Solutions provides hazard mitigation and emergency operations planning throughout New Hampshire. Mapping and Planning Solutions has developed more than forty Hazard Mitigation Plans, more than forty five Emergency Operations Plans and has completed the following FEMA courses in Emergency Planning and Operations:
 - Introduction to Incident Command System, IS-100.a
 - ICS Single Resources and Initial Action Incidents, IS-200.a
 - National Incident Management System (NIMS) An Introduction, IS-700.a
 - National Response Framework, An Introduction, IS 800.b
 - Emergency Planning, IS-235
 - Homeland Security Exercise & Evaluation Program (HSEEP)
 - IS-547.a – Introduction to Continuity Operations
 - IS-546.a – Continuity of Operations (COOP) Awareness Course
 - G-318; Preparing & Review Hazard Mitigation Plans
 - Climate Change Adaptation Planning, AWR-347
 - ALICE; School Shooting Workshop, Littleton High School

➤ **Contacts:**

For Mapping & Planning Solutions


June Garneau
Mapping and Planning Solutions
105 Union Street
Whitefield, NH 03598
jgarneau@mappingandplanning.com
(603) 837-7122; (603) 991-9664 (cell)

For the Town

Karl Kelly, EMD
Town of Campton
12 Gearty Way
Campton, NH 03223
Kkelly.applewood@yahoo.com
(603) 726-3223

Signature below indicates acceptance of and agreement to details outlined in this agreement

FOR THE TOWN OF CAMPTON, NH



Signature

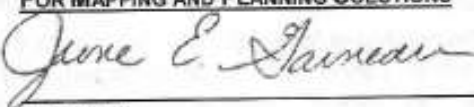
CARINA PARK / TOWN ADMIN.

Printed Name/Title

4/3/19

Date

FOR MAPPING AND PLANNING SOLUTIONS



Signature

June Garneau, Owner

April 1, 2019

Signatures are scanned facsimiles, original signatures are on file.

B. APPROVED PENDING ADOPTION (APA) & FORMAL APPROVAL EMAILS FROM HSEM**APA FROM HSEM****Campton, NH - Approvable Pending Adoption**

Hazard Mitigation Planning <hazmitplanning@DOS.NH.GOV>

Sent: Thu 1/14/2021 11:20 AM

To: June Garneau; 'toc.selectmankk@gmail.com'; Carina Park

Cc: Wells, Meghan; Barnhart, Olivia; Hatch, Paul

Good morning,

The Department of Safety, Division of Homeland Security & Emergency Management (HSEM) has completed its review of the Campton, NH Hazard Mitigation Plan and found it approvable pending adoption. Congratulations on a job well done!

With this approval, the jurisdiction meets the local mitigation planning requirements under 44 CFR 201 **pending HSEM's receipt of electronic copies of the adoption documentation and the final plan**.

Acceptable electronic formats include Word or PDF files and must be submitted to us via email at HazardMitigationPlanning@dos.nh.gov. Upon HSEM's receipt of these documents, notification of formal approval will be issued, along with the final Checklist and Assessment.

The approved plan will be submitted to FEMA on the same day the community receives the formal approval notification from HSEM. FEMA will then issue a Letter of Formal Approval to HSEM for dissemination that will confirm the jurisdiction's eligibility to apply for mitigation grants administered by FEMA and identify related issues affecting eligibility, if any. If the plan is not adopted within one calendar year of HSEM's Approval Pending Adoption, the jurisdiction must update the entire plan and resubmit it for HSEM review.

If you have questions or wish to discuss this determination further, please contact me at Kayla.Henderson@dos.nh.gov or 603-223-3650.

Thank you for submitting the Campton, NH Hazard Mitigation Plan and again, congratulations on your successful community planning efforts.

Sincerely,

Kayla J. Henderson

Hazard Mitigation Planning

State of New Hampshire, Department of Safety

Division of Homeland Security & Emergency Management

Meghan Wells, State Hazard Mitigation Officer / Meghan.K.Wells@dos.nh.gov / (603) 223-4395Kayla Henderson, State Hazard Mitigation Planner / Kayla.J.Henderson@dos.nh.gov / (603) 223-3650Olivia Barnhart, Assistant Chief of Planning / Olivia.W.Barnhart@dos.nh.gov / (603) 223-3639

Signatures are scanned facsimile, original signatures are on file.

FORMAL APPROVAL FROM HSEM**Campton, NH - Local Hazard Mitigation Plan - Formal Approval****DOS: Hazard Mitigation Planning**

to me, to: selectmanku@gmail.com, Carina, Meghan, Olivia, Paul

2:43 PM (1 hour ago)

Good afternoon,

Congratulations! The Town of Campton's Local Hazard Mitigation Plan has received **Formal Approval** as of today, **March 3, 2021**. This State Formal Approval is based upon the New Hampshire Department of Safety, Division of Homeland Security & Emergency Management's (HSEM) determination that the community's Local Hazard Mitigation Plan successfully met the requirements of 44 C.F.R. Pt. 201. A copy of the adopted plan has been submitted to the Federal Emergency Management Agency (FEMA) for their records.

Please find the Final Local Mitigation Plan Review Tool attached. The Town of Campton will receive a copy of FEMA's Formal Approval Letter reflecting the approval date identified above within the next few weeks.

Thank you for your continued dedication to hazard mitigation!

Kayla J. Henderson

**Hazard Mitigation Planning**

State of New Hampshire, Department of Safety

Division of Homeland Security & Emergency Management

Meghan Wells, State Hazard Mitigation Officer / Meghan.Wells@dos.nh.gov / (603) 223-4395Kayla Henderson, State Hazard Mitigation Planner / Kayla.J.Henderson@dos.nh.gov / (603) 223-3650Olivia Barnhart, Assistant Chief of Planning / Olivia.W.Barnhart@dos.nh.gov / (603) 223-3639

Signatures are scanned facsimile, original signatures are on file.

C. SIGNED CERTIFICATE OF ADOPTION

CERTIFICATE OF ADOPTION

CAMPTON, NH

SELECT BOARD

A RESOLUTION ADOPTING THE TOWN OF CAMPTON HAZARD MITIGATION PLAN UPDATE 2021

WHEREAS, the Town of Campton has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in this plan, resulting in loss of property and life, economic hardship and threats to public health and safety; and

WHEREAS, the Town of Campton has developed and received conditional approval from the Homeland Security & Emergency Management (HSEM) for its Hazard Mitigation Plan Update 2021 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held between April 3, 2019 and October 16, 2019 regarding the development and review of the Hazard Mitigation Plan Update 2021 and

WHEREAS, the plan specifically addresses hazard mitigation strategies and plan maintenance procedure for the Town of Campton; and

WHEREAS, the plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Campton with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this plan will make the Town of Campton eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Select Board:

1. The plan is hereby adopted as an official plan of the Town of Campton;
2. The respective officials identified in the mitigation action items of the plan are hereby directed to pursue implementation of the recommended actions assigned to them;

3. Future revisions and plan maintenance required by 44 CFR 201.6 and FEMA are hereby adopted as a part of this resolution for a period of five (5) years from the date of this resolution;
4. An annual report on the progress of the implementation elements of the plan shall be presented to the Select Board by the Emergency Management Director.



Page 120

D. FORMAL APPROVAL LETTER FEMA

U.S. Department of Homeland Security
FEMA Region I
99 High Street, Sixth Floor
Boston, MA 02110-2132

FEMA

March 4, 2021

Meghan Wells, State Hazard Mitigation Planner
New Hampshire Department of Safety, Homeland Security and Emergency Management
33 Hazen Drive
Concord, New Hampshire 03303

Dear Ms. Wells:

As outlined in the FEMA-State Agreement for FEMA-DR-4457, 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 Campton Hazard Mitigation Plan Update 2021 and approved it effective **March 3, 2021** through **March 2, 2026** in accordance with the planning requirements of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), as amended, the National Flood Insurance Act of 1968, as amended, and Title 44 Code of Federal Regulations (CFR) Part 201.

With this plan approval, the jurisdiction is eligible to apply to New Hampshire Homeland Security and 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 the 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 I Mitigation Division for approval every five years to remain eligible for FEMA mitigation grant funding.

Thank you for your continued commitment and dedication to risk reduction demonstrated by preparing and adopting a strategy for reducing future disaster losses. Should you have any questions, please contact Melissa Surette at (617) 956-7559 or Melissa.Surette@fema.dhs.gov.

Sincerely,

PAUL F FORD Digitally signed by PAUL F FORD
Date: 2021.03.04 15:08:53 -0500

Paul F. Ford
Acting Regional Administrator
DHS, FEMA Region I

PFF:ms

cc: Fallon Reed, Chief of Planning, New Hampshire

Signatures are scanned facsimile, original signatures are on file.

E. CWPP APPROVAL LETTER FROM DNCR

**Campton, NH
A Resolution Approving the
Campton Hazard Mitigation Plan Update 2021
As a Community Wildfire Protection Plan**

Several public meetings and committee meetings were held between April 3, 2019 and October 16, 2019 regarding the development and review of The Campton Hazard Mitigation Plan Update 2021. The Campton Hazard Mitigation Plan Update 2021 contains potential future projects to mitigate hazard and wildfire damage in the Town of Campton.

The Fire Chief, along with the Select Board and the Emergency Management Director, desire that this plan be accepted by the Department of Natural and Cultural Resources (DNCR) as a Community Wildfire Protection Plan, having adhered to the requirements of said plan.


The Select Board, the Emergency Management Director and the Fire Chief approve The Campton Hazard Mitigation Plan Update 2021 and understand that with approval by DNCR, this plan will also serve as a Community Wildfire Protection Plan.

For the Town of Campton

APPROVED and SIGNED this day, February 1, 2021.


Chairman of the Select Board

Craig S. Keeney
Printed Name


Fire Chief

Daniel R. DeGroot
Printed Name


Emergency Management Director


Karl Kelly, Jr.
Printed Name

For the Department of Natural & Cultural Resources (DNCR)

APPROVED and SIGNED this day, 03/30, 2021.


Forest Ranger – NH Division of Forest and Lands, DNCR

APPROVED and SIGNED this day, June 01, 2021.


Steven Sherman, Chief, Forest Protection - NH Division of Forest and Lands, DNCR

Signatures are scanned facsimile, original signatures are on file.

F. ANNUAL REVIEW OR POST HAZARD CONCURRENCE FORMS

YEAR ONE

CHECK ALL THAT APPLY

- ☐ Annual Review & Concurrence - **Year One:** _____ (Date)
- ☐ Annual Review & Concurrence – Post Hazardous Event: _____ (Event/Date)
- ☐ Annual Review & Concurrence – Post Hazardous Event: _____ (Event/Date)

The Town of Campton, NH shall execute this page annually by the members of the town's governing body and the town's designated Emergency Management Director after inviting the public to attend any and all hearings that pertain to this annual and/or post hazard review and/or update by means such as press releases in local papers, posting meeting information on the town website and at the Town Offices, sending letters to federal, state local organizations impacted by the plan posting notices in public places in the town.

Campton, NH
Hazard Mitigation Plan Update

REVIEWED AND APPROVED

DATE: _____

SIGNATURE: _____

PRINTED NAME: _____

Emergency Management Director

CONCURRENCE OF APPROVAL

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Select Board

Changes and notes regarding the 2021 Hazard Mitigation Plan Update

Please use reverse side for additional notes 

Additional Notes – Year One:

[illegible]

YEAR TWO

CHECK ALL THAT APPLY

- ☐ Annual Review & Concurrence - **Year Two:** _____ (Date)
- ☐ Annual Review & Concurrence – Post Hazardous Event: _____ (Event/Date)
- ☐ Annual Review & Concurrence – Post Hazardous Event: _____ (Event/Date)

The Town of Campton, NH shall execute this page annually by the members of the town's governing body and the town's designated Emergency Management Director after inviting the public to attend any and all hearings that pertain to this annual and/or post hazard review and/or update by means such as press releases in local papers, posting meeting information on the town website and at the Town Offices, sending letters to federal, state local organizations impacted by the plan posting notices in public places in the town.

Campton, NH
Hazard Mitigation Plan Update

REVIEWED AND APPROVED

DATE: _____

SIGNATURE: _____

PRINTED NAME: _____

Emergency Management Director

CONCURRENCE OF APPROVAL

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Select Board

Changes and notes regarding the 2021 Hazard Mitigation Plan Update

Please use reverse side for additional notes 

Additional Notes – Year Two:

[illegible]

YEAR THREE

CHECK ALL THAT APPLY

- ☐ Annual Review & Concurrence - **Year Three:** _____ (Date)
- ☐ Annual Review & Concurrence – Post Hazardous Event: _____ (Event/Date)
- ☐ Annual Review & Concurrence – Post Hazardous Event: _____ (Event/Date)

The Town of Campton, NH shall execute this page annually by the members of the town's governing body and the town's designated Emergency Management Director after inviting the public to attend any and all hearings that pertain to this annual and/or post hazard review and/or update by means such as press releases in local papers, posting meeting information on the town website and at the Town Offices, sending letters to federal, state local organizations impacted by the plan posting notices in public places in the town.

Campton, NH
Hazard Mitigation Plan Update

REVIEWED AND APPROVED

DATE: _____

SIGNATURE: _____

PRINTED NAME: _____

Emergency Management Director

CONCURRENCE OF APPROVAL

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Select Board

Changes and notes regarding the 2021 Hazard Mitigation Plan Update

Please use reverse side for additional notes 

Additional Notes – Year Three:

[illegible]

YEAR FOUR

CHECK ALL THAT APPLY

- ☐ Annual Review & Concurrence - **Year Four:** _____ (Date)
- ☐ Annual Review & Concurrence – Post Hazardous Event: _____ (Event/Date)
- ☐ Annual Review & Concurrence – Post Hazardous Event: _____ (Event/Date)

The Town of Campton, NH shall execute this page annually by the members of the town's governing body and the town's designated Emergency Management Director after inviting the public to attend any and all hearings that pertain to this annual and/or post hazard review and/or update by means such as press releases in local papers, posting meeting information on the town website and at the Town Offices, sending letters to federal, state local organizations impacted by the plan posting notices in public places in the town.

Campton, NH
Hazard Mitigation Plan Update

REVIEWED AND APPROVED

DATE: _____

SIGNATURE: _____

PRINTED NAME: _____

Emergency Management Director

CONCURRENCE OF APPROVAL

SIGNATURE: _____

PRINTED NAME: _____

Chairman of the Select Board

Changes and notes regarding the 2021 Hazard Mitigation Plan Update

Please use reverse side for additional notes 

Additional Notes – Year One:

[illegible]

Chapter 12: Appendices

- APPENDIX A: BIBLIOGRAPHY
- APPENDIX B: TECHNICAL AND FINANCIAL ASSISTANCE FOR HAZARD MITIGATION
 - *Hazard Mitigation Grant Program (HMGP)*
 - *Pre-Disaster Mitigation (PDM)*
 - *Flood Mitigation Assistance (FMA)*
 - *Repetitive Flood Claims (RFC)*
 - *Severe Repetitive Loss (SRL)*
- APPENDIX C: THE EXTENT OF HAZARDS
- APPENDIX D: MAJOR DISASTER & EMERGENCY DECLARATIONS
- APPENDIX E: ACRONYMS
- APPENDIX F: POTENTIAL MITIGATION IDEAS

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX A: BIBLIOGRAPHY**Documents**

- **Local Hazard Mitigation Planning Review Guide**, FEMA, October 2011
- **Local Hazard Mitigation Planning Handbook**, FEMA, March 2013
- **Mitigation Ideas, A Resource for Reducing Risk to Natural Hazards**, FEMA, January 2013
- **Hazard Mitigation Unified Guidance**, FEMA, July 12, 2013
- **Hazard Mitigation Assistance Guidance**, FEMA, February 27, 2015
- **Hazards Mitigation Plans**
 - Campton Hazard Mitigation Plan, 2014
 - Waterville Valley Hazard Mitigation Plan, 2021
 - Woodstock Hazard Mitigation Plan, 2020
 - Sandwich Hazard Mitigation Plan, 2019
- **NH State Multi-Hazard Mitigation Plan**, 2018
 - https://prd.blogs.nh.gov/dos/hsem/wp-content/uploads/2015/11/State-of-New-Hampshire-Multi-Hazard-Mitigation-Plan-Update-2018_FINAL.pdf
- **NH Division of Forests and Lands Quarterly Update**
 - <http://www.nhdfi.org/fire-control-and-law-enforcement/fire-statistics.aspx>
- **Disaster Mitigation Act (DMA) of 2000**, Section 101, b1 & b2 and Section 322a
 - <http://www.fema.gov/library/viewRecord.do?id=1935>
- **Economic & Labor Market Information Bureau**, NH Employment Security, March 2020; Community Response for Campton, Received, 7/10/19, Census 2000 and Revenue Information derived from this site;
 - <http://www.nhes.nh.gov/elmi/products/cp/profiles-htm/Campton.htm>

Photos

- Photos are taken by MAPS unless otherwise noted.

Wildfire Links

- US Forest Service; <http://www.fs.fed.us>
- US Fire Administration; <http://www.usfa.dhs.gov/>
- US Department of Agriculture Wildfire Programs: <http://www.wildfireprograms.usda.gov/>
- Firewise®; <http://www.firewise.org/>
- Fire Adapted Communities; www.fireadapted.org
- Wildfire Preparedness Guide to Forest Wardens; www.quickseries.com
- Ready Set Go; www.wildlandfires.org
- Fire education for children; www.smokeybear.com

Additional Websites

- NH Homeland Security & Emergency Management; <http://www.nh.gov/safety/divisions/hsem/>
- US Geological Society; <http://water.usgs.gov/ogw/subsidence.html>
- Department Environmental Services;
<http://des.nh.gov/organization/divisions/water/dam/drought/documents/historical.pdf>
- The Disaster Center (NH); <http://www.disastercenter.com/newhamp/tornado.html>
- Floodsmart, about the NFIP; http://www.floodsmart.gov/floodsmart/pages/about/nfip_overview.jsp
- NOAA, National Weather Service; <http://www.nws.noaa.gov/glossary/index.php?letter=w>
- NOAA, Storm Prediction Center; <http://www.spc.noaa.gov/faq/tornado/beaufort.html>
- National Weather Service; http://www.nws.noaa.gov/om/cold/wind_chill.shtml
- Center for Disease Control; <https://www.cdc.gov/disasters/winter/index.html>
- Slate; <http://www.slate.com/id/2092969/>
- NH Office Strategic Initiatives; <http://www.nh.gov/osi/>
- Code of Federal Regulations; Title 14, Aeronautics and Space; Part 1, Definitions and Abbreviations;
https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title14/14tab_02.tpl
- Federal Aviation Administration; <http://faa.custhelp.com>
- US Legal, Inc.; <http://definitions.uslegal.com/v/violent-crimes/>

APPENDIX B: TECHNICAL & FINANCIAL ASSISTANCE FOR HAZARD MITIGATION

FEMA's Hazard Mitigation Assistance (HMA) grant programs provide funding FEMA's Hazard Mitigation Assistance (HMA) grant programs provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages. Currently, FEMA administers the following HMA grant programs²⁷:

- Hazard Mitigation Grant Program (HMGP)
- Pre-Disaster Mitigation (PDM)
- Flood Mitigation Assistance (FMA)
- Repetitive Flood Claims (RFC)
- Severe Repetitive Loss (SRL)

FEMA's HMA grants are provided to eligible applicants (states/tribes/territories) that, in turn, provide sub-grants to local governments and communities. The applicant selects and prioritizes subapplications developed and submitted to them by subapplicants. These subapplications are submitted to FEMA for consideration of funding.

Prospective subapplicants should consult the office designated as their applicant for further information regarding specific program and application requirements. Contact information for the FEMA Regional Offices and State Hazard Mitigation Officers is available on the FEMA website, www.fema.gov.

HMA Grant Programs

The HMA grant programs provide funding opportunities for pre- and post-disaster mitigation. While the statutory origins of the programs differ, all share the common goal of reducing the risk of loss of life and property due to natural hazards. Brief descriptions of the HMA grant programs can be found below.

A. Hazard Mitigation Grant Program (HMGP)

HMGP assists in implementing long-term hazard mitigation measures following Major Disaster Declarations. Funding is available to implement projects in accordance with state, tribal and local priorities.

Table 3: Eligible Activities by Program

Eligible Activities	HMGP	PDM	FMA
1. Mitigation Projects	✓	✓	✓
Property Acquisition and Structure Demolition	✓	✓	✓
Property Acquisition and Structure Relocation	✓	✓	✓
Structure Elevation	✓	✓	✓
Mitigation Reconstruction	✓	✓	✓
Dry Floodproofing of Historic Residential Structures	✓	✓	✓
Dry Floodproofing of Non-residential Structures	✓	✓	✓
Generators	✓	✓	
Localized Flood Risk Reduction Projects	✓	✓	✓
Non-localized Flood Risk Reduction Projects	✓	✓	
Structural Retrofitting of Existing Buildings	✓	✓	✓
Non-structural Retrofitting of Existing Buildings and Facilities	✓	✓	✓
Safe Room Construction	✓	✓	
Wind Retrofit for One- and Two-Family Residences	✓	✓	
Infrastructure Retrofit	✓	✓	✓
Soil Stabilization	✓	✓	✓
Wildfire Mitigation	✓	✓	
Post-Disaster Code Enforcement	✓		
Advance Assistance	✓		
5 Percent Initiative Projects	✓		
Miscellaneous/Other ⁽¹⁾	✓	✓	✓
2. Hazard Mitigation Planning	✓	✓	✓
Planning Related Activities	✓		
3. Technical Assistance			✓
4. Management Cost	✓	✓	✓

⁽¹⁾ Miscellaneous/Other indicates that any proposed action will be evaluated on its own merit against program requirements. Eligible projects will be approved provided funding is available.

Eligibility Chart taken from Hazard Mitigation Assistance Guidance, February 27, 2015

²⁷ Information in Appendix B is taken from the following website and links to specific programs unless otherwise noted http://www.fema.gov/media-library-data/1424983165449-38f5dfc69c0bd4ea8a161e8bb7b79553/HMA_Guidance_022715_508.pdf

What is the Hazard Mitigation Grant Program?

The Hazard Mitigation Grant Program (HMGP) provides grants to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration. Authorized under Section 404 of the Stafford Act and administered by FEMA, HMGP was created to reduce the loss of life and property due to natural disasters. The program enables mitigation measures to be implemented during the immediate recovery from a disaster.

Who is eligible to apply?

Hazard Mitigation Grant Program funding is only available to applicants that reside within a presidentially declared disaster area. Eligible applicants are

- State and local governments
- Indian tribes or other tribal organizations
- Certain non-profit organizations



Individual homeowners and businesses may not apply directly to the program; however a community may apply on their behalf.

How are potential projects selected and identified?

The state's administrative plan governs how projects are selected for funding. However, proposed projects must meet certain minimum criteria. These criteria are designed to ensure that the most cost-effective and appropriate projects are selected for funding. Both the law and the regulations require that the projects are part of an overall mitigation strategy for the disaster area.

The state prioritizes and selects project applications developed and submitted by local jurisdictions. The state forwards applications consistent with state mitigation planning objectives to FEMA for eligibility review. Funding for this grant program is limited and states and local communities must make difficult decisions as to the most effective use of grant funds.

B. Pre-Disaster Mitigation (PDM)

PDM provides funds on an annual basis for hazard mitigation planning and the implementation of mitigation projects prior to a disaster. The goal of the PDM program is to reduce overall risk to the population and structures, while at the same time, also reducing reliance on federal funding from actual disaster declarations.

Program Overview

The Pre-Disaster Mitigation (PDM) program provides funds to states, territories, Indian tribal governments, communities and universities for hazard mitigation planning and the implementation of mitigation projects prior to a disaster event.

Funding these plans and projects reduces overall risks to the population and structures, while also reducing reliance on funding from actual disaster declarations. PDM grants are to be awarded on a competitive basis and without reference to state allocations, quotas, or other formula-based allocation of funds.

C. Flood Mitigation Assistance (FMA)

FMA provides funds on an annual basis so that measures can be taken to reduce or eliminate risk of flood damage to buildings insured under the National Flood Insurance Program.

Program Overview

The FMA program was created as part of the National Flood Insurance Reform Act (NFIRA) of 1994 (42 U.S.C. 4101) with the goal of reducing or eliminating claims under the National Flood Insurance Program (NFIP).

FEMA provides FMA funds to assist states and communities implement measures that reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes and other structures insurable under the National Flood Insurance Program.

Types of FMA Grants

Three types of FMA grants are available to states and communities:

Planning Grants to prepare Flood Mitigation Plans. Only NFIP-participating communities with approved Flood Mitigation Plans can apply for FMA Project grants.

Project Grants to implement measures to reduce flood losses, such as elevation, acquisition, or relocation of NFIP-insured structures. States are encouraged to prioritize FMA funds for applications that include repetitive loss properties; these include structures with 2 or more losses each with a claim of at least \$1,000 within any ten-year period since 1978.

Technical Assistance Grants for the state to help administer the FMA program and activities. Up to ten percent (10%) of project grants may be awarded to states for Technical Assistance Grants

D. Repetitive Flood Claims (RFC)

RFC provides funds on an annual basis to reduce the risk of flood damage to individual properties insured under the NFIP that have had one or more claim payments for flood damages. RFC provides up to 100% federal funding for projects in communities that meet the reduced capacity requirements.

Program Overview

The Repetitive Flood Claims (RFC) grant program was authorized by the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004 (P.L. 108–264), which amended the National Flood Insurance Act (NFIA) of 1968 (42 U.S.C. 4001, et al).

Up to \$10 million is available annually for FEMA to provide RFC funds to assist states and communities reduce flood damages to insured properties that have had one or more claims to the National Flood Insurance Program (NFIP).

Federal / Non-Federal Cost Share

FEMA may contribute up to 100 percent of the total amount approved under the RFC grant award to implement approved activities, if the applicant has demonstrated that the proposed activities cannot be funded under the Flood Mitigation Assistance (FMA) program.

E. Severe Repetitive Loss (SRL)

SRL provides funds on an annual basis to reduce the risk of flood damage to residential structures insured under the NFIP that are qualified as severe repetitive loss structures. SRL provides up to 90% federal funding for eligible projects.

Program Overview

The Severe Repetitive Loss (SRL) grant program was authorized by the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004, which amended the National Flood Insurance Act of 1968 to provide funding to reduce or eliminate the long-term risk of flood damage to severe repetitive loss (SRL) structures insured under the National Flood Insurance Program (NFIP).

Definition

The definition of severe repetitive loss as applied to this program was established in section 1361A of the National Flood Insurance Act, as amended (NFIA), 42 U.S.C. 4102a. An SRL property is defined as a **residential property** that is covered under an NFIP flood insurance policy and:

- (a) That has at least four NFIP claim payments (including building and contents) over \$5,000 each and the cumulative amount of such claims payments exceeds \$20,000; or
- (b) For which at least two separate claims payments (building payments only) have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building.

For both (a) and (b) above, at least two of the referenced claims must have occurred within any ten-year period and must be greater than 10 days apart.

Purpose

To reduce or eliminate claims under the NFIP through project activities that will result in the greatest savings to the National Flood Insurance Fund (NFIF).

Federal / Non-Federal cost share

75/25%; up to 90% federal cost-share funding for projects approved in states, territories and federally-recognized Indian tribes with FEMA-approved Standard or Enhanced Mitigation Plans or Indian tribal plans that include a strategy for mitigating existing and future SRL properties.

**For further information all of these programs, please refer to
the new FEMA Hazard Mitigation Assistance Guidance:**

http://www.fema.gov/media-library-data/1424983165449-38f5dfc69c0bd4ea8a161e8bb7b79553/HMA_Guidance_022715_508.pdf

APPENDIX C: THE EXTENT OF NATURAL HAZARDS

Hazards indicated with an asterisk * are included in this plan.

SEVERE WINTER WEATHER*

Ice and snow events typically occur during the winter months and can cause loss of life, property damage and tree damage.

Snowstorms

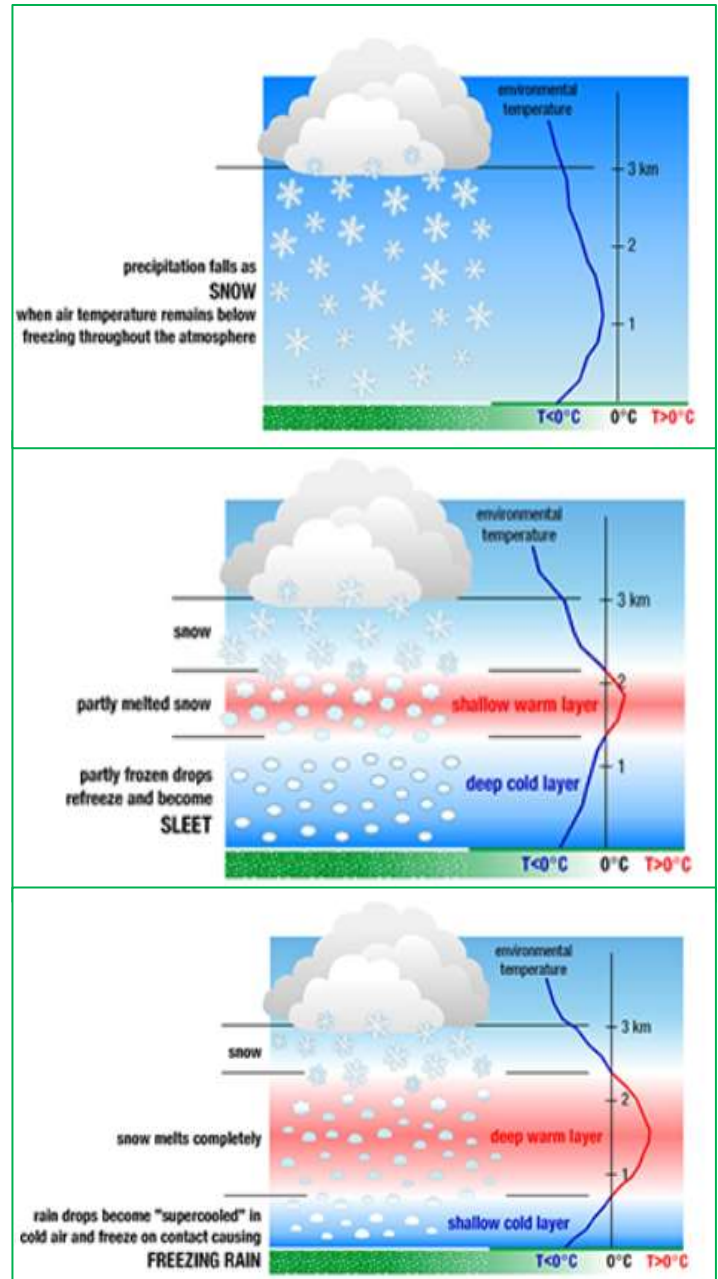
A winter storm can range from moderate snow to blizzard conditions. Blizzard conditions are considered blinding wind-driven snow over 35 mph that lasts several days. A severe winter storm deposits four or more inches of snow during a 12-hour period or six inches of snow during a 24-hour period.

Sleet

Snowflakes melt as they fall through a small band of warm air and later refreeze when passing through a wider band of cold air close to the ground to become “sleet”.

Freezing Rain & Ice Storms

Snowflakes melt completely as they fall through a warm band of air then fall through a shallow band of cold air close to the ground to become “supercooled”. These supercooled raindrops instantly freeze upon contact with the ground and anything else that is below 32 degrees Fahrenheit. This freezing creates accumulations of ice on roads, trees, utility lines and other objects resulting in what we think of as an “ice storm”. “Ice coating at least one-fourth inch in thickness is heavy enough to damage trees, overhead wires and similar objects.”²⁸



Types of Severe Winter Weather
NOAA – National Severe Storms Laboratory

²⁸ NOAA, National Severe Storms Laboratory, <https://www.nssl.noaa.gov/education/svrwx101/winter/types/>

The Sperry-Piltz Ice Accumulation Index (SPIA) (below) is designed to help utility companies better prepare for predicated ice storms.²⁹

The Sperry-Piltz Ice Accumulation Index, or "SPIA Index" – Copyright, February, 2009

ICE DAMAGE INDEX	* AVERAGE NWS ICE AMOUNT (in inches) <small>*Revised October 2011</small>	WIND (mph)	DAMAGE AND IMPACT DESCRIPTIONS
0	< 0.25	< 15	Minimal risk of damage to exposed utility systems; no alerts or advisories needed for crews, few outages.
1	0.25 – 0.50	15 – 25	Some isolated or localized utility interruptions are possible, typically lasting only a few hours. Roads and bridges may become slick and hazardous.
	0.50 – 0.75	> 25	
2	0.75 – 0.99	25 – 35	Scattered utility interruptions expected, typically lasting 12 to 24 hours. Roads and travel conditions may be extremely hazardous due to ice accumulation.
	1.00 – 1.24	35 – 45	
	1.25 – 1.49	> 45	
3	1.50 – 1.74	25 – 35	Numerous utility interruptions with some damage to main feeder lines and equipment expected. Tree limb damage is excessive. Outages lasting 1 – 3 days.
	1.75 – 1.99	35 – 45	
	2.00 – 2.24	45 – 55	
	2.25 – 2.49	> 55	
4	2.50 – 2.74	> 35	Prolonged & widespread utility interruptions with extensive damage to main distribution feeder lines & some high voltage transmission lines/structures. Outages lasting 5 – 10 days.
	2.75 – 2.99	35 – 45	
	3.00 – 3.24	45 – 55	
	3.25 – 3.49	> 55	
5	3.50 – 3.74	> 35	Catastrophic damage to entire exposed utility systems, including both distribution and transmission networks. Outages could last several weeks in some areas. Shelters needed.
	3.75 – 3.99	> 45	
	4.00 – 4.24	> 55	
	> 4.25	Any	

(Categories of damage are based upon combinations of precipitation totals, temperatures and wind speeds/directions.)

INLAND FLOODING*

General Flooding Conditions

Floods are defined as a temporary overflow of water onto lands that are not normally covered by water. Flooding results from the overflow of major rivers and tributaries, storm surges and/or inadequate local drainage. Floods can cause loss of life, property damage, crop/livestock damage and water supply contamination. Floods can also disrupt travel routes on roads and bridges.

Inland floods are most likely to occur in the spring due to the increase in rainfall and melting of snow; however, floods can occur at any time of the year. A sudden thaw in the winter or a major downpour in the summer can cause flooding because there is suddenly a lot of water in one place with nowhere to go; warm temperatures and heavy rains cause rapid snowmelt producing prime conditions for flooding. In addition, rising waters in early spring often breaks ice into chunks that float downstream and pile up, causing flooding behind them. Small rivers and streams pose special flooding risks because they are easily blocked by jams. Ice in riverbeds and against structures presents a significant flooding threat to bridges, roads and the surrounding lands.



²⁹ The Weather Channel, <http://www.weather.com/news/weather-winter/rating-ice-storms-damage-sperry-piltz-20131202>

Flooding (Dam Failure)

Flooding as a result of dam failure can be small enough to only affect the immediate area of the dam, or large enough to cause catastrophic results to cities, towns and human life that is below the dam. The extent of flooding depends largely on the size of the dam, the amount of water that is being held by the dam, the size of the breach, the amount of water flow from the dam and the amount of human habitation that is downstream.

A “Dam” means any artificial barrier, including appurtenant works, which impounds or diverts water, and which has a height of 4 feet or more, or a storage capacity of 2 acre-feet or more, or is located at the outlet of a great pond³⁰. A dam failure occurs when water overtops the dam, or there is structural failure of the dam which causes there to be a breach and an unintentional release of water. Dams are classified in the following manner³¹:

Classification	Description	Inspection Intervals
Non-Menace	A dam that is not a menace because it is in a location and of a size that failure or misoperation of the dam would not result in probable loss of life or loss to property. The dam must be less than six feet in height if the storage capacity is greater than 50 acre-feet or less than 25 feet in height if it has a storage capacity of 15-50 acre-feet.	Every 6 years
Low Hazard	A dam that has a low hazard potential because it is in a location and of a size that failure or misoperation of the dam would result in no possible loss of life, low economic loss to structures or property, structural damage to a town or city road or private road accessing property other than the dam owner's that could render the road impassable or otherwise interrupt public safety services, the release of liquid industrial, agricultural, or commercial wastes, septage, or contained sediment if the storage capacity is less two-acre-feet and is located more than 250 feet from a water body or water course, and/or reversible environmental losses to environmentally-sensitive sites.	Every 6 years
Significant Hazard	A dam that has a significant hazard potential because it is in a location and of a size that failure or misoperation of the dam would result in no probable loss of lives; however, there would be major economic loss to structures or property, structural damage to a Class I or Class II road that could render the road impassable or otherwise interrupt public safety services, major environmental or public health losses including one or more of the following: damages to a public water system (RSA 485:1-a, XV) which will take longer than 48 hours to repair, the release of liquid industrial, agricultural, or commercial wastes, septage, sewage, or contaminated sediments if the storage capacity is 2 acre-feet or more; or damage to an environmentally-sensitive site that does not meet the definition of reversible environmental losses.	Every 4 years
High Hazard	A dam that has a high hazard potential because it is in a location and of a size that failure or misoperation of the dam would result in probable loss of human life as well as a result of water levels and velocities causing the structural failure of a foundation of a habitable residential structure or commercial or industrial structure which is occupied under normal conditions; water levels rising above the first floor elevation of a habitable residential structure or a commercial or industrial structure, which is occupied under normal conditions when the rise due to a dam failure is greater than one foot; structural damage to an interstate highway, which could render the roadway impassable or otherwise interrupt public safety services; the release of a quantity and concentration of material, which qualify as “hazardous waste” as defined by RSA 147-A:2 VII; or any other circumstance that would more likely than not cause one or more deaths.	Every 2 years

³⁰ NH DES http://des.nh.gov/organization/divisions/water/dwgb/wrpp/documents/primer_chapter11.pdf

³¹ <http://des.nh.gov/organization/commissioner/pip/factsheets/db/documents/db-15.pdf>

Flooding (local, road erosion)

Heavy rain, rapid snowmelt and stream flooding often cause culverts to be overwhelmed and roads to wash out. Today, with changes in land use, aging roads, designs that are no longer effective and undersized culverts, the risk of flooding is a serious concern. Inadequate and aging stormwater drainage systems create local flooding on both asphalt and gravel roads.

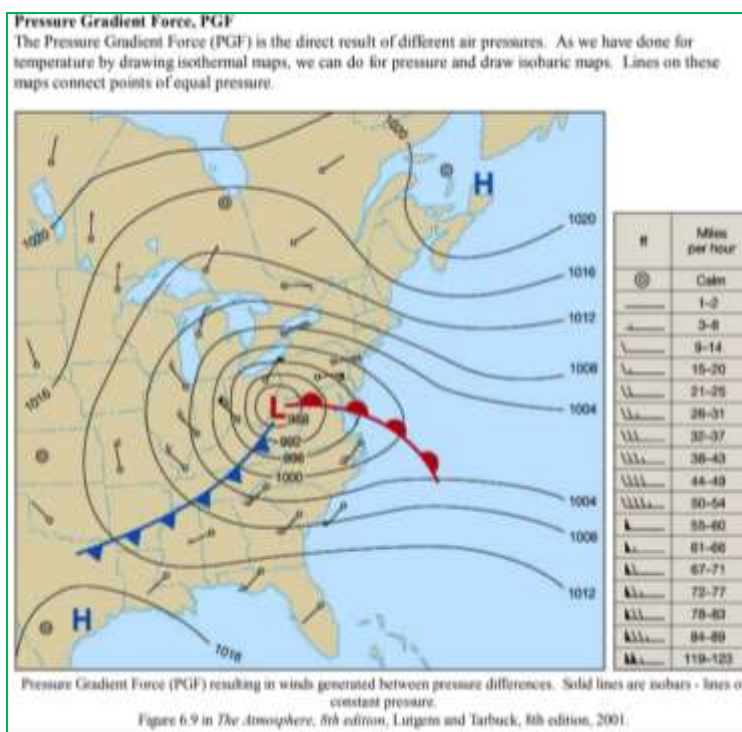
Flooding (Riverine)

Floodplains are usually located in lowlands near rivers and flood on a regular basis. The term 100-year flood does not mean that flood will occur once every 100 years. It is a statement of probability that scientists and engineers use to describe how one flood compares to others that are likely to occur. It is more accurate to use the phrase "1% annual chance flood". Flooding is often associated with hurricanes, heavy rains, ice jams and rapid snowmelt in the spring.

HIGH WIND EVENTS*

Windstorm

As stated by NOAA (National Oceanic & Atmospheric Administration), wind is defined as "The horizontal motion of the air past a given point." Winds begin with differences in air pressures. Those pressures which are higher at one place than another place set up a force pushing from the high pressure toward the low pressure; the greater the difference in pressures, the stronger the force. The distance between the area of high pressure and the area of low pressure also determines how fast the moving air is accelerated. Meteorologists refer to the force that starts the wind flowing as the "pressure gradient force." High and low pressures are relative. There's no set number that divides high and low pressure. Wind is used to describe the prevailing direction from which the wind is blowing with the speed given usually in miles per hour or knots." In addition, NOAA's issuance of a Wind Advisory takes place when sustained winds reach 25 to 39 mph and/or gusts to 57 mph.^{32 33}



³² NOAA; <http://www.nws.noaa.gov/glossary/index.php?letter=w>

³³ Pressure Gradient Force Chart "snipped" from *Air Pressure and Wind*; https://www.weather.gov/media/zhz/ZHU_Training_Page/winds/pressure_winds/pressure_winds.pdf

Tornado

A tornado is a violent windstorm characterized by a twisting, funnel shaped cloud. Tornadoes develop when cool air overrides a layer of warm air, causing the warm air to rise rapidly. The atmospheric conditions required for the formation of a tornado include great thermal instability, high humidity and the convergence of warm, moist air at low levels with cooler, drier air aloft. Most tornadoes remain suspended in the atmosphere, but if they touch down they become a force of destruction.

Tornadoes produce the most violent winds on earth, at speeds of 280 mph or more. In addition, tornadoes can travel at a forward speed of up to 70 mph. Damage paths can be in excess of one mile wide and 50 miles long. Violent winds and debris slamming into buildings cause the most structural damage.

The Fujita Scale is the standard scale for rating the severity of a tornado as measured by the damage it causes. A tornado is usually accompanied by thunder, lightning, heavy rain and a loud "freight train" noise. In comparison to a hurricane, a tornado covers a much smaller area but can be more violent and destructive.

"Dr. T. Theodore Fujita developed the Fujita Tornado Damage Scale (F-Scale) to provide estimates of tornado strength based on damage surveys. Since it's practically impossible to make direct measurements of tornado winds, an estimate of the winds based on damage is the best way to classify a tornado. The new Enhanced Fujita Scale (EF-Scale) addresses some of the limitations identified by meteorologists and engineers since the introduction of the Fujita Scale in 1971. The new scale identifies 28 different free standing structures most affected by tornadoes taking into account construction quality and maintenance. The range of tornado intensities remains as before, zero to five, with 'EF-0' being the weakest, associated with very little damage and 'EF-5' representing complete destruction, which was the case in Greensburg, Kansas on May 4th, 2007, the first tornado classified as 'EF-5'. The EF scale was adopted on February 1, 2007."³⁴ The chart (right), adapted from wunderground.com, shows a comparison of the Fujita Scale to the Enhanced Fujita Scale.

EF SCALE	OLD F-SCALE	TYPICAL DAMAGE
EF-0 (65-85mph)	F0 (65-73 mph)	Light damage. Peels surface off some roofs; some damage to gutters or siding; branches broken off trees; shallow-rooted trees pushed over.
EF-1 (86-110 mph)	F1 (74-112 mph)	Moderate damage. Roofs severely stripped; mobile homes overturned or badly damaged; loss of exterior doors; windows and other glass broken.
EF-2 (111-135 mph)	F2 (113-157 mph)	Considerable damage. Roofs torn off well-constructed houses; foundations of frame homes shifted; mobile homes completely destroyed; large trees snapped or uprooted; light-object missiles generated; cars lifted off ground.
EF-3 (136-165 mph)	F3 (158-206 mph)	Severe damage. Entire stories of well-constructed houses destroyed; severe damage to large buildings such as shopping malls; trains overturned; trees debarked; heavy cars lifted off the ground and thrown; structures with weak foundations blown away some distance.
EF-4 (166-200 mph)	F4 (207-260 mph)	Devastating damage. Well-constructed houses and whole frame houses completely leveled; cars thrown and small missiles generated.
EF-5 (>200 mph)	F5 (261-318 mph)	Incredible damage. Strong frame houses leveled off foundations and swept away; automobile-sized missiles fly through the air in excess of 100 m (109 yards); high-rise buildings have significant structural deformation; incredible phenomena will occur.
EF No rating	F6-F12 (319 mph to speed of sound)	Inconceivable damage. Should a tornado with the maximum wind speed in excess of EF5 occur, the extent and types of damage may not be conceived. A number of missiles such as iceboxes, water heaters, storage tanks, automobiles, etc. will create serious secondary damage on structures.

³⁴ Enhance Fujita Scale, http://www.wunderground.com/resources/severe/fujita_scale.asp

Downburst

A downburst is a strong downdraft which causes damaging winds on or near the ground according to NOAA. Not to be confused with downburst, the term "microburst" describes the size of the downburst. A comparison of a microburst and the larger macroburst shows that both can cause extreme winds.

A microburst is a downburst with winds extending 2 ½ miles or less, lasting 5 to 15 minutes and causing damaging winds as high as 168 MPH. A macroburst is a downburst with winds extending more than 2 ½ miles lasting 5 to 30 minutes. Damaging winds, causing widespread, tornado-like damage, could be as high as 134 MPH.³⁵

Below is the Beaufort Wind Scale, showing expected damage based on wind (knots), developed in 1805 by Sir Francis Beaufort of England and posted on NOAA's Storm Prediction Center website.³⁶

Force	Wind (Knots)	WMO Classification	Appearance of Wind Effects	
			On the Water	On Land
0	Less than 1	Calm	Sea surface smooth and mirror-like	Calm, smoke rises vertically
1	1-3	Light Air	Scaly ripples, no foam crests	Smoke drift indicates wind direction, still wind vanes
2	4-6	Light Breeze	Small wavelets, crests glassy, no breaking	Wind felt on face, leaves rustle, vanes begin to move
3	7-10	Gentle Breeze	Large wavelets, crests begin to break, scattered whitecaps	Leaves and small twigs constantly moving, light flags extended
4	11-16	Moderate Breeze	Small waves 1-4 ft. becoming longer, numerous whitecaps	Dust, leaves, and loose paper lifted, small tree branches move
5	17-21	Fresh Breeze	Moderate waves 4-8 ft. taking longer form, many whitecaps, some spray	Small trees in leaf begin to sway
6	22-27	Strong Breeze	Larger waves 8-13 ft., whitecaps common, more spray	Larger tree branches moving, whistling in wires
7	28-33	Near Gale	Sea heaps up, waves 13-20 ft., white foam streaks off breakers	Whole trees moving, resistance felt walking against wind
8	34-40	Gale	Moderately high (13-20 ft.) waves of greater length, edges of crests begin to break into spindrift, foam blown in streaks	Whole trees in motion, resistance felt walking against wind
9	41-47	Strong Gale	High waves (20 ft.), sea begins to roll, dense streaks of foam, spray may reduce visibility	Slight structural damage occurs, slate blows off roofs
10	48-55	Storm	Very high waves (20-30 ft.) with overhanging crests, sea white with densely blown foam, heavy rolling, lowered visibility	Seldom experienced on land, trees broken or uprooted, "considerable structural damage"
11	56-63	Violent Storm	Exceptionally high (30-45 ft.) waves, foam patches cover sea, visibility more reduced	
12	64+	Hurricane	Air filled with foam, waves over 45 ft., sea completely white with driving spray, visibility greatly reduced	

³⁵ NOAA - <http://www.srh.noaa.gov/jetstream/tstorms/wind.html>

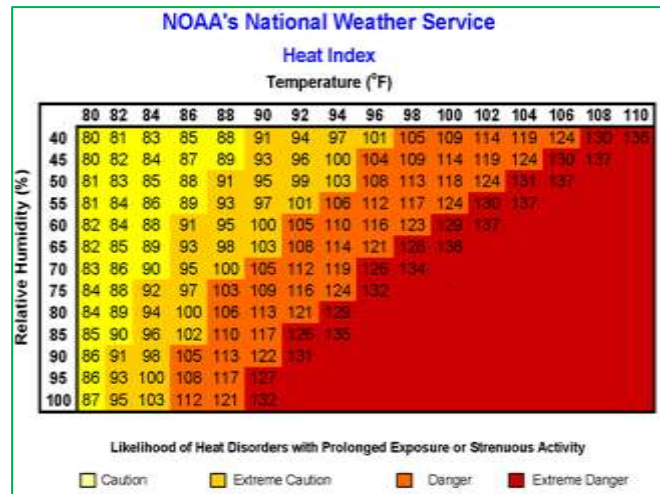
³⁶ NOAA, Storm Prediction Center, <http://www.spc.noaa.gov/faq/tornado/beaufort.html>

EXTREME TEMPERATURES*

Extreme Heat

A heat wave is a “prolonged period of excessive heat, often combined with excessive humidity.” Heat kills by pushing the human body beyond its limits. In extreme heat and high humidity, evaporation is slowed and the body must work extra hard to maintain a normal temperature.

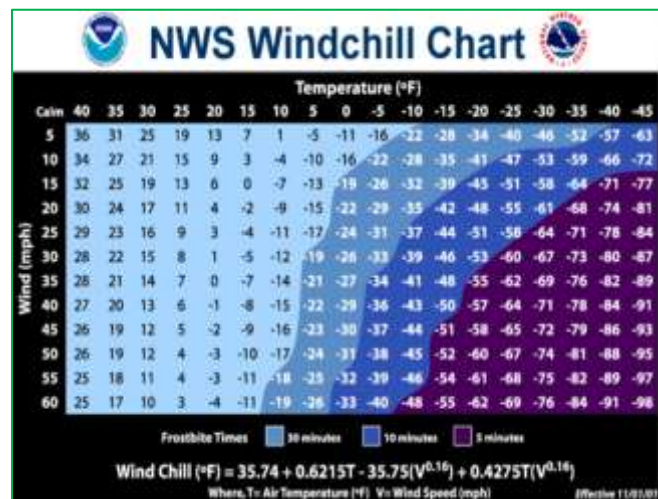
Most heat disorders occur because the victim has been overexposed to heat or has over-exercised for his or her age and physical condition. Older adults, young children and those who are sick or overweight are more likely to succumb to extreme heat.



Conditions that can induce heat-related illnesses include stagnant atmospheric conditions and poor air quality. Consequently, people living in urban areas may be at greater risk from the effects of a prolonged heat wave than those living in rural areas. Also, asphalt and concrete store heat longer and gradually release heat at night, which can produce higher nighttime temperatures known as the "urban heat island effect."³⁷ The chart above explains the likelihood of heat disorders that may result from high heat.³⁸

Extreme Cold

What constitutes extreme cold and its effects can vary across different areas of the country. In regions relatively unaccustomed to winter weather, near freezing temperatures are considered “extreme cold.” Whenever temperatures drop decidedly below normal and as wind speed increases, heat can leave your body more rapidly; these weather related conditions may lead to serious health problems. Extreme cold is a dangerous situation that can bring on health emergencies in susceptible people without shelter or who are stranded, or who live in a home that is poorly insulated or without heat.³⁹ The National Weather Service Chart (to the right) shows windchill as a result of wind and temperature.⁴⁰



³⁷ NOAA, Index/Heat Disorders; <http://www.srh.noaa.gov/ssd/html/heatwv.htm>

³⁸ NOAA; <http://www.nws.noaa.gov/os/heat/index.shtml>

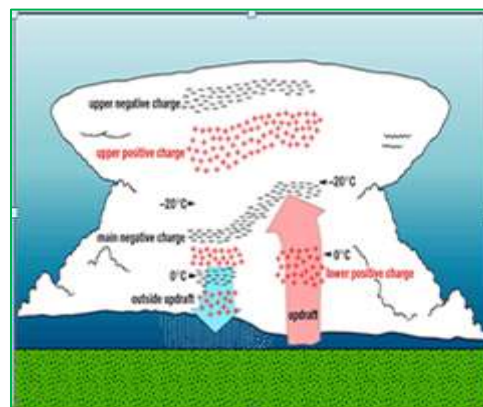
³⁹ CDC; <http://www.bt.cdc.gov/disasters/winter/guide.asp>

⁴⁰ National Weather Service; <http://www.nws.noaa.gov/om/windchill/>

LIGHTNING***Lightning**

As stated by the NOAA National Severe Storms Laboratory (NSSL) “Lightning is a giant spark of electricity in the atmosphere between clouds, the air, or the ground. In the early stages of development, air acts as an insulator between the positive and negative charges in the cloud and between the cloud and the ground. When the opposite charges build up enough, this insulating capacity of the air breaks down and there is a rapid discharge of electricity that we know as lightning. The flash of lightning temporarily equalizes the charged regions in the atmosphere until the opposite charges build up again.”⁴¹

Thunder, a result of lightning, is created when the “lightning channel heats the air to around 18,000 degrees Fahrenheit...”⁴² thus causing the rapid expansion of the air and the sounds we hear as thunder. Although thunder that is heard during a storm cannot hurt you, the lightning that is associated with the thunder can not only strike people but also strike homes, out-buildings, grass and trees sparking disaster. Wildfires and structure loss are at a high risk during severe lightning events.



“A conceptual model shows the electrical charge distribution inside deep convection (thunderstorms), developed by NSSL and university scientists. In the main updraft (in and above the red arrow), there are four main charge regions. In the convective region but outside the out draft (in and above the blue arrow), there are more than four charge regions.” - NOAA

Although thunderstorms and their associated lightning can occur any time of year, in New England they are most likely to occur in the summer months and during the late afternoon or early evening hours; they may even occur during a winter snowstorm. Trees, tall buildings and mountains are often the targets of lightning because their tops are closer to the cloud; however, lightning is unpredictable and does not always strike the tallest thing in the area.

Thunderstorms and lightning occur most commonly in moist warm climates. Data from the National Lightning Detection Network shows that over the continental U.S. an average of 20,000,000 cloud-to-ground flashes occur every year. Around the world, lightning strikes the ground about 100 times each second, or 8 million times a day.

In general, lightning decreases across the U.S. mainland toward the northwest. Over the entire year, the highest frequency of cloud-to-ground lightning is in Florida between Tampa and Orlando. This is due to the presence, on many days during the year, of a large moisture content in the atmosphere at low levels (below 5,000 feet), as well as high surface temperatures that produce strong sea breezes along the Florida coasts. The western mountains of the U.S. also produce strong upward motions and contribute to frequent cloud-to-ground lightning. There are also high frequencies along the Gulf of Mexico coast, the Atlantic coast and in the southeast United States. US Regions along the Pacific west coast have the least cloud-to-ground lightning.”⁴³

⁴¹ NOAA National Severe Storms Laboratory, <https://www.nssl.noaa.gov/education/svrwx101/lightning>

⁴² Ibid

⁴³ Ibid

Lightning Activity Level (LAL) Grid		
The lightning activity level is a common parameter that is part of fire weather forecasts nationwide. LAL is a measure of the amount of lightning activity using values 1 to 6 where:		
LAL	Cloud & Storm Development	Lightning Strikes 15 Minutes
1	No thunderstorms	-
2	Cumulus clouds are common but only a few reach the towering cumulus stage. A single thunderstorm must be confirmed in the observation area. The clouds produce mainly virga, but light rain will occasionally reach the ground. Lightning is very infrequent.	1-8
3	Towering cumulus covers less than two-tenths of the sky. Thunderstorms are few, but two to three must occur within the observation area. Light to moderate rain will reach the ground, and lightning is infrequent.	9-15
4	Towering cumulus covers two to three-tenths of the sky. Thunderstorms are scattered and more than three must occur within the observation area. Moderate rain is common and lightning is frequent.	16-25
5	Towering cumulus and thunderstorms are numerous. They cover more than three-tenths and occasionally obscure the sky. Rain is moderate to heavy and lightning is frequent and intense.	>25
6	Similar to LAL 3 except thunderstorms are dry.	

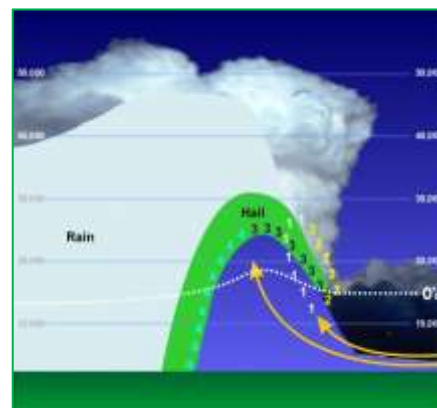
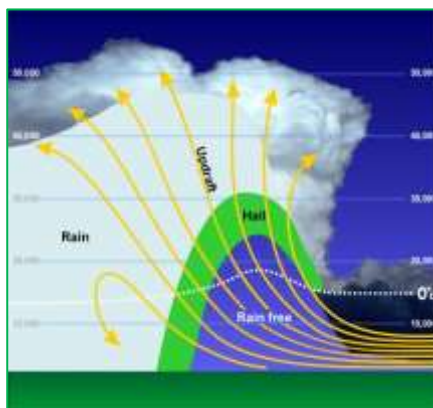
<http://www.prh.noaa.gov/hnl/pages/LAL.php>

Hailstorm

Hailstones are balls of ice that grow as they are held up by winds, known as updrafts that blow upwards in thunderstorms. The updrafts carry droplets of supercooled water, water at a below-freezing temperature that is not yet ice. The supercooled water droplets freeze into balls of ice and grow to become hailstones. The faster the updraft, the bigger the stones can grow. Most hailstones are smaller in diameter than a dime, but stones weighing more than a pound have been recorded. "The largest hailstone recovered in the US fell in Vivian, SD on June 23, 2010 with a diameter of 8 inches and a circumference of 18.62 inches. It weighed 1 lb. 15 oz."⁴⁴

Dime/Penny	0.75	
Nickel	0.88	
Quarter	1.00	
Half Dollar	1.25	
Ping Pong	1.50	
Golf Ball	1.75	
Hen Egg	2.00	
Tennis Ball	2.50	
Baseball	2.75	
Tea Cup	3.00	
Grapefruit	4.00	
Softball	4.50	

Details of how hailstones grow are complicated, but the results are irregular balls of ice that can be as large as baseballs. The chart above shows the relative size differences and a common way to "measure" the size of hail based on diameter.⁴⁵ The charts to the right show how hail is formed.⁴⁶



⁴⁴ NOAA National Severe Storms Laboratory; <https://www.nssl.noaa.gov/education/svrwx101/hail/>

⁴⁵ <http://www.pinterest.com/pin/126171227030590678/>

⁴⁶ <http://oceanservice.noaa.gov/education/yos/resource/JetStream/tstorms/hail.htm#hail>

WILDFIRES*

As stated by the National Wildfire Coordinating Group (NWCG), wildfires are designated in seven categories as seen in the top chart to the right:⁴⁷ For the purpose of statistical analysis, the US Forest Service recognizes the cause of fires according to the bottom chart to the right:⁴⁸

The definition according to the International Wildland-Urban Interface Code of wildfire is “an uncontrolled fire spreading through vegetative fuels exposing and possibly consuming structures”. In addition, the IWUIC goes on to define the wildland urban interface area as “that geographical area where structures and other human development meets or intermingles with wildland or vegetative fuels.”⁴⁹

There are two main potential losses with a wildfire: the forest itself and the threat to the built-up human environment (the structures within the WUI). In many cases, the only time it is feasible for a community to control a wildfire is when it threatens the built-up human environment.

Class	Acres Burned
Class A	0 to .25 acres
Class B	.26 to 9 acres
Class C	10 to 99 acres
Class D	100 to 299 acres
Class E	300 to 999 acres
Class F	1,000 to 4,999 acres
Class G	5,000 acres or more
Code	Statistical Cause
1	Lightning
2	Equipment Use
3	Smoking
4	Campfire
5	Debris Burning
6	Railroad
7	Arson
8	Children
9	Miscellaneous

TROPICAL & POST-TROPICAL CYCLONES*

Cyclones (Hurricanes)

A hurricane is a tropical cyclone in which winds reach speeds of 74 miles per hour or more and blow in a large spiral around a relatively calm center. The eye of the storm is usually 20-30 miles wide and the storm may extend over 400 miles. High winds are a primary cause of hurricane-inflicted loss of life and property damage.

“The Saffir-Simpson Hurricane Wind Scale” (on the following page⁵⁰) is a 1 to 5 rating based on a hurricane's sustained wind speed. This scale estimates potential property damage. Hurricanes reaching Category 3 and higher are considered major hurricanes because of their potential for significant loss of life and damage. Category 1 and 2 storms are still dangerous and require preventative measures. In the western North Pacific, the term “super typhoon” is used for tropical cyclones with sustained winds exceeding 150 mph.”⁵¹

Flooding is often caused from the coastal storm surge of the ocean and torrential rains, both of which may accompany a hurricane; these floods can result in loss of lives and property.

Post-Tropical Cyclones

A tropical depression becomes a tropical storm when its maximum sustained winds are between 39-73 mph. Although tropical storms have winds of less than 74 miles per hour, like hurricanes, they can do significant damage. The damage most felt by tropical storms is from the torrential rains they produce which cause rivers and streams to flood and overflow their banks.

⁴⁷ <http://www.nwcg.gov/pms/pubs/glossary/s.htm>

⁴⁸ https://www.fs.fed.us/cgi-bin/Directives/get_dirs/fsh?5109.14

⁴⁹ International Wildland-Urban Interface Code, 2012, International Code Council, Inc.

⁵⁰ National Hurricane Center; <http://www.nhc.noaa.gov/aboutsshws.php>

⁵¹ National Hurricane Center, NOAA; <http://www.nhc.noaa.gov/aboutsshws.php>

Rainfall from tropical storms has been reported at rates of up to 6 inches per hour; 43 inches of rain in a 24 hour period was reported in Alvin, TX as a result of Tropical Storm Claudette.⁵²

Category	Sustained Winds	Types of Damage Due to Hurricane Winds
1	74-95 mph 64-82 kt. 119-153 km/h	Very dangerous winds will produce some damage: Well-constructed frame homes could have damage to roof, shingles, and vinyl siding and gutters. Large branches of trees will snap and shallowly rooted trees may be toppled. Extensive damage to power lines and poles likely will result in power outages that could last a few to several days.
2	96-110 mph 83-95 kt. 154-177 km/h	Extremely dangerous winds will cause extensive damage: Well-constructed frame homes could sustain major roof and siding damage. Many shallowly rooted trees will be snapped or uprooted and block numerous roads. Near-total power loss is expected with outages that could last from several days to weeks.
3 (major)	111-129 mph 96-112 kt. 178-208 km/h	Devastating damage will occur: Well-built frame homes may incur major damage or removal of roof decking and gable ends. Many trees will be snapped or uprooted, blocking numerous roads. Electricity and water will be unavailable for several days to weeks after the storm passes.
4 (major)	130-156 mph 113-136 kt. 209-251 km/h	Catastrophic damage will occur: Well-built frame homes can sustain severe damage with loss of most of the roof structure and/or some exterior walls. Most trees will be snapped or uprooted and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last weeks to possibly months. Most of the area will be uninhabitable for weeks or months.
5 (major)	157 mph or higher 137 kt. or higher 252 km/h or higher	Catastrophic damage will occur: A high percentage of framed homes will be destroyed, with total roof failure and wall collapse. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Most of the area will be uninhabitable for weeks or months.

EARTHQUAKES*

An earthquake is a rapid shaking of the earth caused by the breaking and shifting of rock beneath the earth's surface. Earthquakes can cause buildings and bridges to collapse, disrupt gas, electric and phone lines and often cause landslides, flash floods, fires and avalanches. Larger earthquakes usually begin with slight tremors but rapidly take the form of one or more violent shocks and end in vibrations of gradually diminishing force called aftershocks. The underground point of origin of an earthquake is called its focus; the point on the surface directly above the focus is the epicenter. The magnitude and intensity of an earthquake is widely determined by the use of two scales, the more commonly used Richter scale (measures strength or magnitude) and the Mercalli Scale (measures intensity or severity). The chart to the right shows the two scales relative to one another. The Richter scale measures earthquakes starting at 1 as the lowest with each successive unit being about 10 times stronger and more severe than the previous one.⁵³

Four earthquakes occurred in New Hampshire between 1924-1989 having a magnitude of 4.2 or more. Two of these occurred in Ossipee, one west of Laconia and one near the Quebec border. It is well documented that there are fault lines running throughout New Hampshire, but high magnitude earthquakes have not been frequent in NH history.

Modified Mercalli Scale		Richter Magnitude Scale
I	Detected only by sensitive instruments	1.5
II	Felt by few persons at rest, especially on upper floors; delicately suspended objects may swing	2
III	Felt noticeably indoors, but not always recognized as earthquake; standing autos rock slightly, vibration like passing truck	2.5
IV	Felt indoors by many, outdoors by few, at night some may awaken; dishes, windows, doors disturbed; autos rock noticeably	3
V	Felt by most people; some breakage of dishes, windows, and plaster; disturbance of tall objects	3.5
VI	Felt by all, many frightened and run outdoors; falling plaster and chimneys, damage small	4
VII	Everybody runs outdoors; damage to buildings varies depending on quality of construction; noticed by drivers of autos	4.5
VIII	Panel walls thrown out of frames; fall of walls, monuments, chimneys; sand and mud ejected; drivers of autos disturbed	5
IX	Buildings shifted off foundations, cracked, thrown out of plumb; ground cracked; underground pipes broken	5.5
X	Most masonry and frame structures destroyed; ground cracked, rails bent, landslides	6
XI	Few structures remain standing; bridges destroyed, fissures in ground, pipes broken, landslides, rails bent	6.5
XII	Damage total; waves seen on ground surface, lines of sight and level distorted, objects thrown up in air	7

⁵² http://www.wpc.ncep.noaa.gov/research/mcs_web_test_test_files/Page1637.htm

⁵³ Modified Mercalli Scale/Richter Scale Chart; MO DNR, http://www.dnr.mo.gov/geology/geosrv/geores/richt_mercalli_relation.htm

DROUGHT*

A drought is defined as a long period of abnormally low precipitation, especially one that adversely affects the growing season or living conditions of plants and animals. Droughts are rare in New Hampshire. They generally are not as damaging and disruptive as floods and are more difficult to define. The effect of drought is indicated through measurements of soil moisture, groundwater levels and stream flow.



However, not all of these indicators will be minimal during a drought. For example, frequent minor rainstorms can replenish the soil moisture without raising groundwater levels or increasing stream flow. Low stream flow also correlates with low groundwater levels because groundwater discharge to streams and rivers maintains stream flow during extended dry periods. Low stream flow and low groundwater levels commonly cause diminished water supply.

The US Drought Monitor provides an intensity scale as shown below to indicate the “Category” of drought any given time. During the peak months of the 2016 drought in New Hampshire, the southern part of the state was in Category D3 or Extreme Drought.

Category	Description	Possible Impacts	Ranges				
			Palmer Drought Severity Index (PDSI)	CPC Soil Moisture Model (Percentiles)	USGS Weekly Streamflow (Percentiles)	Standardized Precipitation Index (SPI)	Objective Drought Indicator Index (Percentiles)
D0	Abnormally Dry	<ul style="list-style-type: none"> Going into drought: <ul style="list-style-type: none"> short-term dryness slowing planting, growth of crops or pastures Coming out of drought: <ul style="list-style-type: none"> some lingering water deficits pastures or crops not fully recovered 	-1.0 to -1.9	21 to 30	21 to 30	-0.5 to -0.7	21 to 30
D1	Moderate Drought	<ul style="list-style-type: none"> Some damage to crops, pastures Streams, reservoirs, or wells low, some water shortages developing or imminent Voluntary water use restrictions requested 	-2.0 to -2.9	11 to 20	11 to 20	-0.8 to -1.2	11 to 20
D2	Severe Drought	<ul style="list-style-type: none"> Crop or pasture losses likely Water shortages common Water restrictions imposed 	-3.0 to -3.9	6 to 10	6 to 10	-1.3 to -1.5	6 to 10
D3	Extreme Drought	<ul style="list-style-type: none"> Major crop/pasture losses Widespread water shortages or restrictions 	-4.0 to -4.9	3 to 5	3 to 5	-1.6 to -1.9	3 to 5
D4	Exceptional Drought	<ul style="list-style-type: none"> Exceptional and widespread crop/pasture losses Shortages of water in reservoirs, streams, and wells creating water emergencies 	-5.0 or less	0 to 2	0 to 2	-2.0 or less	0 to 2

<https://droughtmonitor.unl.edu/AboutUSDM/AbouttheData/DroughtClassification.aspx>

LANDSLIDE

Erosion is the wearing away of land, such as loss of riverbank, beach, shoreline or dune material. It is measured as the rate of change in the position or displacement of a riverbank or shoreline over a period of time. Short-term erosion typically results from periodic natural events, such as flooding, hurricanes, storm surge and windstorms but may be intensified by human activities. Long-term erosion is a result of multi-year impacts such as repetitive flooding, wave action, sea level rise, sediment loss, subsidence and climate change. Death and injury are not typically associated with erosion; however, it can destroy buildings and infrastructure.⁵⁴

While no universally accepted standard or scientific scale has been developed for measuring the severity of all landslides, severity can be measured several other ways:

- Steepness/grade of the Slope (measured as a percent)
- Geographical Area
 - Measured in square feet, square yards, etc.
 - More accurately measured using LIDAR/GIS systems
- Earthquake, either causing the event or caused by the event (measured using the Moment Magnitude Intensity or Mercalli Scale)

There are also multiple types of landslides:

- Falls: A mass detaches from a steep slope or cliff and descends by free-fall, bounding, or rolling
- Topples: A mass tilts or rotates forward as a unit
- Slides: A mass displaces on one or more recognizable surfaces, which may be curved or planar
- Flows: A mass moves downslope with a fluid motion. A significant amount of water may or may not be part of the mass

Like flooding, landslides are unique in how they affect different geographic, topographic, and geologic areas. Therefore, consideration of a multitude of measurements is required to determine the severity of the landslide event.⁵⁵

INFECTIOUS DISEASES*

Bacterial & Viral Infections

There are many organisms that live inside our bodies and on our skin. These organisms are generally harmless and sometimes may even be helpful, they can cause illnesses. Infectious diseases can be transmitted from one person to another, by bites from animals or insects (zoonotic), from the environment or by consuming food or water that has been contaminated. Infectious diseases may be caused by bacteria, viruses, fungi and parasites.⁵⁶

Some of the more common infectious diseases include Lyme disease, HIV/AIDS, Tuberculosis, Rabies, West Nile Virus, Eastern Equine Encephalitis (EEE), Ebola, Avian Flu, Enterovirus D-68, Influenza, Hepatitis A, Zika Virus, Meningitis, Legionella, Sexually Transmitted Diseases (STD), Hepatitis C, Salmonella, SARS and Staph.⁵⁷

⁵⁴ Mitigation Ideas, A Resource for Reducing Risk to Natural Hazards, FEMA, January 2013

⁵⁵ State of New Hampshire Multi-Hazard Mitigation Plan Update 2018 & <https://oas.org/dsd/publications/Unit/oea66e/ch10.htm>

⁵⁶ <https://www.mayoclinic.org/diseases-conditions/infectious-diseases/symptoms-causes/syc-20351173>

⁵⁷ <https://www.dhhs.nh.gov/dphs/cdcs/index.htm>

“Throughout history, millions of people have died of diseases such as bubonic plague or the Black Death, which is caused by Yersinia pestis bacteria, and smallpox, which is caused by the variola virus. In recent times, viral infections have been responsible for two major pandemics: the 1918-1919 “Spanish Flu” epidemic that killed 20-40 million people, and the ongoing HIV/AIDS epidemic that killed an estimated 1.5 million people worldwide in 2013 alone.

Bacterial and viral infections can cause similar symptoms such as coughing and sneezing, fever, inflammation, vomiting, diarrhea, fatigue, and cramping – all of which are ways the immune system tries to rid the body of infectious organisms. But bacterial and viral infections are dissimilar in many other important respects, most of them due to the organisms’ structural differences and the way they respond to medications.”⁵⁸

In early 2020, a novel coronavirus emerged in China which then spread worldwide to become the worst pandemic since the 1918 Spanish Flu. Known as COVID-19, this novel coronavirus had infected 32,039,142 people and caused the deaths of 979,388 individuals worldwide as of September 24, 2020. Confirmed cases in the US as of this date was reported to be 6,954,456 with 202,404 deaths.⁵⁹ The majority of US residents have been advised to “stay-at-home” by state Governors; businesses have been closed in an effort to “flatten” the rising curve of confirmed cases through mitigation. As of August 2020, mitigation efforts appear to be working in some US states, while other states are struggling to control the virus. A nationwide testing program and an effective vaccine have not been developed. Stay-at-home orders have lifted in most states; however mitigation efforts are being encouraged in all areas. This is an evolving worldwide crisis, effecting millions of workers in the United States and presenting massive economic results. Although most people who have been confirmed with COVID-19 eventually recover, the virus has had a particular impact on the elderly and compromised individuals, particularly those in confined living quarters such as nursing homes and prisons.

The extent of infectious diseases is generally described by the level and occurrence of a particular disease as follows⁶⁰:

Endemic.....	Disease with a constant presence or usual prevalence in a population within a geographic area
Sporadic.....	Disease that occurs infrequently and irregularly
Hyperendemic.....	Disease that is persistent and has high levels of occurrence
Epidemic	Disease that shows an increase, often sudden, in the number of cases of a disease above what is normally expected in that population in that area
Outbreak	Disease that has the same definition of epidemic, but is often used for a more limited geographic area
Cluster.....	Refers to an aggregation of cases grouped in place and time that are suspected to be greater than the number expected, even though the expected number may not be known.
Pandemic.....	An epidemic that has spread over several countries or continents, usually affecting a large number of people

⁵⁸ <https://www.webmd.com/a-to-z-guides/bacterial-and-viral-infections#1>

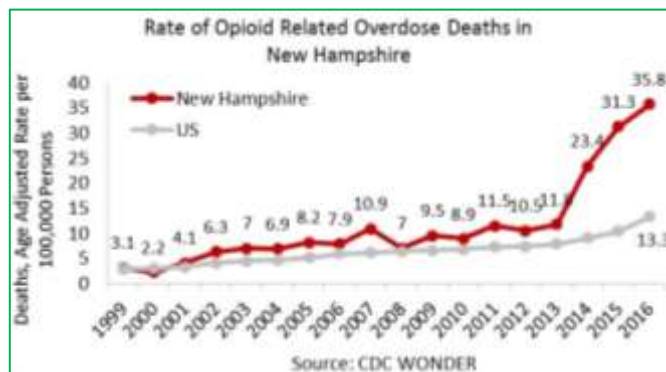
⁵⁹ Johns Hopkins University, <https://coronavirus.jhu.edu/map.html>

⁶⁰ <https://www.cdc.gov/ophs/csels/dsepd/ss1978/lesson1/section11.html>

Opioid Crisis

A revised report by the National Institute of Drug Abuse states, “Every day, more than 130 people in the United States die after overdosing on opioids. The misuse of and addiction to opioids—including prescription pain relievers, heroin, and synthetic opioids such as fentanyl - is a serious national crisis that affects public health as well as social and economic welfare. The Centers for Disease Control and Prevention estimates that the total “economic burden” of prescription opioid misuse alone in the United States is \$78.5 billion a year, including the costs of healthcare, lost productivity, addiction treatment, and criminal justice involvement.”

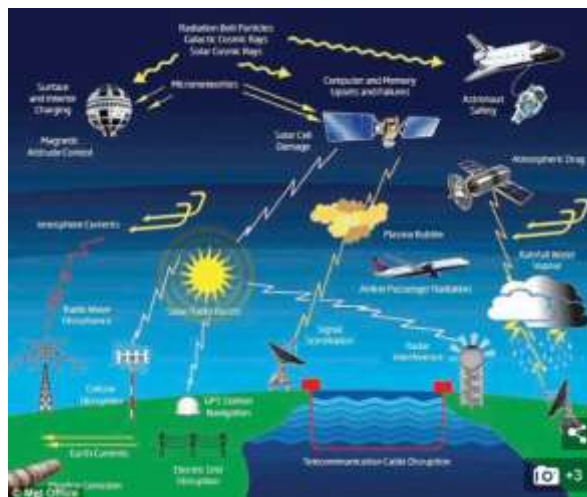
According to the National Institute on Drug Abuse, “New Hampshire has the second highest rate of opioid-related overdose deaths – a rate of 35.8 deaths per 100,000 persons – nearly 3 times higher than the national rate of 13.2 deaths per 100,000. From 2013 through 2016, opioid-related deaths in New Hampshire tripled. This increase was mainly driven by the number of deaths related to synthetic opioids (predominately fentanyl), which increased more than tenfold, from 30 to 363 deaths, during this time.”⁶¹ The chart to the right shows the increase in opioid-related overdose deaths in New Hampshire compared to those in the US overall.⁶²



SOLAR STORM & SPACE WEATHER

When sudden amounts of stored magnetic energy and ions are discharged from the Sun's surface, solar flares, high-speed solar wind streams, solar energetic particles and coronal mass ejections (CMEs) are possible. At times, this magnetic energy finds its way to Earth by following the Sun's magnetic field. Then, upon collision with the Earth's magnetic field, these charged particles enter the Earth's upper atmosphere causing Auroras.

Charged magnetic particles can produce their own magnetic field which can disrupt navigation and communication systems and GPS satellites and can potentially produce Geomagnetic Induced Currents (GICs) which can affect the power grid and pipelines. An electromagnetic surge from a solar storm has potential to produce an Electromagnetic Pulse (EMP) which could cause significant damage to infrastructure such as nuclear power plants, banking systems, the electrical grid, sewage treatment facilities, cell phones, landlines and even vehicles. The image above shows the potential impacts from solar storm and space weather.⁶³



⁶¹ <https://www.drugabuse.gov/drugs-abuse/opioids/opioid-summaries-by-state/new-hampshire-opioid-summary>

⁶² Ibid

⁶³ <https://www.dailymail.co.uk/sciencetech/article-3764842/A-solar-storm-destroy-planet-unless-create-massive-magnetic-shield-protect-Earth-warns-expert.html>

Solar Storm & Space Weather Extent⁶⁴

Geomagnetic Storms				
Scale	Description	Effect	Physical Measure	Average Frequency (1 cycle = 11 years)
G 5	Extreme	Power systems: Widespread voltage control problems and protective system problems can occur; some grid systems may experience complete collapse or blackouts. Transformers may experience damage. Spacecraft operations: May experience extensive surface charging, problems with orientation, uplink/downlink and tracking satellites. Other systems: Pipeline currents can reach hundreds of amps, HF (high frequency) radio propagation may be impossible in many areas for one to two days, satellite navigation may be degraded for days, low-frequency radio navigation can be out for hours, and aurora has been seen as low as Florida and southern Texas (typically 40° geomagnetic lat.).	Kp = 9	4 per cycle (4 days per cycle)
G 4	Severe	Power systems: Possible widespread voltage control problems and some protective systems will mistakenly trip out key assets from the grid. Spacecraft operations: May experience surface charging and tracking problems, corrections may be needed for orientation problems. Other systems: Induced pipeline currents affect preventive measures, HF radio propagation sporadic, satellite navigation degraded for hours, low-frequency radio navigation disrupted, and aurora has been seen as low as Alabama and northern California (typically 45° geomagnetic lat.).	Kp = 8, including a 9-	100 per cycle (60 days per cycle)
G 3	Strong	Power systems: Voltage corrections may be required; false alarms triggered on some protection devices. Spacecraft operations: Surface charging may occur on satellite components, drag may increase on low-Earth-orbit satellites, and corrections may be needed for orientation problems. Other systems: Intermittent satellite navigation and low-frequency radio navigation problems may occur, HF radio may be intermittent, and aurora has been seen as low as Illinois and Oregon (typically 50° geomagnetic lat.).	Kp = 7	200 per cycle (130 days per cycle)
G 2	Moderate	Power systems: High-latitude power systems may experience voltage alarms; long-duration storms may cause transformer damage. Spacecraft operations: Corrective actions to orientation may be required by ground control; possible changes in drag affect orbit predictions. Other systems: HF radio propagation can fade at higher latitudes, and aurora has been seen as low as New York and Idaho (typically 55° geomagnetic lat.).	Kp = 6	600 per cycle (360 days per cycle)
G 1	Minor	Power systems: Weak power grid fluctuations can occur. Spacecraft operations: Minor impact on satellite operations possible. Other systems: Migratory animals are affected at this and higher levels; aurora is commonly visible at high latitudes (northern Michigan and Maine).	Kp = 5	1700 per cycle (900 days per cycle)

Solar Radiation Storms				
Scale	Description	Effect	Physical Measure (Flux level of >=10 MeV particles)	Average Frequency (1 cycle = 11 years)
S 5	Extreme	Biological: Unavoidable high radiation hazard to astronauts on EVA (extra-vehicular activity); passengers and crew in high-flying aircraft at high latitudes may be exposed to radiation risk. Satellite operations: Satellites may be rendered useless, memory impacts can cause loss of control, may cause serious noise in image data, star-trackers may be unable to locate sources; permanent damage to solar panels possible. Other systems: Complete blackout of HF (high frequency) communications possible through the polar regions, and position errors make navigation operations extremely difficult.	10 ⁵	Fewer than 1 per cycle
S 4	Severe	Biological: Unavoidable radiation hazard to astronauts on EVA; passengers and crew in high-flying aircraft at high latitudes may be exposed to radiation risk. Satellite operations: May experience memory device problems and noise on imaging systems; star-tracker problems may cause orientation problems, and solar panel efficiency can be degraded. Other systems: Blackout of HF radio communications through the polar regions and increased navigation errors over several days are likely.	10 ⁴	3 per cycle

⁶⁴ Extent charts taken from <https://www.weather.gov/akq/SpaceWeather>

Solar Radiation Storms				
S 3	Strong	Biological: Radiation hazard avoidance recommended for astronauts on EVA; passengers and crew in high-flying aircraft at high latitudes may be exposed to radiation risk. Satellite operations: Single-event upsets, noise in imaging systems, and slight reduction of efficiency in solar panel are likely. Other systems: Degraded HF radio propagation through the polar regions and navigation position errors likely.	10^{-3}	10 per cycle
S 2	Moderate	Biological: Passengers and crew in high-flying aircraft at high latitudes may be exposed to elevated radiation risk. Satellite operations: Infrequent single-event upsets possible. Other systems: Small effects on HF propagation through the polar regions and navigation at polar cap locations possibly affected.	10^{-2}	25 per cycle
S 1	Minor	Biological: None. Satellite operations: None. Other systems: Minor impacts on HF radio in the polar regions.	10	50 per cycle

Radio Blackout				
Scale	Description	Effect	Physical Measure	Average Frequency (1 cycle = 11 years)
R 5	Extreme	HF Radio: Complete HF (high frequency) radio blackout on the entire sunlit side of the Earth lasting for a number of hours. This results in no HF radio contact with mariners and on route aviators in this sector. Navigation: Low-frequency navigation signals used by maritime and general aviation systems experience outages on the sunlit side of the Earth for many hours, causing loss in positioning. Increased satellite navigation errors in positioning for several hours on the sunlit side of Earth, which may spread into the night side.	$X20 (2 \times 10^{-3})$	Less than 1 per cycle
R 4	Severe	HF Radio: HF radio communication blackout on most of the sunlit side of Earth for one to two hours. HF radio contact lost during this time. Navigation: Outages of low-frequency navigation signals cause increased error in positioning for one to two hours. Minor disruptions of satellite navigation possible on the sunlit side of Earth.	$X10 (10^{-3})$	8 per cycle (8 days per cycle)
R 3	Strong	HF Radio: Wide area blackout of HF radio communication, loss of radio contact for about an hour on sunlit side of Earth. Navigation: Low-frequency navigation signals degraded for about an hour.	$X1 (10^{-4})$	175 per cycle (140 days per cycle)
R 2	Moderate	HF Radio: Limited blackout of HF radio communication on sunlit side, loss of radio contact for tens of minutes. Navigation: Degradation of low-frequency navigation signals for tens of minutes.	$M5 (5 \times 10^{-5})$	350 per cycle (300 days per cycle)
R 1	Minor	HF Radio: Weak or minor degradation of HF radio communication on sunlit side, occasional loss of radio contact. Navigation: Low-frequency navigation signals degraded for brief intervals.	$M1 (10^{-5})$	2000 per cycle (950 days per cycle)

AVALANCHES

According to the National Snow & Ice Data Center “An avalanche is a rapid flow of snow down a hill or mountainside. Although avalanches can occur on any slope given the right conditions, certain times of the year and certain locations are naturally more dangerous than others. Wintertime, particularly from December to April, is when most avalanches tend to happen. However, avalanche fatalities have been recorded for every month of the year.”⁶⁵



“All that is necessary for an avalanche is a mass of snow and a slope for it to slide down...A large avalanche in North America might release 230,000 cubic meters (300,000 cubic yards) of snow. That is the equivalent of 20 football fields filled 3 meters (10 feet) deep with snow. However, such large avalanches are often naturally released, when the snowpack becomes unstable and layers of snow begin to fail. Skiers and recreationalists usually trigger smaller, but often more deadly avalanches.”

North American Public Avalanche Danger Scale				
Avalanche danger is determined by the likelihood, size and distribution of avalanches.				
Danger Level		Travel Advice	Likelihood of Avalanches	Avalanche Size and Distribution
5 Extreme		Avoid all avalanche terrain.	Natural and human-triggered avalanches certain.	Large to very large avalanches in many areas.
4 High		Very dangerous avalanche conditions. Travel in avalanche terrain not recommended.	Natural avalanches likely; human-triggered avalanches very likely.	Large avalanches in many areas; or very large avalanches in specific areas.
3 Considerable		Dangerous avalanche conditions. Careful snowpack evaluation, cautious route-finding and conservative decision-making essential.	Natural avalanches possible; human-triggered avalanches likely.	Small avalanches in many areas; or large avalanches in specific areas; or very large avalanches in isolated areas.
2 Moderate		Heightened avalanche conditions on specific terrain features. Evaluate snow and terrain carefully; identify features of concern.	Natural avalanches unlikely; human-triggered avalanches possible.	Small avalanches in specific areas; or large avalanches in isolated areas.
1 Low		Generally safe avalanche conditions. Watch for unstable snow on isolated terrain features.	Natural and human-triggered avalanches unlikely.	Small avalanches in isolated areas or extreme terrain.
Safe backcountry travel requires training and experience. You control your own risk by choosing where, when and how you travel.				

There are three main parts to an avalanche (see image above). The first and most unstable is the “starting zone”, where the snow can “fracture” and slide. “Typical starting zones are higher up on slopes. However, given the right conditions, snow can fracture at any point on the slope.”⁶⁶

The second part is the “avalanche track”, or the downhill path that the avalanche follows. The avalanche is evident where large swaths of trees are missing or where there are large pile-ups of rock, snow, trees and debris at the bottom of an incline.

The third part of an avalanche is the “runout zone”. The runout zone is where the avalanche has come to a stop and left the largest and highest pile of snow and debris.

“Several factors may affect the likelihood of an avalanche, including weather, temperature, slope steepness, slope orientation (whether the slope is facing north or south), wind direction, terrain, vegetation and general snowpack conditions. Different combinations of these factors can create low, moderate, or extreme avalanche conditions. Some of these conditions, such as temperature and snowpack, can change on a daily or hourly basis.”⁶⁷

⁶⁵ Copyright Richard Armstrong, NSIDC, <http://nsidc.org/cryosphere/snow/science/avalanches.html>

⁶⁶ NSIDC, <http://nsidc.org/cryosphere/snow/science/avalanches.html>; image credit: Betsy Armstrong

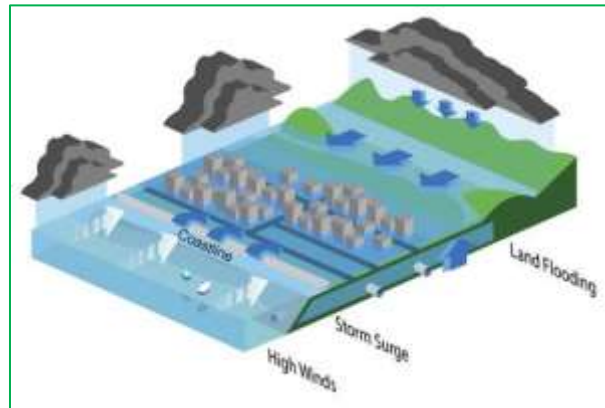
⁶⁷ Copyright Richard Armstrong, NSIDC, <http://nsidc.org/cryosphere/snow/science/avalanches.html>

When the possibility of an avalanche is evident, an “avalanche advisory” is issued. This preliminary notification warns hikers, skiers, snowmobilers and responders that conditions may be favorable for the development of avalanches. The chart above shows avalanche danger as determined by likelihood, size & distribution.⁶⁸

COASTAL FLOODING

Coastal areas are particularly susceptible to hazards such as flooding, erosion, storm surge and sea-level rise as a result of tropical and post-tropical cyclones, heavy rain events and gale-force winds and other natural phenomena. The flooding that results is “determined by a combination of several factors such as storm intensity, forward speed, storm area size, coastline characteristics, angle of approach to the coast, tide height.”⁶⁹

The severity of the flooding can vary depending on “both the speed of onset (how quickly the floodwaters rise) and the flood duration. Nor’easters can impact the region for several days and produce storm surge with or without the addition of inland runoff from heavy precipitation.”⁷⁰ As shown in the image below, not only storm surge but also inland flooding can affect the severity of flooding along the shore.⁷¹



⁶⁸ http://www.avalanche.org/danger_card.php

⁶⁹ NH Multi-hazard Mitigation Plan-2018, page 55

⁷⁰ Ibid

⁷¹ Ibid, page 53, “Understanding compound flooding from land and ocean sources”, Theodore Scontras, University of Maine)

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX D: NH MAJOR DISASTER & EMERGENCY DECLARATIONS

Major Disaster (DR) & Emergency Declarations (EM)

This list includes one Fire Management Assistance Declaration (FM)
Declarations are arranged chronologically, the most recent disaster is listed first

Number	Hazard	Date of Event	Counties	Description
DR-4516	Infectious Disease	January 20, 2020 – ongoing	All Ten NH Counties	Major Disaster Declaration, DR-4516: The Federal Emergency Management Agency ("FEMA") within the US Department of Homeland Security is giving public notice of its intent to provide assistance to the State of New Hampshire, local and tribal governments, and certain private nonprofit organizations under the major disaster declaration issued by the president on April 3, 2020, as a result of the Coronavirus Disease 2019 ("COVID-19").
EM-3445	Infectious Disease	January 20, 2020 – ongoing	All Ten NH Counties	Emergency Declaration EM-3445: Ten county declaration to provide individual assistance and public assistance as a result of the impact of COVID-19
DR-4457	Severe Storm & Flooding	July 11-12, 2019	Grafton	Major Disaster Declaration, DR-4457: The Federal Emergency Management Agency announced a major disaster declaration for a period of severe storms and flooding from July 11-12, 2019 in one New Hampshire County.
DR-4371	Severe Winter Storm & Snowstorm	March 13-14, 2018	Carroll, Strafford & Rockingham	Major Disaster Declaration, DR 4371: The Federal Emergency Management Agency announced a major disaster declaration on June 8, 2018 for a period of a severe winter storm from March 13-14, 2018.
DR-4370	Severe Storm & Flooding	March 2-8, 2018	Rockingham	Major Disaster Declaration, DR 4370: The Federal Emergency Management Agency announced a major disaster declaration on June 8, 2018 for a period of severe storms and flooding from March 2-8, 2018.
DR-4355	Severe Storms, Flooding	October 29-November 1, 2017	Sullivan, Grafton, Coos, Carroll, Belknap & Merrimack	Major Disaster Declaration, DR-4355: The Federal Emergency Management Agency (FEMA) announced that federal disaster assistance is available to the state of New Hampshire to supplement state and local recovery efforts in the areas affected by severe storms and flooding from October 29-November 1, 2017 in five New Hampshire Counties.
DR-4329	Severe Storms, Flooding	July 1-2, 2017	Grafton & Coos	Major Disaster Declaration DR-4329: The Federal Emergency Management Agency (FEMA) announced that federal disaster assistance is available to the state of New Hampshire to supplement state and local recovery efforts in the areas affected by severe storms and flooding from July 1, 2017 to July 2, 2017 in Grafton County
DR-4316	Severe Winter Storm and Snowstorm	March 14-15, 2017	Belknap & Carroll	Major Disaster Declaration DR-4316: Severe winter storm and snowstorm in Belknap & Carroll Counties; disaster aid to supplement state and local recovery efforts.
FM-5123	Forest Fire	April 21-23, 2016	Cheshire	Fire Management Assistance Declaration, FM-5123: Stoddard, NH
DR-4209	Severe Winter Storm and Snowstorm	January 26-28, 2015	Hillsborough, Rockingham & Stafford	Major Disaster Declaration DR-4209: Severe winter storm and snowstorm in Hillsborough, Rockingham and Strafford Counties; disaster aid to supplement state and local recovery efforts.

Number	Hazard	Date of Event	Counties	Description
DR-4139	Severe Storms, Flooding	July 9-10, 2013	Cheshire, Sullivan & Grafton	Major Disaster Declaration DR-4139: Severe storms, flooding, and landslides during the period of June 26 to July 3, 2013 in Cheshire, Sullivan and southern Grafton Counties.
DR-4105	Severe Winter Storm	February 8, 2013	All Ten NH Counties	Major Disaster Declaration DR-4105: Nemo; heavy snow in February 2013.
DR-4095	Hurricane Sandy	October 26-November 8, 2012	Belknap, Carroll, Coos, Grafton, Rockingham & Sullivan	Major Disaster Declaration DR-4095: The declaration covers damage to property from the storm that spawned heavy rains, high winds, high tides and flooding over the period of October 26-November 8, 2012.
EM-3360	Hurricane Sandy	October 26-31, 2012	All Ten NH Counties	Emergency Declaration EM-3360: Hurricane Sandy came ashore in NJ and brought high winds, power outages and heavy rain to NH. Declared in all ten counties in the State of New Hampshire.
DR-4065	Severe Storm & Flooding	May 29-31, 2012	Cheshire	Major Disaster Declaration DR-4065: Severe Storm and Flood Event May 29-31, 2012 in Cheshire County.
DR-4049	Severe Storm & Snowstorm	October 29-30, 2011	Hillsborough & Rockingham	Major Disaster Declaration DR-4049: Severe Storm and Snowstorm Event October 29-30, 2011 in Hillsborough and Rockingham Counties.
EM-3344	Severe Snowstorm	October 29-30, 2011	All Ten NH Counties	Emergency Declaration EM-3344: Severe storm during the period of October 29-30, 2011; all ten counties in the State of New Hampshire. (Snowtober)
DR-4026	Tropical Storm Irene	August 26-September 6, 2011	Carroll, Coos, Grafton, Merrimack, Belknap, Strafford, & Sullivan	Major Disaster Declaration DR-4026: Tropical Storm Irene Aug 26th- Sept 6, 2011 in Carroll, Coos, Grafton, Merrimack, Belknap, Strafford, & Sullivan Counties.
EM-3333	Tropical Storm Irene	August 26-September 6, 2011	All Ten NH Counties	Emergency Declaration EM-3333: Emergency Declaration for Tropical Storm Irene for in all ten counties.
DR-4006	Severe Storm & Flooding	May 26-30, 2011	Coos & Grafton Counties	Major Disaster Declaration DR-4006: May Flooding Event, May 26th-30th 2011 in Coos & Grafton County. (Memorial Day Weekend Storm)
DR-1913	Severe Storms & Flooding	March 14-31, 2010	Hillsborough & Rockingham	Major Disaster Declaration DR-1913: Flooding to two NH counties including Hillsborough and Rockingham counties.
DR-1892	Severe Winter Storm, Rain & Flooding	February 23 - March 3, 2010	Grafton, Hillsborough, Merrimack, Rockingham, Strafford & Sullivan	Major Disaster Declaration: DR-1892: Flood and wind damage to most of southern NH including six counties; 330,000 homes without power; more than \$2 million obligated by June 2010.
DR-1812	Severe Winter Storm & Ice Storm	December 11-23, 2008	All Ten NH Counties	Major Disaster Declaration DR-1812: Damaging ice storms to entire state including all ten NH counties; fallen trees and large scale power outages; five months after December's ice storm pummeled the region, nearly \$15 million in federal aid had been obligated by May 2009.
EM-3297	Severe Winter Storm	December 11, 2008	All Ten NH Counties	Emergency Declaration EM-3297: Severe winter storm beginning on December 11, 2008.
DR-1799	Severe Storms & Flooding	September 6-7, 2008	Hillsborough	Major Disaster Declaration: DR-1799: Severe storms and flooding beginning on September 6, 2008.
DR-1787	Severe Storms & Flooding	July 24-August 14, 2008	Belknap, Carroll & Grafton & Coos	Major Disaster Declaration DR-1787: Severe storms, tornado, and flooding on July 24, 2008.
DR-1782	Severe Storms, Tornado, & Flooding	July 24, 2008	Belknap, Carroll, Merrimack, Strafford & Rockingham	Major Disaster Declaration DR-1782: Tornado damage to several NH counties.

Number	Hazard	Date of Event	Counties	Description
DR-1695	Nor'easter, Severe Storms & Flooding	April 15-23, 2007	All Ten NH Counties	Major Disaster Declaration DR-1695: Flood damages; FEMA & SBA obligated more than \$27.9 million in disaster aid following the April nor'easter. (Tax Day Storm)
DR-1643	Severe Storms & Flooding	May 12-23, 2006	Belknap, Carroll, Grafton, Hillsborough, Merrimack, Rockingham & Strafford	Major Disaster Declaration DR-1643: Flooding in most of southern NH; May 12-23, 2006. (aka: Mother's Day Storm)
DR-1610	Severe Storms & Flooding	October 7-18, 2005	Belknap, Cheshire, Grafton, Hillsborough, Merrimack & Sullivan	Major Disaster Declaration DR-1610: To date, state and federal disaster assistance has reached more than \$3 million to help residents and business owners in New Hampshire recover from losses resulting from the severe storms and flooding in October 2005.
EM-3258	Hurricane Katrina Evacuation	August 29- October 1, 2005	All Ten NH Counties	Emergency Declaration EM-3258: Assistance to evacuees from the area struck by Hurricane Katrina and to provide emergency assistance to those areas beginning on August 29, 2005, and continuing; The president's action makes Federal funding available to the state and all 10 counties of the State of New Hampshire.
EM-3211	Snow	March 11-12, 2005	Carroll, Cheshire, Hillsborough, Rockingham & Sullivan	Emergency Declaration EM-3211: March snowstorm; more than \$2 million has been approved to help pay for costs of the snow removal; Total aid for the March storm is \$2,112,182.01 (Carroll: \$73,964.57; Cheshire: \$118,902.51; Hillsborough: \$710,836; Rockingham: \$445,888.99; Sullivan: \$65,088.53; State of NH: \$697,501.41)
EM-3208	Snow	February 10- 11, 2005	Carroll, Cheshire, Coos, Grafton & Sullivan	Emergency Declaration EM-3208: FEMA had obligated more than \$1 million by March 2005 to help pay for costs of the heavy snow and high winds; Total aid for the February storm is \$1,121,727.20 (Carroll: \$91,832.72; Cheshire: \$11,0021.18; Coos: \$11,6508.10; Grafton: \$213,539.52; Sullivan: \$68,288.90; State of NH: \$521,536.78)
EM 3208-002	Snow	January, February, March 2005	Belknap, Carroll, Cheshire, Grafton, Hillsborough, Rockingham, Merrimack, Strafford & Sullivan	Emergency Declaration EM 3208-002: The Federal Emergency Management Agency (FEMA) has obligated more than \$6.5 million to reimburse state and local governments in New Hampshire for costs incurred in three snowstorms that hit the state earlier this year, according to disaster recovery officials. Total aid for all three storms is \$6,892,023.87 (January: \$3,658,114.66; February: \$1,121,727.20; March: \$2,113,182.01)
EM-3207	Snow	January 22-23, 2005	Belknap, Carroll, Cheshire, Grafton, Hillsborough, Rockingham, Merrimack, Strafford & Sullivan	Emergency Declaration EM-3207: More than \$3.5 million has been approved to help pay for costs of the heavy snow and high winds; Total aid for the January storm is \$3,658,114.66 (Belknap: \$125,668.09; Carroll: \$52,864.23; Cheshire: \$134,830.95; Grafton: \$137,118.71; Hillsborough: \$848,606.68; Merrimack: \$315,936.55; Rockingham: \$679,628.10; Strafford: \$207,198.96; Sullivan: \$48,835.80; State of NH: \$1,107,426.59)
EM-3193	Snow	December 6-7, 2003	Belknap, Carroll, Cheshire, Coos, Grafton, Hillsborough, Merrimack & Sullivan	Emergency Declaration EM-3193: The declaration covers jurisdictions with record and near-record snowfall that occurred over the period of December 6-7, 2003

Number	Hazard	Date of Event	Counties	Description
DR-1489	Severe Storms & Flooding	July 21-August 18, 2003	Cheshire & Sullivan	Major Disaster Declaration DR-1489: Floods stemming from persistent rainfall and severe storms that caused damage to public property occurring over the period of July 21 through August 18, 2003.
EM-3177	Snowstorm	February 17-18, 2003	Cheshire, Hillsborough, Merrimack, Rockingham & Strafford	Emergency Declaration EM-3177: Declaration covers jurisdictions with record and near-record snowfall from the snowstorm that occurred February 17-18, 2003
EM-3166	Snowstorm	March 5-7, 2001	Cheshire, Coos, Grafton, Hillsborough, Merrimack, Rockingham & Strafford	Emergency Declaration EM-3166: Declaration covers jurisdictions with record and near-record snowfall from the late winter storm that occurred March 2001
DR-1305	Tropical Storm Floyd	September 16-18, 1999	Belknap, Cheshire & Grafton	Major Disaster Declaration DR-1305: The declaration covers damage to public property from the storm that spawned heavy rains, high winds and flooding over the period of September 16-18.
DR-1231	Severe Storms & Flooding	June 12-July 2, 1998	Belknap, Carroll, Grafton, Hillsborough, Merrimack & Rockingham	Major Disaster Declaration DR-1231:
DR-1199	Ice Storm	January 7-25, 1998	Belknap, Carroll, Cheshire, Coos, Grafton, Hillsborough, Merrimack, Strafford & Sullivan	Major Disaster Declaration DR-1199:
DR-1144	Severe Storms/Flooding	October 20-23, 1996	Grafton, Hillsborough, Merrimack, Rockingham, Strafford & Sullivan	Major Disaster Declaration DR-1144:
DR-1077	Storms/Floods	October 20-November 15, 1995	Carroll, Cheshire, Coos, Grafton, Merrimack & Sullivan	Major Disaster Declaration DR-1077:
EM-3101	High Winds & Record Snowfall	March 13-17, 1994	All Ten NH Counties	Emergency Declaration EM-3101:
DR-923	Severe Coastal Storm	October 30-31, 1991	Rockingham	Major Disaster Declaration DR-923:
DR-917	Hurricane Bob, Severe Storm	August 18-20, 1991	Carroll, Hillsborough, Rockingham & Strafford	Major Disaster Declaration DR-917:
DR-876	Flooding, Severe Storm	August 7-11, 1990	Belknap, Carroll, Cheshire, Coos, Grafton, Hillsborough, Merrimack, & Sullivan	Major Disaster Declaration DR-876:

Number	Hazard	Date of Event	Counties	Description
DR-789	Severe Storms & Flooding	March 30-April 11, 1987	Carroll, Cheshire, Grafton, Hillsborough, Merrimack, Rockingham, Strafford & Sullivan	Major Disaster Declaration DR-789
DR-771	Severe Storms & Flooding	July 29-August 10, 1986	Cheshire, Hillsborough & Sullivan	Major Disaster Declaration DR-771:
EM-3073	Flooding	March 15, 1979	Coos	Emergency Declaration EM-3073:
DR-549	High Winds, Tidal Surge, Coastal Flooding & Snow	February 16, 1978	All Ten NH Counties	Major Disaster Declaration DR-549: Blizzard of 1978
DR-411	Heavy Rains, Flooding	January 21, 1974	Belknap, Carroll, Cheshire & Grafton	Major Disaster Declaration DR-411:
DR-399	Severe Storms & Flooding	July 11, 1973	All Ten NH Counties	Major Disaster Declaration DR-399:
DR-327	Coastal Storms	March 18, 1972	Rockingham	Major Disaster Declaration DR-327:
DR-11	Forest Fire	July 2, 1953	Carroll	Major Disaster Declaration DR-11:

Source:

Disaster Declarations for New Hampshire

http://www.fema.gov/disasters/grid/state-tribal-government/33?field_disaster_type_term_tid_1=All

APPENDIX E: HAZARD MITIGATION PLANNING – LIST OF ACRONYMS

AAR	After Action Report	HSEM	Homeland Security Emergency Management
ACS	Acute Care Site	HSPD	Homeland Security Presidential Directive
ARC	American Red Cross	IAP	Incident Action Plan
ARES	Amateur Radio Emergency Service	IC	Incident Commander
BFE	Base Flood Elevation	ICC	Incident Command Center
BOCA	Building Officials and Code Administrators	ICS	Incident Command System
CBRNE	Chemical, Biological, Radiological,	JIC	Joint Information Center
CDC	Centers for Disease Control and Prevention	LEOP	Local Emergency Operations Plan
CDP	Center for Domestic Preparedness	MAPS	Mapping and Planning Solutions
CERT	Community Emergency Response Team	MCI	Mass Casualty Incident
CFR	Code of Federal Regulations	MEF	Mission Essential Function
CIKR	Critical Infrastructure & Key Resources	MOU	Memorandum of Understanding
CIP	Capital Improvements Program	NAWAS	National Warning System
COG	Continuity of Government	NEF	National Essential Function
COGCON	Continuity of Government Readiness Conditions	NERF	Non-Emergency Response Facility
COOP	Continuity of Operations	NFIP	National Flood Insurance Program
CPCC	Continuity Policy Coordination Committee	NGVD	National Geodetic Vertical Datum of 1929
CWPP	Community Wildfire Protection Plan	NIMS	National Incident Management System
DBHRT	Disaster Behavioral Health Response Team	NOAA	National Oceanic and Atmospheric Association
DEMD	Deputy Emergency Management Director	NRP	National Response Plan
DES	Department of Environment Services	NSPD	National Security Presidential Directive
DFO	Disaster Field Office	NTAS	National Terrorism Advisory System Nuclear, and Explosive
DHHS	Department of Health and Human Services	NWS	National Weather Service
DHS	Department of Homeland Security	OSI	Office of Strategic Initiatives
DMCR	Disaster Management Central Resource	PA	Public Assistance
DNCR	Department of Natural & Cultural Resources	PDA	Preliminary Damage Assessment
DOD	Department of Defense	PDD	Presidential Decision Directive
DOE	Department of Energy	PIO	Public Information Officer
DOJ	Department of Justice	PMEF	Primary Mission Essential Function
DOT	Department of Transportation	POD	Point of Distribution
DPW	Department of Public Works	PPE	Personal Protective Equipment
DRC	Disaster Recovery Center	PR	Potential Resources
EAS	Emergency Alert System	PSA	Public Service Announcement
EMD	Emergency Management Director	RERP	Radiological Emergency Response Plan
EMS	Emergency Medical Services	RNAT	Rapid Needs Assessment Team
EO	Executive Order	SERT	State Emergency Response Team
EOC	Emergency Operations Center	SITREP	Situation Report (Also SitRep)
EPA	U.S. Environmental Protection Agency	SNS	Strategic National Stockpile
EPZ	Emergency Planning Zone	SOG	Standard Operating Guidelines
ERF	Emergency Response Facility	SOP	Standard Operating Procedures
ERG	Emergency Relocation Group	SPNHF	Society for the Protection of NH Forests
ESF	Emergency Support Functions	UC	Unified Command
FEMA	Federal Emergency Management Agency	USDA-FS	US Department of Agriculture – Forest Service
FIRM	Flood Insurance Rate Map	USGS	United States Geological Society
FPP	Facilities & Populations to Protect	VOAD	Volunteer Organization Active in Disasters
GIS	Geographic Information System	WMD	Weapon(s) of Mass Destruction
HazMat	Hazardous Material(s)	WMNF	White Mountain National Forest
HFRA	Healthy Forest Restoration Act	WUI	Wildland Urban Interface
HMGP	Hazard Mitigation Grant Program		
HSAS	Homeland Security Advisory System		

APPENDIX F: POTENTIAL MITIGATION IDEAS⁷²

Drought

- D1 Assess Vulnerability to Drought Risk
- D2 Monitoring Drought Conditions
- D3 Monitor Water Supply
- D4 Plan for Drought
- D5 Require Water Conservation during Drought Conditions
- D6 Prevent Overgrazing
- D7 Retrofit Water Supply Systems
- D8 Enhance Landscaping & Design Measures
- D9 Educate Residents on Water Saving Techniques
- D10 Educate Farmers on Soil & Water Conservation Practices
- D11 Purchase Crop Insurance

Earthquake

- EQ1.... Adopt & Enforce Building Codes
- EQ2.... Incorporate Earthquake Mitigation into Local Planning
- EQ3.... Map & Assess Community Vulnerability to Seismic Hazards
- EQ4.... Conduct Inspections of Building Safety
- EQ5.... Protect Critical Facilities & Infrastructure
- EQ6.... Implement Structural Mitigation Techniques
- EQ7.... Increase Earthquake Risk Awareness
- EQ8.... Conduct Outreach to Builders, Architects, Engineers and Inspectors
- EQ9.... Provide Information on Structural & Non-Structural Retrofitting

Erosion

- ER1.... Map & Assess Vulnerability to Erosion
- ER2.... Manage Development in Erosion Hazard Areas
- ER3.... Promote or Require Site & Building Design Standards to Minimize Erosion Risk
- ER4.... Remove Existing Buildings & Infrastructure from Erosion Hazard Areas
- ER5.... Stabilize Erosion Hazard Areas
- ER6.... Increase Awareness of Erosion Hazards

Extreme Temperatures

- ET1 Reduce Urban Heat Island Effect
- ET2 Increase Awareness of Extreme Temperature Risk & Safety
- ET3 Assist Vulnerable Populations
- ET4 Educate Property Owners about Freezing Pipes

Hailstorm

- HA1 Locate Safe Rooms to Minimize Damage
- HA2 Protect Buildings from Hail Damage
- HA3 Increase Hail Risk Awareness

Landslide

- LS1..... Map & Assess Vulnerability to Landslides
- LS2..... Manage Development in Landslide Hazard Areas
- LS3..... Prevent Impacts to Roadways
- LS4 Remove Existing Buildings & Infrastructure from Landslide

Lightning

- L1..... Protect Critical Facilities
- L2..... Conduct Lightning Awareness Programs

Flood

- F1 Incorporate Flood Mitigation in Local Planning
- F2 Form Partnerships to Support Floodplain Management
- F3 Limit or Restrict Development in Floodplain Areas
- F4 Adopt & Enforce Building Codes and Development Standards
- F5 Improve Stormwater Management Planning
- F6 Adopt Policies to Reduce Stormwater Runoff
- F7 Improve Flood Risk Assessment
- F8 Join or Improve Compliance with NFIP
- F9 Manage the Floodplain beyond Minimum Requirements
- F10 Participate in the CRS
- F11 Establish Local Funding Mechanism for Flood Mitigation
- F12 Remove Existing Structures from Flood Hazard Areas
- F13 Improve Stormwater Drainage System Capacity
- F14 Conduct Regular Maintenance for Drainage Systems & Flood Control Structures
- F15 Elevate or Retrofit Structures & Utilities
- F16 Flood proof Residential & Non-Residential Structures
- F17 Protect Infrastructure
- F18 Protect Critical Facilities
- F19 Construct Flood Control Measures
- F20 Protect & Restore Natural Flood Mitigation Features
- F21 Preserve Floodplains as Open Space
- F22 Increase Awareness of Flood Risk & Safety
- F23 Educate Property Owners about Flood Mitigation Techniques

Severe Wind

- SW1... Adopt & Enforce Building Codes
- SW2... Promote or Require Site & Building Design Standards to Minimize Wind Damage
- SW3... Assess Vulnerability to Severe Wind
- SW4... Protect Power Lines & Infrastructure
- SW5... Retrofit Residential Buildings
- SW6... Retrofit Public Buildings & Critical Facilities
- SW7... Increase Severe Wind Awareness

Severe Winter Weather

- WW1.. Adopt & Enforce Building Codes
- WW2.. Protect Buildings & Infrastructure
- WW3.. Protect Power Lines
- WW4.. Reduce Impacts to Roadways
- WW5.. Conduct Winter Weather Risk Awareness Activities
- WW6.. Assist Vulnerable Populations

Tornado

- T1 Encourage Construction of Safe Rooms
- T2 Require Wind-Resistant Building Techniques
- T2 Conduct Tornado Awareness Activities

⁷² Mitigation Ideas, A Resource for Reducing Risk to Natural Hazards, FEMA, January 2013

Wildfire

- WF1 Map & Assess Vulnerability to Wildfire
- WF2 Incorporate Wildfire Mitigation in the Comprehensive Plan
- WF3 Reduce Risk through Land Use Planning
- WF4 Develop a Wildland Urban Interface Code
- WF5 Require or Encourage Fire-Resistant Construction Techniques
- WF6 Retrofit At-Risk Structure with Ignition-Resistant Materials
- WF7 Create Defensible Space around Structures & Infrastructure
- WF8 Conduct Maintenance to Reduce Risk
- WF9 Implement a Fuels Management Program
- WF10 Participate in the Firewise® Program
- WF11 Increase Wildfire Awareness
- WF12 Educate Property Owners about Wildfire Mitigation Techniques

Multi-Hazards

- MU1 Assess Community Risk
- MU2 Map Community Risk
- MU3 Prevent Development in Hazard Areas
- MU4 Adopt Regulations in Hazard Areas
- MU5 Limit Density in Hazard Areas
- MU6 Integrate Mitigation into Local Planning
- MU7 Strengthen Land Use Regulations
- MU8 Adopt & Enforce Building Codes
- MU9 Create Local Mechanisms for Hazard Mitigation
- MU10 Incentivize Hazard Mitigation
- MU11 Monitor Mitigation Plan Implementation
- MU12 Protect Structures
- MU13 Protect Infrastructure & Critical Facilities
- MU14 Increase Hazard Education & Risk Awareness
- MU15 Improve Household Disaster Preparedness
- MU16 Promote Private Mitigation Efforts

THIS PAGE INTENTIONALLY LEFT BLANK

The Town of Campton

Karl Kelly, EMD
Town of Campton
12 Gearty Way
Campton, NH 03223
Kkelly.applewood@yahoo.com
(603) 726-3223



Blair Bridge

Photo Credit: <https://www.alpinelakes.com/town/campton/?r=109-120>

Mapping and Planning Solutions

June Garneau
Owner/Planner
PO Box 283
91 Cherry Mountain Place
Twin Mountain, NH 03595
jgarneau@mappingandplanning.com
(603) 991-9664 cell