

Town of Mason, New Hampshire
Hazard Mitigation Plan Update 2025



Prepared with Assistance from the Nashua Regional Planning Commission



Funded in part by the NH Department of Safety, Homeland Security and
Emergency Management



Contents

ACKNOWLEDGMENTS	4
EXECUTIVE SUMMARY	5
Jurisdiction and Community Profile	5
Scope of the Plan	5
Hazard Mitigation Goals	6
CHAPTER 1. PLANNING PROCESS.....	8
Section 1.1. Overview of Planning Process	8
Section 1.2. Involvement of Neighboring Communities and Local/Regional Agencies	8
Section 1.3. Public Participation	9
Section 1.4. Existing and Potential Authorities, Policies, Programs, and Resources	10
Planning and Regulatory Capabilities	11
Emergency Management Capabilities	11
Floodplain Management Capabilities	12
Administrative and Technical Capabilities	13
Fiscal Capabilities	13
Summary and Analysis of Mason’s Existing Authorities, Policies, Programs, and Resources	14
Section 1.5. Review and Incorporation of Existing Documents	16
Section 1.6. Updating the Plan.....	16
Plan Evaluation.....	16
Plan Update.....	17
CHAPTER 2. CHANGES FROM PREVIOUS PLAN	19
Section 2.1. Changes in Development	19
Section 2.2. Progress in Local Mitigation Efforts	19
Section 2.3. Changes in Priorities.....	22
CHAPTER 3. HAZARD IDENTIFICATION AND RISK ASSESSMENT	25
Section 3.1. Description of Natural Hazards	25
Hazards Not Included in Plan	25
Section 3.2. Future Hazard Events and Climate Change.....	31
Hazard Probability and Climate Change	31
Municipal Impacts of Climate Change	32

Section 3.3. Probability of Future Hazard Events	32
Section 3.4. Critical Facilities and their Vulnerability	37
Section 3.5. Vulnerability by Hazard	44
Drought	44
Earthquake	47
Extreme Temperatures	51
Flooding.....	61
Severe Wind	67
Lightning & Hail.....	71
Severe Winter Weather	73
Tornado/Downburst	77
Wildfire.....	80
Infectious Diseases.....	81
Previous Occurrences of Infectious Disease	82
Infectious Disease Hazard Loss Estimate	83
Section 3.6. Overall Summary of Vulnerability	83
Section 3.7. National Flood Insurance Program.....	89
CHAPTER 4. MITIGATION STRATEGY.....	91
Section 4.1. Mitigation Actions	91
Table 9—Mitigation Actions	91
Section 4.2. Prioritizing Mitigation Actions.....	93
Table 11—STAPLEE Analysis	97
Section 4.3. Implementing and Administering Mitigation Actions.....	110
Table 12—Implementation and Administration.....	110
CHAPTER 5. PLAN ADOPTION	114
Section 5.1. Formal Adoption by Governing Body.....	114
Section 5.2. FEMA Approval Letter	116

ACKNOWLEDGMENTS

The 2025 Town of Mason, NH Hazard Mitigation Planning Committee

The Nashua Regional Planning Commission and the Town of Mason wish to thank the following individuals for serving on the Town's Hazard Mitigation Committee and for their assistance in the development of this Plan:

Kevin Maxwell	Police Department Chief and Emergency Management Director
Eric Rantamaki	Fire Department & EMS, Chief
Dave Morrison	Highway Department, Road Agent
Kate Batcheller	Board of Selectmen, Chair
Dotsie Millbrandt	Zoning Board of Adjustment, Member
Antje Skorupan	Planning Board, Member
Jacob Olson	Building Inspector
Dan MacDonald	Emergency Management Consultant

Plan Prepared and Authored by
Nashua Regional Planning Commission
30 Temple Street, Suite 310
Nashua, NH 03060
(603) 417 – 6570

<https://www.nashuarpc.org/>



Date Approved Pending Adoption: August 6, 2025

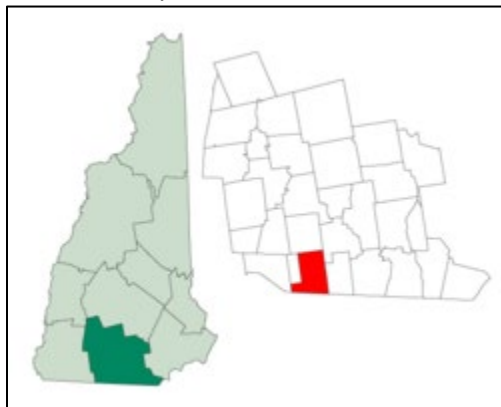
Date Adopted: August 12, 2025

Date Final Approval: August 19, 2025

EXECUTIVE SUMMARY

Jurisdiction and Community Profile

This plan addresses the Town of Mason, NH. Mason is in the southwestern part of the state in Hillsborough County, bordering Greenville and New Ipswich to the west, Wilton and Lyndeborough to the north, Brookline to the east, and the State of Massachusetts along its southern boundary (depicted in the image to the right¹). The town contains 24.0 square miles of land area. Major water bodies include Pratt Pond (27.7 acres), Spaulding Brook, Mason Brook, Gould Mill Brook, and Walker Brook. Major Transportation routes include NH Route 123 running north/south on the western part of town, and NH Routes 31 and 124 that both cut through the “pan handle” on the southwestern corner of town.



According to the 2020 Decennial Census, there are approximately 1,448 residents in Mason, with the median age being 46.5 years. There are approximately 560 households, with the vast majority of housing stock being single-family homes. Mason is part of SAU 89, with residents attending preschool through grade five at the Mason Elementary School. Students attend middle school and high school in the town of Milford.

Mason is governed by a Board of Selectmen with an Annual Town Meeting. Town Departments include, but are not limited to: Assessing, Building Inspector, Fire Department & EMS, Health Department, Highway Department, Library, and Police Department.

Scope of the Plan

This Plan addresses the following types of Hazards:

- Drought
- Earthquake
- Extreme Temperatures
- Flooding
- Severe Wind
- Lightning & Hail
- Severe Winter Weather
- Tornado
- Wildfire
- Infectious Disease

¹ Picture Source - Andrew Sawyer - Created from [Boundary/Border Outline Files](#) of the Libre Map Project which held a [BY-SA creative commons license](#). Data originally from [2000 US Census boundary data](#).

Other hazards that are mentioned but not addressed due to minimal risk:

- Avalanches
- Landslides
- Coastal Flooding
- Solar Storms & Space Weather
- Ice Jams
- Erosion

Hazard Mitigation Goals

The first step in developing a mitigation strategy is to establish goals that reflect what the municipality wishes to achieve through the implementation of its Hazard Mitigation Plan. The Mason Hazard Mitigation Team established the following goals and objectives, based on its desire to protect the Town's population, critical facilities, infrastructure, emergency services, natural resources, and private property. These goals provided the basis for identifying and prioritizing mitigation actions.

Goal 1—Prevent the impacts of natural hazards on the Town's population, critical facilities, infrastructure, emergency services, natural resources, and private property whenever possible.

- Objective 1.1—Manage development of known hazard areas to avoid the risks associated with natural hazards.
- Objective 1.2—Plan to incorporate hazard mitigation into capital improvements and other future initiatives.
- Objective 1.3—Ensure building codes and other standards include requirements that make new construction more disaster resistant.
- Objective 1.4—Support the maintenance of this hazard mitigation plan.

Goal 2—Protect the Town's existing critical facilities, infrastructure, and private property from the impacts of natural hazards through cost effective mitigation activities.

- Objective 2.1—Modify existing structures to reduce damage from future natural hazard events.
- Objective 2.2—Perform cost effective flood hazard mitigation measures to protect private property.

Goal 3—Educate and inform the Town's residents to help them become more resilient to natural hazards impacting the community.

- Objective 3.1—Utilize educational methods to change the perception from "disaster losses are acceptable" to "many disaster losses are preventable if mitigation practices are followed."
- Objective 3.2—provide educational opportunities across all age ranges.
- Objective 3.3—Develop and distribute public awareness materials regarding the relative risk of natural hazards and practical mitigation measures to reduce damage and injuries.

Goal 4—become more resilient to the impacts that climate change has on the Town’s population, critical facilities, infrastructure, emergency services, natural resources, and private property.

- Objective 4.1—Ensure development in hazard areas does not destroy natural barriers to damage, such as floodplains and vegetation.
- Objective 4.2—Protect or recreate environmental assets to help safeguard the built environment.
- Objective 4.3—Prioritize which climate change impacts to address and when. Prioritization could be based on vulnerability assessment results, current needs, upcoming plans, feasibility, or budget considerations.
- Objective 4.4—Develop an adaptation strategy, including potential mitigation measures, timelines, responsible parties, and available funding sources.
- Objective 4.5—Implement the adaptation strategy and incorporate findings into hazard mitigation plan updates.
- Objective 4.6—Track progress and monitor results to determine where improvements can be made. Adjust the implementation strategy as necessary.

Goal 5—Address the challenges of natural resource degradation and the associated increased risk from hazards.

- Objective 5.1—Ensure development in hazard areas does not destroy natural barriers to damage, such as floodplains and vegetation.
- Objective 5.2—Protect or recreate environmental assets to help safeguard the built environment.

Goal 6—Protect emergency services, critical facilities, and other critical capabilities from hazard damage so they remain operational.

- Objective 6.1—Identify critical facilities, infrastructure, and emergency services and their vulnerabilities to natural hazards.
- Objective 6.2— Develop and implement programs to promote hazard mitigation actions that protect the provision of emergency services in Town.
- Objective 6.3—Identify, maintain, and protect evacuation routes from hazard damage, so they are usable when needed.

CHAPTER 1. PLANNING PROCESS

Section 1.1. Overview of Planning Process

The Mason Hazard Mitigation Plan Update 2025 was prepared by the Nashua Regional Planning Commission (NRPC) for the Town of Mason, NH. NRPC staff worked closely with the Mason Hazard Mitigation Team to write this plan.

NRPC staff met with the Mason Hazard Mitigation Team for a series of four meetings to prepare the Mason Hazard Mitigation Plan Update 2025. Agendas from these meetings appear in the Appendix to this Plan. In between meetings, NRPC worked directly with Mason Hazard Mitigation Team members to obtain additional information needed to write the Plan.

The primary differences between the 2025 Plan and the 2018 Plan are 1) Infectious Disease is now recognized by the State as a hazard, and 2) Solar and Space Weather is now recognized by the State as a hazard.

Section 1.2. Involvement of Neighboring Communities and Local/Regional Agencies

At the first Hazard Mitigation Team meeting, held on February 18, 2025, the group discussed who should be invited to participate in the planning team that was not currently represented. It was determined that the current Team provided adequate representation, and no additional members were necessary. The Team also discussed who should be informed about the Plan, such as neighboring communities, local and regional agencies involved in hazard mitigation, agencies with authority to regulate development, and others. It was concluded that the following entities should be informed of the Plan update:

- Milford Medical Center, Milford, NH
- Homeland Security and Emergency Management, Concord, NH
- American Red Cross, Nashua NH and Manchester, NH
- Southern NH Medical Center, Nashua, NH
- Monadnock Community Hospital, Peterborough, NH
- St. Joseph Medical Center, Nashua, NH
- Eversource, Manchester, NH
- Board of Selectmen, Town of Mason, NH
- Board of Selectmen, Town of Milford, NH
- Board of Selectmen, Town of Brookline, NH
- Board of Selectmen, Town of Wilton, NH
- Board of Selectmen, Town of Greenville, NH
- Board of Selectmen, Town of New Ipswich, NH
- Board of Selectmen, Town of Townsend, MA
- Board of Selectmen, Town of Ashby, MA
- Pickity Place, Mason, NH
- Parker's Maple Barn, Mason, NH
- Mason Brook Nursery, Mason, NH

- Marty's Driving Range, Mason, NH
- Old Glory Guns & Ammo, Greenville, NH
- Country Mile, Greenville, NH
- Monadnock Security Systems, Mason, NH
- SAU 89, Mason, NH
- Mason Congregational Church, Mason, NH
- Mason Hollow Nursery, Mason, NH
- Hollis Communications Center, Hollis, NH
- Brookline Ambulance, Brookline, NH
- Milford School District, Milford, NH

A copy of the letter that was sent to these entities appears in the Appendix to this Plan. Rick Todd, Director of Hollis Communications Center (Hollis, Brookline, and Mason Emergency Dispatch) attended the second meeting two after receiving a letter. NH HSEM Stakeholder Liaisons Scott Lambertson and Elizabeth Curless also responded, and offered technical support as needed.

Section 1.3. Public Participation

During the first Hazard Mitigation Team meeting, held on February 18, 2025, the Team brainstormed methods currently employed to notify the public of Town meetings and news. These methods primarily include the Town's website (<http://masonnh.us/>), Mason Police Department Facebook page (<https://www.facebook.com/profile.php?id=100089274799235>), and Mason Fire/Rescue Department Facebook page (<https://www.facebook.com/profile.php?id=61560005647041>). The Team determined that these methods should also be used to encourage public participation in the Hazard Mitigation Plan update process. There was no public response to provide input to the Mason Hazard Mitigation Plan Update 2025 process.

In addition, announcements were made at both Board of Selectmen and Planning Board public meetings regarding the update process, to encourage more participation.

NRPC staff also developed a webpage for the Mason Hazard Mitigation Plan Update 2018 (https://nashuarpc.org/about_nrpc/our_region_communities/mason_hazard_mitigation_plan_update_2025.php), which allows members of the public to participate in the update process even if they cannot attend meetings. The webpage was updated throughout the planning process and includes the 2018 Mason Hazard Mitigation Plan, 2025 Hazard Mitigation Plan Outline, and Hazard Mitigation Plan Review Checklist. It also provides meeting times, locations, agendas, and homework assignments. The Town of Mason's website links to this webpage. The Nashua Regional Planning Commission will keep the website active and will add information about ongoing updates over the next 5 years. A screenshot of the website appears in the Appendix to this Plan.

Section 1.4. Existing and Potential Authorities, Policies, Programs, and Resources

At the first Hazard Mitigation Team meeting, held on February 18, 2025, the Team discussed Mason's existing authorities, policies, programs, and resources related to hazard mitigation and its ability to expand and improve on these. The purpose of this discussion was to determine the ability of the Town to implement its hazard mitigation strategies and to identify potential opportunities to enhance specific policies, programs, or projects. The evaluation of Mason's existing authorities, policies, programs, and resources includes planning and regulatory capabilities, emergency management capabilities, floodplain management capabilities, administrative and technical capabilities, and fiscal capabilities. Each of these areas provides an opportunity to integrate hazard mitigation principles and practices into the local decision-making process.

Specifically, the 2025 Hazard Mitigation Team is comprised of select individuals that represent various town functions and capabilities that will be needed to expand and improve existing policies and programs, as well as be the responsible parties to implement mitigation strategies.

- Police Chief/Emergency Management Director –The Chief of Police interacts with the public on a regular basis and will directly support expansion and improvement programs involving public education, protection, and communication as well as the Police Department in general. Also acting as the EMD, the Police Chief will facilitate any updated operations and plans/programs. Many hazard mitigation actions involve providing education and services to residents, which falls under the jurisdiction of emergency management.
- Fire Chief – The Fire Chief implements improvements to programs and policies of the Fire Department to support mitigation strategies and priorities.
- Road Agent – The road agent provides insight on existing conditions and deficiencies in municipal infrastructure as well as directs Highway Department functions such as maintenance of transportation and stormwater infrastructure. Many mitigation actions include infrastructure maintenance and improvement as well as implementation of new programs.
- Building Inspector – The Building Inspector ensures that buildings/structures meet safety requirements by enforcing building codes.
- Board of Selectmen Chair – The Board of Selectmen serves as the chief executive body of Mason, responsible for enforcing policies and laws set forth by the voters at Town Meeting as well as proposing budgets and overseeing other municipal boards/committees. The Chair is the point person of the Board of Selectmen, and vital in the implementation and budgeting of mitigation actions.
- Planning Board Members – Members of the Planning Board will work to implement and enforce new regulatory changes that support hazard mitigation and goals in new developments.
- Zoning Board of Adjustment Members – Members of the Zoning Board of Adjustment will work to implement and enforce new regulatory changes that support hazard mitigation and goals.

Planning and Regulatory Capabilities

Planning and regulatory capability is based on the implementation of plans, ordinances, and programs that demonstrate Mason’s commitment to guiding and managing growth in a responsible manner. The following is a summary of the relevant local plans, ordinances, and programs already in place in the Town of Mason. Each one should be considered as an available mechanism for incorporating the recommendations of the Mason Hazard Mitigation Plan Update 2025.

- [Wetlands Conservation District Ordinance](#)—the purpose of the Wetlands Conservation District is to protect public health, safety, and general welfare by controlling and guiding the use of land areas which have been found to be subject to high water tables for extended periods of time.
- [Floodplain Development Ordinance](#)—the Town of Mason adopted this ordinance in 1967 to establish general guidelines for the siting of towers and antennas and to enhance and fulfill the following goals: 1) Preserve the authority of the Town of Mason to regulate and provide for reasonable opportunity for the siting of telecommunications facilities. 2) Enhance the ability of providers of telecommunications services to provide such services to the community effectively and efficiently. 3) Reduce the adverse impacts such facilities may create on, including, but not limited to migratory bird flight corridors, impacts on aesthetics, environmentally sensitive areas, historically significant locations, health, and safety by injurious accidents to person and property, and diminution of property values. 4) Preserve unique viewsheds and scenic values.
- [Aquifer and Wellhead Protection Overlay District Ordinance](#)— The Aquifer and Wellhead Protection (AWP) Overlay District Ordinance was established for the purpose of protecting the quality and quantity of Groundwater resources available to be used as current and/or future drinking water supplies.
- [Mason Master Plan 2020](#)
- [Planning Ordinance \(Zoning Ordinance\) Amended 2024](#)
- [Site Plan Review Regulations \(Amended 2024\)](#)
- [Subdivision Regulations \(Amended 2024\)](#)
- International Building Code and International Residential Code
- [National Flood Insurance Program](#)

Emergency Management Capabilities

Hazard mitigation is a key component of emergency management, along with preparedness, response, and recovery. Opportunities to reduce potential losses through mitigation practices are typically implemented before a hazard occurs, such as enforcement of policies to regulate development that is vulnerable to hazards due to its location or design. Existing emergency management capabilities for the Town of Mason include:

Emergency Management Plans

- Mason Hazard Mitigation Plan Update 2018 —this document provides a guide for the community to reduce the impact of natural hazards on its residents and the built environment.
- Mason Emergency Operations Plan
- Mason Elementary School Emergency Plan

Emergency Management Departments, Facilities, Personnel, and Volunteers

- [Mason Fire & EMS Department](#) and [Mason Police Department](#)—these departments provide policies, programs, and resources related to hazard mitigation and emergency preparedness.
- Mason Fire Department is part of the Souhegan Mutual Aid Association. Towns that belong to this region include Amherst, Bedford, Brookline, Dunstable (MA), Goffstown, Greenfield, Greenville, Hollis, Hudson, Litchfield, Lyndeborough, Mason, Merrimack, Milford, Mount Vernon, Nashua, New Boston, New Ipswich, Pepperell Ma., Temple, Weare, and Wilton. In addition, all regional districts belong to a federation that covers the entire state.
- All municipalities in the Souhegan Mutual Aid Association are also part of the Souhegan Mutual Aid Hazardous Materials Response Team, which is based in Nashua.
- Greater Nashua Regional Public Health Network – A regional Warehouse located at 57 Gilson Road in Nashua to support member towns with public health emergencies. The Warehouse stores PPE, cots, gowns, lights, a single generator, blow up tent, EZ-up awnings, extension cords, etc. There is also a Multi-Agency Coordination Entity (MASE) that responds to emergencies as they arise.
- Emergency Operations Center—located at the Police Department; provides radio, computer, and phone support in conjunction with the State EOC for allocation of resources, equipment, and personnel during an emergency.
- Police Mutual Aid – The Mason Police Department participates in a county-wide mutual aid agreement.
- Highway Department Mutual Aid – The Mason Highway Department participates in the State of NH Mutual Aid Association.

Emergency Management Communications

- Dispatch—primary dispatch is through Town of Hollis, NH with backup provided by Milford, NH. If needed, Mason can provide its own dispatch through its radios. MACC Base is backup.
- Radio Infrastructure – Mason is in desperate need of radio infrastructure updates. The current radios are at the end of life and no longer supported by the manufacturer. There are also communication dead zones, where emergency responders are without radio signal. In addition, the current radio tower has a failing generator that needs to be replaced and re-wired.
- [Mason Municipal Website](#)—emergency management announcements and education
- CodeRED – emergency alert system.
- [Mason Municipal Website](#)
- [Mason Fire/EMS Department Facebook Page](#)
- [Mason Police Department Facebook Page](#)

Floodplain Management Capabilities

The Town of Mason participates in the National Flood Insurance Program (NFIP). This provides full insurance coverage based on risk as shown on the detailed Flood Insurance Rate Maps (FIRMs). Mason joined the NFIP on December 1, 1992. As a participant in the NFIP, communities must agree to adopt a floodplain management ordinance and enforce the regulations found in the ordinance. Mason has adopted the “Floodplain Ordinance,” found in Article XVIII of the [Town of Mason Planning Ordinance](#).

The Floodplain Ordinance is enacted to prevent the development of buildings and uses in areas that are unsatisfactory and hazardous due to the threat of flooding, protect natural flows and drainage, and comply with the requirements of the National Flood Insurance Act of 1968 (P.L. 90-488, as amended). Additional information on the Floodplain Ordinance and Mason’s participation in the NFIP will be in Section 3.7 of this Plan.

Administrative and Technical Capabilities

Mason’s ability to develop and implement mitigation projects, policies, and programs is closely related to the staff time and resources it allocates to that purpose. Administrative capability can be improved by coordinating across departments and integrating mitigation planning into existing Town procedures. The following departments, boards, and personnel are critical to Mason’s hazard mitigation administrative and technical capabilities:

- Fire/EMS Department
- Police Department
- Building Inspector
- Road Agent/Highway Department
- Board of Selectmen and Administrative Assistant
- Zoning Board of Adjustment
- Planning Board and NRPC Circuit Rider
- Conservation Commission
- Energy Commission

Fiscal Capabilities

In addition to administrative and technical capabilities, the ability of the Town of Mason to implement mitigation actions is closely associated with the amount of money available for these projects.

Mitigation actions identified in this Plan, including those that will appear in Table 12—Implementation and Administration, may utilize the following funding sources.

- [Congestion Mitigation and Air Quality \(CMAQ\) Program](#)—this program is administered by the Federal Highway Administration and was implemented to support surface transportation projects and related efforts that contribute to air quality improvements and provide congestion relief.
- [FEMA Hazard Mitigation Grant Program](#)—the Hazard Mitigation Grant Program provides grants to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the Program is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster.
- [FEMA Pre-Disaster Mitigation Program](#)—the Pre-Disaster Mitigation Program provides funds for hazard mitigation planning and the implementation of mitigation projects prior to a disaster.
- Community Development Block Grant Program—the Community Development Block Grant (CDBG) program, administered through the US Department of Housing and Urban Development, provides communities with resources to address a wide range of unique community development needs, including Disaster Recovery Assistance. HUD provides flexible grants to

help cities, counties, and States recover from Presidentially declared disasters, especially in low-income areas, subject to availability of supplemental appropriations.

Summary and Analysis of Mason's Existing Authorities, Policies, Programs, and Resources

Measures of Effectiveness are defined as follows:

- 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 works as intended but could be improved to meet higher standards
- Poor—the existing program does not work as intended, often falls short of its goals, and/or may present unintended consequences

Capability	Description	Area of Town Covered	Responsible Entities	Effectiveness	Changes or Improvements Needed
Planning and Regulatory	Wetlands Conservation District Ordinance, Floodplain Development Ordinance, Aquifer and Wellhead Protection Overlay District Ordinance, Open Space Development, Land Use Zoning Ordinance, Site Plan Regulations, Subdivision, Regulations, Mason Master Plan, NFIP	Entire jurisdiction	Planning Board, Zoning Board	Good	Ordinances should be reviewed on a regular basis to ensure they are consistent with goals outlined in the Master Plan and Hazard Mitigation Plan. Consider conducting a Town specific vulnerability assessment to improve local resiliency to impacts of various hazards.
Emergency Management	Plans; Departments, Facilities, Personnel, and Volunteers; Communications	Entire jurisdiction	Mason Fire/EMS Dept.; Mason Police Dept.; Mason Police Mutual Aid; Souhegan Fire Mutual Aid; Statewide Fire Mutual Aid	Good	Utilize a variety of communications methods to ensure all residents are educated about emergency preparedness and hazard mitigation measures they can take.

Floodplain Management	Floodplain Development Ordinance, NFIP	Designated Flood Hazard Areas in Mason	Mason Planning Board	Good	Revise/adopt regulations to improve floodplain management if needed. Ensure future updates of Mason Master Plan include floodplain considerations. Incorporate updated floodplains for Squanacook and Nissitissit Watersheds into municipal planning activities when they become available.
Administrative and Technical	Fire/EMS Dept., Police Dept., Emergency Management, Building Inspector, Road Agent, Select Board, Selectboard Admin. Assistant, Zoning Board, Planning Board & NRPC Circuit Rider, Conservation Commission, Energy Commission	Entire jurisdiction	Entities listed in Description	Good	Promote communication across all departments and committees to ensure Hazard Mitigation Plan goals and actions are implemented.
Fiscal	Town Budget, Grant Funding	Entire jurisdiction	Board of Selectmen, Planning Board	Good	Hazard mitigation actions should be considered for inclusion in the departmental budgets. Mason's Hazard Mitigation Plan should be updated at least every 5 years to maintain eligibility for FEMA grants.

Section 1.5. Review and Incorporation of Existing Documents

Several existing documents were reviewed and incorporated into the Mason Hazard Mitigation Plan Update 2025. The Mason Zoning Ordinance was used to provide information on where and how the Town builds. This was particularly helpful when mapping critical facilities corridors (Section 3.3). The Mason Master Plan provided insight on future development patterns (Section 2.1) and helped to inform the analysis and prioritization of mitigation actions (Section 4.3). The State of New Hampshire Multi-Hazard Mitigation Plan Update 2023 provided insight when developing the description of natural hazards (Section 3.1), description of previous hazards (Section 3.2), probability of future hazards (Section 3.3), vulnerability by hazard (Section 3.5), and goals to reduce vulnerabilities (Section 4.1). The City of Nashua's Comprehensive Emergency Management Plan was referenced to write the hazard descriptions used to determine Mason's vulnerability by hazard (Section 3.3). Finally, the Nashua Regional Planning Commission's "Nashua Regional Water Resiliency Action Plan" provided insight when developing the description of natural hazards (Section 3.1), probability of future hazards (Section 3.2), vulnerability by hazard (Section 3.5), and goals to reduce vulnerabilities (Section 4.1). It was used to inform the analysis and prioritization of mitigation actions (Section 4.3).

Section 1.6. Updating the Plan

Plan Evaluation

In coordination with the Nashua Regional Planning Commission, the Mason Emergency Management Director will call meetings of all responsible town parties to review plan progress annually on the anniversary of plan adoption and as needed, based on occurrence of hazard events, and report outcomes to the Board of Selectmen. The public will be notified of these meetings in advance through a posting of the agenda at the Town Offices. Responsible parties identified for specific mitigation actions will be asked to submit their reports in advance of the meeting. Meetings will entail the following actions:

- Review previous hazard events to discuss and evaluate major issues, effectiveness of current mitigation, and possible mitigation for future events.
- Assess how the mitigation strategies of the plan can be integrated with other Town plans and operational procedures, including the Zoning & Land Use Ordinance.
- Review and evaluate progress toward implementation of the current mitigation plan based on reports from responsible parties.
- Amend current plan to improve mitigation practices.
- Meetings will involve evaluation and assessment of the plan, regarding its effectiveness at achieving the plan's goals, stated purpose, and priorities. The following questions will serve as the criteria that is used to evaluate and update the plan:

Plan Mission and Goal

- Is the Plan's stated goal and mission still accurate and up to date, reflecting any changes to local hazard mitigation activities?
- Are there any changes or improvements that can be made to the goal and mission?

Hazard Identification and Risk Assessment

- Have there been any new occurrences of hazard events since the plan was last reviewed? If so, these hazards should be incorporated into the Hazard Identification and Risk Assessment.
- Have any new occurrences of hazards varied from previous occurrences in terms of their extent or impact? If so, the stated impact, extent, probability of future occurrence, or overall assessment of risk and vulnerability should be edited to reflect these changes.
- Is there any new data available from local, state, or Federal sources about the impact of previous hazard events, or any new data for the probability of future occurrences? If so, should this information be incorporated into the plan?

Existing Mitigation Strategies

- Are the current strategies effectively mitigating the effect of any recent hazard events?
- Has there been any damage to property since the plan was last reviewed?
- How could the existing mitigation strategies be improved to reduce the impact from recent occurrences of hazards?

Proposed Mitigation Strategies

- What progress has been accomplished for each of the previously identified proposed mitigation strategies?
- How have any completed mitigation strategies reduced the Town's vulnerability and impact from hazards that have occurred since the strategy was completed? If not and if they have been tested, what changes need to make them more effective?
- Should the criteria for prioritizing the proposed strategies be altered in any way?
- Should the priority given to individual mitigation strategies be changed, based on any recent changes to financial and staffing resources, or recent hazard events?

Review of the Plan and Integration with Other Planning Documents

- Is the current process for reviewing the Hazard Mitigation Plan effective? How could it be improved?
- Are there any Town plans in the process of being updated that should have the content of this Hazard Mitigation Plan incorporated into them or integrated with other Town planning tools and operational procedures, including the Zoning & Land Use Ordinance and the Capital Improvement Plan?

Following these discussions, it is anticipated that the planning team may decide to reassign the roles and responsibilities for implementing mitigation strategies to different town departments and/or revise the goals and objectives contained in the plan.

Plan Update

The Emergency Management Director will be responsible for a complete update of the Plan every five years and incorporating the results of Mason's plan monitoring and evaluation procedures. The next update of the plan is anticipated to begin in calendar-year 2029, with the goal of adoption in 2030. The first meeting, initiated by the EMD, is anticipated in November 2028. The plan update may begin earlier following a significant natural hazard event within the town and region, such as a federally declared disaster.

The public meetings of the hazard mitigation team shall be publicized through legal notices in local newspapers, posted fliers, and on the town and regional planning commission websites. Written and

email comments shall be directed to the EMD. The updated plan will incorporate input from the public, other municipalities and government agencies. The Selectboard is responsible for approving the plan submission to FEMA and for adoption of the plan.

The update will follow a similar planning process and the outline to the current planning process, making deviations when needed.

CHAPTER 2. CHANGES FROM PREVIOUS PLAN

Section 2.1. Changes in Development

There have been no major changes in development patterns in Mason since the 2018 Hazard Mitigation Plan. The Town has no formal commercial or industrial development zoning districts; however, both uses can exist under a special exception or conditional use permit. Mason's commercial development is mostly in the southwest corner of town near Old Turnpike Road except for a commercial property off Brookline Road in the eastern side of Town. There is also one parcel used for industrial purposes (an active quarry) in the northern area of town off Starch Mill. Residential development has not increased much and consists of almost entirely single-family homes.

There has been an increase in the number of dead-end roads in Mason as land is subdivided. This increases the town's vulnerability to hazards such as flooding, severe winter weather, and severe wind. Residents that live on roads without an outlet have a higher risk of being stranded if the road is obstructed in an emergency event. In particular, Jeds Lane is a dead-end road that has a bridge over Mason Brook at its connection to Valley Road. This bridge is starting to fail structurally and would leave ten households stranded if it becomes impassable.

Mason is working on updating culverts on various roads to reduce flooding vulnerability. Culverts have been replaced on Batchelder Road, and the Abott Hill Road/Starch Mill Road culvert is in the process of culvert upgrades.

Section 2.2. Progress in Local Mitigation Efforts

The mitigation actions and implementation framework identified in the Mason Hazard Mitigation Plan Update 2025 have been revised to reflect progress in local mitigation efforts. Progress has been made on a number of local mitigation efforts identified in the 2018 Plan, including Identify and become knowledgeable of non-compliant structures in the community; Enhance local officials, builders, developers, local citizens and other stakeholders' knowledge of how to read and interpret the FIRM; Post signage that restricts withdrawal of water from fire ponds that are vulnerable to drought; Continue to work with Eversource to harden electrical infrastructure, including trimming trees near power lines. Consider the costs and benefits of requiring overhead power lines to be buried in all new developments; and tightly control burn permits and revoke when not properly and safely being utilized.

To assess progress on local mitigation efforts, the Hazard Mitigation Team reviewed the actions originally presented in the Mason Hazard Mitigation Plan 2018 and determined if they had been completed, deleted, or deferred. Progress on each action and its current priority level were also evaluated to determine if it should continue to be included in the mitigation actions identified in this Plan update.

Table 1—Status of Previous Actions

Mitigation Action	Status	Explanation
Replace culverts on Starch Mill/Abbott Hill Road, Wilton Road, Russell Road, and Briggs Road. Replace and upgrade old undersized culverts to provide adequate capacity.	Deferred	While the Russell Road and Briggs Road culverts have been replaced since the 2018 Hazard Mitigation Plan, the remaining culverts listed still need to be replaced. Therefore, this action will be deferred and continued to be tracked in the Hazard Mitigation Plan Updated 2025.
Review and update Building Codes, Floodplain Ordinance, and Zoning Regulations. Proactively enforce the International Building Code (IBC) and International Residential Code (IRC) to protect buildings and infrastructure from the impacts of earthquake, flooding, severe wind, severe winter weather, and tornadoes.	Deferred	This action was not completed over the span of the 2018 plan Hazard Mitigation Plan and will be moved to the Hazard Mitigation Plan Update 2025. The Mason Building Code, last updated in 2011, will be updated for the 2026 Town Meeting.
Inventory of town-wide special needs and at-risk population for preparedness planning as well as a town-wide questionnaire to identify privately maintained social and physical resources available to town officials during an emergency response.	Deleted	There is no political will/interest in the action so it will be deleted and no longer tracked in future hazard mitigation plans.
Identify and become knowledgeable of non-compliant structures in the community	Completed	This action has been completed, and it was found that there are no non-compliant structures in Mason. This action will not be tracked in future hazard mitigation plans.
Enhance local officials, builders, developers, local citizens, and other stakeholders' knowledge of how to read and interpret the FIRM.	Completed	This action has been completed and will not be tracked in future hazard mitigation plans.
Post signage that restricts withdrawal of water from fire ponds that are vulnerable to drought. Monitor water supply and drought conditions. Utilize NH Division of Forest and Lands reports and consult the New Hampshire Drought Management Team (DMT) and the State Drought Management Plan to monitor drought indicators. Drought regions and updates on the drought status may be found here .	Completed	This action has been completed and will not be tracked in future hazard mitigation plans.
Design a “natural runoff” or “zero discharge” policy for stormwater in subdivision design to improve floodplain management in Mason.	Deferred	This action was not completed over the span of the 2018 plan Hazard Mitigation Plan and will be moved

Mitigation Action	Status	Explanation
		to the Hazard Mitigation Plan Update 2025.
Protect critical facilities and equipment from lightning damage. Install lightning protection devices and methods, such as lightning rods and grounding, on communications infrastructure and other critical facilities.	Deferred	This action was not completed over the span of the 2018 plan Hazard Mitigation Plan and will be moved to the Hazard Mitigation Plan Update 2025. Lightning protection is part of the new Town Hall renovation plans.
Continue to work with Eversource to harden electrical infrastructure, including trimming trees near power lines. Consider the costs and benefits of requiring overhead power lines to be buried in all new developments.	Complete	This action has been completed and will not be tracked in future hazard mitigation plans. Buried utility lines in Mason are very costly and, in some areas, nearly impossible due to the presence of granite ledge in most of Mason.
Protect vulnerable populations from the impacts of extreme temperatures by establishing cooling and warming stations at community centers. Develop targeted outreach methods, including notifying occupants of senior housing facilities.	Deferred	This action was not completed over the span of the 2018 Hazard Mitigation Plan, as there are still no secure spaces to use in Mason. This action will be moved to the Hazard Mitigation Plan Update 2025.
Tightly control burn permits and revoke when not properly and safely being utilized. Provide education on wildfire danger to residents when they apply for burn permits. Conduct education on campfire safety at schools. Post fire danger categories. Continue roadside mowing to reduce the likelihood of wildfires spreading and clear brush from around fire ponds.	Completed	This action has been completed and will not be tracked in future hazard mitigation plans.

Section 2.3. Changes in Priorities

Table 2 (below) shows all mitigation actions from the 2018 plan that were carried over to the 2025 Plan along with how they changed in priority.

The following mitigation action rose in priority level from the 2018 Plan to the 2025 Plan:

- Protect vulnerable populations from the impacts of extreme temperatures by establishing cooling and warming stations at community centers. Develop targeted outreach methods, including notifying occupants of senior housing facilities.

The following mitigation action dropped in priority level from the 2018 Plan to the 2025 Plan:

- Review and update Building Codes, Floodplain Ordinance, and Zoning Regulations. Proactively enforce the International Building Code (IBC) and International Residential Code (IRC) to protect buildings and infrastructure from the impacts of earthquake, flooding, severe wind, severe winter weather, and tornadoes.

The following mitigation action's priority level remained the same from the 2018 Plan to the 2025 Plan:

- Replace culverts on Starch Mill/Abbott Hill Road, Wilton Road, Russell Road, and Briggs Road. Replace and upgrade old undersized culverts to provide adequate capacity.
- Design a "natural runoff" or "zero discharge" policy for stormwater in subdivision design to improve floodplain management in Mason.
- Protect critical facilities and equipment from lightning damage. Install lightning protection devices and methods, such as lightning rods and grounding, on communications infrastructure and other critical facilities.

Table 2—Changes in Mitigation Priorities

2018 Mitigation Action	Current Status	Priority Level in 2018 Plan	Priority Level in 2025 Plan
Replace culverts on Starch Mill/Abbott Hill Road, Wilton Road, Russell Road, and Briggs Road. Replace and upgrade old undersized culverts to provide adequate capacity.	Deferred	STAPLEE Score = 18 Rank = 1 out of 11	STAPLEE Score = 18 Rank = 1 out of 13
Review and update Building Codes, Floodplain Ordinance, and Zoning Regulations. Proactively enforce the International Building Code (IBC) and International Residential Code (IRC) to protect buildings and infrastructure from the impacts of earthquake, flooding, severe wind, severe winter weather, and tornadoes.	Deferred	STAPLEE Score = 16 Rank = 2 out of 11	STAPLEE Score = 12 Rank = 6 out of 13
Design a “natural runoff” or “zero discharge” policy for stormwater in subdivision design to improve floodplain management in Mason.	Deferred	STAPLEE Score = 8 Rank = 10 out of 11	STAPLEE Score = 6 Rank = 12 out of 13
Protect critical facilities and equipment from lightning damage. Install lightning protection devices and methods, such as lightning rods and grounding, on communications infrastructure and other critical facilities.	Deferred	STAPLEE Score = 7 Rank = 11 out of 11	STAPLEE Score = 6 Rank = 13 out of 13

2018 Mitigation Action	Current Status	Priority Level in 2018 Plan	Priority Level in 2025 Plan
Protect vulnerable populations from the impacts of extreme temperatures by establishing cooling and warming stations at community centers. Develop targeted outreach methods, including notifying occupants of senior housing facilities.	Deferred	STAPLEE Score = 14 Rank = 4 out of 11	STAPLEE Score = 16 Rank = 3 out of 13

CHAPTER 3. HAZARD IDENTIFICATION AND RISK ASSESSMENT

Section 3.1. Description of Natural Hazards

The Town of Mason is susceptible to a variety of natural hazards, which are outlined in Table 3. For each hazard type, the hazard location within the Town, extent, and impact are also noted. Extent refers to how bad the hazard can be; it is different from location. Examples of extent include potential wind speed, depth of flooding, and existing scientific scales (ex. Enhanced Fujita Tornado Damage Scale). Impact refers to damages or consequences resulting from the hazard.

Hazards Not Included in Plan

The State of New Hampshire identifies Avalanches, Landslides, Solar Storms & Space Weather, Ice Jams, and Erosion as hazards in the State Multi-Hazard Mitigation Plan Update of 2023.

Landslides and avalanches have not been included in the Mason Hazard Mitigation Plan Update 2025. A landslide is the downward or outward movement of earth materials on a slope that is reacting to a combination of the force of gravity and a predisposed weakness in the material that allows the sliding process to initiate.² An avalanche is a slope failure consisting of a mass of rapidly moving, fluidized snow that slides down a mountainside. The flow can be composed of snow, ice, water, soil, rocks, and trees. An avalanche can be comparable to a landslide; only with snow instead of earth.³ Mason has relatively stable terrain and there have been no historic landslide or snow avalanche events in town. As such, the Hazard Mitigation Team did not feel it was necessary to include these hazards in this Plan.

The State of New Hampshire also identifies Solar Storms & Space Weather as hazards. As described by the State of NH Multi-Hazard Mitigation, the term space weather is relatively new and describes the dynamic conditions in the Earth's outer space environment, like how the terms "climate" and "weather" refer to the conditions in the Earth's lower atmosphere. Space weather includes all conditions and events on the sun, in the solar wind, in near-Earth space, and in our upper atmosphere that can affect space-borne and ground-based technological systems. Solar activity (solar storms) refers to solar flares, coronal mass ejections, high-speed solar wind, and energetic solar particles. Any of these events may occur for a few minutes to several hours, can affect Earth for days to weeks. All solar activity is driven by the solar magnetic field. A solar flare is an intense burst of radiation resulting from the release of sunspot magnetic energy, which can occur for minutes to hours. Solar prominence is a large, bright feature that extends outward from the sun's surfaces. A coronal mass ejection (CME) occurs when the outer solar atmosphere's magnetic field is closed, resulting in a confined atmosphere that suddenly explodes, releasing bubbles of gas and magnetic fields. The surface of the sun is hot electrified gas boiling up from the interior of the sun out into space- this is referred to as high-speed solar wind. Solar wind travels at 800,000 to 5 million miles per hour and carries mass the size of Utah's Great Salt Lake into space every second; however, solar wind is 1000 million times weaker than the winds that we experience on Earth.⁴ There have been no documented occurrences of Solar Storms & Space weather impacting the Town, and the Mason Hazard Mitigation team did not have enough knowledge to

² [State of New Hampshire Multi-Hazard Mitigation Plan Update 2023](#), page 236

³ [State of New Hampshire Multi-Hazard Mitigation Plan Update 2023](#), page 114

⁴ [State of New Hampshire Multi-Hazard Mitigation Plan Update 2023](#), page 255

determine if solar storms and space weather deserved to be recognized in this plan update as a hazard. The Town will re-evaluate the need to include additional hazards in this Plan during subsequent updates of the Plan.

Ice jams are described as “a backup of water into areas adjacent floodplain can occur when a river or stream is blocked by the build-up of ice. Ice in waterways forms naturally from the freezing of water during the winter months. Melt and/or storm water may then encounter these ice formations causing them to break up and move down the river. Ice may apply lateral and/or vertical force on structures and infrastructure. Moving ice and erosion may scour abutments and riverbanks, and ice may also create temporary dams. These dams may create flood hazard conditions where no flood hazard previously existed.⁵ Ice jams were not considered independently of flooding in this plan.

Erosion, as defined by FEMA’s National Flood Insurance Program, is the process of the gradual wearing away of land masses. In Mason, erosion is largely due to riverine flooding. In this plan, erosion was not considered independently of flooding.

The Town will re-evaluate the need to include additional hazards to this plan during subsequent updates of the Plan.

Table 3—Natural Hazards in Jurisdiction

Hazard Type	Hazard Location within Jurisdiction	Hazard Extent	Impact
Drought	Entire jurisdiction.	<u>NH DES Drought Management Plan</u> • Level 1—Alert • Level 2—Warning • Level 3—Emergency • Level 4—Disaster <u>US Drought Monitor</u> • D0—Abnormally Dry • D1—Moderate Drought • D2—Severe Drought • D3—Extreme Drought • D4—Exceptional Drought • S—Short term, typically less than 6 months • L—Long term, typically more than 6 months	<u>D0</u> • short term dryness slowing planting, growth of crops • some lingering water deficits • crops not fully recovered <u>D1</u> • some damage to crops • streams, reservoirs, or wells low, some water shortages developing or imminent • voluntary water-use restrictions requested <u>D2</u> • crop losses likely • water shortages common • water restrictions imposed <u>D3</u> • major crop losses • widespread water shortages or restrictions <u>D4</u> • Exceptional & widespread crop loss • Shortages of water in

⁵ State of NH Multi-Hazard Mitigation Plan Update 2018, page 69

Hazard Type	Hazard Location within Jurisdiction	Hazard Extent	Impact
			reservoirs, streams, & wells creating water emergencies <u>S</u> • impacts on agriculture <u>L</u> • impacts on hydrology & ecology
Earthquake	Entire jurisdiction.	<u>Richter Scale</u> • <3.4—detected only by seismometers • >8—total damage, surface waves seen, objects thrown in air For full definitions of Richter Scale, see Section 3.5 Vulnerability by Hazard	Structural damage or collapse of buildings. Damage or loss of infrastructure, including roads, bridges, railroads, power and phone lines, municipal communications, 911 communications, radio system. Loss of water for fire protection. Increased risk of fire (gas break). Risk to life, medical surge.
Extreme Temperatures	Entire jurisdiction.	Extreme heat—period of 3 consecutive days when air temperature reaches 90°F or higher on each day. Extreme cold— period of 3 consecutive days of minimum temperatures at or below 0°F.	Overburdened power systems may experience failures due to extreme heat. Shortages of heating fuel in extreme cold due to high demand. Medical surge. Loss of municipal water supply for drinking water and fire protection due to freezing temperatures.
Flooding	Floodplains cover approximately 1.3% of Mason— 1.3% of Mason is in 1% annual floodplain and 0% of Mason is in the 0.2% annual floodplain. Roadways with the	FEMA flood probabilities: • 1% possibility per year • 0.2% possibility per year State of NH Dam Hazard Potential Classification system (for flooding resulting from dam/levee failure): • Class S—significant hazard • Class H—high hazard • Class L—low hazard • Class NM—non-menace	Water damage to structures and their contents. Damage or loss of infrastructure, including roads, bridges, railroads, power and phone lines, municipal communications, 911 communications, radio system. Environmental hazards

Hazard Type	Hazard Location within Jurisdiction	Hazard Extent	Impact
	potential to flood include: • Depot Road culvert at fire station • Wilton Road culvert at Sand Pit Road • Culvert at Starch Mill Rd and Abbott Hill Intersection • Townsend Road culvert near Jackson Road • Walker Brook Road • Townsend Road • Campbell Mill Road • Abbott Mill Road near Dead Moose Swamp • Batchelder Road • Reed Road • Churchill Road See Section 3.5 for additional information on flood-prone areas.	For full definitions of Dam Hazard Classes, see Section 3.5 Vulnerability by Hazard	resulting from damage. Isolation of neighborhoods resulting from flooding.
Lightning	Entire jurisdiction. • Townsend Road Radio Tower has had repetitive lightning strikes Areas with large populations present outdoors and large open spaces are	Lightning Activity Level: • Level 1 • Level 2 • Level 3 • Level 4 • Level 5 • Level 6 For full definitions of Lightning Activity Level, see Section 3.4 Vulnerability by Hazard	Smoke and fire damage to structures and property. Disruption to power lines, municipal communications, and 911 communications. Damage to critical electronic equipment. Injury or death to people involved in outdoor activity.

Hazard Type	Hazard Location within Jurisdiction	Hazard Extent	Impact
	particularly vulnerable.		
Severe Wind	Entire jurisdiction.	Saffir-Simpson Hurricane Wind Scale: - Category 1—sustained winds 74-95 mph - Category 2—sustained winds 96-110 mph - Category 3—sustained winds 111-129 mph - Category 4—sustained winds 130-156 mph - Category 5—sustained winds 157 mph or higher	Wind damage to structures and trees. Water damage to structures and their contents. Damage or loss of infrastructure, including roads, bridges, railroads, power and phone lines, municipal communications, 911 communications, radio system. Environmental hazards resulting from damage. Isolation of neighborhoods resulting from flooding. Water pressure, quality, and capacity issues impacting fire protection. Loss of natural resources.
Severe Winter Weather	Entire jurisdiction.	Depth of snow in a given time frame (ex. 2 or more inches per hour over a 12-hour period). Blizzard—violent snowstorm with minimum winds of 35 mph and visibility less than ¼ mile for 3 hours. Ground snow load factor. Ice Storm—Sperry-Piltz Ice Accumulation Index: 0—little impact 5—catastrophic damage to exposed utility systems For full definitions of Sperry-Plitz Ice Accumulation Index, see Section 3.5 Vulnerability by Hazard	Disruption to road network. Damage to trees, municipal communications, and 911 communications. Structural damage to roofs/collapse. Increase in CO, other hazards.
Tornado/Downburst	Entire jurisdiction.	Enhanced Fujita Tornado Damage Scale: - EF0—winds 65-85 mph - EF1—winds 86-110 mph - EF2—winds 111-135 mph	Wind damage to structures and trees. Damage or loss of infrastructure, including roads,

Hazard Type	Hazard Location within Jurisdiction	Hazard Extent	Impact
		- EF3—winds 136-165 mph - EF4—winds 166-200 mph - EF5—winds >200 mph	bridges, railroads, power and phone lines, municipal communications, 911 communications, radio system. Environmental hazards resulting from damage. Medical surge. Loss of natural resources.
Wildfire	Areas particularly prone to wildfire include forested areas near residential development.	NWCG Fire Size Classification: - A—greater than 0 but less than or equal to 0.25 acres - B—0.26 to 9.9 acres - C—10.0 to 99.9 acres - D—100-299 acres - E—300 to 999 acres - F—1,000 to 4,999 acres - G—5,000 to 9,999 acres - H—10,000 to 49,999 acres - I—50,000 to 99,999 acres - J—100,000 to 499,999 acres - K—500,000 to 999,999 acres - L—1,000,000+ acres	Smoke and fire damage to structures in wild land/urban interface. Damage to habitat. Impacts to air quality. Impact to roadways. Loss of natural resources.
Wildfire	Areas particularly prone to wildfire include forested areas near residential development.	NWCG Fire Size Classification: - A—greater than 0 but less than or equal to 0.25 acres - B—0.26 to 9.9 acres - C—10.0 to 99.9 acres - D—100-299 acres - E—300 to 999 acres - F—1,000 to 4,999 acres - G—5,000 to 9,999 acres - H—10,000 to 49,999 acres - I—50,000 to 99,999 acres - J—100,000 to 499,999 acres - K—500,000 to 999,999 acres - L—1,000,000+ acres	Smoke and fire damage to structures in wild land/urban interface. Damage to habitat. Impacts to air quality. Impacts to roadways. Loss of natural resources.
Infectious Diseases	Entire Jurisdiction. Vulnerable populations are especially at risk.	Center for Disease Control Disease Occurrence: - Endemic – Constant presence and/or usual prevalence of a disease or infection agent in a population within a geographic area - Hyperendemic – The persistent, high levels of disease occurrence	Burden on healthcare facilities, medical surge. Risk to life.

Hazard Type	Hazard Location within Jurisdiction	Hazard Extent	Impact
		- Cluster – 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. - Epidemic – An increase, usually sudden, in the number of cases of a disease above what is normally expected. - Outbreak – The same as epidemic, but over a much smaller geographical area. - Pandemic – Epidemic that has spread over several countries or continents, usually affecting many people.	

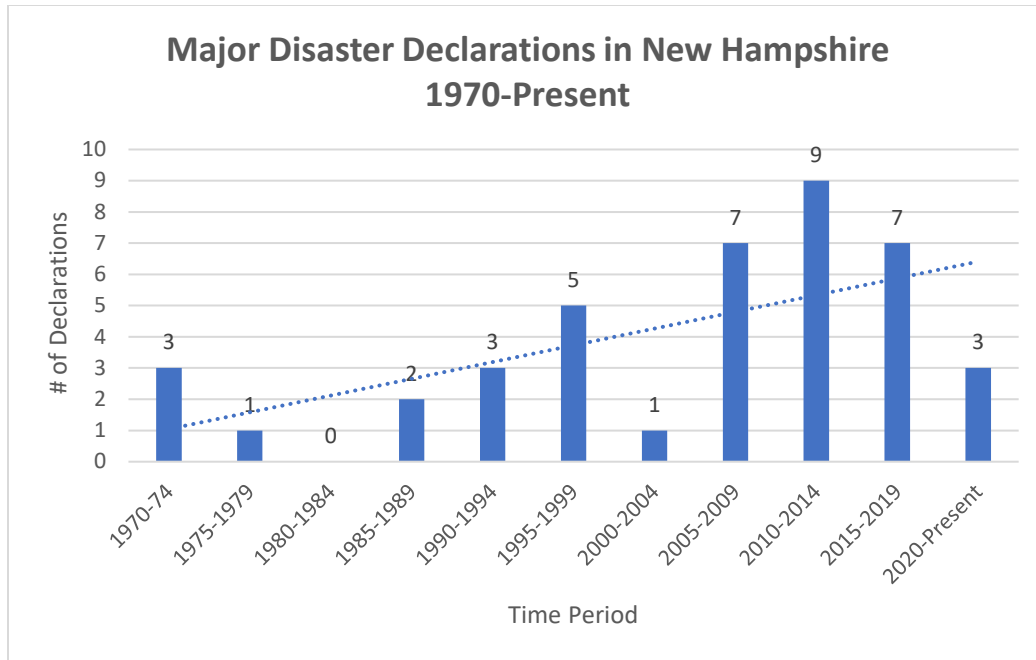
Section 3.2. Future Hazard Events and Climate Change

Hazard Probability and Climate Change

Climate change is not identified as a natural hazard in this plan; however, it does have an impact on weather patterns that influence hazards identified in this plan. FEMA acknowledges in the State Mitigation Plan Review Guide, that “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 future⁶.”

The chart below shows an overall increase in the frequency of Major Disaster Declarations in the state of New Hampshire, potentially an impact of climate change. Communities in New Hampshire are becoming more aware of the impacts of climate change on the local hazards already experienced, especially increased flooding events. Mason is anticipating an increase in natural hazard (Drought, Extreme Temperatures, Flooding, Lightning, Severe Wind, Severe Winter Weather, Tornado/Downburst, and Wildfire) probability and severity in the future.

⁶ State Mitigation Plan Review Guide, FEMA, Released March 2015, Effective March 2018, Section 3.2, page 13.



Source: New Hampshire Department of Safety, Declared Disaster Information as of 3/13/2024.
<https://www.nh.gov/safety/divisions/hsem/disaster/documents/NHDisasterInfo.pdf>

Municipal Impacts of Climate Change

Increased probability and severity of natural hazards can create a much larger impact on the critical facilities within a municipality, especially utility and transportation systems. Severe winter weather and severe wind events can result in long-term utility outages and create impediments to transportation. The general population would also experience additional impacts with the increase of natural hazard probability and severity. More damage to critical facilities and municipal systems can result in extended periods of time without water, heating/cooling, and lack of access to basic services, which can be devastating to vulnerable populations.

Section 3.3. Probability of Future Hazard Events

After documenting the occurrence of previous hazard events in the Town of Mason and the surrounding region, the Hazard Mitigation Team used this information to calculate the annual probability of these events occurring in the future. The first step was to determine how many times a particular hazard had occurred in a given number of years. The number of occurrences was then divided by the number of years to determine annual probability. For example, if history shows that a particular hazard typically occurs once every four years, the annual probability is 25%. Annual probability was calculated twice for each hazard. First, annual probability was calculated since the first recorded historic occurrence of the event. Second, annual probability was calculated based on occurrences since 2000 to reflect potential recent changes in hazard event occurrence rates. The probability of future hazard events for each hazard type in the Town of Mason is outlined in Table 4.

Table 4—Probability of Future Hazard Events

Hazard Type	Probability of Future Event	Source
Drought	23 years of drought from 1960 through 2025. 23 events in 65 years = .35 events per year Annual Probability = 35% 10 years of drought from 2015 through 2025. 10 events in 10 years = 1.0 Annual Probability = 100%	NH DES Current Drought Conditions https://www.des.nh.gov/climate-and-sustainability/storms-and-emergencies/drought US Drought Monitor http://droughtmonitor.unl.edu/
Earthquake	History shows no known earthquakes centered in Mason. However, this hazard is still possible. 6 magnitude 5.0 or greater earthquakes felt in NH from 1926 through 2025. 6 events in 99 years = .06 events per year Annual Probability = 6% 0 magnitude 5.0 or greater earthquakes felt in NH from 2015 through 2025. 0 events in 10 years = 0 events per year Annual Probability = 0% However, this hazard is still possible and therefore the probability is low. Low probability is defined as a 0-25% chance of occurrence annually.	US Geological Survey http://earthquake.usgs.gov/earthquakes/search/
Extreme Temperatures	33 extreme heat events from 2000 through 2025. 33 events in 25 years = 1.3 events per year	NOAA National Climatic Data Center https://www.ncdc.noaa.gov/cdo-web/search

Hazard Type	Probability of Future Event	Source
	Annual Probability = 100% 25 extreme cold events from 2000 through 2025. 25 events in 25 years = 1.0 event per year Annual Probability = 100%	
Flooding	18 flooding events in Hillsborough County from 1927 through 2025. 18 events in 98 years = .18 events per year Annual Probability = 18% 2 flooding events in Hillsborough County from 2015 through 2025. 2 events in 10 years = .2 events per year Annual Probability = 20%	Local knowledge FEMA Presidential Disaster Declaration https://www.fema.gov/disasters/grid/year
Flooding – Dam Failure	Because of limited data on previous dam failure events, probability cannot be calculated statistically. History shows no occurrences of dam failures causing damage in Mason. However, this hazard is still possible and therefore the probability is low. Low probability is defined as a 0-25% chance of occurrence annually.	Local knowledge and public input
Severe Wind	12 severe windstorms from 1938 through 2025. 12 events in 87 years = .14 events per year Annual Probability = 14%	Local knowledge FEMA Presidential Disaster Declaration https://www.fema.gov/disasters/grid/year National Hurricane Center http://www.nhc.noaa.gov/data/tcr/index.php?season=2014&basin=atl

Hazard Type	Probability of Future Event	Source
	4 severe windstorms from 2015 through 2025. 4 events in 10 years = .4 events per year Annual Probability = 40%	
Lightning & Hail	Because of limited data on previous lightning events, probability cannot be calculated statistically. History shows few occurrences of lightning strikes causing damage in Mason. However, this hazard is still possible and therefore the probability is low. Low probability is defined as a 0-25% chance of occurrence annually.	Local knowledge and public input
Severe Winter Weather	22 severe winter weather events in Hillsborough County from 1888 through 2025. 22 events in 137 years = .16 events per year Annual Probability = 16% 2 severe winter weather events in Hillsborough County from 2015 through 2025. 2 events in 10 years = .2 events per year Annual Probability = 20%	Local knowledge FEMA Presidential Disaster Declaration https://www.fema.gov/disasters/grid/year
Tornado/Downburst	16 tornados and 2 downbursts in Hillsborough Co. from 1961 through 2025. 18 events in 64 years = .28 events per year Annual Probability = 28%	Tornado History Project (Joshua Lietz, Storm Prediction Center, National Climatic Data Center) and public input http://www.tornadohistoryproject.com

Hazard Type	Probability of Future Event	Source
	0 tornados and 1 downbursts in Hillsborough Co. from 2015 through 2025. 1 event in 10 years = .1 events per year Annual Probability = 10%	
Wildfire	Because of limited data on previous wildfire events, probability cannot be calculated statistically. History shows few occurrences of wildfires causing damage in Mason. However, this hazard is still possible and therefore the probability is low. Low probability is defined as a 0-25% chance of occurrence annually.	Local knowledge and public input
Infectious Disease	Like the rest of the state, the Town of Mason experiences seasonal outbreaks that occur annually such as Influenza. There is a 100% (high) annual probability that Mason will continue to experience some extent of infectious disease.	Local knowledge NH DHHS Infectious Disease Control https://www.dhhs.nh.gov/programs-services/disease-prevention/infectious-disease-control

Section 3.4. Critical Facilities and their Vulnerability

The next step in determining Mason's overall vulnerability was to inventory the Town's community assets and determine what assets would be affected by each type of hazard event. The Hazard Mitigation Team began by reviewing the Mason Zoning Ordinance to provide information on where and how the Town builds and to identify the corridors where critical facilities would likely be located. The Team then identified the broad categories of important assets within Mason, including critical facilities essential to health and welfare; vulnerable populations, such as children and the elderly; economic assets and major employers; areas of high-density residential and commercial development; and historic, cultural, and natural resources. The Team then further divided the Town's critical facilities into the following categories:

1. General Occupancy

- a. Commercial
- b. Education
- c. Government
- d. Recreation
- e. Religious
- f. Residential

2. Essential Facilities

- a. Fire Station
- b. Police Station
- c. Department of Public Works
- d. Schools
- e. Emergency Operations Centers
- f. Medical Care Facilities

3. Transportation Systems

- a. Highway Systems—Roads
- b. Highway Systems—Bridges
- c. Airport Systems

4. Utility Systems

- a. Communications
- b. Electric
- c. Water

5. High Potential Hazard Facilities

- a. Dams/Levees

6. Hazardous Materials Facilities

- a. EPA Toxics Release Inventory facilities (<http://www2.epa.gov/toxics-release-inventory-tri-program>)

The critical facilities within each category appear in Tables 5.1-5.6 below. Each table includes the critical facility's name, content vulnerability, and locational vulnerability to hazards.

Table 5.1—General Occupancy Critical Facilities

Facility Type and Name	Content Vulnerability	Drought	Earthquake	Extreme Temperatures	Flooding	Severe Wind	Lightning & Hail	Severe Winter Weather	Tornado	Wildfire	Infectious Disease
Government – Town Offices (the Mann House), 16 Darling Hill Road	Official records and documents, historical structure, potentially large population present, generator.	✓	✓	✓		✓	✓	✓	✓	✓	✓
Government – Town Hall, 7 Meetinghouse Hill Road	Official records and documents, historical structure, potentially large population present.	✓	✓	✓		✓	✓	✓	✓	✓	✓
Government – Mason Public Library (Mann House), 16 Darling Hill Road	Official records and documents, historical structure, potentially large population present.	✓	✓	✓		✓	✓	✓	✓	✓	✓
Religious – Mason Congregational Church, 33 Valley Road	Potentially large population present, Fire Department emergency landing zone.	✓	✓	✓		✓	✓	✓	✓	✓	✓
Commercial – The Range, 96 Old Turnpike Road	Contents valuable to local economy Potentially large population present.	✓	✓	✓		✓	✓	✓	✓	✓	✓
Recreation – Sandpit Road Ball Field, 39 Sandpit Road	Potentially large population present, Fire Department emergency landing zone.	✓	✓	✓		✓	✓	✓	✓	✓	
Commercial – Hearthstone Farm, 610 Greenville Road	Contents valuable to local economy, Fire Department Emergency landing zone.	✓	✓	✓		✓	✓	✓	✓	✓	
Recreation – Davieau’s Field, 341 Fitchburg Road	Fire Department emergency landing zone.	✓	✓	✓		✓	✓	✓	✓	✓	

Table 5.2—Essential Facilities

Facility Name	Content Vulnerability	Drought	Earthquake	Extreme Temperatures	Flooding	Severe Wind	Lightning & Hail	Severe Winter Weather	Tornado	Wildfire	Infectious Disease
Police Station/Emergency Operations Center	Contents and staff valuable to emergency management, generator.	✓	✓	✓		✓	✓	✓	✓	✓	✓
Fire and EMS Station	Contents and staff valuable to emergency management, generator.	✓	✓	✓		✓	✓	✓	✓	✓	✓
Public Works Facility	Contents valuable to transportation network and public infrastructure, generator.	✓	✓	✓		✓	✓	✓	✓	✓	✓
Mason Elementary School	Potentially large population present, shelter, generator.	✓	✓	✓		✓	✓	✓	✓	✓	✓

Map 1. Mason Essential Facilities

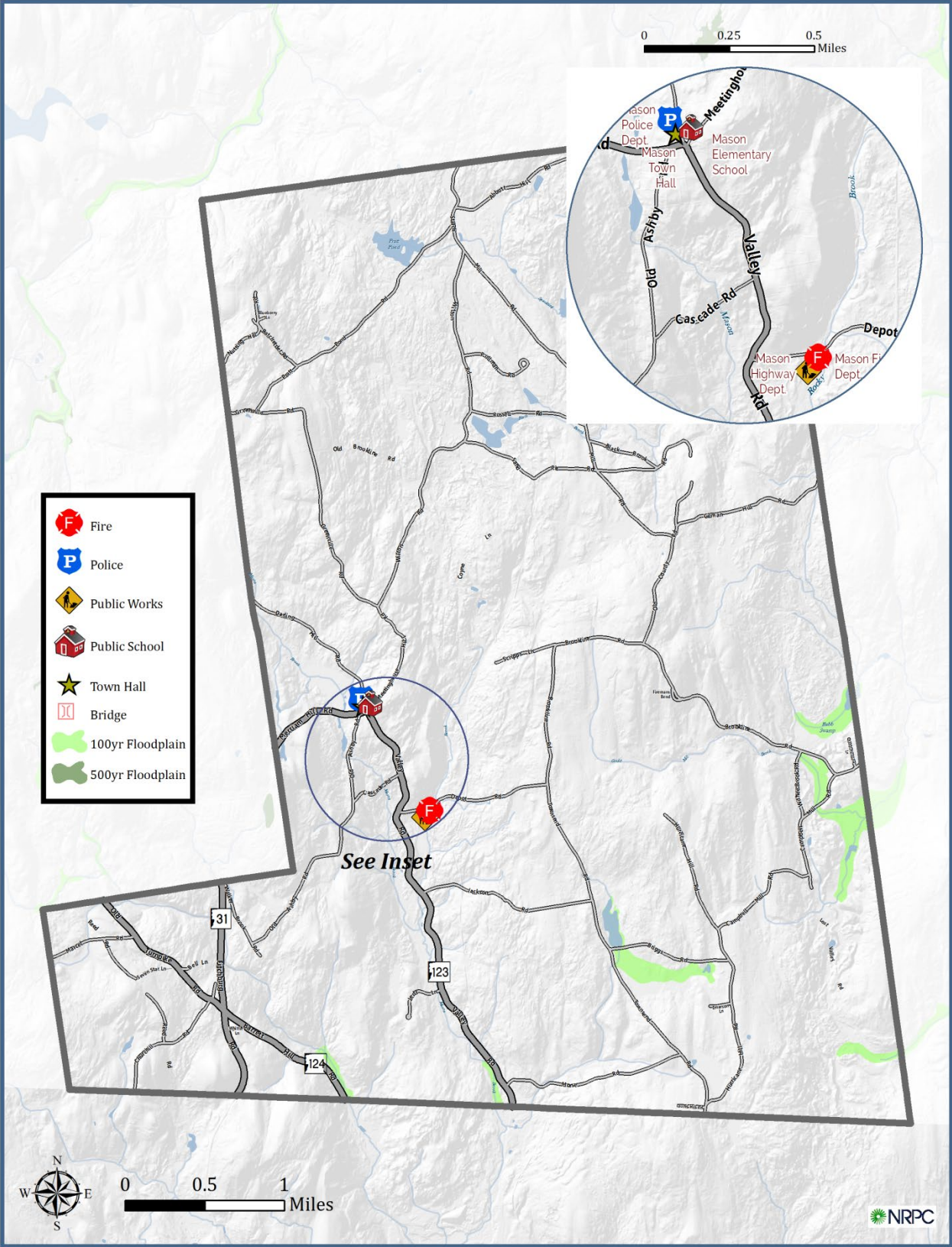


Table 5.3—Transportation Critical Facilities

Transportation infrastructure is particularly vulnerable to flooding hazards. Flooding events frequently cause culvert failures and undermine bridges and roads. Mason has a total of 57.8 road miles, of which 0.24 miles or 0.42% is in the 1% annual floodplain.

Facility Type and Name	Content Vulnerability	Drought	Earthquake	Extreme Temperatures	Flooding	Sever Wind	Lightning & Hail	Severe Winter Weather	Tornado	Wildfire	Infectious Disease
Highway System—Route 31	Structure valuable to motor vehicle travel and safety.		✓					✓	✓		
Highway System—Route 123	Structure valuable to motor vehicle travel and safety, portion located in 1% annual floodplain.		✓		✓			✓	✓		
Highway System—Route 124	Structure valuable to motor vehicle travel and safety, portion located in 1% annual floodplain.		✓		✓			✓	✓		
Highway System—Brookline Road	Structure valuable to motor vehicle travel and safety		✓					✓	✓		
Highway System—Darling Hill Road	Structure valuable to motor vehicle travel and safety. Town offices, elementary school, and police department are all located on Darling Hill Road.		✓					✓	✓		
Highway System—Brookline/Townsend Road	Structure valuable to motor vehicle travel and safety, portions located in 1% annual floodplain.		✓		✓			✓	✓		
Highway System—Abbott Hill Road	Structure valuable to motor vehicle travel and safety.		✓					✓	✓		
Highway System—Starch Mill Road	Structure valuable to motor vehicle travel and safety.		✓					✓	✓		
Highway System – Wilton Road	Structure valuable to motor vehicle travel and safety.		✓					✓	✓		

Facility Type and Name	Content Vulnerability	Drought	Earthquake	Extreme Temperatures	Flooding	Sever Wind	Lightning & Hail	Severe Winter Weather	Tornado	Wildfire	Infectious Disease
Highway System – Jeds Lane Bridge	Structure valuable to motor vehicle travel and safety, only access point to homes on Jeds Lane.		✓					✓	✓		
Airport System – Mason Airfield, 815 Old Ashby Road	Structure valuable to air traffic, Fire Department emergency landing zone.					✓	✓	✓	✓		
Airport System – Ziminsky’s Airfield, 227 Campbell Mill Road	Structure valuable to air traffic, Fire Department emergency landing zone.					✓	✓	✓	✓		
Mason Flight Paths – North, Central, and Western Mason	Structures valuable to air traffic and safety.					✓	✓	✓	✓		

Table 5.4—Utility Systems

Facility Type and Name	Content Vulnerability	Drought	Earthquake	Extreme Temperatures	Flooding	Severe Wind	Lightning & Hail	Severe Winter Weather	Tornado	Wildfire	Infectious Disease
Communications – Communications Antenna, 960 Townsend Road	Structure valuable to communications and emergency management, generator location.		✓			✓	✓	✓	✓	✓	
Electric (Eversource) — Distribution system (poles & wires), including transformers and other electrical equipment. There are also transmission lines in North Mason.	Structure valuable to utility network.		✓	✓		✓	✓	✓	✓	✓	
Water—100% of the population in Mason has private well water.	Structures valuable to water supply.	✓	✓	✓				✓			✓

Table 5.5—High Potential Hazard Facilities

Facility Type and Name	Content Vulnerability	Drought	Earthquake	Extreme Temperatures	Flooding	Severe Wind	Lightning & Hail	Severe Winter Weather	Tornado	Wildfire	Infectious Disease
Name—Pratt Pond Dike Dam # D154001 Hazard Class—L Water body—Branch Mitchell Brook Owner—NH DES Water Division	Structure valuable to flood control.		✓			✓		✓	✓		
Name—Pratt Pond Spillway Section Dam # D154002 Hazard Class—L Water body— TR Mitchell Brook Owner—NH DES Water Division	Structure valuable to flood control.		✓			✓		✓	✓		
Name—Pratt Pond Dam Dam # D154003 Hazard Class—L Water body—TR Mitchell Brook Owner—NH DES Water Division	Structure valuable to flood control.		✓			✓		✓	✓		
Name—McCaffrey Dam Dam # D154004 Hazard Class—L Water body—Mitchell Brook Owner—Privately Held	Structure valuable to flood control.		✓			✓		✓	✓		
Name—Walker Brook Dam Dam # D154005 Hazard Class—NM Water body—Walker Brook Owner—Privately Held	Structure valuable to flood control.		✓			✓		✓	✓		
Name—Fire Pond Dam Dam # D154008 Hazard Class—NM Water body—Unnamed Stream Owner—Privately Held	Structure valuable to flood control.		✓			✓		✓	✓		

Table 5.6—Hazardous Materials Facilities

Facility Type and Name	Content Vulnerability	Drought	Earthquake	Extreme Temperatures	Flooding	Severe Wind	Lightning	Severe Winter Weather	Tornado	Wildfire	Infectious Disease
There are no Hazardous Materials Facilities in Mason as reported by the EPA Toxics Release Inventory Program.											

Section 3.5. Vulnerability by Hazard

Drought

Hydrological drought is evidenced by extended periods of negative departures from normal rainfall. New Hampshire has been under several drought warnings, including a drought emergency, since 1999. The most severe drought conditions occurred between 1960 and 1969; the event had a greater than 25-year recurrence interval. The southern New Hampshire region experienced a 100-year drought event from 1964 to 1965.

Southern New Hampshire also experienced a 50-year drought event beginning in May 2015 and lasting through April 2017. During that time, Mason experienced drought levels from USDA D0 (Abnormally Dry) to USDA D3 (Extreme Drought).

Although drought is not likely to damage structures, low water levels can have a negative impact on existing and future home sites, especially those that depend on groundwater for water needs. Additionally, the dry conditions of a drought may lead to an increase wildfire risk. Drought can cause the most significant impact to agricultural land and assets.

Previous Occurrences of Drought

Date	Hazard Location within Jurisdiction	Hazard Extent	Impact
1960-1969	Entire jurisdiction	Long term drought—9 years of less than normal precipitation	Longest recorded continuous period of below normal precipitation
1999	Entire jurisdiction	Level 2—Warning. Drought warning issued on June 29, 1999.	Damage to crops. Low water levels in dug wells.
March 2002	Entire jurisdiction	Level 3—Emergency. First time Level 3 Drought Impact Level had been declared.	Damage to crops. Low water levels in dug wells.
May 2015	Entire jurisdiction	USDA D0 (Abnormally Dry)	Damage to crops.
June 2015	Entire jurisdiction	USDA D1 (Moderate Drought)	Damage to crops.
August-September 2015	Entire jurisdiction	USDA D0 (Abnormally Dry)	Damage to crops.
October 2015-February 2016	Entire jurisdiction	USDA D1 (Moderate Drought)	Damage to crops.
March 2016-June 2016	Entire jurisdiction	USDA D0 (Abnormally Dry)	Damage to crops. Low water levels in wells.
July 2016-September 2016	Entire jurisdiction	USDA D2 (Severe Drought)	Low water levels in wells.
October 2016-December 2016	Entire jurisdiction	USDA D3 (Extreme Drought)	Low water levels in wells.
January 2017-March 2017	Entire jurisdiction	USDA D2 (Severe Drought)	Low water levels in wells.
April 2017	Entire jurisdiction	USDA D1 (Moderate Drought)	Low water levels in wells.
June-July 2018	Entire jurisdiction	USDA D0 (Abnormally Dry)	Damage to crops.
September-October 2019	Entire jurisdiction	USDA D0 (Abnormally Dry)	Damage to crops.
May 26-June 22 2020	Entire jurisdiction	USDA D0 (Abnormally Dry)	Damage to crops.
June 23 - August, 2020	Entire jurisdiction	USDA D1 (Moderate Drought)	Low water levels in wells.
September - October 2020	Entire Jurisdiction	USDA D2 (Severe Drought)	Damage to crops. Low water levels in dug wells.
March 30 – April 12 2021	Entire Jurisdiction	USDA D0 (Abnormally Dry)	Low water levels in wells.
July 2022 – September 26, 2022	Entire Jurisdiction	USDA D1 (Moderate Drought). 90% of the county	Specialty crops ae impacted in both yield and fruit size.

		experienced D2 conditions throughout September. Some southern areas of the state experienced D3 (extreme drought) conditions from mid to late August.	Warnings are issued on water use and outdoor burns, and possible poor air quality. Dug wells and fire ponds went dry.
October 2022 – January 2023	Entire Jurisdiction	USDA D0 (Abnormally Dry)	Dug wells and fire ponds went dry.
April 18, 2023 – June 13, 2023	Entire Jurisdiction	USDA D0 (Abnormally Dry)	Damage to crops. Dug wells and fire ponds went dry.
June 18, 2024 – May 7, 2025 (Current)	Entire Jurisdiction	USDA D0 (Abnormally Dry) 49% of the state. USDA D1 (Moderate Drought) 20% of the state. Portions of the state saw D1 and D2 conditions in December 2024 and January 2025.	Damage to crops, dramatic increase in brush fires in November 2024. Marshalls Pond and Pratt pond were operational for fire suppression, all others dried up. Townsend Road and Brookline Road dug wells went dry.

Drought Hazard Loss Estimate

Because the impacts of drought are long lasting and wide ranging, it is beyond the scope of this Plan to estimate the dollar value of losses to Mason resulting from drought. Instead, the Hazard Mitigation Team estimated the percentage of land in Mason vulnerable to drought and the percentage of the population vulnerable to drought as a quantitative measure of this hazard's impact.

Total Acres of Land in Mason	Total Acres of Agricultural Land in Mason	% of Land in Mason Vulnerable to Drought
15,348	176.7	1.2%

% of population with Public Drinking Water in Mason	% of population with Private Well Water in Mason	Water Utility	Primary Water Source	Secondary Water Source
0%	100%	None	Private Wells	None

Critical Facility Type	Total Number of this type of Critical Facilities in Mason	Number of this type of Critical Facilities in Drought Hazard Area	Percentage of this type of Critical Facilities in Drought Hazard Area
General Occupancy	8	8	100%
Essential Facilities	4	4	100%
Transportation	13	0	0%
Utility System	3	1	33%
High Potential Hazard	6	0	0%
Hazardous Materials	0	0	0%

Earthquake

An earthquake is a sudden and violent shaking of the ground, sometimes causing great destruction, as a result of movements within the earth's crust or volcanic action. The Richter magnitude scale was developed by Charles F. Richter in 1935 as a way to compare the size of earthquakes. The magnitude of an earthquake is calculated from the logarithm of the amplitude of waves recorded by seismographs.

- Magnitude <2.0—micro-earthquakes. Recorded by seismographs but not felt or rarely felt by people. Several million occur annually worldwide on average.
- Magnitude 2.0-2.9—felt slightly by some people. No damage to buildings. Over 1 million occur annually worldwide on average.
- Magnitude 3.0-3.9—often felt by people but very rarely cause damage. Shaking of indoor objects can be noticeable. Over 100,000 occur annually worldwide on average.
- Magnitude 4.0-4.9—noticeable shaking of indoor objects and rattling noises. Felt by most people in affected area. Generally, causes minimal to no damage. Moderate to significant damage is very unlikely. 10,000-15,000 occur annually worldwide on average.
- Magnitude 5.0-5.9—felt by everyone. Can cause damage of varying severity to poorly constructed buildings, slight to no damage to all other buildings. Few, if any, casualties. 1,000-1,500 occur annually worldwide on average.
- Magnitude 6.0-6.9—felt up to hundreds of miles from epicenter. Strong to violent shaking in epicenter. Damage to many buildings in populated areas. Poorly designed structures have moderate to severe damage. Earthquake-resistant structures have slight to moderate damage. Damage can be caused far from epicenter. Death toll up to 25,000. 100-150 occur annually worldwide on average.
- Magnitude 7.0-7.9—felt in very large area. Damage to most buildings, including partial or complete collapse. Death toll up to 250,000. 10-20 occur annually worldwide on average.
- Magnitude 8.0-8.9—felt in extremely large region. Major damage to buildings over large areas. Structures likely destroyed. Moderate to heavy damage to sturdy or earthquake-resistant buildings. Death toll up to 1 million. 1 occurs annually worldwide on average.
- Magnitude 9.0+ —damage and shaking extends to distant locations. Near or total destruction. Severe damage and collapse to all buildings. Permanent changes in ground topography. One occurs every 10-50 years worldwide on average.

Since 1940, there have been 12 earthquakes centered in NH with a magnitude of 3.0 or greater and only two earthquakes with a magnitude of 5.0 or greater. There have been no recorded earthquakes to date centered in Mason, however, one could occur.

Previous Occurrences of Earthquakes

Date	Location within Jurisdiction	Extent	Impact
	There have been no earthquakes centered in Mason to date. Earthquakes noted below were centered in NH.	Earthquakes noted below had a magnitude of 2.5 or greater.	
March 18, 1926	Manchester, NH	No historic data on extent	Intensity V effects observed in Amherst, Lyndeborough, Manchester, Mason, and Wilton.
December 20, 1940	Lake Ossipee, NH	Magnitude 5.5 on Richter Scale	No damage in Mason
December 24, 1940	Lake Ossipee, NH	Magnitude 5.5 on Richter Scale	No damage in Mason
December 4, 1963	Laconia, NH (43.6 latitude, -71.5 longitude)	Magnitude 3.7 on Richter Scale	No damage in Mason
June 28, 1981	Sanbornton, NH (43.56 latitude, -71.56 longitude)	Magnitude 3.0 on Richter Scale	No damage in Mason
January 19, 1982	Sanbornton, NH (43.5 latitude, -71.6 longitude)	Magnitude 4.7 on Richter Scale	No damage in Mason
October 25, 1986	Northfield, NH (43.399 latitude, -71.59 longitude)	Magnitude 3.9 on Richter Scale	No damage in Mason
October 20, 1988	Milan, NH (44.539 latitude, -71.158 longitude)	Magnitude 3.9 on Richter Scale	No damage in Mason
November 22, 1988	Milan, NH (44.557 latitude, -71.183 longitude)	Magnitude 3.2 on Richter Scale	No damage in Mason
April 6, 1989	Berlin, NH (44.511 latitude, -71.144 longitude)	Magnitude 3.5 on Richter Scale	No damage in Mason
October 6, 1992	Canterbury, NH (43.324 latitude, -71.578 longitude)	Magnitude 3.4 on Richter Scale	No damage in Mason
June 16, 1995	Lyman, NH (44.286 latitude, -71.915 longitude)	Magnitude 3.8 on Richter Scale	No damage in Mason

August 21, 1996	Bartlett, NH (44.184 latitude, - 71.352 longitude)	Magnitude 3.8 on Richter Scale	No damage in Mason
January 27, 2000	Raymond, NH (43.00 latitude, - 71.18 longitude)	Magnitude 3.0 on Richter Scale	No damage in Mason
September 26, 2010	Boscawen, NH (43.2915 latitude, - 71.6568 longitude)	Magnitude 3.4 on Richter Scale	No damage in Mason
October 11, 2013	Contoocook, NH (43.255 latitude, - 71.747 longitude)	Magnitude 2.6 on Richter Scale	No damage in Mason
March 21, 2016	Contoocook, NH (43.264 latitude, - 71.767 longitude)	Magnitude 2.8 on Richter Scale	No damage in Mason
February 11, 2017	Bedford, NH (42.946°N latitude, 71.541°W longitude)	Magnitude 2.2 on Richter Scale	No damage in Mason
February 15, 2018	East Kingston, NH (42.921°N latitude, 71.011°W longitude)	Magnitude 2.7 on Richter Scale	No damage in Mason
February 4, 2022	Gorham, NH (44.386°N latitude, 71.175°W longitude)	Magnitude 2.9 on Richter Scale	No damage in Mason
April 25, 2023	Center Sandwich, NH (43.780°N 71.480°W)	Magnitude 2.9 on Richter Scale	No damage in Mason
December 23, 2023	Chichester, NH (43.217°N latitude 71.445°W longitude)	Magnitude 2.7 on Richter Scale	No damage in Mason
June 18, 2024	Haverhill, NH (44.016°N latitude 72.035°W longitude)	Magnitude 2.6 on Richter Scale	No damage in Mason
	Earthquakes noted below were centered outside of NH but were felt by NH municipalities.		
November 18, 1929	Grand Banks, Newfoundland	Magnitude 7.2 on Richter Scale	No damage in Mason
November 1, 1935	Timiskaming, Canada	Magnitude 6.25 on Richter Scale	No damage in Mason
June 15, 1973	Near Canadian/NH border	Magnitude 4.8 on Richter Scale	No damage in Mason
June 23, 2010	Buckingham, Quebec, Canada	Magnitude 5.0 on Richter Scale	No damage in Mason
August 23, 2011	Washington, DC	Magnitude 5.8 on Richter Scale	No damage in Mason
October 16, 2012	Hollis Center, ME	Magnitude 4.0 on Richter Scale	No damage in Mason
January 27, 2025	10 km SE of York Harbor, ME	Magnitude 3.8 on Richter Scale	No damage in Mason

	(43.062°N latitude 70.566°W longitude)		
--	---	--	--

Earthquake Hazard Loss Estimate

Step 1. Determine potential earthquake strength in Mason

- US Seismic Hazard, 2% in 50 years PGA is 0.03 to 0.36(g) in Mason
- Source: [USGS NH Seismic Map 2014](#)

Step 2. Determine percent building damage ratio to single family residence from PGA (g) 0.15 earthquake

- Wood Frame Construction with Low general seismic design level = 1.3% building damage
- Source: [FEMA Identifying Hazards and Estimating Losses](#), pg. 4-17

Step 3. Determine percent of structures in Mason that would be damaged by PGA (g) 0.15 earthquake

- 1-5% of structures estimated to be damaged by earthquake
- Source: *Mason Hazard Mitigation Team (no historical data on earthquake damage in Mason)*

Step 4. Determine total assessed value of structures in Mason

- Total Assessed Value of all Structures in Mason = \$130,705,800
- Source: *Mason Assessing Department 2025*

Step 5. Determine total loss from PGA (g) 0.15 Earthquake

- Total Loss from Earthquake = Total Assessed Value of all Structures * Percentage of Structures Estimated to be Damaged * Percent Building Damage Ratio
- Total Loss from Earthquake = \$130,705,800 * .01 * .013 = **\$16,991.75**
- Total Loss from Earthquake = \$130,705,800 * .05 * .013 = **\$84,958.77**

Critical Facility Type	Total Number of this type of Critical Facilities in Mason	Number of this type of Critical Facilities in Earthquake Hazard Area	Percentage of this type of Critical Facilities in Earthquake Hazard Area
General Occupancy	8	8	100%
Essential Facilities	4	4	100%
Transportation	13	10	77%
Utility System	3	3	100%
High Potential Hazard	6	6	100%
Hazardous Materials	0	0	0%

Extreme Temperatures

Extreme temperatures can be broken into both extreme heat and extreme cold. Though the hazards are different, the effects would be similar to vulnerable populations in Mason.

Extreme heat is defined as a period of three consecutive days during which the air temperature reaches 90 degrees Fahrenheit or higher each day. Extreme heat should not be confused with a drought (extended periods of negative departures from normal rainfall). Overburdened power networks may experience failures due to the impacts of extreme heat.

Extreme cold is defined as a period of three consecutive days during which minimum air temperatures are at or below 0 degrees Fahrenheit. With the rising costs of heating fuel and electric heat, many low-income or homeless citizens are not able to adequately heat their homes, exposing themselves to cold related emergencies or death. Extremely cold winters can lead to shortages in heating fuels due to high demand.

Previous Occurrences of Extreme Temperatures

Hazard	Date	Hazard Location within Jurisdiction	Hazard Extent	Impact
Extreme Temperature (Cold)	January 16-20, 2000	Entire jurisdiction	5 consecutive days of minimum temperatures at or below 0°F: • 1/16/00: -3°F • 1/17/00: -2°F • 1/18/00: -5°F • 1/19/00: -6°F • 1/20/00: -4°F	No known impact in Mason
Extreme Temperature (Cold)	January 28-30, 2000	Entire jurisdiction	3 consecutive days of minimum temperatures at or below 0°F: • 1/28/00: -6°F • 1/29/00: -2°F • 1/30/00: -4°F	No known impact in Mason
Extreme Temperature (Cold)	January 18-20, 2003	Entire jurisdiction	3 consecutive days of minimum temperatures at or below 0°F: • 1/18/00: -9°F • 1/19/00: -11°F • 1/20/00: -11°F	No known impact in Mason
Extreme Temperature (Cold)	January 28-31, 2003	Entire jurisdiction	4 consecutive days of minimum temperatures at or below 0°F: • 1/28/03: -9°F • 1/29/03: -5°F • 1/30/03: -0°F	No known impact in Mason

			• 1/31/03: -0°F	
Extreme Temperature (Cold)	February 13-17, 2003	Entire jurisdiction	5 consecutive days of minimum temperatures at or below 0°F: • 2/13/03: -3°F • 2/14/03: -11°F • 2/15/03: -10°F • 2/16/03: -7°F • 2/17/03: -2°F	No known impact in Mason
Extreme Temperature (Cold)	February 26-28, 2003	Entire jurisdiction	3 consecutive days of minimum temperatures at or below 0°F: • 2/26/03: -4°F • 2/27/03: -6°F • 2/28/03: -1°F	No known impact in Mason
Extreme Temperature (Cold)	January 9-12, 2004	Entire jurisdiction	4 consecutive days of minimum temperatures at or below 0°F: • 1/9/04: -7°F • 1/10/04: -8°F • 1/11/04: -8°F • 1/12/04: -7°F	No known impact in Mason
Extreme Temperature (Cold)	January 14-17, 2004	Entire jurisdiction	4 consecutive days of minimum temperatures at or below 0°F: • 1/14/04: -10°F • 1/15/04: -10°F • 1/16/04: -12°F • 1/17/04: -9°F	No known impact in Mason
Extreme Temperature (Cold)	January 24-27, 2004	Entire jurisdiction	4 consecutive days of minimum temperatures at or below 0°F: • 1/24/04: -4°F • 1/25/04: -6°F • 1/26/04: -6°F • 1/27/04: -0°F	No known impact in Mason
Extreme Temperature (Cold)	January 18-25, 2005	Entire jurisdiction	8 consecutive days of minimum temperatures at or below 0°F: • 1/18/05: 0°F • 1/19/05: -8°F • 1/20/05: -3°F • 1/21/05: -5°F • 1/22/05: -12°F • 1/23/05: -9°F	No known impact in Mason

			• 1/24/05: 0°F • 1/25/05: -1°F	
Extreme Temperature (Cold)	January 28-30, 2005	Entire jurisdiction	3 consecutive days of minimum temperatures at or below 0°F: • 2/28/05: -1°F • 2/29/05: -7°F • 2/30/05: -5°F	No known impact in Mason
Extreme Temperature (Cold)	January 16-18, 2009	Entire jurisdiction	3 consecutive days of minimum temperatures at or below 0°F: • 1/16/09: -16°F • 1/17/09: -16°F • 1/18/09: -9°F	No known impact in Mason
Extreme Temperature (Cold)	January 25-27, 2009	Entire jurisdiction	3 consecutive days of minimum temperatures at or below 0°F: • 1/25/09: -7°F • 1/26/09: -7°F • 1/27/09: -5°F	No known impact in Mason
Extreme Temperature (Cold)	January 15-18, 2011	Entire jurisdiction	4 consecutive days of minimum temperatures at or below 0°F: • 1/15/11: -6°F • 1/16/11: -5°F • 1/17/11: 0°F • 1/18/11: -2°F	No known impact in Mason
Extreme Temperature (Cold)	January 23-27, 2011	Entire jurisdiction	5 consecutive days of minimum temperatures at or below 0°F: • 1/23/05: -5°F • 1/24/05: -10°F • 1/25/05: -9°F • 1/26/05: -3°F • 1/27/05: -2°F	No known impact in Mason
Extreme Temperature (Cold)	January 15-17, 2012	Entire jurisdiction	3 consecutive days of minimum temperatures at or below 0°F: • 1/15/12: -2°F • 1/16/12: -2°F • 1/17/12: 0°F	No known impact in Mason
Extreme Temperature (Cold)	February 11-13, 2014	Entire Jurisdiction	3 consecutive days of minimum temperatures at or below 0°F:	No known impact in Mason

			• 2/11/14: -7°F • 2/12/14: -7°F • 2/13/14: -7°F	
Extreme Temperature (Cold)	February 1-4, 2015	Entire Jurisdiction	4 consecutive days of minimum temperatures at or below 0°F: • 2/1/15: 0°F • 2/2/15: 0°F • 2/3/15: -3°F • 2/4/15: -2	No known impact in Mason
Extreme Temperature (Cold)	February 14-19, 2015	Entire Jurisdiction	6 consecutive days of minimum temperatures at or below 0°F: • 2/14/15: -7°F • 2/15/15: -4°F • 2/16/15: -5°F • 2/17/15: -2°F • 2/18/15: -3°F • 2/19/15: -4°F	No known impact in Mason
Extreme Temperature (Cold)	February 14-16, 2016	Entire Jurisdiction	3 consecutive days of minimum temperatures at or below 0°F: • 2/14/16: -11°F • 2/15/16: -9°F • 2/16/16: -9°F	No known impact in Mason
Extreme Temperature (Cold)	December 28-31, 2017	Entire Jurisdiction	4 consecutive days of minimum temperatures at or below 0°F: • 12/28/17: -7°F • 12/29/17: -9°F • 12/30/17: -6°F • 12/31/17: -11°F	No known impact in Mason
Extreme Temperature (Cold)	January 1-3, 2018	Entire Jurisdiction	3 consecutive days of minimum temperatures at or below 0°F: • 1/1/18: -5°F • 1/2/18: -14°F • 1/3/18: -13°F	No known impact in Mason
Extreme Temperature (Cold)	January 31-February 3, 2019	Entire Jurisdiction	4 consecutive days of minimum temperatures at or below 0°F: • 1/31/19: -2°F • 2/1/19: -5°F • 2/2/19: -5°F • 2/3/19: -1°F	No known impact in Mason

Extreme Temperature (Cold)	January 15-17, 2022	Entire Jurisdiction	3 consecutive days of minimum temperatures at or below 0°F: • 1/15/22: -2°F • 1/16/22: -6°F • 1/17/22: 0°F	No known impact in Mason
Extreme Temperature (Cold)	January 21-23, 2025	Entire Jurisdiction	• 1/21/25: -9°F • 1/22/25: -11°F • 1/23/25: -5°F	No known impact in Mason
Extreme Temperature (Heat)	May 3-5, 2001	Entire jurisdiction*	3 consecutive days of temperatures above 90°F: • 5/3/01—93°F • 5/4/01—92°F • 5/5/01—92°F	No known impact in Mason
Extreme Temperature (Heat)	June 15-17, 2001	Entire jurisdiction	3 consecutive days of temperatures above 90°F: • 6/15/01—92°F • 6/16/01—95°F • 6/17/01—91°F	No known impact in Mason
Extreme Temperature (Heat)	July 22-26, 2001	Entire jurisdiction	5 consecutive days of temperatures above 90°F: • 7/22/01—90°F • 7/23/01—90°F • 7/24/01—92°F • 7/25/01—95°F • 7/26/01—93°F	No known impact in Mason
Extreme Temperature (Heat)	August 7-10, 2001	Entire jurisdiction	4 consecutive days of temperatures above 90°F: • 8/7/01—94°F • 8/8/01—97°F • 8/9/01—96°F • 8/10/01—100°F	No known impact in Mason
Extreme Temperature (Heat)	July 2-5, 2002	Entire jurisdiction	4 consecutive days of temperatures above 90°F: • 7/2/02—90°F • 7/3/02—95°F • 7/4/02—98°F • 7/5/02—97°F	No known impact in Mason
Extreme Temperature (Heat)	July 30-August 2, 2002	Entire jurisdiction	4 consecutive days of temperatures above 90°F: • 7/30/02—90°F • 7/31/02—91°F	No known impact in Mason

			• 8/1/02—91°F • 8/2/02—93°F	
Extreme Temperature (Heat)	August 13-20, 2002	Entire jurisdiction	8 consecutive days of temperatures above 90°F: • 8/13/02—94°F • 8/14/02—96°F • 8/15/02—98°F • 8/16/02—95°F • 8/17/02—94°F • 8/18/02—92°F • 8/19/02—94°F • 8/20/02—92°F	No known impact in Mason
Extreme Temperature (Heat)	June 25-28, 2003	Entire jurisdiction	4 consecutive days of temperatures above 90°F: • 6/25/03—90°F • 6/26/03—93°F • 6/27/03—92°F • 6/28/03—92°F	No known impact in Mason
Extreme Temperature (Heat)	July 5-7, 2003	Entire jurisdiction	3 consecutive days of temperatures above 90°F: • 7/5/03—91°F • 7/6/03—90°F • 7/7/03—91°F	No known impact in Mason
Extreme Temperature (Heat)	July 17-19, 2006	Entire jurisdiction	3 consecutive days of temperatures above 90°F: • 7/17/06—90°F • 7/18/06—93°F • 7/19/06—94°F	No known impact in Mason
Extreme Temperature (Heat)	August 2-4, 2006	Entire jurisdiction	3 consecutive days of temperatures above 90°F: • 8/2/06—96°F • 8/3/06—97°F • 8/4/06—92°F	No known impact in Mason
Extreme Temperature (Heat)	August 16-20, 2006	Entire jurisdiction	5 consecutive days of temperatures above 90°F: • 8/16/09—90°F • 8/17/09—90°F • 8/19/09—91°F • 8/19/09—93°F • 8/20/09—90°F	No known impact in Mason
Extreme Temperature (Heat)	July 4-10, 2010	Entire jurisdiction	7 consecutive days of temperatures above 90°F: • 7/4/10—90°F • 7/5/10—90°F	No known impact in Mason

			• 7/6/10—97°F • 7/7/10—98°F • 7/8/10—97°F • 7/9/10—92°F • 7/10/10—92°F	
Extreme Temperature (Heat)	July 17-20, 2010	Entire jurisdiction	4 consecutive days of temperatures above 90°F: • 7/17/10—93°F • 7/18/10—93°F • 7/19/10—93°F • 7/20/10—90°F	No known impact in Mason
Extreme Temperature (Heat)	August 30-Sept. 3, 2010	Entire jurisdiction	5 consecutive days of temperatures above 90°F: • 8/30/10—92°F • 8/31/10—91°F • 9/1/10—94°F • 9/2/10—95°F • 9/3/10—96°F	No known impact in Mason
Extreme Temperature (Heat)	July 21-24, 2011	Entire jurisdiction	4 consecutive days of temperatures above 90°F: • 7/21/11—92°F • 7/22/11—96°F • 7/23/11—101°F • 7/24/11—96°F	No known impact in Mason
Extreme Temperature (Heat)	June 21-23, 2012	Entire jurisdiction	3 consecutive days of temperatures above 90°F: • 6/21/12—96°F • 6/22/12—94°F • 6/23/12—93°F	No known impact in Mason
Extreme Temperature (Heat)	July 13-16, 2012	Entire jurisdiction	4 consecutive days of temperatures above 90°F: • 7/13/12—92°F • 7/14/12—92°F • 7/15/12—93°F • 7/16/12—91°F	No known impact in Mason
Extreme Temperature (Heat)	August 3-6, 2012	Entire jurisdiction	4 consecutive days of temperatures above 90°F: • 8/3/12—91°F • 8/4/12—94°F • 8/5/12—95°F • 8/6/12—93°F	No known impact in Mason
Extreme Temperature (Heat)	June 1-3, 2013	Entire jurisdiction	3 consecutive days of temperatures above 90°F:	No known impact in Mason

			• 6/1/13—93°F • 6/2/13—92°F • 6/3/13—91°F	
Extreme Temperature (Heat)	July 16-21, 2013	Entire jurisdiction	6 consecutive days of temperatures above 90°F: • 7/16/13—90°F • 7/17/13—91°F • 7/18/13—93°F • 7/19/13—93°F • 7/20/13—96°F • 7/21/13—91°F	No known impact in Mason
Extreme Temperature (Heat)	July 29-31, 2015	Entire Jurisdiction	3 consecutive days of temperatures above 90°F: • 7/29/15—93°F • 7/30/15—94°F • 7/31/15—90°F	No known impact in Mason
Extreme Temperature (Heat)	August 16-20, 2015	Entire Jurisdiction	5 consecutive days of temperatures above 90°F: • 8/16/15—90°F • 8/17/15—90°F • 8/18/15—91°F • 8/19/15—93°F • 8/20/15—90°F	No known impact in Mason
Extreme Temperature (Heat)	September 2-4, 2015	Entire Jurisdiction	3 consecutive days of temperatures above 90°F: • 9/2/15—91°F • 9/3/15—92°F • 9/4/15—92°F	No known impact in Mason
Extreme Temperature (Heat)	September 7-11, 2015	Entire Jurisdiction	5 consecutive days of temperatures above 90°F: • 9/7/15—90°F • 9/8/15—94°F • 9/9/15—94°F • 9/10/15—94°F • 9/11/15—93°F	No known impact in Mason
Extreme Temperature (Heat)	July 22-29, 2016	Entire Jurisdiction	8 consecutive days of temperatures above 90°F: • 7/22/16—95°F • 7/23/16—93°F • 7/24/16—93°F • 7/25/16—92°F • 7/26/16—96°F • 7/27/16—96°F • 7/28/16—93°F • 7/29/16—93°F	No known impact in Mason

Extreme Temperature (Heat)	June 12-14, 2017	Entire Jurisdiction	3 consecutive days of temperatures above 90°F: • 6/12/17—94°F • 6/13/17—98°F • 6/14/17—96°F	No known impact in Mason
Extreme Temperature (Heat)	July 20-22, 2017	Entire Jurisdiction	3 consecutive days of temperatures above 90°F: • 7/20/17—93°F • 7/21/17—94°F • 7/22/17—92°F	No known impact in Mason
Extreme Temperature (Heat)	August 1-4, 2017	Entire Jurisdiction	4 consecutive days of temperatures above 90°F: • 8/1/17—90°F • 8/2/17—92°F • 8/3/17—91°F • 8/4/17—90°F	No known impact in Mason
Extreme Temperature (Heat)	September 25-28, 2017	Entire Jurisdiction	4 consecutive days of temperatures above 90°F: • 9/25/17—93°F • 9/26/17—91°F • 9/27/17—90°F • 9/28/17—91°F	No known impact in Mason
Extreme Temperature (Heat)	July 1-7, 2018	Entire Jurisdiction	7 consecutive days of temperatures above 90°F: • 7/1/18—91°F • 7/2/18—95°F • 7/3/18—92°F • 7/4/18—95°F • 7/5/18—92°F • 7/6/18—92°F • 7/7/18—92°F	No known impact in Mason
Extreme Temperature (Heat)	August 29-31, 2018	Entire Jurisdiction	3 consecutive days of temperatures above 90°F: • 8/29/18—92°F • 8/30/18—93°F • 8/31/18—93°F	No known impact in Mason
Extreme Temperature (Heat)	July 20-22, 2019	Entire Jurisdiction	3 consecutive days of temperatures above 90°F: • 7/20/19—91°F • 7/21/19—95°F • 7/22/19—93°F	No known impact in Mason

Extreme Temperature (Heat)	August 10-13, 2020	Entire Jurisdiction	4 consecutive days of temperatures above 90°F: • 8/10/20—91°F • 8/11/20—95°F • 8/12/20—93°F • 8/13/20—93°F	No known impact in Mason
Extreme Temperature (Heat)	June 5-9, 2021	Entire Jurisdiction	4 consecutive days of temperatures above 90°F: • 6/5/21—92°F • 6/6/21—93°F • 6/7/21—94°F • 6/9/21—95°F	No known impact in Mason
Extreme Temperature (Heat)	June 27-30, 2021	Entire Jurisdiction	4 consecutive days of temperatures above 90°F: • 6/27/21—91°F • 6/28/21—96°F • 6/29/21—97°F • 6/30/21—96°F	No known impact in Mason
Extreme Temperature (Heat)	August 11-14, 2021	Entire Jurisdiction	3 consecutive days of temperatures above 90°F: • 7/11/21—92°F • 7/12/21—94°F • 7/13/21—93°F	No known impact in Mason
Extreme Temperature (Heat)	August 24-27, 2021	Entire Jurisdiction	4 consecutive days of temperatures above 90°F: • 7/24/21—92°F • 7/25/21—92°F • 7/26/21—95°F • 7/27/21—91°F	No known impact in Mason
Extreme Temperature (Heat)	July 19-24, 2022	Entire Jurisdiction	6 consecutive days of temperatures above 90°F: • 7/19/22—92°F • 7/20/22—96°F • 7/21/22—95°F • 7/22/22—92°F • 7/23/22—95°F • 7/24/22—97°F	No known impact in Mason
Extreme Temperature (Heat)	August 3-10, 2022	Entire Jurisdiction	8 consecutive days of temperatures above 90°F: • 8/3/22—90°F • 8/4/22—92°F • 8/5/22—99°F • 8/6/22—92°F • 8/7/22—96°F • 8/8/22—97°F	No known impact in Mason

			• 8/9/22—98°F • 8/10/22—93°F	
Extreme Temperature (Heat)	August 20-22, 2022	Entire Jurisdiction	3 consecutive days of temperatures above 90°F: • 8/20/22—91°F • 8/21/22—96°F • 8/22/22—91°F	No known impact in Mason
Extreme Temperature (Heat)	June 19-21, 2024	Entire Jurisdiction	3 consecutive days of temperatures above 90°F: • 6/19/24—98°F • 6/20/24—99°F • 6/21/24—99°F	No known impact in Mason
Extreme Temperature (Heat)	July 6-18, 2024	Entire Jurisdiction	11 consecutive days of temperatures above 90°F: • 7/8/24—94°F • 7/9/24—94°F • 7/10/24—92°F • 7/11/24—93°F • 7/12/24—93°F • 7/13/24—91°F • 7/14/24—91°F • 7/15/24—93°F • 7/16/24—94°F • 7/17/24—95°F • 7/18/24—93°F	No known impact in Mason

**NOAA does not have a full history of temperature data for the Town of Mason, NH. Extreme Temperature data is based on readings from NOAA weather stations in Milford, NH and in Nashua, NH.*

Extreme Temperatures Hazard Loss Estimate

Because the impacts of extreme temperatures can result in the loss of life, it is beyond the scope of this Plan to estimate the dollar value of losses to Mason resulting from extreme temperatures. Though the entire Mason population may experience a thermal emergency, populations without adequate climate control are most at risk. Extreme temperatures are not likely to cause damage to structures, although pipes can burst in extreme cold conditions.

Flooding

Localized Flooding

Localized flooding can result from even minor storms. Runoff overloads the drainage ways and flows into the streets and low-lying areas. Homes and businesses can be inundated, especially basements and the lower part of first floors. Localized flooding poses most of the same problems caused by larger floods, but because it typically has an impact on fewer people and affects small areas, it tends to bring less State or Federal involvement such as funding, technical help, or disaster assistance. As a result, the community and the affected residents or business owners are left to cope with the problems on their own. Finally, flooding of this type tends to recur; small impacts accumulated over time can become major problems.

Riverine Flooding

Riverine flooding involves the overflowing of normal flood channels, rivers, or streams, generally because of prolonged rainfall or rapid thawing of snow cover. The lateral spread of floodwater is largely a function of the terrain, becoming greater in wide, flat areas, and affecting narrower areas in steep terrain. In the latter cases, riparian hillsides in combination with steep declines in riverbed elevation often force waters downstream rapidly, sometimes resulting in flash floods.

Floodplains cover approximately 1.3% of Mason; 1.3% of the Town is within the 1% annual floodplain and 0% is within the 0.2% annual floodplain. Floodplains in Mason are located along Walker Brook, Mason Brook, Lancy Brook, Gould Mill Brook, Wallace Brook, and two unnamed waterbodies and an unnamed stream in the southern part of town

Dam Failure

The NH Department of Environmental Services indicates several failure modes for dams. Most typical include hydraulic failure or the uncontrolled overflowing of water, seepage, or leaking at the dam's foundation or gate; structural failure or rupture; general deterioration; and gate inoperability. These modes vary between dams depending on their construction type.

The State of New Hampshire uses a hazard potential classification to define the extent of a dam breach or failure. All class S (Significant) and H (High hazard) dams have the potential to cause damage if they breach or fail.

Class H—high hazard: 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 probably loss of human life 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 that is occupied under normal conditions; water levels rising above 1st floor elevation of a habitable residential structure or a commercial or industrial structure that is occupied under normal conditions when the rise due to dam failure is greater than 1 foot; structural damage to an interstate highway, which could render the roadway impassible or otherwise interrupt public safety services; release of a quantity and concentration of material that qualify as “hazardous waste” under RSA 147-A:2 VII; any other circumstance that would more likely than not cause one or more deaths.

Class S—significant hazard: dam 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 any of the following: no probably loss of lives; major economic loss to structures or property; structural damage to a Class I or Class II road that would render the road impassable or otherwise interrupt public safety services; major environmental or public health losses.

Class L—low hazard: dam 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 any of the following: 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 impassible or otherwise interrupt public safety service; the release of liquid industrial, agricultural, or commercial wastes, septage, or

contaminated sediment if the storage capacity is less than 2 acre-feet and is located more than 250 feet from a water body or water course; reversible environmental losses to environmentally-sensitive sites.

Class NM—non-menace: 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, provided the dam is less than 6 feet in height if it has a storage capacity greater than 50 acre-feet; or less than 25 feet in height if it has a storage capacity of 15-50 acre-feet.

Mason has 2 Class NM dams (Non-Menace), 4 Class L dams (Low hazard potential), 0 Class S dams (Significant hazard potential), and 0 Class H dams (High hazard potential). The 4 Class L dams (Low Hazard Potential) are the McCaffrey Dam on Mitchell Brook, the Pratt Pond Dike on Branch Mitchell Brook, Pratt Pond Spillway Section on TR Mitchell Brook, and the Pratt Pond Dam also on TR Mitchell Brook. There have been no known dam breaches to-date in Mason.

Previous Occurrences of Flood

Hazard	Date	Hazard location within Jurisdiction	Hazard Extent	Impact
Flooding—Dam Failure	There has been no significant damage from flooding due to dam failure in Mason to-date.			
Flooding	1927	Hillsborough County	No data on extent available	Damage to road network.
Flooding	March 11-21, 1936	Hillsborough County	25-50 year recurrence interval	\$133,000,000 in property damage and 77,000 homeless throughout New England. Primary impact to structures, infrastructure, and road network. Flooding caused by heavy snowfall totals, heavy rains, and warm weather. Impact listed here are general to Hillsborough County. Specific impacts to Mason are unknown.
Flooding	July 11, 1973	Hillsborough County	No data on extent available	FEMA Disaster Declaration #399. Specific impacts to Mason are unknown.

Flooding	July 29-August 10, 1986	Hillsborough County	No data on extent available	FEMA Disaster Declaration #771. Many roads impassable in Hillsborough County. Specific impacts to Mason are unknown.
Flooding	March 30-April 11, 1987	Hillsborough County	25-50+ year recurrence interval	\$4,888,889 in damage in NH. FEMA Disaster Declaration #789. Primary impact to agricultural fields in Hillsborough County. Specific impacts to Mason are unknown.
Flooding	August 7-11, 1990	Hillsborough County	No data on extent available	\$2,297,777 in damage in NH. FEMA Disaster Declaration #876. Primary impact to infrastructure in Hillsborough County. Specific impacts to Mason are unknown.
Flooding	October 20-23, 1996	Hillsborough County	No data on extent available	\$2,341,273 in damage in NH. FEMA Disaster Declaration #1144. Primary impact to structures and infrastructure in Hillsborough County. Specific impacts to Mason are unknown.
Flooding	July 2, 1998	Hillsborough County	No data on extent available	\$3,400,000 in damage in NH, 6 counties impacted including Hillsborough. FEMA Disaster Declaration #1231. Primary impact to structures and infrastructure in Hillsborough County. Specific

				impacts to Mason are unknown.
Flooding	October 26, 2005	Hillsborough County	50-100 year recurrence interval	5 counties impacted in NH, including Hillsborough. FEMA Disaster Declaration #1610. Primary impact to structures and infrastructure in Hillsborough County. Specific impacts to Mason are unknown.
Flooding	May 12-23, 2006	Hillsborough County	As much as 14 inches of rainfall in region. 100-500 year recurrence interval.	7 counties impacted in NH, including Hillsborough. FEMA Disaster Declaration #1643. Specific impacts to Mason are unknown.
Flooding	April 15, 2007	Hillsborough County	100-500 year recurrence interval	\$27,000,000 in damages in NH; 2,005 home owners and renters applied for assistance in NH. FEMA Disaster Declaration #1695. Primary impact to structures and infrastructure in Hillsborough County. Specific impacts to Mason are unknown.
Flooding	September 6-7, 2008	Hillsborough County	50-100 year recurrence interval	\$6.90 per capita in damages in Hillsborough County. FEMA Disaster Declaration #1799. Primary impact to structures and infrastructure in Hillsborough County. Specific impacts to Mason are unknown.
Flooding	March 14, 2010	Hillsborough County	50-100 year recurrence interval	\$1,880,685 in FEMA public assistance in NH; \$1.80 per capita in Hillsborough

				County. Flooding near Johnson Corner due to undersized culvert. FEMA Disaster Declaration #1913 Primary impact to roads and bridges in Hillsborough County. Specific impacts to Mason are unknown.
Flooding	May 26, 2011	Hazard was not experienced in jurisdiction.	N/A	Disaster Declaration #4006. No impact to Mason.
Flooding	May 29, 2012	Hazard was not experienced in jurisdiction.	N/A	Disaster Declaration #4065. No impact to Mason.
Flooding	June 26, 2013	Hazard was not experienced in jurisdiction.	N/A	Disaster Declaration #4139. No impact to Mason.
Flooding	July 1, 2017	Hazard was not experienced in jurisdiction	N/A	Disaster Declaration #4329. No impacts to Mason.
Flooding	December 25, 2022	Mason	Heavy rainfall	Dead Moose Swamp – entire culvert washed out and needed to be replaced

Flood Hazard Loss Estimate

Step 1. Determine percent building damage to a 1 or 2 story building with basement

- 1-foot flood depth = 15% building damage
- 2-foot flood depth = 20% building damage
- 3-foot flood depth = 23% building damage
- 4-foot flood depth = 28% building damage
- *Source: FEMA Identifying Hazards and Estimating Losses, pg. 4-13*

Step 2. Determine number of structures in Mason located in the floodplain

- 5 structures located in 1% floodplain
- 0 structures located in 0.2% floodplain—there are no 0.2% floodplains in Mason
- *Source: Nashua Regional Planning Commission GIS datasets 2025*

Step 3. Determine total value of structures in Mason located in 1% floodplain

- Average assessed value of all structures in Mason = \$213,921.00
- Total number of structures in Mason located in 1% floodplain = 5

- Total assessed value of all structures in Mason in 1% floodplain = \$213,921.00 * 5
- Total assessed value of all structures in Mason in 1% floodplain = \$1,069,605.00
- *Source: Mason Assessing 2025 data & NRPC GIS data*

Step 4. Determine total loss from flooding in 1% floodplain

- Total Loss from Flooding = Total Assessed Value of all structures in 1% Floodplain * Percent Building Damage Ratio
- Total Loss from 1-foot flood depth = \$1,069,605.00 * .15 = **\$160,440.75**
- Total Loss from 2-foot flood depth = \$1,069,605.00 * .20 = **\$213,921.00**
- Total Loss from 3-foot flood depth = \$1,069,605.00 * .23 = **\$246,009.15**
- Total Loss from 4-foot flood depth = \$1,069,605.00 * .28 = **\$299,489.40**

Critical Facility Type	Total Number of this type of Critical Facilities in Mason	Number of this type of Critical Facilities in 1% Annual Floodplain	Percentage of this type of Critical Facilities in 1% Annual Floodplain	Number of this type of Critical Facilities in 0.2% Annual Floodplain	Percentage of this type of Critical Facilities in 0.2% Annual Floodplain
General Occupancy	8	0	0%	0	0%
Essential Facilities	4	0	0%	0	0%
Transportation	13	3	23%	0	0%
Utility System	3	0	0%	0	0%
High Potential Hazard	6	0	0%	0	0%
Hazardous Materials	0	0	0%	0	0%

Severe Wind

The Atlantic hurricane season lasts from June 1 through November 30 and peaks in late August and September. The Saffir-Simpson Hurricane Wind Scale categorizes hurricanes from 1 to 5 based on sustained wind speed. The National Weather Service National Hurricane Center provides the following estimates of potential property damage based on hurricane wind speed.⁷

Category 1—sustained winds 74-95 mph. Very dangerous winds will produce some damage. Well-constructed frame homes could have damage to roof, shingles, 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.

⁷ <http://www.nhc.noaa.gov/aboutsshws.php>

Category 2—sustained winds 96-110 mph. 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.

Category 3 (major)—sustained winds 111-129 mph. Devastating damage will occur. Well-built framed 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.

Category 4 (major)—sustained winds 130-156 mph. Catastrophic damage will occur. Well-built framed homes can sustain severe damage with the 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.

Category 5 (major)—sustained winds 157 mph 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 possible months. Most of the area will be uninhabitable for weeks or months.

FEMA declared disasters in Hillsborough County during Hurricane Bob (1991) and Hurricane Floyd (1999). Though these were the only formally declared incidents, Mason has experienced strong remnants of numerous tropical cyclones including Hurricane Carol (1954), Donna (1960), Gloria (1985), Irene (2011), and Sandy (2012).

Previous Occurrences of Severe Wind

Date	Hazard Location within Jurisdiction	Hazard Extent	Impact
Great Hurricane of 1938	Hillsborough County	No data on extent available	\$12,337,643 total damages (not adjusted for inflation), 13 deaths and 494 injuries in NH. Damage to road network and structures caused by flooding.
August 31, 1954 (Carol)	Hillsborough County	Saffir-Simpson Scale Category 3.	Extensive tree and crop damage.
September 12, 1960 (Donna)	Hillsborough County	Saffir-Simpson Scale Category 3	Water damage to structures due to flooding.
September 27, 1985 (Gloria)	Hillsborough County	Saffir-Simpson Scale Category 2	Damage to trees and power lines from high winds.
August 19, 1991 (Bob)	Hillsborough County	Saffir-Simpson Scale Category 1	FEMA Disaster Declaration #917. Damage to structures, trees, and

			power lines from high winds. Structural damage in Mason from fallen trees.
September 16-18, 1999 (Floyd)	Hillsborough County	Tropical Storm (winds 39-73 mph)	FEMA Disaster Declaration #1305. Primary impact to trees, infrastructure, and road network.
August 28, 2011 (Irene)	Hillsborough County	Tropical Storm (winds 39-73 mph).	FEMA Disaster Declaration #4026. Damage to trees and power lines from high winds. Flash floods.
October 26, 2012 (Sandy)	Hillsborough County	Tropical Storm (winds 39-73 mph).	FEMA Disaster Declaration #4095. Minimal damage.
October 29-30, 2017	Hillsborough County	Tropical Storm (winds 39-73 mph).	FEMA Disaster Declaration #4355. A powerful storm fed by tropical moisture knocked out power to more than 270,000 homes and business across the state. Eversource reported around 190,000 customers were without power at its peak, ranking it as 1 of its top 5 largest outages in NH. The storm affected 330 roads in NH — 230 local and 100 state. In addition to the wind, 2.8 inches of rain fell in Nashua. There were more than 430 closings around the state. Nashua Fire Rescue responded to more than 100 calls in 12-hour period beginning at 8 p.m. Oct. 29. Falling trees severely damaged many homes and electrical infrastructure. On Nov. 28 Governor Sununu, requested assistance for Belknap, Carroll, Coos, Grafton, and Sullivan counties.
August 3-6, 2020 (Isaias)	Hillsborough County	Tropical Storm (winds 39-73 mph).	Tropical storm with extreme wind gusts, flash

			flooding, high rainfall, tree damage, and power outages.
August 19-27, 2021 (Henri)	Hillsborough County	Tropical Storm (winds 39-73 mph).	Strong tropical storm with flash flooding, high winds, power outages, tree damage, and heavy rain between 2 and 4 inches.
March 13-15 2023			Big storm with wet snow and wind, tree down on Wilton Road and took out jeep, had to appropriate extra money in budget for cleanup.

Severe Wind Hazard Loss Estimate

There are no standard loss estimation models or tables for wind damage (*Understanding Your Risks*, FEMA, pg. 4-30). As such, the Hazard Mitigation Team used data from previous hurricane events to determine damage estimates. Historically, the strongest hurricane seen in NH was a Category 3, so loss estimates were calculated based on a hurricane of that strength. Hurricanes have primarily damaged road networks and infrastructure in NH. It is beyond the scope of this project to estimate the costs of repairing or replacing transportation and utility infrastructure damaged by a hurricane. The Hazard Mitigation Team used the following calculations to estimate loss to single family residential structures from a hurricane.

Step 1. Determine percent building damage ratio to single family residence from Category 3 hurricane

- Wood Frame Construction, Low general hurricane design level = 20% building damage
- *Source: Mason Hazard Mitigation Team*

Step 2. Determine percent of structures in Mason that would be damaged by Category 3 hurricane

- 5% of structures estimated to be damaged by Category 3 hurricane
- *Source: Mason Hazard Mitigation Team (no historical data on hurricane damage in Mason)*

Step 3. Determine total assessed value of structures in Mason

- Total Assessed Value of all Structures in Mason = \$130,705,800.00
- *Source: Mason Assessing Department 2025*

Step 4. Determine total loss from Category 3 hurricane

- Total Loss from Hurricane = Total Assessed Value of all Structures * Percentage of Structures Estimated to be Damaged * Percent Building Damage Ratio
- Total Loss from Hurricane = \$130,705,800.00 * .05 * .2 = **\$1,307,058.00**

Critical Facility Type	Total Number of this type of Critical Facilities in Mason	Number of this type of Critical Facilities in Severe Wind Hazard Area	Percentage of this type of Critical Facilities in Severe Wind Hazard Area
General Occupancy	8	8	100%
Essential Facilities	4	4	100%
Transportation	13	3	23%
Utility System	3	2	67%
High Potential Hazard	6	6	100%
Hazardous Materials	0	0	0

Lightning & Hail

Lightning

By definition, all thunderstorms contain lightning. Lightning is a giant spark of electricity that occurs within the atmosphere or between the atmosphere and the ground. As lightning passes through the air, it heats the air to a temperature of about 50,000 degrees Fahrenheit, considerably hotter than the surface of the Sun. During a lightning discharge, the sudden heating of the air causes it to expand rapidly. After the discharge, the air contracts quickly as it cools back to ambient temperatures. This rapid expansion and contraction cause a shock wave that we hear as thunder.

Lightning is a major hazard to citizens involved in outdoor activities. A lightning strike at a densely attended special event has the potential to create a major mass casualty incident. Lightning also can create wildfires and structure fires and may cause power and/or communications outages.

The Lightning Activity Level (LAL) grid can be used to measure the extent of a lightning event⁸.

LAL	Cloud & Storm Development	Lightning Strikes/15 min
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 or 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

⁸ <http://www.prh.noaa.gov/hnl/pages/LAL.php>

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.	9-15

Hail

Hailstones are balls of ice that grow as they are held up by winds, known as updrafts, which blow towards thunderstorms. The updrafts carry droplets of supercooled water, water at a below-freezing temperature that is not yet ice. The water droplets freeze into ice balls and grow to become hailstones. Most hailstones are smaller than a dime, but stones may grow to be as large as softballs.

Although it is not common in Mason, hailstorm events resulting from significant thunderstorms can occur at any time. Summer storms especially may produce hail large enough to damage roofs, siding, and automobiles, or injure people who are outdoors. It was felt that a hailstorm event would be unlikely and would cause minimal damage. Since the previous hazard mitigation plan, no significant occurrences of lightning or hail events have occurred in Mason.

Previous Occurrences of Lightning & Hail

Date	Hazard Location within Jurisdiction	Hazard Extent	Impact
2012	Darling Hill Road	Lightning damage to Police Station and Mann House	Insurance Settlement checks received totaling over \$28,000.
2014	Mason Elementary School	Unknown	Insurance settlement checks totaling \$275.95.
2023	Townsend Road	Communications Tower on Townsend Road was damaged from a lightning strike.	Insurance settlement checks totaling \$210,000.

Lightning & Hail Hazard Loss Estimate

Losses from lightning & hail would be on a small scale, because of the localized nature of lightning and the minimal damage expected from hail. The Hazard Mitigation Team used the following calculations to estimate loss to single family residential structures from lightning & hail.

Step 1. Determine percent building damage ratio to single family residence from lightning & hail.

- Wood Frame Construction = 5% building damage
- Source: Mason Hazard Mitigation Team

Step 2. Determine percent of structures in Mason that would be damaged by lightning & hail

- 0.25% of structures estimated to be damaged by lightning & hail
- Source: Mason Hazard Mitigation Team

Step 3. Determine total assessed value of structures in Mason

- Total Assessed Value of all Structures in Mason = \$130,705,800

- Source: Mason Assessing Department

Step 4. Determine total loss from lightning & hail

- Total Loss from Lightning = Total Assessed Value of all Structures * Percentage of Structures Estimated to be Damaged * Percent Building Damage Ratio
- Total Loss from Severe Thunderstorm = \$130,705,800 * .0025 * .05 = **\$16,338.23**

Critical Facility Type	Total Number of this type of Critical Facilities in Mason	Number of this type of Critical Facilities in Lightning & Hail Hazard Area	Percentage of this type of Critical Facilities in Lightning & Hail Hazard Area
General Occupancy	8	8	100%
Essential Facilities	4	4	100%
Transportation	13	3	23%
Utility System	3	2	67%
High Potential Hazard	6	0	0%
Hazardous Materials	0	0	0%

Severe Winter Weather

A heavy snowstorm is generally considered to be one that deposits two or more inches of snow per hour in a twelve-hour period. Heavy snow can immobilize a region, stranding commuters, closing businesses, and disrupting emergency services. Accumulating snow can collapse buildings and knock down trees and power lines. Snow removal from roadways, utility damage, and disruption to businesses can have a significant economic impact on municipalities and residents.

A blizzard is a violent snowstorm with winds blowing at a minimum speed of 35 miles per hour and visibility of less than one-quarter mile for three hours. A Nor'easter is a large weather system traveling from south to north, passing along the coast. As the storm's intensity increases, the resulting counterclockwise winds impact the coast and inland areas in a Northeasterly direction. Winds from a Nor'easter can meet or exceed hurricane force, knocking down trees, utility poles, and power lines.

Ice storms occur when a mass of warm, moist air collides with a mass of cold, arctic air. The less dense warm air rises, and the moisture precipitates out in the form of rain. When this rain falls through the colder, more-dense air and comes in contact with cold surfaces, ice forms and can become several inches thick. Heavy accumulations of ice can knock down trees, power lines, and communications for extended periods of time. Ice Storm extent can be defined by the Sperry-Piltz Ice Accumulation Index:

- 0—minimal risk of damage to exposed utility systems; no alerts or advisories needed for crews, few outages
- 1—some isolated or localized utility interruptions are possible, typically lasting for a few hours. Roads and bridges may become slick and hazardous.
- 2—scattered utility interruptions expected, typically lasting 12-24 hours. Roads and travel conditions may be extremely hazardous due to ice accumulation.

- 3—numerous utility interruptions with some damage to main feeder lines and equipment expected. Tree limb damage is excessive. Outages lasting 1-5 days.
- 4—prolonged and widespread utility interruptions with extensive damage to main distribution feeder lines and some high voltage transmission lines/structures. Outages lasting 5-10 days.
- 5—catastrophic damage to entire exposed utility systems, including both distribution and transmission networks. Outages could last several weeks in some areas. Shelters are needed.

In recent years, FEMA issued disaster declarations in Hillsborough County for severe winter weather in 1998, 2008, 2010, 2011, 2013, and 2015. Among these storms was a rare Nor'easter in late October of 2011 that caused major destruction in Hillsborough and Rockingham Counties. Heavy wet snow fell on trees that had much of their foliage remaining. Many trees could not withstand the extra weight of the snow and collapsed under the stress. Damage was very focused in the southern part of New Hampshire and caused nearly three times the amount of debris that the 2008 ice storm produced.

Previous Occurrences of Severe Winter Weather

Date	Hazard Location within Jurisdiction	Hazard Extent	Impact
March 11-14, 1888	Entire jurisdiction	30-50 inches of snow	No historic data on impact
1922	Entire jurisdiction	No historic data on extent	Extreme snow drifts paralyzed road network.
February 14-15, 1940	Entire jurisdiction	Over 30 inches of snow	Snow and high winds paralyzed road network.
February 14-17, 1958	Entire jurisdiction	20-33 inches of snow	Primary impact to road network.
March 18-21, 1958	Entire jurisdiction	22-24 inches of snow	Primary impact to road network.
March 2-5, 1960	Entire jurisdiction	Up to 25 inches of snow	Primary impact to road network.
January 18-20, 1961	Entire jurisdiction	Up to 25 inches of snow	Blizzard conditions paralyze road network.
February 22-28, 1969	Entire jurisdiction	24-98 inches of snow in Central NH	Primary impact to road network. Slow moving storm.
December 25-28, 1969	Entire jurisdiction	12-18 inches of snow	Primary impact to road network.
January 19-21, 1978	Entire jurisdiction	Up to 16 inches of snow	Primary impact to road network.
February 5-7, 1978 (Blizzard of '78)	Entire jurisdiction	25-33 inches of snow	Snow paralyzed road network, trapped commuters in cars, and forced closure of businesses.
April 5-7, 1982	Entire jurisdiction	18-22 inches of snow	Primary impact to road network.
March, 1983	Entire jurisdiction	Over 18 inches of snow, 30-40 mph winds	Snow paralyzed road network and forced closure of businesses.

December 1996	Entire jurisdiction	14 inches of snow	Damage to power lines forces closure of businesses. Heavy wet snow caused many trees to come down. Power outages.
January 7, 1998	Entire jurisdiction	Ice storm, no data on extent available	\$12,446,202 in total damages, 1 death and 6 injuries in NH. \$17,000,000 in damages to PSNH equipment. FEMA Disaster Declaration #1199. 20 major road closures; 67,586 without power; 2,310 without phone service; 1 communication tower failure.
January 24, 1998	Entire jurisdiction	No data on extent available	Power outages.
December 11, 2008	Entire jurisdiction	Ice storm, no data on extent available	\$10,383,602 in FEMA public assistance in NH; \$6.35 per capita in Hillsborough County. FEMA Disaster Declaration #1812 Damage to power and phone lines and trees.
February 23, 2010	Entire jurisdiction	Snow followed by rainfall between 2-6 inches. Winds over 70 mph.	\$6,268,179 in FEMA public assistance in NH; \$3.68 per capita in Hillsborough County. FEMA Disaster Declaration #1892 Damage to power and phone lines, trees, and road network. Over 330,000 customers without power state-wide.
October 29-30, 2011	Entire jurisdiction	15-20 inches of snow.	\$3,052,769 in FEMA public assistance in NH; \$5.11 per capita in Hillsborough County. FEMA Disaster Declaration #4049 Damage to power and phone lines, trees, and road network.
February 8-10, 2013	Entire jurisdiction	Snowfall totals of 12-18 inches across region, up to 30 inches in parts of NH.	FEMA Disaster Declaration #4105

		Winds 10-20 mph with gusts up to 40 mph. Visibility less than ¼ mile.	
January 26-28, 2015	Entire jurisdiction.	Snowfall totals of 18-24 inches across region. Winds 35 mph. Visibility 0.	\$3,293,059 in FEMA public assistance in NH; \$3.88 per capita in Hillsborough County. FEMA Disaster Declaration DR-4209.
March 2023	Entire Jurisdiction		Postponed town meeting, road infrastructure closures Power out for 3-5 days People came in to charge phones in pd lobby

Severe Winter Weather Hazard Loss Estimate

Severe Winter Weather events have primarily damaged road networks and infrastructure in NH. It is beyond the scope of this project to estimate the costs of repairing or replacing transportation and utility infrastructure damaged by severe winter weather. The Hazard Mitigation Team used the following calculations to estimate loss to single family residential structures from severe winter weather.

Step 1. Determine percent building damage ratio to single family residence from severe winter weather

- Wood Frame Construction, no additional provisions for roof snow loads = 5% building damage
- *Source: Mason Hazard Mitigation Team*

Step 2. Determine percent of structures in Mason that would be damaged by severe winter weather

- 1% of structures estimated to be damaged by severe winter weather
- *Source: Mason Hazard Mitigation Team*

Step 3. Determine total assessed value of structures in Mason

- Total Assessed Value of all Structures in Mason = \$130,705,800.00
- *Source: Mason Assessing Department 2025*

Step 4. Determine total loss from Severe Winter Weather

- Total Loss from Severe Winter Weather = Total Assessed Value of all Structures * Percentage of Structures Estimated to be Damaged * Percent Building Damage Ratio
- Total Loss from Severe Winter Weather = \$130,705,800.00 * .01 * .05 = **\$65,352.90**

Critical Facility Type	Total Number of this type of Critical Facilities in Mason	Number of this type of Critical Facilities in Severe Winter Weather Hazard Area	Percentage of this type of Critical Facilities in Severe Winter Weather Hazard Area
General Occupancy	8	8	100%
Essential Facilities	4	4	100%
Transportation	13	13	100%
Utility System	3	3	100%
High Potential Hazard	6	6	100%
Hazardous Materials	0	0	0

Tornado/Downburst

A tornado is a violently rotating column of air extending from a thunderstorm to the ground. The most violent tornadoes are capable of tremendous destruction with wind speeds of 250 mph or more.

Damage paths can be in excess of one mile wide and 50 miles long. Tornadoes are created when cold air overrides warm air, causing the warm air to rise rapidly.

A downburst is a severe localized wind blasting down from a thunderstorm. These 'straight line' winds are distinguishable from tornadic activity by their pattern of destruction and debris. Depending on the size and location of these events, the destruction to property may be devastating. Downbursts fall into two categories. Microbursts cover an area less than 2.5 miles in diameter and macrobursts cover an area at least 2.5 miles in diameter.

Hillsborough County has a higher risk of tornado activity compared to the rest of the State. Between 1961 and 1998 there were 15 known tornadoes in Hillsborough County. The most recent downburst activity occurred on July 6, 1999, in the form of a microburst in Merrimack, Grafton and Hillsborough Counties. There were two fatalities as well as roof damage, widespread power outages, and downed trees, utility poles and wires.

Previous Occurrences of Tornado/Downburst

Date	Hazard Location within Jurisdiction	Hazard Extent	Impact
	There have been no tornadoes originating in Mason to date. Tornadoes noted below originated in Hillsborough Co., NH		
July 2, 1961	Northern Hillsborough Co, originated near Weare, NH	Fujita Scale F2	0 fatalities, 0 injuries
July 21, 1961	Central Hillsborough Co, originated near New Boston, NH	Fujita Scale F1	0 fatalities, 0 injuries
May 9, 1963	Northeastern, Hillsborough Co,	Fujita Scale F1	0 fatalities, 0 injuries

	originated near Goffstown, NH		
May 20, 1963	Western Hillsborough Co, originated near Peterborough, NH	Fujita Scale F1	0 fatalities, 0 injuries
June 9, 1963	Northeastern Hillsborough Co, originated near Manchester, NH	Fujita Scale F2	0 fatalities, 0 injuries
August 28, 1965	Eastern Hillsborough Co, originated near Litchfield, NH	Fujita Scale F1	0 fatalities, 0 injuries
July 19, 1966	Southern Hillsborough Co, originated near Amherst, NH	Fujita Scale F1	0 fatalities, 0 injuries
July 17, 1968	Central Hillsborough Co, originated near Wilton, NH	Fujita Scale F2	0 fatalities, 0 injuries
August 20, 1968	Northeastern Hillsborough Co, originated near Manchester, NH	Fujita Scale F1	0 fatalities, 0 injuries
July 19, 1972	Southeastern Hillsborough Co, originated near Hudson, NH	Fujita Scale F1	0 fatalities, 0 injuries
July 5, 1984	Western Hillsborough Co, originated near Harrisville, NH	Fujita Scale F1	0 fatalities, 0 injuries
July 5, 1984	Southeastern Hillsborough Co, originated near Pelham, NH	Fujita Scale F1	0 fatalities, 0 injuries
June 16, 1986	Western Hillsborough Co, originated near Swansey, NH	Fujita Scale F1	0 fatalities, 0 injuries
July 3, 1997	Central Hillsborough Co, originated near Greenfield, NH	Fujita Scale F2	0 fatalities, 0 injuries
May 31, 1998	Western Hillsborough Co, originated near Antrim, NH	Fujita Scale F2	0 fatalities, 0 injuries
July 6, 1999	Merrimack, Grafton, and Hillsborough Co.	Microburst/Downburst	2 fatalities, 2 lost roofs, damage to trees and utility infrastructure

July 24 th , 2008	Southern Hillsborough County (Candia & Deerfield, NH more effected than others)	Fujita Scale F2	1 fatality, damage to over 100 structures, some destroyed, causing over \$2 million in damage and injuring 2 people directly.
July 16 th , 2024	Southern Hillsborough Co., originated in Milford, NH.	Microburst/Downburst	Peak winds of 95mph brought down 150 trees and left 7 homes uninhabitable. Extensive damage to powerlines.

Tornado Hazard Loss Estimate

There are no standard loss estimation models or tables for tornados⁹. As such, the Hazard Mitigation Team used data from previous tornado events to determine damage estimates. Historically, the strongest tornado seen in Hillsborough County was an F2, so loss estimates were calculated based on a tornado of that strength.

Step 1. Determine percent building damage ratio to single family residence from F2 tornado

- Wood Frame Construction, Low general tornado design level = 50% building damage
- *Source: Mason Hazard Mitigation Team*

Step 2. Determine percent of structures in Mason that would be damaged by F2 tornado

- 1% of structures estimated to be damaged by F2 tornado
- *Source: Mason Hazard Mitigation Team (no historical data on tornado damage in Mason)*

Step 3. Determine total assessed value of structures in Mason

- Total Assessed Value of all Structures in Mason = \$130,705,800.00
- *Source: Mason Assessing Department 2025*

Step 4. Determine total loss from F2 Tornado

- Total Loss from Tornado = Total Assessed Value of all Structures * Percentage of Structures Estimated to be Damaged * Percent Building Damage Ratio
- Total Loss from Tornado = \$130,705,800.00 * .01 * .5 = **\$653,529.00**

⁹ *Understanding Your Risks*, FEMA, pg. 4-27

Critical Facility Type	Total Number of this type of Critical Facilities in Mason	Number of this type of Critical Facilities in Tornado Hazard Area	Percentage of this type of Critical Facilities in Tornado Hazard Area
General Occupancy	8	8	100%
Essential Facilities	4	4	100%
Transportation	13	13	100%
Utility System	3	2	67%
High Potential Hazard	6	6	100%
Hazardous Materials	0	0	0%

Wildfire

Wildfires are fires ignited in grassy or wooded areas. They may be ignited intentionally by humans, naturally through lightning, or accidentally due to spark ignition from sources such as power lines or fireworks. The interface between forested lands and developed lands poses an ongoing threat to property from wildfires. Potential wildfire areas outside of the recommended response time radius from the fire station may pose a higher risk to structures and residents than those located closer to the fire station.

Previous Occurrences of Wildfire

Date	Hazard Location within Jurisdiction	Hazard Extent	Impact
April 18, 2015	350 Ashby Road	Fire Department reported approximately 1 acre of brush burning	Mutual aid, tankers for water supply
April 14, 2016	Valley Road	Fire Department and Police Department assisted	Damage unknown
November 12, 2024	Pratt Pond Road, in the area of the power lines		4-alarm brush fire - Mason Fire Rescue received mutual aid from 22 other departments, in addition to the New Hampshire Forestry Task Force due to dry and windy conditions. At least 6 acres burned.

Wildfire Hazard Loss Estimate

Step 1. Determine percent building damage ratio to single family residence from wildfire

- Wood Frame Construction, combustible siding, and decking = 20% building damage
- *Source: Mason Hazard Mitigation Team*

Step 2. Determine percent of structures in Mason that would be damaged by wildfire

- 0.5% of structures estimated to be damaged by wildfire
- *Source: Mason Hazard Mitigation Team*

Step 3. Determine total assessed value of structures in Mason

- Total Assessed Value of all Structures in Mason = \$130,705,800.00
- *Source: Mason Assessing Department 2025*

Step 4. Determine total loss from Wildfire

- Total Loss from Wildfire = Total Assessed Value of all Structures * Percentage of Structures Estimated to be Damaged * Percent Building Damage Ratio
- Total Loss from Wildfire = \$130,705,800.00 * .005 * .2 = **\$130,705.80**

Critical Facility Type	Total Number of this type of Critical Facilities in Mason	Number of this type of Critical Facilities in Wildfire Hazard Area	Percentage of this type of Critical Facilities in Wildfire Hazard Area
General Occupancy	8	8	100%
Essential Facilities	4	4	100%
Transportation	13	0	0%
Utility System	3	2	67%
High Potential Hazard	6	0	0%
Hazardous Materials	0	0	0%

Infectious Diseases

Infectious diseases are illnesses caused by organisms—such as bacteria, viruses, fungi, or parasites. Many organisms live in and on our bodies. They are 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. Signs and symptoms vary depending on the organism causing the infection but often include fever and fatigue. Mild infections get better on their own without treatment, while some life-threatening infections may require hospitalization.

The magnitude and severity of infectious diseases is described by its speed of onset (how quickly people become sick or cases are reported) and how widespread the infection is. Some infectious diseases are

inherently more dangerous and deadly than others, but the best way to describe the extent of infectious diseases relates to the disease occurrence.¹⁰

- Endemic – Constant presence and/or usual prevalence of a disease or infection agent in a population within a geographic area
- Hyperendemic – The persistent, high levels of disease occurrence
- Cluster – 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
- Epidemic – An increase, usually sudden, in the number of cases of a disease above what is normally expected
- Outbreak – The same as epidemic, but over a much smaller geographical area
- Pandemic – Epidemic that has spread over several countries or continents, usually affecting many people

Public health incidents and infectious diseases may occur suddenly or with a slow onset. Incidents that occur suddenly may have extraordinary and/or overwhelming medical resource needs. Incidents may occur with a slow onset and/or with advance warning will allow for a more coordinated response. During sudden onset incidents, many victims may reach healthcare facilities on their own without the use of Emergency Medical Services (EMS), which means that victims may arrive to find unprepared or inadequate facilities.

Incidents may be insidious or obvious, and both have unique impacts. Insidious incidents (such as diseases that have a longer incubation/onset period where infection can be spread without knowing) can result in a much higher infection rate, eventually overwhelming existing medical resources and resulting in higher morbidity and mortality. Incidents that are more obvious are more recognizable and can result in a more accurate healthcare response, but this may also result in much higher social complications such as fear, anxiety, unnecessary social distancing. For example, the average person may be more afraid of Ebola than influenza; however, the latter is much more likely to occur in the US. Having proper surveillance systems to recognize public health and infectious disease incidents is critical to be able to limit impacts.

The duration of the incident can also cause unique impacts. In a short duration incident, there may be a medical surge at the beginning which tapers off as the incident goes on and may not result in significant disruption to everyday life. However, longer duration incidents may have significant impacts not only for the public health response, but also for business/industry and the economy.¹¹

Previous Occurrences of Infectious Disease

Like the rest of the state, Mason experiences outbreaks annually. These include foodborne outbreaks, Influenza and other respiratory outbreaks, and Norovirus and other gastrointestinal virus outbreaks.

¹⁰ <https://www.cdc.gov/opphss/csels/dsepd/ss1978/lesson1/section11.html>

¹¹ State of NH Multi-Hazard Mitigation Plan Update 2018 pg. 110-113

In 2020, the world experienced a major pandemic from the Coronavirus (Covid-19). New Hampshire Covid-19 Emergency Declaration EM-3445-NH spanned from January 20, 2020, through May 11, 2020. As of May 2023, Mason had 249 Covid-19 cases in total.¹²

The New Hampshire Department of Health and Human Services conducts infectious disease surveillance and provides [statistics and reports on their website](#).

Infectious Disease Hazard Loss Estimate

Because the impacts of infectious disease are wide ranging, it is beyond the scope of this Plan to estimate the dollar value of losses to the municipality resulting from infectious diseases. Vulnerable populations are most at risk for this type of hazard.

Section 3.6. Overall Summary of Vulnerability

This section summarizes the Town of Mason's vulnerability by hazard and by facility type. The Town of Mason acknowledges that they are equally at risk and should address all hazards discussed throughout this chapter and listed below.

Table 7.1—Overall Summary of Vulnerability by Hazard

Hazard	Types of Critical Facilities Impacted by Hazard	Impact of Hazard	% of Critical Facilities in Hazard Area	% of Structures Estimated to be Damaged	\$ Value of Loss
Drought	Agricultural land. Not likely to have a significant impact on structures themselves, but can have significant impact on people's ability to utilize them.	Loss of crops. Inadequate quantity of drinking water—0% of Mason population on public drinking water, 100% of Mason's population is on private well water. Loss of water for fire protection. Increased risk of fire.	General Occupancy = 100% Essential Facilities = 100% Transportation = 0% Utility Systems = 33% High Potential Hazard = 0% Hazardous Materials = 0%	176.7 acres of agricultural land (1.2% of total land area)	Calculating \$ value of losses is beyond the scope of this Plan (see Section 3.5 Drought for explanation)
Earthquake	- General Occupancy - Essential Facilities	Structural damage or collapse of buildings.	General Occupancy = 100%	1-5%	\$16,992 to \$84,959

¹² New Hampshire Department of Health and Human Services, <https://www.wmur.com/article/covid-19-cases-nh-town/37155089>

Hazard	Types of Critical Facilities Impacted by Hazard	Impact of Hazard	% of Critical Facilities in Hazard Area	% of Structures Estimated to be Damaged	\$ Value of Loss
	- Transportation - Utility Systems - High Potential Hazard - Hazardous Materials	Damage or loss of infrastructure, including roads, bridges, railroads, power and phone lines, municipal communications, radio system. Loss of water for fire protection. Risk to life, medical surge.	Essential Facilities = 100% Transportation = 77% Utility Systems = 100% High Potential Hazard = 100% Hazardous Materials = 0%		
Extreme Temperatures	Not likely to have a significant impact on structures.	Overburdened power networks. Heating fuel shortages. Risk to life from prolonged exposure.	General Occupancy = 100% Essential Facilities = 100% Transportation = 0% Utility Systems = 67% High Potential Hazard = 0% Hazardous Materials = 0%	0%	\$0
Flooding	- General Occupancy - Transportation - High Potential Hazard - Hazardous Materials	Water damage to structures and their contents. Damage or loss of infrastructure, including roads, bridges, railroads, power and phone lines, municipal communications, radio system.	General Occupancy = 0% in 1% annual floodplain Essential Facilities = 0% in 1% annual floodplain Transportation = 23% in 1% annual floodplain	3 structures (0.3% of total) in 1% floodplain No 0.2% floodplains in Mason	Loss from 1-foot flood depth = \$160,441 2-foot flood depth = \$213,921

Hazard	Types of Critical Facilities Impacted by Hazard	Impact of Hazard	% of Critical Facilities in Hazard Area	% of Structures Estimated to be Damaged	\$ Value of Loss
		Environmental hazards resulting from damage. Isolation of neighborhoods resulting from flooding.	Utility Systems = 0% in 1% annual floodplain High Potential Hazard = 0% in 1% annual floodplain Hazardous Materials = 0% in 1% annual floodplain No 0.2% floodplains in Mason		3-foot flood depth = \$246,009 4-foot flood depth = \$299,489 No 0.2% floodplains in Mason
Severe Wind	- General Occupancy - Essential Facilities - Transportation - Utility Systems - High Potential Hazard - Hazardous Materials	Wind damage to structures and trees. Water damage to structures and their contents. Damage or loss of infrastructure, including roads, bridges, railroads, power and phone lines, municipal communications, radio system. Environmental hazards resulting from damage. Isolation of neighborhoods resulting from flooding.	General Occupancy = 100% Essential Facilities = 100% Transportation = 23% Utility Systems = 67% High Potential Hazard = 100% Hazardous Materials = 0%	5%	\$1,307,058

Hazard	Types of Critical Facilities Impacted by Hazard	Impact of Hazard	% of Critical Facilities in Hazard Area	% of Structures Estimated to be Damaged	\$ Value of Loss
Lightning	- General Occupancy - Essential Facilities - Utility System - High Potential Hazard - Hazardous Materials	Smoke and fire damage to structures. Disruption to power lines and municipal communications. Damage to critical electronic equipment. Injury or death to people involved in outdoor activity.	General Occupancy = 100% Essential Facilities = 100% Transportation = 23% Utility Systems = 67% High Potential Hazard = 0% Hazardous Materials = 0%	0.5%	\$16,338
Severe Winter Weather	- General Occupancy - Essential Facilities - Transportation - Utility - High Potential Hazard - Hazardous Materials	Disruption to road network. Damage to trees and power lines, communications. Structural damage to roofs/collapse. Increase in CO, other hazards.	General Occupancy = 100% Essential Facilities = 100% Transportation = 100% Utility Systems = 100% High Potential Hazard = 100% Hazardous Materials = 0%	1%	\$65,353
Tornado/Downburst	- General Occupancy - Essential Facilities - Transportation - Utility System - High Potential Hazard	Wind damage to structures and trees. Damage or loss of infrastructure, including roads, bridges, railroads, power and phone lines, municipal	General Occupancy = 100% Essential Facilities = 100% Transportation = 100%	1%	\$653,529

Hazard	Types of Critical Facilities Impacted by Hazard	Impact of Hazard	% of Critical Facilities in Hazard Area	% of Structures Estimated to be Damaged	\$ Value of Loss
	Hazardous Materials	communications, radio system. Environmental hazards resulting from damage. Medical surge.	Utility Systems = 67% High Potential Hazard = 100% Hazardous Materials = 0%		
Wildfire	- General Occupancy - Essential Facilities - Utility System - High Potential Hazard - Hazardous Materials	Smoke and fire damage to structures in wild land/urban interface. Damage to habitat. Impacts to air quality. Loss of natural resources.	General Occupancy = 100% Essential Facilities = 100% Transportation = 0% Utility Systems = 67% High Potential Hazard = 0% Hazardous Materials = 0%	0.5%	\$130,706
Infectious Diseases	- General Occupancy - Essential Facilities	Risk to life, medical surge/overburdened healthcare systems.	General Occupancy = 63% Essential Facilities = 100% Transportation = 0% Utility Systems = 0% High Potential Hazard = 0% Hazardous Materials = 0%	0%	Calculating \$ value of losses is beyond the scope of this Plan (see Section 3.5 Infectious Diseases for explanation)

Table 7.2—Overall Summary of Vulnerability by Facility Type

Facility Type	Total # of facilities	# susceptible to Drought	# susceptible to Earthquake	# susceptible to Extreme Temperatures	# susceptible to Flooding	# susceptible to Severe Wind	# susceptible to Lightning & Hail	# susceptible to Severe Winter Weather	# susceptible to Tornado/Downburst	# susceptible to Wildfire	# susceptible to Infectious Disease
General Occupancy	8	8	8	8	0 in 1% annual; 0 in 0.2% annual	8	8	8	8	8	5
Essential Facilities	4	4	4	4	0 in 1% annual; 0 in 0.2% annual	4	4	4	4	4	4
Transportation	13	0	10	0	3 in 1% annual; 0 in 0.2% annual	3	3	13	13	0	0
Utility	3	1	3	2	0 in 1% annual; 0 in 0.2% annual	2	2	3	2	2	1
High Hazard	6	0	6	0	0 in 1% annual; 0 in 0.2% annual	6	0	6	6	0	0
Hazardous Materials	0	0	0	0	0 in 1% annual; 0 in 0.2% annual	0	0	0	0	0	0

Section 3.7. National Flood Insurance Program

The Town of Mason participates in the National Flood Insurance Program (NFIP). This provides full insurance coverage based on risk as shown in detailed Flood Insurance Rate Maps (FIRMs). Mason joined the NFIP on December 1, 1992. The Town's initial Flood Hazard Boundary Map was identified on February 21, 1975, and its initial Flood Insurance Rate Map was also identified on December 1, 1992. The current effective map date is September 25, 2009.

Mason has 0 NFIP policies in force and \$0 of insurance in force. There has been 1 paid loss totaling \$7,622. Mason has 0 repetitive loss properties with total repetitive loss payments of \$0.

The Building Inspector of the Town of Mason is responsible for making determinations of substantial improvement and substantial damage (defined in 44 CFR 59.1). These determinations are made for all development in a special flood hazard area that proposes to improve an existing structure including alterations, movement, enlargement, replacement, repair, additions, rehabilitations, renovations, repairs of damage from any origin (such as, but not limited to flood, fire, wind, or snow) and any other improvement of or work on such structure including within its existing footprint.

The Building Inspector/Floodplain Administrator, in coordination with any other applicable community official(s), shall be responsible for the following:

1. Determine if a substantial damage (SD) determination needs to be made and communicate SD and permit requirements to property owners.
2. Verify the cost of repairs to the structure.
3. Verify the market value of the structure.
4. Make the SD determination and issue it to the property owner.
5. Permit development/ensure compliance with community ordinance.
6. Inspect development and maintain as-built compliance documentation post construction.

As a participant in the NFIP, communities must agree to adopt a floodplain management ordinance and enforce the regulations found in the ordinance. Mason has adopted the "Floodplain Ordinance," found in Article XVIII of the Town of Mason, NH Planning Ordinance. The Floodplain Ordinance is enacted to prevent the development of buildings and uses in areas that are unsatisfactory and hazardous due to the threat of flooding, protect natural flows and drainage, and comply with the requirements of the National Flood Insurance Act of 1968 (P.L. 90-488, as amended). The ordinance includes the following sections: Definition of Terms, Provisions, and Variance and Appeals Procedures.

To demonstrate Mason's continued compliance with NFIP requirements, the Hazard Mitigation Team identified the following mitigation actions as part of its comprehensive mitigation strategy. These actions also appear in Section 4.1, Table 9—Mitigation Actions.

Table 8—National Flood Insurance Program Mitigation Actions

National Flood Insurance Program Mitigation Actions			
Mitigation Action	Mitigation Type	Hazard Addressed	Critical Facilities Addressed
Participate in NFIP training offered by the State and/or FEMA (or in other training) that addresses the NFIP following a major storm event.	• Public Information	• Flooding	• General Occupancy • Essential Facilities
Incorporate flood mitigation into local planning. Revise/adopt regulations to improve floodplain management in Mason. Update or strengthen floodplain development ordinances to reflect increased flood risk under climate change, such as prohibiting or limiting floodplain development, limiting the percentage of impervious surface allowed, prohibiting fill, and creating a stream buffer ordinance. Incorporate updated floodplains for the Squanacook River and Nissitissit River-Nashua-River Watersheds into municipal planning activities when they become available.	• Prevention • Natural Resources Protection	• Flooding	• General Occupancy • Essential Facilities • Transportation Systems • Utility Systems • High Potential Hazard • Hazardous Materials

CHAPTER 4. MITIGATION STRATEGY

Section 4.1. Mitigation Actions

After establishing goals and objectives to reduce vulnerabilities to each hazard type, the Hazard Mitigation Team identified mitigation actions to achieve these goals. The resulting mitigation actions appear in Table 9 below.

Table 9—Mitigation Actions

Mitigation Action	Mitigation Type	Hazard Addressed	Critical Facilities Addressed
MITIGATION ACTIONS FROM 2018 PLAN			
Finish replacing culverts on Starch Mill/Abbott Hill Road, Wilton Road, Russell Road, and Briggs Road. Replace and upgrade old undersized culverts to provide adequate capacity.	• Structural	• Flooding	• Transportation Systems
Review and update Building Codes, Floodplain Ordinance, and Zoning Regulations. Proactively enforce the International Building Code (IBC) and International Residential Code (IRC) to protect buildings and infrastructure from the impacts of earthquake, flooding, severe wind, severe winter weather, and tornado.	• Prevention • Property Protection	• Earthquake • Flooding • Severe Wind • Severe Winter Weather • Tornado	• General Occupancy • Essential Facilities • Hazardous Materials
Design a “natural runoff” or “zero discharge” policy for stormwater in subdivision design to improve floodplain management in Mason.	• Prevention • Natural Resources Protection	• Flooding • Erosion • Severe Wind • Drought	• General Occupancy
Protect critical facilities and equipment from lightning damage. Install lightning protection devices and methods, such as lightning rods and grounding, on communications infrastructure and other critical facilities.	• Property Protection • Emergency Services Protection	• Lightning & Hail	• Essential Facilities • Utility Systems
Protect vulnerable populations from the impacts of extreme temperatures by establishing cooling and warming stations at community centers. Develop targeted outreach methods, including notifying occupants of senior housing facilities.	• Prevention • Public Information	• Extreme Temperatures • Severe Winter Weather	• Human Lives
NATIONAL FLOOD INSURANCE PROGRAM MITIGATION ACTIONS			
Participate in NFIP training offered by the State and/or FEMA (or in other training) that addresses the NFIP following a major storm event.	• Public Information	• Flooding	• General Occupancy • Essential Facilities

Mitigation Action	Mitigation Type	Hazard Addressed	Critical Facilities Addressed
Incorporate flood mitigation into local planning. Revise/adopt regulations to improve floodplain management in Mason. Update or strengthen floodplain development ordinances to reflect increased flood risk under climate change, such as prohibiting or limiting floodplain development, limiting the percentage of impervious surface allowed, prohibiting fill, and creating a stream buffer ordinance. Incorporate updated floodplains for the Squanacook River and Nissitissit River-Nashua-River Watersheds into municipal planning activities when they become available.	• Prevention • Natural Resources Protection	• Flooding	• General Occupancy • Essential Facilities • Transportation Systems • Utility Systems • High Potential Hazard • Hazardous Materials
ADDITIONAL MITIGATION ACTIONS			
Develop new and upgrade existing rural water delivery and fire suppression systems to eliminate breaks and leaks.	• Property Protection	• Wildfire	• General Occupancy • Essential Facilities • Utility Systems
Work with Eversource to upgrade all existing overhead utility lines (adjust pole sizes, utility pole span, widths, and/or line strength) to provide uninterrupted power after severe winds.	• Prevention	• Severe Wind • Severe Winter Weather	• General Occupancy • Essential Facilities • Transportation Systems • Utility Systems
Retrofit all public municipal buildings to withstand snow loads and prevent roof collapse. Update all emergency infrastructure during retrofit such as generators and radios.	• Structural • Prevention • Emergency Services Protection	• Severe Winter Weather	• General Occupancy • Essential Facilities
Join the “Firewise Communities/USA” recognition program sponsored by the National Wildlife Coordinating Group (firewise.org).	• Prevention • Public Information	• Wildfire	• General Occupancy • Essential Facilities • Hazardous Materials
Monitor water supply and drought conditions. Utilize NH Division of Forest and Lands reports and consult the New Hampshire Drought Management Team (DMT) and the State Drought Management Plan to monitor drought indicators.	• Prevention • Public Information	• Drought • Wildfire	• General Occupancy • Essential Facilities

Mitigation Action	Mitigation Type	Hazard Addressed	Critical Facilities Addressed
Create municipal infectious disease standard operating guidelines and local distribution plan.	- Prevention - Public Information	Infectious Disease	- General Occupancy - Essential Facilities - Human Lives

Section 4.2. Prioritizing Mitigation Actions

After identifying mitigation actions to address each hazard, the Team then began a two-step process to prioritize them. The first step was to conduct a benefit cost review. Benefit cost reviews provide a comprehensive overview of the monetary and non-monetary costs and benefits associated with each action. During this process, the Hazard Mitigation Team asked a variety of questions such as, “How beneficial is this action to the entire Town?” “How many people will benefit from this action?” “How large of an area is impacted by this project?” “How costly is this project?”

Table 10—Benefit Cost Review

Mitigation Action	Likely Benefits	Likely Costs
Finish replacing culverts on Starch Mill/Abbott Hill Road, Wilton Road, Russell Road, and Briggs Road. Replace and upgrade old undersized culverts to provide adequate capacity.	- This action would be effective at avoiding and reducing future losses. - This action is beneficial to all buildings, roads, and utilities in the area as well as emergency response.	Starch Mill and Abbott Hill Road are the culverts remaining in need of replacement. Both culverts will require a lot of funding for site work (Source: 2025 Mason Operating Budget, grants)
Review and update Building Codes, Floodplain Ordinance, and Zoning Regulations. Proactively enforce the International Building Code (IBC) and International Residential Code (IRC) to protect buildings and infrastructure from the impacts of earthquake, flooding, severe wind, severe winter weather, and tornado.	- This action would be effective at avoiding and reducing future losses. - This action is beneficial to all applicable buildings across the entire Town.	- This action may not benefit older structures, not subject to newer building codes. \$0 additional costs, percentage of existing Building Inspector budget (Source: 2025 Mason Operating Budget – Planning & Zoning)
Design a “natural runoff” or “zero discharge” policy for stormwater in subdivision design to improve floodplain management in Mason.	- This action would be most beneficial to residents in flood-prone areas of Town. - This action has the potential to reduce flood related structural damage and economic losses.	- Some individuals may view these building standards as an economic hardship. \$0 in additional costs. Established and enforced by the Planning Board

Mitigation Action	Likely Benefits	Likely Costs
Protect critical facilities and equipment from lightning damage. Install lightning protection devices and methods, such as lightning rods and grounding, on communications infrastructure and other critical facilities.	Reduced inconvenience and loss associated with a shutdown of critical facilities due to lightning damage.	\$1,000-\$5,000 per critical facility for lightning protection devices (Source: Mason Operating Budget - General Government Buildings)
Protect vulnerable populations from the impacts of extreme temperatures by establishing cooling and warming stations at community centers. Develop targeted outreach methods, including notifying occupants of senior housing facilities.	- This action would benefit the entire Town and particularly the most at risk and needy populations. - This action has broad social benefits for the community.	\$0 in additional costs, part of regular Emergency Management functions (Source: Mason Operating Budget – Emergency Management)
Participate in NFIP training offered by the State and/or FEMA (or in other training) that addresses the NFIP following a major storm event.	- Educate residents, builders, and other professionals about NFIP. - Reduce property loss costs associated with flooding	\$0 in additional costs; Percentage of existing Planning and Building Inspection budget items (Source: 2025 Mason Operating Budget)
Incorporate flood mitigation into local planning. Revise/adopt regulations to improve floodplain management in Mason. Update or strengthen floodplain development ordinances to reflect increased flood risk under climate change, such as prohibiting or limiting floodplain development, limiting the percentage of impervious surface allowed, prohibiting fill, and creating a stream buffer ordinance. Incorporate updated floodplains for the Squanacook River and Nissitissit River-Nashua-River Watersheds into municipal planning activities when they become available.	- This action would be most beneficial to residents of flood-prone areas of Town. - This action has the potential to reduce flood related economic losses.	- There are potential economic costs associated with limiting where development can go. - Percentage of existing Planning & Zoning budget appropriation (Source: 2025 Mason Operating Budget)

Mitigation Action	Likely Benefits	Likely Costs
Develop new and upgrade existing rural water delivery and fire suppression systems to eliminate breaks and leaks.	- This action would result in reduced firefighting costs. - This action would be most beneficial to portions of Town near wooded areas.	\$0 in additional costs, part of existing infrastructure maintenance budgets. New development costs will be passed on to developers (<i>Source: Mason Operating Budget</i>)
Work with Eversource to upgrade all existing overhead utility lines (adjust pole sizes, utility pole span, widths, and/or line strength) to provide uninterrupted power after severe winds.	- This action would benefit the entire Town and reduce issues from loss of power. - This action has the potential to protect human life in severe winter weather by reducing power outages and loss of heat.	\$0 in additional costs, this is under Eversource's jurisdiction.
Retrofit all public municipal buildings to withstand snow loads and prevent roof collapse. Update all emergency infrastructure during retrofit such as generators and radios.	- Protects critical municipal buildings and avoids future losses. - Reduces liability to Town.	- Updating emergency infrastructure will be costly. Mason received an estimate to update an emergency generator for \$8,302. (<i>Source: 2025 Mason Operating Budget, grants</i>)
Join the "Firewise Communities/USA" recognition program sponsored by the National Wildlife Coordinating Group (firewise.org).	- This action would result in reduced firefighting costs. - This action would be most beneficial to portions of Town near wooded areas.	\$0 additional costs; Percentage of existing Fire Department budget (<i>Source: 2025 Mason Operating Budget – Fire Department</i>)
Monitor water supply and drought conditions. Utilize NH Division of Forest and Lands reports and consult the New Hampshire Drought Management Team (DMT) and the State Drought Management Plan to monitor drought indicators.	- This action has environmental benefits if residents comply with reduced water consumption measures. - Potential for reduction in fire suppression efforts.	- Part of normal town operations. \$0 in additional costs. Part of existing Fire Department budget (<i>Source: Mason Operating Budget – Fire Department</i>)
Create municipal infectious disease standard operating guidelines and local distribution plan.	- This action would benefit the entire Town and particularly the most at-risk populations. - This action has broad social benefits for the community.	\$0 additional costs, percentage of Emergency Management budget (<i>Source: 2025 Mason Operating Budget – Emergency Management</i>)

After completing a Benefit Cost review for each action, the Hazard Mitigation Team then prioritized the actions by conducting a STAPLEE Analysis, which stands for Social, Technical, Administrative, Political, Legal, Economic, and Environmental factors. For each mitigation action, the Team asked the following questions:

- Social— Will the action unfairly affect any one segment of the population? Will it disrupt established neighborhoods? Is it compatible with present and future community values? Will it adversely affect cultural resources?
- Technical—How effective is the action in avoiding or reducing future losses? Will it create more problems than it solves? What are some secondary impacts? Does it solve a problem or only a symptom?
- Administrative— Does the community have the capability to implement the action? Can the community provide the necessary maintenance? Can it be accomplished in a timely manner?
- Political— Is there public support to implement and maintain the action? Is the political leadership willing to support it? Does it present a financial burden to stakeholders?
- Legal— Does the community have the authority to implement the action? Is enabling legislation necessary? What are the legal side effects? Will the community be liable for the actions, support of actions, or lack of actions?
- Economic— What are the costs of this action? How will the costs be borne? Are state/federal grant programs applicable? Does the action fit into existing capital improvements or economic development budgets?
- Environmental— How will this action affect the environment? Does it comply with local, state, and federal environmental regulations? Is it consistent with community environmental goals? Are endangered or threatened species likely to be affected?

The cost and benefit of each mitigation action were then evaluated and assigned a quantitative score based on the STAPLEE criteria.

Benefit Score Range: 0 = Not Beneficial, 1 = Somewhat Beneficial, 2 = Beneficial, 3 = Very Beneficial

Cost Score Range: 0 = Not Costly, -1 = Somewhat Costly, -2 = Costly, -3 = Very Costly

Next, the scores for each action were added to determine priority. Finally, the Hazard Mitigation Team reviewed the scores and resulting prioritization to make sure it was consistent with the Town's goals and Master Plan. The STAPLEE analysis and prioritized mitigation actions appear in Table 11 below.

Table 11—STAPLEE Analysis

Mitigation Action: Finish replacing culverts on Starch Mill/Abbott Hill Road, Wilton Road, Russell Road, and Briggs Road. Replace and upgrade old undersized culverts to provide adequate capacity.			
Criteria	Evaluation	Cost	Benefit
Social	This action is compatible with present and future community values, including ensuring safe, reliable transportation. This action could be disruptive to residents living near construction.	0	3
Technical	This action solves the problem of roadway flooding.	0	3
Administrative (including responsible party)	Mason has the ability to administer and maintain this action. The Mason Road Agent is the responsible party. Actual implementation of this project will be subcontracted out to a construction and engineering firm	0	3
Political	There is public and political support to implement and maintain this action.	0	3
Legal	Mason has the legal authority to implement this action.	0	3
Economic (including direct cost)	Culvert replacement costs will be funded by the existing Highway Town Maintenance Budget, and grants if possible.	-2	3
Environmental	This action is beneficial to the environment by reducing flooding and road washout.	0	2
Subtotal		-2	20
Total			18
Priority			1

Mitigation Action: Retrofit all public municipal buildings to withstand snow loads and prevent roof collapse. Update all emergency infrastructure during retrofit such as generators and radios.			
Criteria	Evaluation	Cost	Benefit
Social	This action would not unfairly affect any segment of the population, disrupt established neighborhoods, or adversely affect cultural resources.	0	3
Technical	This action would help to avoid or reduce future losses.	0	3
Administrative (including responsible party)	Mason has the capability to implement this action. The Board of Selectmen and Emergency Management Director are the responsible parties.	0	3
Political	There is public support to implement this action, however some opposition to using municipal funds or increases in taxes.	0	3
Legal	Mason has the legal authority to implement this action.	0	3
Economic (including direct cost)	This action is costly and budget will depend on the building or equipment needed. This item will come from the Mason Operating Budget, and various grants if possible. Projects will go through the RFP process.	-3	3
Environmental	This action has the potential to reduce property damage and subsequent environmental impacts.	0	2
Subtotal		-3	20
Total			17
Priority			2

Mitigation Action: Protect vulnerable populations from the impacts of extreme temperatures by establishing cooling and warming stations at community centers. Develop targeted outreach methods, including notifying occupants of senior housing facilities.			
Criteria	Evaluation	Cost	Benefit
Social	This action primarily benefits Mason's most vulnerable residents. It is compatible with present and future community values.	0	3
Technical	This action does not solve the problem of extreme temperatures, but it does solve the symptom of exposure. Extreme temperatures are very likely to occur in Mason, so mitigation measures are important.	0	3
Administrative (including responsible party)	Mason has the capability to implement this action. The Emergency Management Director is responsible for it and it falls under emergency management operations. This action can be implemented in a very timely manner.	0	3
Political	There is public support to implement and maintain this action	0	3
Legal	Mason has the legal authority to implement this action.	0	2
Economic (including direct cost)	This action falls under Mason's existing Emergency Management budget and does not impose any additional costs to the town.	0	2
Environmental	There are no environmental impacts associated with this action.	0	0
Subtotal		0	16
Total			16
Priority			3

Mitigation Action: Work with Eversource to upgrade all existing overhead utility lines (adjust pole sizes, utility pole span, widths, and/or line strength) to provide uninterrupted power after severe winds.			
Criteria	Evaluation	Cost	Benefit
Social	This action would not unfairly affect any segment of the population or disrupt established neighborhoods. It is compatible with community values that understand trees need to be trimmed for road maintenance and public safety.	0	3
Technical	This action would be effective in avoiding or reducing future losses. It is very likely that a severe winter storm or severe wind event will occur and impact power lines. It would not create more problems than it solves, and it solves the problem rather than only symptoms.	0	3
Administrative (including responsible party)	Mason has the capacity to implement this action. The Mason Highway Department and Eversource would be the responsible parties.	0	3
Political	There is political support for this action.	0	3
Legal	The town does not have authority to perform work on powerline infrastructure, much of this action will fall under the responsibility of Eversource.	0	1
Economic (including direct cost)	Some costs associated with this action would be borne by Eversource. The remaining costs would be borne by the town through increased supply. The benefits of a more resilient electrical infrastructure far outweigh the costs of this action.	-2	3
Environmental	This action would not have an impact on the environment.	0	0
Subtotal		-2	16
Total			14
Priority			4

Mitigation Action: Incorporate flood mitigation into local planning. Revise/adopt regulations to improve floodplain management in Mason. Update or strengthen floodplain development ordinances to reflect increased flood risk under climate change, such as prohibiting or limiting floodplain development, limiting the percentage of impervious surface allowed, prohibiting fill, and creating a stream buffer ordinance. Incorporate updated floodplains for the Squanacook River and Nissitissit River-Nashua-River Watersheds into municipal planning activities when they become available.

Criteria	Evaluation	Cost	Benefit
Social	There are no social impacts associated with this action. Enforcement would apply evenly across all applicable buildings, including new construction, major renovations, and changes of use.	0	2
Technical	This action is effective at avoiding and reducing future losses and it mitigates the impacts of these hazards.	0	3
Administrative (including responsible party)	Mason has the capability to implement this action. Responsibility would fall under the Mason Planning Board and the Mason Building Inspector.	0	2
Political	There is public support for this action. Concerns may exist among some property owners who would be directly impacted.	0	1
Legal	There are no legal issues related to this action.	0	2
Economic (including direct cost)	It would cost roughly \$5,000 to update ordinances and regulations. However, this expenditure would simultaneously accomplish a number of similar mitigation actions.	-1	2
Environmental	This action has the potential to reduce property damage and subsequent environmental impacts.	0	2
Subtotal		-1	14
Total			13
Priority			5

Mitigation Action: Review and update Building Codes, Floodplain Ordinance, and Zoning Regulations. Proactively enforce the International Building Code (IBC) and International Residential Code (IRC) to protect buildings and infrastructure from the impacts of earthquake, flooding, severe wind, severe winter weather, and tornado.

Criteria	Evaluation	Cost	Benefit
Social	There are no social impacts associated with this action. Enforcement would apply evenly across all applicable buildings, including new construction, major renovations, and changes of use.	0	2
Technical	This action is effective at avoiding and reducing future losses and it mitigates the impacts of these hazards.	0	3
Administrative (including responsible party)	Mason has the capability to implement this action. Responsibility would fall under the Mason Planning Department and Inspectional Services department.	0	2
Political	There is public support for this action. Concerns may exist among some property owners who would be directly impacted.	0	1
Legal	There are no legal issues related to this action.	0	2
Economic (including direct cost)	It would cost roughly \$10,000 to update ordinances, regulations, and the Master Plan. However, this expenditure would simultaneously accomplish a number of similar mitigation actions.	-3	3
Environmental	This action has the potential to reduce property damage and subsequent environmental impacts.	0	2
Subtotal		-3	15
Total			12
Priority			6

Mitigation Action: Monitor water supply and drought conditions. Utilize NH Division of Forest and Lands reports and consult the New Hampshire Drought Management Team (DMT) and the State Drought Management Plan to monitor drought indicators.			
Criteria	Evaluation	Cost	Benefit
Social	This action has the potential to reduce property damage and subsequent environmental impacts.	0	2
Technical	This action helps to solve symptoms of drought by making emergency response personnel and residents aware of current conditions. Monitoring alone has limited ability to reduce future loss—additional action is needed.	-2	2
Administrative (including responsible party)	The Mason Fire Department is responsible for monitoring water supply and drought conditions.	0	3
Political	There is public and political support for this action.	0	2
Legal	Mason has the legal authority to implement this action.	0	2
Economic (including direct cost)	Monitoring costs are covered under the existing Fire Department budget.	-1	2
Environmental	This action has a positive impact on the environment by providing the data needed to promote water conservation.	0	1
Subtotal		-3	14
Total			11
Priority			7

Mitigation Action: Create municipal infectious disease standard operating guidelines and local distribution plan.			
Criteria	Evaluation	Cost	Benefit
Social	This action would not unfairly affect any segment of the population, disrupt established neighborhoods, or adversely affect cultural resources.	0	2
Technical	This action would help to avoid or reduce future losses. It has more potential to solve symptoms related to infectious disease than the underlying problem itself. It would not create additional problems or cause secondary impacts.	0	2
Administrative (including responsible party)	Mason has the capability to implement this action. The Mason Emergency Management Director would be responsible for it.	0	1
Political	There is public support to implement and maintain this action, especially since the recent Covid-19 pandemic. The political leadership is also willing to support it.	0	2
Legal	Mason has the legal authority to implement this action.	0	2
Economic (including direct cost)	This action is consistent with normal town operations and does not impose additional economic costs.	0	1
Environmental	This action will not impact the environment.	0	0
Subtotal		0	10
Total			10
Priority			8

Mitigation Action: Participate in NFIP training offered by the State and/or FEMA (or in other training) that addresses the NFIP following a major storm event.			
Criteria	Evaluation	Cost	Benefit
Social	This action would not unfairly affect any segment of the population, disrupt established neighborhoods, or adversely affect cultural resources.	0	2
Technical	This action would help to avoid or reduce future losses. It has more potential to solve symptoms related to flooding than the underlying problem itself. It would not create additional problems or cause secondary impacts. Given that flooding is relatively rare in Mason, this action would likely have minimal impact	0	1
Administrative (including responsible party)	The Land Use Boards and Building Inspector would participate in this training.	0	1
Political	There is political support to implement this action.	0	1
Legal	Mason has the legal authority to implement this action.	0	2
Economic (including direct cost)	This action is consistent with normal town operations and does not impose additional economic costs. The cost for the Building Inspector or Land Use board members to attend this training would come out of the existing operating budget.	0	1
Environmental	This action has the potential to reduce property damage and subsequent environmental impacts.	0	1
Subtotal		0	9
Total			9
Priority			9

Mitigation Action: Develop new and upgrade existing rural water delivery and fire suppression systems to eliminate breaks and leaks.			
Criteria	Evaluation	Cost	Benefit
Social	This action would not unfairly affect any segment of the population.	0	1
Technical	This action would help to reduce future losses	0	1
Administrative (including responsible party)	Mason has the ability to implement this action. The Mason Fire Department is the responsible party.	0	1
Political	There is public support for this action.	0	1
Legal	Mason has the legal authority to implement this action.	0	1
Economic (including direct cost)	This action is consistent with normal town operations and will come out of the Fire Department budget line of the Mason Operating Budget. In new developments, the developer will be responsible for funding these systems.	0	2
Environmental	The benefits of reduced fire-fighting costs and potential decrease in property damage could exceed the costs of implementing this action. At the same time, large scale wildfires are relatively rare in Mason and therefore the costs of implementing this action may outweigh the benefits.	-1	2
Subtotal		-1	9
Total			8
Priority			10

Mitigation Action: Join the “Firewise Communities/USA” recognition program sponsored by the National Wildlife Coordinating Group (firewise.org).			
Criteria	Evaluation	Cost	Benefit
Social	This action does not unfairly impact any segment of the population, and it is compatible with present and future community values. It is most valuable to portions of town near wooded areas.	0	1
Technical	This action helps to avoid or reduce future losses. It has the potential to solve the underlying problem of wildfire by removing vulnerabilities. It will not create additional problems or cause secondary impacts.	0	2
Administrative (including responsible party)	Mason has the capability to implement this action.	0	1
Political	There is public and political support for this action.	0	1
Legal	Mason has the legal authority to implement this action.	0	1
Economic (including direct cost)	The benefits of reduced fire-fighting costs and potential decrease in property damage could exceed the costs of implementing this action. At the same time, large scale wildfires are relatively rare in Mason and therefore the costs of implementing this action may outweigh the benefits.	0	1
Environmental	Fire is a natural part of the ecosystem and suppressing it may have negative consequences. On the other hand, large-scale, man-made fires can have a detrimental impact on the environment.	0	0
Subtotal		0	7
Total			7
Priority			11

Mitigation Action: Design a “natural runoff” or “zero discharge” policy for stormwater in subdivision design to improve floodplain management in Mason.			
Criteria	Evaluation	Cost	Benefit
Social	This action would not unfairly affect any segment of the population, disrupt established neighborhoods, or adversely affect cultural resources.	0	1
Technical	This action could help avoid or reduce flooding losses. It would not create additional problems or cause secondary impacts.	0	1
Administrative (including responsible party)	Mason has the capability to implement this action. The Mason Planning Board would have the responsibility of implementing it.	0	1
Political	There is public support for this action, however subdividers or developers could be resistant the additional cost of stormwater design.	-1	1
Legal	Mason has the legal authority to implement this action.	0	1
Economic (including direct cost)	This action will be funded by subdivision applicants and developers. There are \$0 in additional costs to the town.	0	1
Environmental	This action would positively impact the environment by improving drainage.	0	1
Subtotal		-1	7
Total			6
Priority			12

Mitigation Action: Protect critical facilities and equipment from lightning damage. Install lightning protection devices and methods, such as lightning rods and grounding, on communications infrastructure and other critical facilities.			
Criteria	Evaluation	Cost	Benefit
Social	This action would not unfairly affect any segment of the population, disrupt established neighborhoods, or adversely affect cultural resources.	0	1
Technical	This action is effective in avoiding or reducing future losses. It would not create more problems than it solves. It would reduce the inconvenience from a shutdown of critical facilities resulting from power outages. However, incidents related to lightning are very rare in Mason.	-1	2
Administrative (including responsible party)	Mason has the capacity to implement this action. Each critical facility department head is responsible for implementing the installation of lightning protection devices.	0	1
Political	There is political support to implement and maintain this action.	0	1
Legal	Mason has the authority to implement this action.	0	1
Economic (including direct cost)	The cost of \$1,000-\$5,000 per critical facility for lightning protection devices would come out of the Mason Operating Budget, General Government Buildings appropriation. The cost of taking this action is less than the potential costs of damage to critical electronics and facilities.	-1	2
Environmental	This action would not impact the environment.	0	0
Subtotal		-2	8
Total			6
Priority			13

Section 4.3. Implementing and Administering Mitigation Actions

The Town of Mason has integrated its 2025 Hazard Mitigation Plan into a variety of other planning mechanisms, including the Town of Mason Proposed Budget. In addition, the Town of Mason has incorporated and will continue to integrate requirements of the Mason Hazard Mitigation Plan Update 2025 into other planning mechanisms and actions, such as upcoming master plan and regulatory updates.

The Mason Hazard Mitigation Team will be responsible for helping Town boards and departments to integrate the Hazard Mitigation Plan into their own planning mechanisms. The Hazard Mitigation Team developed Table 12, which is an action plan that outlines who is responsible for implementing the prioritized mitigation actions, how they will be funded, and when they will be completed.

Timeframe	
Short Term	1 year or less
Medium Term	2 -3 years
Long Term	4-5 years

Table 12—Implementation and Administration

Priority	Mitigation Action	Responsible Party	Cost & Funding	Timeframe
1	Finish replacing culverts on Starch Mill/Abbott Hill Road, Wilton Road, Russell Road, and Briggs Road. Replace and upgrade old undersized culverts to provide adequate capacity.	Road Agent/Highway Department	Cost = \$0 in additional costs. Percentage of the existing Highway Town Maintenance Budget Funding Source: Mason Operating Budget, potential grants	Long Term
2	Retrofit all public municipal buildings to withstand snow loads and prevent roof collapse. Update all emergency infrastructure during retrofit such as generators and radios.	Board of Selectmen, Emergency Management Director	Cost = Estimate to update an emergency generator for \$8,302. Emergency Infrastructure updates will cause additional costs. Building updates will be a part of the Mason Operating Budget.	Medium Term

Priority	Mitigation Action	Responsible Party	Cost & Funding	Timeframe
			Funding Source: Mason Operating Budget, potential grants	
3	Protect vulnerable populations from the impacts of extreme temperatures by establishing cooling and warming stations at community centers. Develop targeted outreach methods, including notifying occupants of senior housing facilities.	Emergency Management Director	Cost = \$0 in additional costs. This action falls under Mason's existing Emergency Management budget funding Source: Mason Operating Budget Funding Source: Mason Operating Budget	Long Term
4	Work with Eversource to upgrade all existing overhead utility lines (adjust pole sizes, utility pole span, widths, and/or line strength) to provide uninterrupted power after severe winds.	Road Agent/Highway Department	\$0 in additional costs, this is under Eversource's jurisdiction.	Long Term
5	Incorporate flood mitigation into local planning. Revise/adopt regulations to improve floodplain management in Mason. Update or strengthen floodplain development ordinances to reflect increased flood risk under climate change, such as prohibiting or limiting floodplain development, limiting the percentage of impervious surface allowed, prohibiting fill, and creating a stream buffer ordinance. Incorporate updated floodplains for the Squanacook River and Nissitissit River-Nashua-River Watersheds into municipal planning activities when they become available.	Planning Board	Cost = \$0 in additional costs. Percentage of existing Planning & Zoning Budget. However, there are potential economic costs associated with limiting where development can go. Funding Source: Mason Operating Budget	Long Term
6	Review and update Building Codes, Floodplain Ordinance, and Zoning Regulations. Proactively enforce the International Building Code (IBC) and International Residential	Building Inspector	Cost = \$0 additional costs. Percentage of the existing Building Inspection budget.	Short Term

Priority	Mitigation Action	Responsible Party	Cost & Funding	Timeframe
	Code (IRC) to protect buildings and infrastructure from the impacts of earthquake, flooding, severe wind, severe winter weather, and tornado.		Funding Source: Mason Operating Budget	
7	Monitor water supply and drought conditions. Utilize NH Division of Forest and Lands reports and consult the New Hampshire Drought Management Team (DMT) and the State Drought Management Plan to monitor drought indicators.	Fire Department	Cost = \$0 in additional costs. Part of existing Fire Department budget Funding Source: Mason Operating Budget	Short Term
8	Create municipal infectious disease standard operating guidelines and local distribution plan.	Emergency Management Director	Cost = \$0 in additional costs. Part of Existing Emergency Management budget. Funding Source: Mason Operating Budget	Short Term
9	Participate in NFIP training offered by the State and/or FEMA (or in other training) that addresses the NFIP following a major storm event.	Building Inspector, Planning Board	Cost = \$0 in additional costs. Percentage of existing Planning and Building Inspection budget items Funding Source: Mason Operating Budget	Short Term
10	Develop new and upgrade existing rural water delivery and fire suppression systems to eliminate breaks and leaks.	Fire Department	Cost = \$0 in additional costs. Part of existing infrastructure maintenance budgets. New development costs will be passed on to developers. Funding Source: Mason Operating Budget, private developers	Long Term

Priority	Mitigation Action	Responsible Party	Cost & Funding	Timeframe
11	Join the “Firewise Communities/USA” recognition program sponsored by the National Wildlife Coordinating Group (firewise.org).	Fire Department	Cost = \$0 in additional costs. Percentage of existing Fire Department budget Funding Source: Mason Operating Budget	Medium Term
12	Design a “natural runoff” or “zero discharge” policy for stormwater in subdivision design to improve floodplain management in Mason.	Planning Board	Cost = \$0 in additional costs. Part of existing Planning & Zoning budget. Funding Source: Mason Operating Budget	Medium Term
13	Protect critical facilities and equipment from lightning damage. Install lightning protection devices and methods, such as lightning rods and grounding, on communications infrastructure and other critical facilities.	Each Critical Facility Department Head	Cost = \$1,000-\$5,000 per critical facility for lightning protection devices Funding Source: Mason Operating Budget, Gen. Gov. Buildings budget item	

CHAPTER 5. PLAN ADOPTION

Section 5.1. Formal Adoption by Governing Body

CERTIFICATE OF ADOPTION

TOWN OF MASON, NH BOARD OF SELECMEN

A RESOLUTION ADOPTING THE TOWN OF MASON, NH HAZARD MITIGATION PLAN UPDATE 2025

WHEREAS, the Town of Mason has historically experienced damage from natural hazards and it continues to be vulnerable to the effects of drought, earthquake, extreme temperatures, flooding, severe wind, lightning, severe winter weather, tornado, and wildfire, resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Town of Mason has developed and received Approval Pending Adoption from the NH Homeland Security Emergency Management (HSEM) for its Hazard Mitigation Plan Update 2025 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held between February 18, 2025 and April 2, 2025 regarding the development and review of the Hazard Mitigation Plan Update 2025; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedures for the Town of Mason; and

WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Mason, 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 Mason eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by the Mason Board of Selectmen:

1. The Plan is hereby adopted as an official plan of the Town of Mason.
2. The respective officials identified in the mitigation strategy of the Plan are hereby directed to pursue implementation of the recommended actions assigned to them.
3. An annual report on the progress of the implementation elements of the Plan shall be presented to the Board of Selectmen by the Mason Hazard Mitigation Team.

Adopted on this day, the 12th of August, 2025.

Kate Batcheller

Kate Batcheller, Chair, Mason Select Board

CM

Charles Moser, Mason Select Board

Rob Doyle

Rob Doyle, Mason Select Board

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of the Town of Mason the 12th of August, 2025.

Janifer Tenny

Witness

Section 5.2. FEMA Approval Letter



FEMA

August 19, 2025

Robert M. Buxton, Director
New Hampshire Homeland Security and Emergency Management
33 Hazen Dr.
Concord, NH 03305

Director Buxton:

The U.S. Department of Homeland Security, Federal Emergency Management Agency (FEMA) Region 1 Mitigation Division has approved the *Town of Mason, New Hampshire Hazard Mitigation Plan Update 2025* effective **August 19, 2025** through **August 18, 2030** in accordance with the planning requirements of the Robert T. Stafford Relief and Emergency Assistance Act (Stafford Act), as amended; the National Flood Insurance Act of 1968, as amended; the National Dam Safety Program Act, as amended; and Title 44 Code of Federal Regulations (CFR) Part 201.

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

With this plan approval, the Town of Mason, NH 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 eligibility requirements for FEMA funding; even eligible mitigation activities or projects are not automatically approved.

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

Robert M. Buxton, Director
Page 2

Thank you for your continued commitment and dedication to risk reduction demonstrated by preparing and adopting a strategy for reducing disaster losses. Should you have any questions, please contact Jay Neiderbach at (202) 285-7769 or josiah.neiderbach@fema.dhs.gov.

Sincerely,

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

cc: Austin Brown, Mitigation & Recovery Section Chief, NH HSEM
Lynne Doyle, State Planner, NH HSEM
Richard Verville, Mitigation Division Director, DHS, FEMA Region 1
Josiah (Jay) Neiderbach, Hazard Mitigation Community Planner, DHS, FEMA Region 1

Town of Mason, New Hampshire

Hazard Mitigation Plan Update 2025

Appendix

Hazard Mitigation Team Meeting Agendas & Sign-in Sheets

Notification Letter

Hazard Mitigation Plan Update Website Screen Shot

Hazard Mitigation Team Meeting Agendas & Sign-in Sheets



**Mason Hazard Mitigation Plan Update 2025
Meeting 1 (Rescheduled)
February 18, 2025 | 5:30pm | Mason Police Department**

Agenda

1. Review the planning process.
2. Determine who to notify about the planning process.
 - a. Underserved and vulnerable populations
3. Determine how to involve members of the public in the planning process.
4. Determine what existing plans, documents, and reports to review and incorporate into the update.
5. Determine changes in development and land use since the last plan that impact vulnerability to hazards. This includes development in neighboring towns that could also impact your town's vulnerability to hazards.
6. Determine Mason's existing capabilities in the following areas and its ability to expand and improve on these:
 - a. Planning and Regulatory Authority
 - b. Emergency Management
 - c. Floodplain Management
 - d. Administrative and Technical
 - e. Fiscal
7. Set next meeting date.

-meeting

Mason Hazard Mitigation Meeting ~ February 18, 2025

[illegible]



**Mason Hazard Mitigation Plan Update 2025
Meeting 2
March 6, 2025 | 5:30pm | Mason Police Department**

Agenda

1. Table 3—Natural Hazards in Jurisdiction
2. Previous Occurrences of Hazards
3. Table 4—Probability of Future Hazard Events
4. Table 5—Critical Facilities and their Vulnerabilities
5. Section 3.5—Vulnerability by Hazard
6. Set next meeting date

Mason Hazard Mitigation Meeting - March 6, 2025

Name	Title	Agency	Email
Dave Morrison	ROAD AGENT	MASON HIGHWAY	roadagent@masonnh.us
Audie Skorupag	Member	Maso Planning Board	
Dotsie Millbrandt	Moderator	Elections	dotsie24@gmail.com
Eric Rantamaki	Fire Chief	Fire Dept.	FireChief@masonnh.us
Zachary Portridge	Fire fighter	Fire Dept	
Kate Batcheller	Chair, Selectman	BOS	
Dan MacDonald	Consultant		domada@comcast.net
Rick Todd	Comm. Director	Hollis Comm Ctr.	RTodd@HOLLISNH.ORG
KEVIN MAXWELL	EMD/POLICE CHIEF	MASON P.D.	Kmaxwell@masonpolice.org



**Mason Hazard Mitigation Plan Update 2025
Meeting 3
March 20, 2025 | 5:30pm | Mason Police Department**

Agenda

1. Complete Table 1—Status of Previous Actions (Section 2.2)
2. Select at least 2 NFIP mitigation actions (Section 3.7 and 4.2)
3. Select at least 1 mitigation action per hazard (Section 4.2)
4. Set next meeting date

meeting 3

Mason Hazard Mitigation Meeting - March 20, 2025

[illegible]



**Mason Hazard Mitigation Plan Update 2025
Meeting 4
April 2, 2025 | 5:30pm | Mason Police Department**

Agenda

1. Complete Table 11—STAPLEE Analysis
2. Determine how elements of Hazard Mitigation Plan will be incorporated into other planning documents and initiatives (*Section 4.3*)
3. Determine method and schedule for keeping plan current after update (*Section 1.6*)
4. Determine how public will continue being involved in plan maintenance (*Section 1.6*)

meeting 4

Mason Hazard Mitigation Meeting - April 2, 2025

Name	Title	Agency	Email
CHIEF KEVIN MAXWELL	CHIEF	M.P.D.	
Dave Morrison	Road Agent	Mason Highway	
Dotsie Milkbrandt	Moderator	Elections	
Jacob Olson	Building Inspector	Building Dept.	
Anije Skorupen	Planning Board		
ERIC RANTAMAKI	Fire Chief	Mason Fire	
Dan MacDonald	Consultant	New Boston	
Kate Batchelle	Selectman, Chair	Town of Mason	

Notification Letter



February 26, 2025

Mason, NH Hazard Mitigation Plan Update

The Town of Mason, in conjunction with the Nashua Regional Planning Commission, is in the process of updating its Hazard Mitigation Plan. We strongly encourage all residents, members of the business community, and other interested individuals to participate in the update process.

The Mason Hazard Mitigation Plan Update will examine changes in development and mitigation priorities that have occurred since the 2018 Plan. It will also address natural hazards in the Town, previous occurrences of these hazards, the probability of future hazard events, and the vulnerability of Mason's critical facilities to these hazards. The Plan will conclude by identifying and prioritizing mitigation actions to reduce Mason's vulnerability to natural hazards.

You can stay informed by visiting the Mason Hazard Mitigation Plan Update website at https://nashuarpc.org/about_nrpc/our_region_communities/mason_hazard_mitigation_plan_update_2025.php. The webpage will be updated throughout the planning process and includes meeting times, locations, agendas, and updated documents. For additional information or to participate in the Plan update, please contact me at cassiec@nashuarpc.org or (603) 417-6570 x6567.

All the best,
NASHUA REGIONAL PLANNING COMMISSION

A handwritten signature in blue ink that reads "Cassie Cashin".

Cassie Cashin
Regional Planner III
(603) 417-6570 x6567
cassiec@nashuarpc.org



Hazard Mitigation Plan Update Website Screen Shot



Update 2025

PAGE MENU

- Amherst
- Brookline
- Hollis
- Hudson
- Litchfield
- Lyndeborough
- Mason
- Merrimack
- Milford
- Mont Vernon
- Nashua
- Pelham
- Wilton

HOME > ABOUT NRPC > OUR REGION & COMMUNITIES > MASON HAZARD MITIGATION PLAN UPDATE 2025

The Town of Mason, in conjunction with the Nashua Regional Planning Commission, is in the process of updating its Hazard Mitigation Plan. We strongly encourage all residents, members of the business community, and other interested individuals to participate in the update process.

The Mason Hazard Mitigation Plan Update will examine changes in development and mitigation priorities that have occurred since the 2018 Plan. It will also address natural hazards in the Town, previous occurrences of these hazards, the probability of future hazard events, and the vulnerability of Mason's critical facilities to these hazards. The Plan will conclude by identifying and prioritizing mitigation actions to reduce Mason's vulnerability to natural hazards. The webpage will be updated throughout the planning process and includes meeting times, locations, agendas, and updated documents.

For additional information or to participate in the Plan update, please contact Cassie Cashin at cassiec@nashuarpc.org or (603) 417-6570 x6567.

Hazard Mitigation Team Members

Name	Title/Department
Kevin Maxwell	Police Department Chief and Emergency Management Director
Dan MacDonald	Emergency Management Advisor
Eric Rantamaki	Fire Department, Chief
Dave Morrison	Highway Department, Road Agent
Kate Batcheller	Board of Selectmen, Chair
Dotsie Millbrandt	Zoning Board of Adjustment, Member
Antje Skorupan	Planning Board, Member
Jacob Olsen	Building Inspector

Hazard Mitigation Plan Update Meetings

Meeting 1

Tuesday February 18, 2025 | 5:30pm | Mason Police Department (38 Darling Hill Road, Mason, NH 03048)

[Agenda](#)

Task 1: planning process, identifying resources

Meeting 2

Thursday March 6, 2025 | 5:30pm | Mason Police Department (38 Darling Hill Road, Mason, NH 03048)

[Agenda](#)

Task 2: natural hazards, previous occurrences of hazards, probability of future hazards, critical facilities, vulnerabilities by hazard

Meeting 3

Thursday March 20, 2025 | 5:30pm | Mason Police Department (38 Darling Hill Road, Mason, NH 03048)

[Agenda](#)

Task 3: status of previous mitigation actions, new mitigation actions

Meeting 4

Wednesday April 2, 2025 | 5:30pm | Mason Police Department (38 Darling Hill Road, Mason, NH 03048)

[Agenda](#)

Task 4: prioritize mitigation actions, implementation schedule