Town of Newington, NH

Hazard Mitigation Plan Update 2025

Adopted by the

Newington Board of Selectmen

December 17, 2024

Prepared with the Assistance of the

ROCKINGHAM PLANNING COMMISSION
theRPC.org

This project was partially funded by

NH Homeland Security and Emergency Management

CERTIFICATE OF ADOPTION

WHEREAS, the Town of Newington received funding from the NH Office of Homeland Security and Emergency Management under a Pre-Disaster Mitigation Grant and assistance from Rockingham Planning Commission in the preparation of the Newington Hazard Mitigation Plan Update 2024; and

WHEREAS, several public planning meetings were held between May 2023 and May 2024 regarding the development and review of the Newington Hazard Mitigation Plan Update 2024; and

WHEREAS, the Newington Hazard Mitigation Plan Update 2024 contains several potential future projects to mitigate hazard damage in the Town of Newington; and

WHEREAS, a duly noticed public meeting was held by the Newington Board of Selectmen on December 17, 2024 to formally approve and adopt the Newington Hazard Mitigation Plan Update 2024.

NOW, THEREFORE BE IT RESOLVED by the Newington Board of Selectmen that:

- The Plan is hereby adopted as the official plan of the Town of Newington:
- The respective individuals identified in the mitigation strategy of the Plan are hereby directed to pursue implementation of the recommended actions assigned to them;
- Future revisions and Plan maintenance required by 44 CFR 201.6 and FEMA are hereby adopted as part of this resolution for a period of five (5) years from the date of this resolution;
- An annual report of the progress of the implementation elements of the Plan shall be presented to the Board of Selectmen by the Town's Emergency Management Directors.

NOW, THEREFORE BE IT RESOLVED that the Newington Board of Selectmen adopts the Newington Hazard Mitigation Plan Update 2024.

IN WITNESS THEREOF, the undersigned have affixed their signatures and the corporate seal of the Town of Newington on this 17th day of December.

_____ Chair, Board of Selectmen
Brandon Arsenault

_____ Selectman
Christian Wayss

_____ Selectman
Robert Blonigen

ATTEST:

Justice of the Peace

OFFICIAL SEAL
MARTHA S. ROY
JUSTICE OF THE PEACE
STATE OF NEW HAMPSHIRE
My Comm. Expires May 15, 2029

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ACKNOWLEDGMENTS

The Newington Board of Selectmen extends special thanks to those that assisted in the development of this Plan Update by serving as member of Natural Hazards Mitigation Committee:

Michael Bilodeau, Co-Emergency Management Director and Chief, Police Department, Town of Newington
Jeremy Boston, Buildings, Safety and Health Officer, Town of Newington
Frank Burovac, Highway Department, Town of Newington
Taylor Fiore, Administrator, Police Department, Town of Newington
EJ Hoyt, Co-Emergency Management Director and Chief, Fire Department, Town of Newington
John Krebs, Town Planner, Town of Newington
Pete Latchaw, Principal, Newington Elementary School
Martha Roy, Town Administrator, Town of Newington
Leonard Thomas, Road Agent, Town of Newington

Appendix O lists additional people that participated in the Plan Update process.

The Newington Board of Selectmen offers thanks to the NHHSEM which provided funding and assistance with the development of this Plan Update.

In addition, thanks are extended to the staff of the Rockingham Planning Commission for professional services, process facilitation and preparation of this document.

EXECUTIVE SUMMARY

The Newington Hazard Mitigation Plan Update 2025 (herein after, the Plan) was compiled to assist the Town of Newington in reducing and mitigating future losses from natural hazard events. The Plan was developed by the Rockingham Planning Commission and the Town of Newington Hazard Mitigation Committee and contains the tools necessary to identify specific natural hazards, assess existing hazard mitigation efforts, and recommend future hazard mitigation actions.

The following natural hazards are addressed:

- Flooding, including Sea Level Rise, Coastal Storm Surge, and Extreme Precipitation Events
- Hurricane and High Wind Event
- Severe Winter Weather
- Earthquake
- Drought
- Wildfire
- Extreme Temperatures
- Climate Change
- Infectious Disease

The list of critical facilities includes:

- Municipal facilities
- Communication facilities
- Schools
- Shelters
- Medical and commerical businesses with services and supplies
- Evacuation routes
- Vulnerable Populations

The Newington Hazard Mitigation Plan Update 2025 is considered a work in progress and should be revisited after every natural hazard event by Town department heads to assess whether the existing and suggested mitigation strategies are successful. Copies have been distributed to the Town Hall and the Emergency Operations Center. A copy of the Plan is also on file at The Rockingham Planning Commission, New Hampshire Homeland Security and Emergency Management (NHHSEM) and the Federal Emergency Management Agency (FEMA). This Document was approved by both agencies prior to adoption at the local level.

CHAPTER I – INTRODUCTION

Background

The New Hampshire Homeland Security and Emergency Management (NHHSEM) has a goal for all communities within the State of New Hampshire to establish local hazard mitigation plans to reduce and mitigate future losses from natural hazard events. The NHHSEM outlines a process whereby communities throughout the State may be eligible for grants and other assistance upon completion of a local hazard mitigation plan. A handbook entitled *Hazard Mitigation Planning for New Hampshire Communities* was created by NHHSEM to assist communities in developing local plans. The State's Regional Planning Commissions are charged with providing assistance to selected communities to develop local plans.

The Newington Hazard Mitigation Plan Update 2025 was prepared by the Town of Newington Hazard Mitigation Committee with the assistance from the Rockingham Planning Commission under contract with the New Hampshire Homeland Security and Emergency Management operating under the guidance of Section 44 CFR 201.6. The Town's Hazard Mitigation Committee included representatives from all town departments and the school. Local businesses and organizations assisting socially vulnerable and underserved members of the community were also invited to participate in the Plan Update. The Plan serves as a strategic planning tool for use by the Town of Newington in its efforts to identify and mitigate the future impacts of natural hazard events.

Plan Update Methodology

The Rockingham Planning Commission (RPC) organized the first meeting with emergency management officials from the Town of Newington on May 4, 2023, to begin the initial planning stages of the Plan Update. This meeting precipitated the development of the Natural Hazards Mitigation Committee (herein after, the Committee). RPC and participants from the Town developed the content of the Plan using the ten-step process set forth in the Hazard Mitigation Planning for New Hampshire Communities. The following is a summary of the ten-step process conducted to compile the Plan. Publicly noticed work session meetings were also held on May 4, 2023, June 8, 2023, July 24, 2023, and November 29, 2023. All work session meetings were open to the public, but members of the public did not attend any of the meetings. The Board of Selectmen held a duly noticed public hearing on the draft Plan Update on May 20, 2024. Members of the public attended the meeting but did not request changes to the draft Plan. The Selectmen initiated a 30-day public comment period at the May 20, 2024, meeting. The Town of Newington's Co-Emergency Management Directors and staff from the Rockingham Planning Commission solicited input on the Plan from local officials, agencies supporting socially disadvantaged community members and vulnerable populations, local businesses, abutting municipalities, and residents throughout the Plan development process. Documentation of meeting agendas and meeting attendance is in Appendix O.

The Town's 2019 Plan served as the starting point for discussion on hazards impacting the Town, as well as discussions on mitigation strategies. The 2019 Plan served as a reference for local land use regulations and policies, development of the Town's Capital Improvement Plan and department budgets, and has been referenced in several reports, including the RPC's 2015

Regional Master Plan and a Vulnerability Assessment completed for Newington by the Rockingham Planning Commission in 2017.

Step 1- Form the Committee

The Co-Emergency Management Directors invited Department Heads from all the Town's departments and committees to participate in the Plan Update process, as well as staff from the school. As a result, the Plan Update Committee included the Town's Co-Emergency Management Directors (Fire Chief and Police Chief), Town Administrator, Police Department Detective, Road Agent, Building Inspector, Health Officer, Town Planner, and School Principal.

Step 2 – Public Outreach and Stakeholder Involvement

RPC staff worked with the Newington Town Administrator and Co-Emergency Management Directors to coordinate public outreach about the Plan Update process to residents, local businesses, academia, organizations supporting socially vulnerable populations, and Emergency Management Directors in the abutting municipalities of Portsmouth, NH, Greenland, NH, Dover, NH and Eliot, ME. All these stakeholders were invited to join Plan Update Committee meetings and were provided with an opportunity to comment on the Plan and contribute updated information.

Public notices about the Plan Update meetings were posted on the Town website and social media accounts to inform viewers and followers about meetings and opportunities to comment on the Plan. Notice about the Plan Update process was also posted on the Rockingham Planning Commission's website and published in the RPC's monthly newsletter. The newsletter is distributed to local officials in the 27-town RPC region. The Co-Emergency Management Directors sent emails to all local businesses directly seeking their input on the draft Plan Update. In addition, RPC staff met with staff from Southern NH Services and Seacoast Public Health Network to discuss the draft Plan Update and collect their ideas for mitigating the impacts of natural hazards on vulnerable populations.

All Plan Update meetings were open to the public. RPC staff facilitated the Plan Update Committee meetings, guided the plan update process, and prepared the Plan Update. Appendix O documents the individuals and organizations invited to participate in the Plan Update as well as the public outreach materials distributed by the Town of Newington and the Rockingham Planning Commission.

Step 3 – Identify Natural Hazards Impacting Newington

The Committee reviewed the list of natural hazards impacting Newington that were included in the 2019 Plan and added Climate Change and Infectious Disease to the list of hazards impacting the community.

Step 4 - Identify Critical Facilities and Areas of Concern

The Committee identified facilities and areas considered to be important to the Town for emergency management purposes, for provision of utilities and community services, evacuation

routes, and for recreational, historical, cultural, and social value. Participants in the Committee identified areas where damage from historic natural disasters have occurred and areas where critical man-made facilities and other features may be at risk in the future for loss of life, property damage, environmental pollution, and other risk factors. RPC generated a set of base maps wi) (Geographic Information Systems) that were used in the process of identifying past and future hazards.

Step 5 – Identify Existing Mitigation Strategies
After collecting detailed information on each critical facility in Newington, the Committee and RPC staff identified existing Town mitigation strategies relative to flooding, hurricane and wind events, severe winter weather, wildfire, earthquake, drought, extreme temperatures, climate change, and infectious disease. This process involved reviewing the Town's 2019 Hazard Mitigation Plan, the State of New Hampshire Hazard Mitigation Plan 2023 Update, the Town's Master Plan and Capital Improvements Program, Zoning Ordinance, Subdivision Regulations, Site Plan Review Regulations, Emergency Operations Plan, and the Town's participation in the National Flood Insurance Program (NFIP). Additional reports reviewed for this update included the 2017 Vulnerability Assessment, 2021 New Hampshire Climate Assessment, and 2024 NH Priority Climate Action Plan.

Step 6 – Identify the Gaps in Existing Mitigation Strategies
The existing strategies were then reviewed by the RPC and the Committee for coverage and effectiveness, degree of completion as well as the need for improvement.

Step 7 – Identify Potential Mitigation Strategies
A list of additional hazard mitigation actions and strategies for the Town of Newington was developed. The recently updated Hazard Mitigation Plans of Rye, Raymond, and Sandown were just a few towns that were utilized to identify new mitigation strategies as well as the town Master Plan and Zoning Ordinance, the town's 2017 Climate Vulnerability Assessment, and the state's 2021 Climate Assessment.

Step 8 – Develop the Action Plan
The proposed hazard mitigation actions and strategies were reviewed, and each strategy was rated (good, average, or poor) for its effectiveness according to several factors (*e.g.*, technical, and administrative applicability, political and social acceptability, legal authority, environmental impact, financial feasibility). Each factor was then scored, and all scores were totaled for each strategy. Strategies were ranked by overall score for preliminary prioritization then reviewed again under Step 9.

Step 9 - Determine Priorities
The preliminary prioritization list was reviewed by the Committee to make changes and determine a final prioritization for new hazard mitigation actions and improvements to existing protection strategies.

Step 10 - Develop Implementation Strategy

Using the chart provide in the handbook, an implementation strategy was created which included person(s) responsible for implementation (who), a timeline for completion (when), and a funding source and/or technical assistance source (how) for each identified hazard mitigation actions. Also, whenever the Master Plan or the Newington Capital Improvement Plan (CIP) are updated the Newington Hazard Mitigation Plan Update 2025 shall be consulted to determine if strategies or actions suggested in the Plan can be incorporated into the Town's future land use recommendations and capital expenditures.

Step 11 - Adopt and Monitor the Plan

RPC staff compiled the results of Steps 1 to 11 into a draft document. This draft Plan was reviewed by members of the Committee and by staff members at the RPC. The draft Plan was also placed on the Town of Newington website for review by the public. Stakeholders (listed in Appendix O) were emailed the draft Plan and invited to comment. Stakeholders included Emergency Management Directors in neighboring communities, local businesses, and agencies serving socially vulnerable and underrepresented communities. A duly noticed public meeting was held by the Newington Board of Selectmen on May 20, 2024. The meeting allowed all stakeholders to provide comments and suggestions for the Plan in person, prior to the document being finalized. After the meeting, the Selectmen instituted a 30-day comment period, ending on June 20, 2024. One comment was received from a resident concerning roadway flooding and the information they shared was added to the Plan. The draft Plan was revised to incorporate comments from the Selectmen and Town staff and then submitted to the NH HSEM and FEMA Region I for their review and comments. Any changes required by NH HSEM and FEMA were made and a revised draft document was then submitted to the Newington Board of Selectmen for their final review. A public meeting was then held by the Newington Board of Selectmen on December 17, 2024 to approve and adopt the Plan. The formal letter of approval from FEMA Region 1 can be found in the Appendix. The Town will post the approved Plan Update on the Town website to facilitate continued public participation in hazard mitigation activities.

To track progress and update the Mitigation Strategies identified in the Action Plan, the Hazard Mitigation Committee will remain active and will revisit the Plan annually and after each natural hazard event. These reviews will assess the Plan's effectiveness, accuracy, and completeness in achieving its stated purpose and goals. Plan reviews will also address the recommended improvements to the Plan as contained in the FEMA plan review checklist and any weaknesses the Town identified that the Plan did not adequately address. The Plan will also be thoroughly updated every five years.

Hazard Mitigation Goals and Objectives of the Town of Newington, New Hampshire

The Town of Newington sets forth the following hazard mitigation goals and objectives:

- Reduce or avoid long-term vulnerabilities posed by natural hazards impacting Newington, including the impacts from flooding, hurricanes and high wind events, severe winter weather, wildfire and conflagration, earthquakes, drought, extreme temperatures, climate change, and infectious disease.

- Improve upon the protection of the Town of Newington's general population, the citizens of the State and guests, from all natural and man-made hazards.

- Reduce the potential impact of natural and man-made disasters on Newington and the State's Critical Support Services.

- Reduce the potential impact of natural and man-made disasters on Newington's Critical Facilities in the State.

- Reduce the potential impact of natural and man-made disaster on Newington's and the State's infrastructure.
- Improve Newington's Emergency Preparedness.
- Improve Newington's Disaster Response and Recovery Capability.
- Reduce the potential impact of natural and man-made disasters on private property in Newington.
- Reduce the potential impact of natural and man-made disasters on Newington's and the State's economy.
- Reduce the potential impact of natural and man-made disasters on Newington's and the State's natural environment.
- Reduce Newington's and the State's liability with respect to natural and man-made hazards generally.
- Reduce the potential impact of natural and man-made disasters on Newington's and the State's specific historic treasures and interests as well as other tangible and intangible characteristics that add to the quality of life to the citizens and guests of the State and the Town.
- Identify, introduce, and implement cost effective Hazard Mitigation measures so as to accomplish Newington's and the States' goals and objectives in order to raise the awareness and acceptance of hazard mitigation planning.

Through the adoption of this Plan the Town of Newington concurs and adopts these goals and objectives.

CHAPTER II – COMMUNITY PROFILE

The Town of Newington is in Rockingham County, New Hampshire. The 2020 US Census population was 811. The median age of Newington residents was 52 years, and the median household income was $145,987, significantly higher than the statewide median household income of $88,235. The population density was 100 people per square mile of land area. Newington is bound to the west by Great Bay, northwest by Little Bay, and northeast by the Piscataqua River, and is home to the Great Bay National Wildlife Refuge, Portsmouth International Airport at Pease, and the NH National Guard. The town is home to numerous industrial operations accessing the tidal Piscataqua River as well as large malls and retail centers. The town encompasses 12.5 square miles of which 8.2 square miles is land and 4.2 square miles is water. The highest elevation in town is 130 feet above sea level, near the Newington Cemetery.

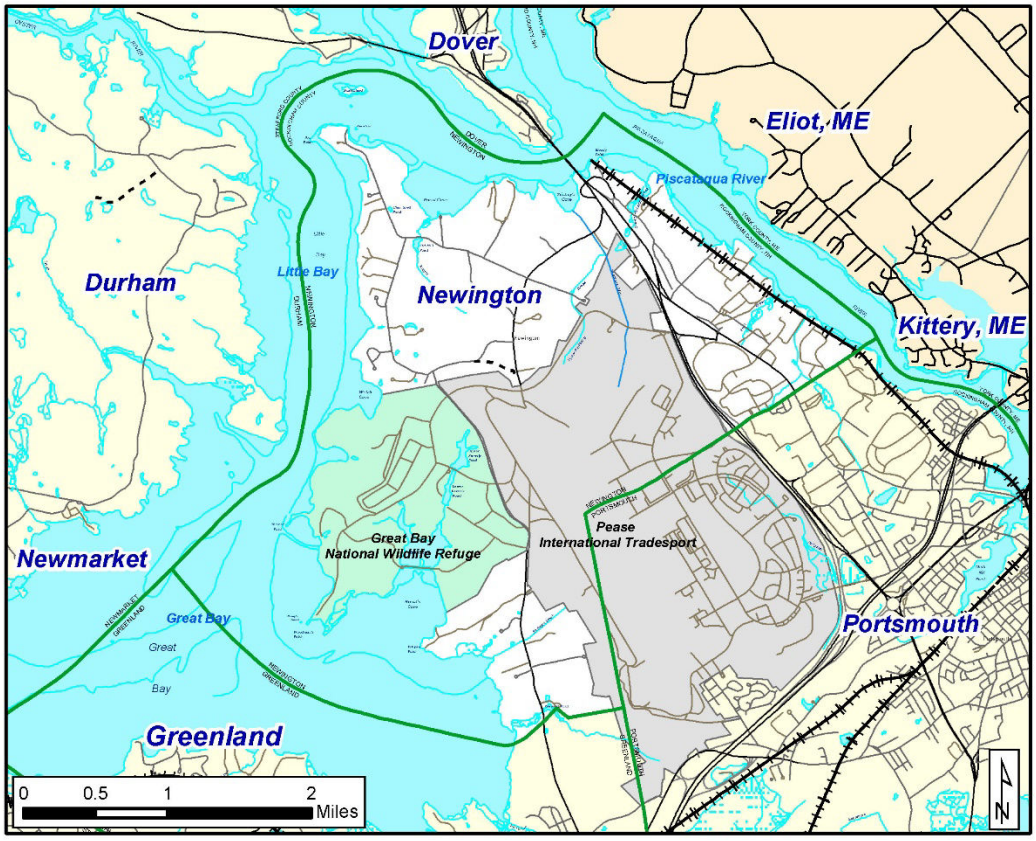


Figure 1: Location Map of Newington, New Hampshire

Natural Features

Newington lies within the Piscataqua Region coastal watershed. Floodplains for this Plan are defined as the 100-year and 500-year flood hazard zones, as depicted on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM). Newington maintains participation in the National Flood Insurance Program administered by FEMA. Development should be located away from wetlands and floodplains whenever possible. The filling of wetlands for building construction not only destroys wetlands and their numerous benefits but may also lead to groundwater contamination. Building within a flood zone may also reduce the floodplain's capacity to absorb and retain water during periods of excessive precipitation and runoff as well as coastal storm surge and rising sea levels.

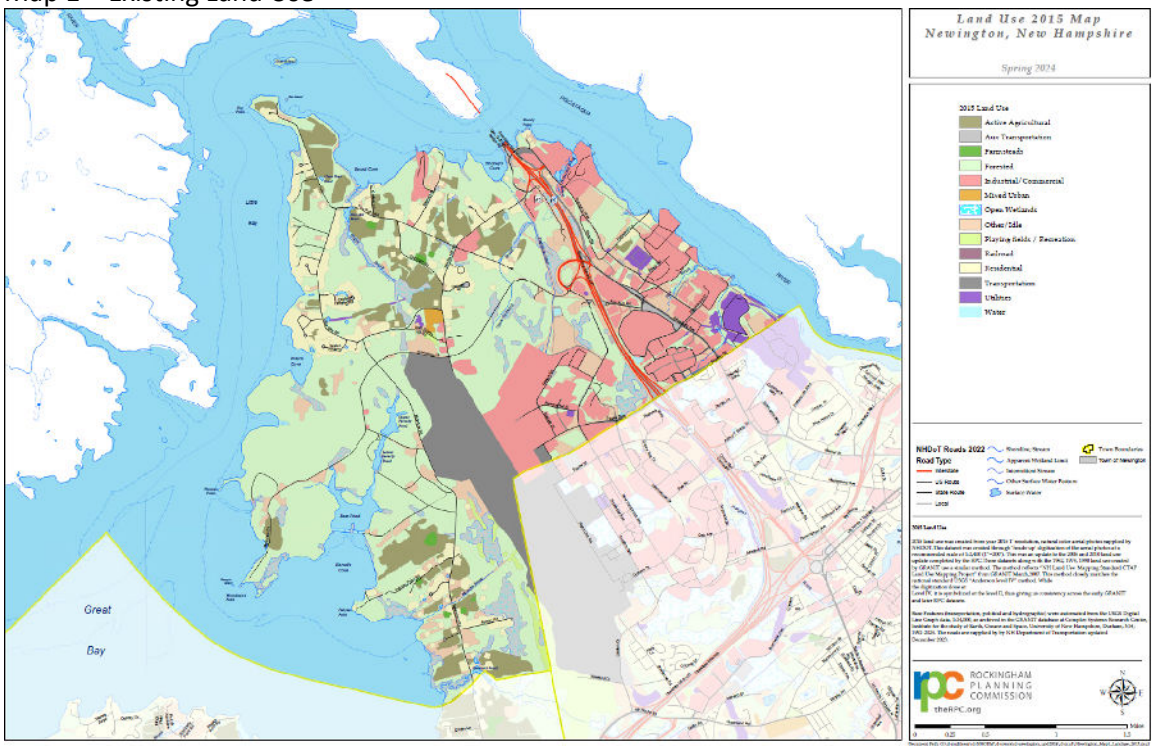
Current and Future Development Trends

Existing development is based on the Town of Newington's Zoning Ordinance, dating back to the original adoption in 1951. The Town is divided into nine zoning districts encompassing Residential, Industrial, Waterfront Industrial, Commercial, Historic, Marina, Office, Pease Tradeport, and Natural Resource zones. Town boards work to guide development in these zones with the intent of maintaining distinct areas of town dedicated to rural residential character buffered from manufacturing facilities, energy producing facilities, and other industrial uses along the Piscataqua River, commercial and industrial development in the Pease International Tradeport, and retail at the Fox Run Mall, the Crossing's at Fox Run, and surrounding retail businesses located next to the Spaulding Turnpike. Between 2019 and 2023, the building inspector has issued 101 permits for work on commercial structures and 187 permits for work related to residential structures.

The Rockingham Planning Commission completed a climate change Vulnerability Assessment for the Town of Newington in March 2017. The Assessment identified shoreland and infrastructure at risk of flooding due to rising sea level and increased precipitation events. These areas are identified on Map 2. Despite the significant amount of frontage along the tidal Piscataqua River, Little Bay, and Great Bay, threats from sea-level rise and coastal storm surge are not as great as would be expected due to higher elevation of infrastructure and buildings along the shore.

The Town of Newington has adopted, and enforces, land use regulations designed to mitigate hazards, including shoreland buffer protection, wetlands protection, stormwater management, and flood hazard regulations. Despite these efforts, the Town's vulnerability has increased due to climate change and an increasing number of natural hazard events; this vulnerability is expected to increase further. Natural hazards identified in this Plan Update and the Vulnerability Assessment, as well as mitigation strategies discussed in both reports, will be considered during local review of land development proposals as well as the development of local land use regulations.

Map 1 – Existing Land Use



CHAPTER III – NATURAL HAZARDS IN THE TOWN OF NEWINGTON

What are the Hazards?

The first step in planning for natural hazard mitigation is to identify hazards that may affect the Town. Some communities are more susceptible to certain hazards (i.e., flooding near rivers, hurricanes on the seacoast, etc.). The Town of Newington is prone to several types of natural hazards. These hazards include flooding, including sea level rise, coastal storm surge, and extreme precipitation events; hurricanes or other high-wind events; severe winter weather; earthquakes; drought; wildfire; extreme temperatures; climate change; and infectious disease. Other natural hazards can and do affect the Town of Newington, but these were the hazards prioritized by the Committee for mitigation planning because they occur with regularity and/or were considered to have high damage potential.

Natural hazards that are included in the State's Hazard Mitigation Plan 2023 Update that are not included in this Plan Update include: landslide, subsidence, radon, avalanche, solar storm, and space weather. Subsidence and avalanche are rated by the State as having low and no risk in Rockingham County, respectively; due to this they were left out of the Plan. Newington has no record of landslides and little chance of one occurring that could possibly damage property or cause injury and so landslides were not included in this Plan. The State's Plan indicates that Rockingham County is at Moderate risk to radon; this hazard was not included in the Plan. When compared with natural hazards that could be potentially devastating to the Town, such as flooding and severe winter weather, it was not considered an effective use of the Committee's time to include radon in the Plan at this time. Solar storms and space weather are rated as a low risk for all of New Hampshire. There are no significant past occurrences of impact from space weather or solar storms in the state per the State Plan, so the Committee did not include this hazard in the Plan Update.

The hazard profiles below include a description of the natural hazard, the geographic location of each natural hazard (if applicable), the extent of the natural hazard (e.g. magnitude or severity), probability, past occurrences, and community vulnerability. Past occurrences of natural hazards were mapped on Map 2: Past and Future Hazards. Community vulnerability identifies the specific areas, general type of structures, specific structures, or general vulnerability of the Town of Newington to each natural hazard. Probability was defined as high, a roughly 66-100% chance of reoccurrence annually; medium, roughly a 33-66% chance of reoccurrence annually; and low, roughly a 0-33% chance of reoccurrence annually.

Flooding

Description –Flooding results from extreme precipitation events, rapid snow melt, the overflow of major rivers and tributaries, storm surges, and/ or inadequate local drainage. Floods can cause loss of life, property damage, crop/livestock damage, and water supply contamination. Floods can also disrupt travel routes on roads and bridges. Newington's coastline is vulnerable to flooding from major coastal storms year-round. Tropical storms and hurricanes are a threat from late summer through fall. Extra-tropical storms, such as Nor'Easters, can occur in any month. These storms bring strong onshore winds that can down trees and exacerbate areas prone to flooding. Floods are a temporary overflow of water onto lands that are not normally covered by water.

Inland floods are most likely to occur in the spring due to the increase in rainfall and melting of snow; however, floods can occur at any time of the year. A sudden thaw in the winter or a major downpour in the summer can cause flooding because there is suddenly a lot of water in one place with nowhere to go.

- *100-year Floodplain Events* - Floodplains are usually located in lowlands near rivers, and flood on a regular basis. The term 100-year flood does not mean that flood will occur once every 100 years. It is a statement of probability that scientists and engineers use to describe how one flood compares to others that are likely to occur. It is more accurate to use the phrase "1% annual chance flood". What this means is that there is a 1% chance of a flood of that size happening in any year.

- *Erosion and Mudslides* - Erosion is the process of wind and water wearing away soil. Typically, in southeastern New Hampshire, the land along rivers can be intensely developed. Mudslides may be formed when a layer of soil atop a slope becomes saturated by significant precipitation and slides along a more cohesive layer of soil or rock. Erosion and mudslides become significant threats to development during floods. Floods speed up the process of erosion and increase the risk of mudslides.

- *Rapid Snowpack Melt* - Warm temperatures and heavy rains cause rapid snowmelt. Quickly melting snow coupled with moderate to heavy rains are prime conditions for flooding.

- *River Ice Jams* - Rising waters in early spring often break ice into chunks, which float downstream and may pile up, causing flooding. Small rivers and streams pose special flooding risks because they are easily blocked by jams. Ice in riverbeds and against structures presents significant flooding threats to bridges, roads, and the surrounding lands.

- *Severe Storms* - Flooding associated with severe storms can inflict heavy damage to property. Heavy rains during severe storms are a common cause of inland flooding.

- *Dam Breach and Failure* - Dam failure results in rapid loss of water that is normally held by the dam. These kinds of floods are extremely dangerous and pose a significant threat to both life and property. The Committee identified the Town owned dam on Kennard Pond at Newington Road, the Town owned dam at Mott Pond, and the two dams on the Great Bay National Wildlife Refuge as threats that could result in washing out the roads if they were to fail. Town staff monitor dam integrity and water flow during periods of high water.

- *Sea Level Rise, Coastal Storms, Storm Surge, and Compound Flooding*- The State's Atlantic seacoast and estuaries are vulnerable to extremes of storm water runoff and storm surge from coastal storms and hurricanes. A storm surge, especially when coupled with astronomical high tides and sea level rise, presents a threat to all land areas adjacent to the marine environment. Compound flooding can occur when storm surge and heavy

precipitation happen concurrently. High tide or surge water levels can impede stormwater draining into Great Bay and the Piscataqua River, causing flooding inland. The risks of flood impacts from compound flooding in low-lying coastal areas is often much greater than from either coastal flooding or inland flooding in isolation. The Town's 2017 Vulnerability Assessment Report of Sea Level Rise and Coastal Storm Surge Flooding, completed by the Rockingham Planning Commission, identifies areas in town at risk of flooding from expected increases in storm surge and rates of sea level rise. These locations are listed below under Community Vulnerability.

Location - Newington is vulnerable to flooding in several locations. Generally, the Town is at risk within Flood Zone A as identified by FEMA on Flood Insurance Rate Maps (FIRM). The Town identified several areas susceptible to flooding that are not within these flood zones. These areas are listed below and displayed on Map 2: Past and Future Hazards. The 100-year floodplain is highly vulnerable to flooding from storm surge, extending beyond its boundary under the 4.0 feet and 6.3 feet sea-level rise scenarios identified in the 2017 Vulnerability Assessment. http://www.rpcnh.org/application/files/6614/9400/9406/Newington_Assessment_Report_Final.pdf

Table 1: FEMA Flood Zones in Newington and Structures in each Zone
Source: NH Office of Planning and Development
July 2023

FEMA Special Flood Hazard Area	Description of FEMA Zone	Number of Structures in Newington in Zone
Zone A	Areas subject to inundation by the 1-percent-annual-chance flood event. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown.	0
Zone AE	Areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. BFEs are shown within this zone.	0
Zone AO	Areas subject to inundation by 1-percent-annual-chance shall flooding where average depts are 1-3 feet. Average flood depth derived from detailed hydraulic analyses are shown within this zone.	0
Zone VE	Areas along coasts subject to inundation by the 1-percent-annual-chance flood event with additional hazards due to storm-induced velocity wave action. BFEs derived from detailed hydraulic coastal analyses are shown within this zone.	0
Zone X	Areas of minimal flood hazard, usually depicted on FIRMs as outside the 500-year flood level.	0

Extent - The extent of the flooding can be seen in Map 2: Past and Future Hazards. This area includes FIRM Zones A, as well as areas of locally chronic flood problems.

Dams - The State of New Hampshire places every dam into one of four classifications, which are differentiated by the degree of potential damages that a failure of the dam is expected to cause, https://www.des.nh.gov/organization/commissioner/pip/factsheets/db/documents/db-15.pdf. The classifications are as follows:

- Non-Menace structure – not a menace because it is in a location and of a size that failure or mis-operation of the dam would not result in probable loss of life or loss to property, less than six 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 to 50 acre-feet.

- Low Hazard structure – has a low hazard potential because it is in a location and of a size that failure or mis-operation of the dam would result in no possible loss of life, low economic loss to structures or property, structural damage to local or private roads that could render roads impassable, the release of liquid industrial, agricultural or commercial wastes, septage or contaminated sediment if the storage capacity is less than two-acre feet and is located more than 250 feet from a water body, reversible environmental losses to environmentally sensitive areas.

- Significant Hazard structure – has a significant hazard potential because it is in a location and of a size that failure or mis-operation of the dam would result in no probable loss of lives, major economic loss to structures or property, structural damage to a Class I or II road that could render the road impassable, major environmental or public health losses.

- High Hazard structure – has a high hazard potential because it is in a location and of a size that failure or mis-operation of the dam would result in probable loss of human life, structural damage to an interstate highway which could rend the road impassable, the release of a quantity and concentration of hazardous waste, and any other circumstance that would more likely cause one or more deaths.

Table 2: Active Dams in Newington
Source: NH Dam Bureau, July 2023

Dam Name	Dam Owner	Hazard Classification	River	Height/Impoundment Area
Kennard Dam	Town of Newington	Non-Menace	Unnamed stream	7.5'/2.73 acres
Farm Pond Dam	T. Pulkowski	Non-Menace	Unnamed Stream	8'/.25 acres
Holding Pond Dam	Fuel Storage Corp.	Non-Menace	Runoff	12'/.03 acres

Fire Pond Dam	Sprague Energy	Non-Menace	Pickering Creek	10'/1.79 acres
Ferland Recreation Pond	E. Fernald	Non-Menace	Unnamed Stream	11'/1 acre
Landfill 5 Detention Pond	US Air Force	Non-Menace	Runoff	12'/2 acres
Upper Peverly Brook Pond Dam	Great Bay National Wildlife Refuge	Low Hazard	Peverly Brook	18'/12 acres
Stubbs Pond Dam	Great Bay National Wildlife Refuge	Low Hazard	Stubbs Pond	8.7'/45 acres
Motts Pond Dam	Town of Newington	Low Hazard	Knight Brook	10'/2.9 acres

Probability – High. The probability of flooding roadways and properties from heavy rain, rapid snow melting, sea-level rise and coastal storm surge is high in Newington, especially in the areas listed below. The probability of dam failure is low as the NH DES Dam Bureau has classified all active dams in town as Low Hazard or Non-Menace, as listed in Table 2. The Town works with dam owners and abutters to monitor dam integrity and manage water levels. The Town also regularly assesses culverts to ensure integrity and ability to pass stormwater. See Table 4, Hazard Identification and Risk Assessment.

Past Occurrence - Flooding is the most common hazard impacting Newington. Several locations were identified by the Committee as areas of chronic reoccurring flooding or high potential for future flooding, as listed below and identified on Map 2. The Town has completed substantial work on culverts since the 2019 Plan to mitigate inland flooding, resulting in no known impacts to the community since the last Plan Update. Due to the steep shoreline along Great Bay, Little Bay and the Piscataqua River in Newington coastal flooding has not been known to the Committee to cause damage. No dams have failed in town in recent memory.

Community Vulnerability - Flooding is most likely to impact structures located in the flood zones, as well as the following roads:

- Newington Road at Kennard Pond
- Culvert on Little Bay Road at a tidal stream at Captains Landing.
- Fox Point Road, Fabyan Point, Welsh Cove, Brickyard Circle, Hodgdon Farm, Swan Island Lane, Gundalow Landing, Dumpling Cove
- Culvert on Nimble Hill Road north of the Elementary School
- Spaulding Turnpike at Shattuck Way and Lower Pickering Brook
- Storm surge at the end of Patterson Lane
- River Road/Piscataqua River waterfront commercial/industrial area
- Great Bay Marine and low-lying supporting lands

- Fox Point and Newington Town Park conservation lands
- Residential parcels and structures along the west and southwest shorelines
- Shattuck Way, a designated evacuation route, at the extension by Bloody Point, underneath the Spaulding Turnpike

National Flood Insurance Program (NFIP) - In 1968, Congress created the National Flood Insurance Program (NFIP) in response to the rising cost of taxpayer funded disaster relief for flood victims and the increasing amount of damage caused by floods. The Federal Insurance and Mitigation Administration (FIMA), a component of the Federal Emergency Management Agency (FEMA) manages the NFIP and oversees the floodplain management and mapping components of the program.

Communities participate in the NFIP by adopting and enforcing floodplain management ordinances to reduce flood damage. In exchange, the NFIP makes federally subsidized flood insurance available to homeowners, renters, and business owners in these communities. Flood insurance, Federal Grants and loans, Federal disaster assistance and federal mortgage insurance is unavailable for the acquisition or construction of structures located in the floodplain shown on the NFIP maps for those communities that do not participate in the program.

To get secure financing to buy, build or improve structures in the Special Flood Hazard areas, it is legally required by federal law to purchase flood insurance. Lending institutions that are federally regulated or federally insured must determine if the structure is in the SFHA and must provide written notice requiring flood insurance. Flood insurance is available to any property owner located in a community participating in NFIP.

Repetitive Loss Properties - A specific target group of repetitive loss properties is identified and serviced separately from other NFIP policies by the Special Direct Facility (SDF). The target group includes every NFIP insured property that, since 1978 and regardless of any change(s) of ownership during that period, has experienced four or more paid losses, two paid flood losses within a 10-year period that equal or exceed the current value of the insured property, or three or more paid losses that equal or exceed the current value of the insured property, regardless of any changes of ownership, since the buildings construction or back to 1978. Target group policies are afforded coverage, whether new or renewal, only through the SDF.

The FEMA Regional Office provides information about repetitive loss properties to State and local floodplain management officials. The FEMA Regional Office may also offer property owners building inspection and financial incentives for undertaking measures to mitigate future flood losses. These measures include elevating buildings from the flood area, and in some cases drainage improvement projects. If the property owners agree to mitigation measures, their property may be removed from the target list and would no longer be serviced by the SDF.

Table 3: Newington NFIP Policy and Loss Statistics

Policies in force	Insurance in Force	Number of Paid Losses (since 1978)	Total Losses Paid (Since 1978)
4 single-family residential	$941,000	0	$0
Source: NH Office of Planning and Development, July 2023			

Newington NFIP Repetitive Flooding Losses - Newington joined the Regular Program of the NFIP on July 27, 2006. The current Flood Insurance Rate Map and Flood Insurance Study is dated January 1, 2021. Newington has had no repetitive loss properties. There are four single-family residential policies in force. The town has accepted the flood insurance study.

Floodplain Management Goals/Reducing Flood Risks - A major objective to floodplain management is to continue participation in the NFIP. Communities that agree to manage Special Flood Hazard Areas shown on NFIP maps participate in the NFIP by adopting minimum standards. The minimum requirements are the adoption of the floodplain Ordinances and Subdivision/Site Plan Review requirements for land designated as Special Flood Hazard Areas. Under Federal Law, any structure located in a floodplain is required to have flood insurance. Federally subsidized flood insurance is available to any property owner located in a community participating in the NFIP. Communities that fail to comply with the NFIP will be put on probation and/or suspended. Probation is a first warning where all policy holders receive a letter notifying them of an increase in their insurance. In the event of suspension, the policyholders lose their NFIP insurance and are left to purchase insurance in the private sector, which is of significantly higher cost. If a community is having difficulty complying with NFIP policies, FEMA is available to meet with staff and volunteers to work through the difficulties and clear up any confusion before placing the community on probation or suspension.

The Code Enforcement Officer, acting as the Floodplain Administrator for the Town of Newington, are responsible for making determinations of substantial improvement and substantial damage. 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 another improvement of or work on such structure including within its existing footprint.

The Floodplain Administrator, in coordination with any other municipal officials, are responsible for the following:

- Determining if a substantial damage (SD) determination needs to be made an communicating SD and permit requirements to property owners.
- Verifying the cost of repairs to the structure.

- Verifying the market value of the structure.
- Making the SD determination and issuing it to the property owner.
- Permitting development and ensuring compliance with the Town's land use regulations.
- Inspecting development and maintaining as-built compliance documentation post construction.

Potential Administrative Techniques to Minimize Flood Losses in Newington - A potential step in mitigating flood damage is participating in NFIP. Newington continues to consistently enforce NFIP compliant policies to continue its participation in this program and has effectively worked within the provisions of NFIP. Below is a list of actions Newington should consider, or continue to perform, to comply with NFIP:

- Participate in NFIP training offered by the State and/or FEMA (or in other training) that addresses flood hazard planning and management.
- Continue with Mutual Aid Agreements with neighboring communities to address administering the NFIP following a major storm event.
- Address NFIP monitoring and compliance activities.
- Revise subdivision regulations, erosion control regulations, board of health regulations to improve floodplain management in the community.
- Prepare, distribute, or make available NFIP insurance and building codes explanatory pamphlets or booklets.
- Identify and become knowledgeable of non-compliant structures in the community.
- Continue to inspect foundations at time of completion before framing to determine if lowest floor is at or above Base Flood Elevation (BFE) if they are in the floodplain.
- Require the use of elevation certificates.
- Enhance local officials, builders, developers, local citizens, and other stakeholders' knowledge of how to read and interpret the FIRM.
- Work with elected officials, the state and FEMA to correct existing compliance issues and prevent any future NFIP compliance issues through continuous communications, training, and education.

Hurricane-High Wind Events

Description - Significantly high winds occur especially during hurricanes, tornadoes, winter storms, and thunderstorms. Falling objects and downed power lines are dangerous risks associated with high winds. In addition, property damage and downed trees are common during high wind occurrences.

- *Hurricanes* - A hurricane is a tropical cyclone in which winds reach speeds of 74 miles per hour or more and blow in a large spiral around a relatively calm center. The eye of the storm is usually 20-30 miles wide and may extend over four hundred miles. High winds are a primary cause of hurricane-inflicted loss of life and property damage. The Saffir–Simpson hurricane wind scale (SSHWS), or the Saffir–Simpson hurricane scale (SSHS) for

short, classifies hurricanes into five categories distinguished by the intensities of their sustained winds. To be classified as a hurricane, a tropical cyclone must have maximum sustained winds of at least 74 mph, Category 1. The highest classification in the scale, Category 5, is reserved for storms with winds exceeding 156 mph. The Saffir/Simpson Hurricane Scale is included in Appendix C.

- *Tornadoes* - A tornado is a violent windstorm characterized by a twisting, funnel shaped cloud. They develop when cool air overrides a layer of warm air, causing the warm air to rise rapidly. The atmospheric conditions required for the formation of a tornado include great thermal instability, high humidity, and the convergence of warm, moist air at low levels with cooler, drier air aloft. Most tornadoes remain suspended in the atmosphere, but if they touch down, they become a force of destruction. Tornadoes produce the most violent winds on earth, at speeds of 280 mph or more. In addition, tornadoes can travel at a forward speed of up to seventy mph. Damage paths can be more than one mile wide and 50 miles long. Violent winds and debris slamming into buildings cause the most structural damage. The Enhanced Fujita Scale is the standard scale for rating the severity of a tornado as measured by the damage it causes. A tornado is usually accompanied by thunder, lightning, heavy rain, and a loud "freight train" noise. In comparison with a hurricane, a tornado covers a much smaller area but can be more violent and destructive.

- *Severe Thunderstorms* - All thunderstorms contain lightning. 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 of the air causes a shock wave that we hear as thunder, which can damage building walls and break glass.

- *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. Lightning strikes can cause death, injury, and property damage.

- *Hail* - Hailstones are balls of ice that grow as they are held up by winds, known as updrafts, which blow upwards in thunderstorms. The updrafts carry droplets of supercooled water – water at a below freezing temperature – but not yet ice. The supercooled water droplets hit the balls of ice and freeze instantly, making the hailstones grow. The faster the updraft, the bigger the stones can grow. Most hailstones are smaller in diameter than a dime, but stones weighing more than a pound have been recorded. Details of how hailstones grow are complicated, but the results are irregular balls of ice that can be as large as baseballs, sometimes even bigger. While crops are the major victims, hail is also a hazard to vehicles and windows.

Location - Hurricane events are more potentially damaging with increasing proximity to the coast. Newington's proximity to the Atlantic Coast makes hurricanes and high wind events severe threats. For this Plan, high-wind events were considered to have an equal chance of affecting any part of the Town of Newington, however Fox Point and the neighborhoods along Little Bay and Great Bay were identified by the committee as an area of town at risk of high wind events. For

this Plan, high wind, lightning, hail, tornadoes, and thunderstorms were considered to have an equal chance of affecting any part of Town.

Extent – Hurricane strength is measured using the Saffir-Simpson scale, located in the appendix of this Plan. Newington is located within Zone II hurricane-susceptible region (indicating a design wind speed of 160 mph). From 1950 to 2018 Rockingham County was subject to nine tornado events, these included 2 type F0 (Gale Tornado, 40-72 mph), 2 type F1 (Moderate Tornado, 73-112 mph), 4 type F2 (Significant Tornado, 113-157 mph) and 1 type F3 (Severe Tornado, 158-206 mph). Type 3 tornados can cause severe damage including tearing the roofs and walls from well-constructed homes, trees can be uprooted, trains over-turned, and cars lifted off the ground and thrown. Between 1900 and 2018 2 hurricanes have made landfall in New Hampshire, category 1 and category 2. Measurement scales for hurricanes, tornadoes, thunderstorms, lightning risk, and hail can be found in the appendix of this Plan.

Probability -**High.** The State of New Hampshire's Multi-Hazard Mitigation Plan Update 2023 rates Rockingham County with high likelihood of hurricane, tornado, and "Nor'-Easters" events. Also, it rates the risk of downbursts, lightning, and hail events as moderate. See Table 4, Hazard Identification and Risk Assessment.

Past Occurrence – Between 1635 and 2018 14 hurricanes have impacted the State of New Hampshire. The worst of these occurred on September 21, 1938, with wind speeds of up to 186 mph in MA and 138 mph elsewhere. Thirteen of 494 people killed by this storm were residents of New Hampshire. The Storm caused $12,337,643 in damage (1938 dollars); timber not included. Hurricanes Sandy and Irene created areas of localized flooding in Newington and power loss. High wind events in 2010, 2014 and 2016 resulted in extensive power outages, downed wires, and trees. Heavy rain associated with tropical storms in 2017, 2018, and 2020, impacted Newington, resulting in flooding along roads, low lying areas, and floodplains. Strong winds associated with snow and a Nor'easter impacted Newington in March 2023 and March 2024, resulting in downed trees, power outages, and heavy snow removal. A high wind event in April 2024 knocked down trees near the Library and the Spaulding Turnpike, blocking vehicle access across town and forcing emergency vehicles to make lengthy detours. The Committee determined that tornadoes, lightning, and hail have not impacted Newington in recent memory. Wind and rain associated with severe thunderstorms have resulted in downed trees and limbs and isolated areas of flooding.

Community Vulnerability – The Committee determined that high wind, heavy rain, lightning, and hail associated with hurricanes, tornadoes and thunderstorms can impact every neighborhood in Newington before, during and after the storm, resulting in downed trees, flooding of ponds, rivers, streams, roads and basements, and damage to home, businesses, and infrastructure.

Severe Winter Weather

Description – Severe winter weather in the form of heavy snowstorms, ice storms and Nor'easters are a threat to the community with subzero temperatures from extreme wind chill and storms causing low visibility for commuters. Heavy snow loads from storms are known to collapse

buildings. Ice storms disrupt power and communication services. Extreme cold affects vulnerable populations, including the elderly.

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

- *Ice Storms* - An ice storm involves rain, which freezes upon impact. Ice coating at least one-fourth inch in thickness is heavy enough to damage trees, overhead wires, and similar objects. Ice storms also often produce widespread power outages.

- *Nor'easter* - A Nor'easter is a large weather system traveling from South to North passing along or near the seacoast. As the storm approaches New England and its intensity becomes increasingly apparent, the resulting counterclockwise cyclonic winds impact the coast and inland areas form a Northeasterly direction. The sustained winds may meet or exceed hurricane force, with larger bursts, and may exceed hurricane events by many hours (or days) in terms of duration.

Location - Severe winter weather events have an equal chance of affecting any part of the Town of Newington.

Extent - Large snow events in Southeastern New Hampshire can produce thirty inches of snow. Portions of central New Hampshire recorded snowfalls of ninety-eight inches during one slow moving storm in February of 1969. Ice storms occur regularly in New England. The Sperry-Piltz ice accumulation scale is found in the Appendix of this Plan. Several severe ice storms have been recorded that have affected New Hampshire since 1929. These events caused disruption of transportation, loss of power and millions of dollars in damage.

Probability - High. The State of New Hampshire's Multi-Hazard Mitigation Plan 2023 Update rates Rockingham County with high likelihood of heavy snows and ice storms. See Table 4, Hazard Identification and Risk Assessment.

Past Occurrence – Newington has been impacted by six severe winter storms in recent memory. A severe winter storm struck the region on March 19, 2013, with heavy snow fall resulting in 48 hours of snow removal. A severe winter storm in 2015, two Nor'easters in 2018, a heavy snowstorm in December 2022 resulted in power outages and damage to the town docks, and two Nor'easter's in March 2023 required extensive snow removal and removal of fallen trees. A snowstorm on April 4, 2024, brought heavy, wet snow and strong winds to the seacoast, resulting in two large pine trees falling across Nimble Hill Road in two locations. The fallen trees took down electric, phone, cable lines, and transmission poles. Nimble Hill Road was completely impassable at both ends. Newington village has only three ways out of town, with two of those via Nimble Hill Road. The third and only option was via Newington Road which caused a nearly twenty-minute response delay for emergency services to the commercial/industrial/retail districts and Spaulding Turnpike. This is due to both the police and fire stations being within the village district.

Community Vulnerability - Severe winter weather has struck Newington and every other community in the region on an annual basis in recent memory. The Committee determined that heavy snow, strong and gusty winds, and frigid temperatures can impact all parts of town equally, resulting in downed trees and power lines, extended power outages, and unsafe driving condition. Extended power outages and the resulting loss of heat in homes of elderly residents are of concern. Rapid snow melting after severe winter weather can result in flooding of rivers and streams, posing risk to roads and structures. The Committee identified the elderly and vulnerable populations, utility lines and towers, and trees at greatest risk from severe winter weather.

Earthquakes

Description –An earthquake is a rapid shaking of the earth caused by the breaking and shifting of rock beneath the earth's surface. Earthquakes can cause buildings and bridges to collapse, disrupt gas, electric and phone lines, and often cause landslides, flash floods, fires, and avalanches. Larger earthquakes usually begin with slight tremors but rapidly take the form of one or more violent shocks, and end in vibrations of gradually diminishing force called aftershocks. The underground point of origin of an earthquake is called its focus; the point on the surface directly above the focus is the epicenter. The magnitude and intensity of an earthquake is determined using scales such as the Richter Magnitude Scale, located in the Appendix of this Plan.

Location – An earthquake has an equal chance of affecting all areas in Newington.

Extent - Geologic events are often associated with California, but New England is considered a moderate risk earthquake zone. The Committee determined all areas of Newington are at equal risk of damage from an earthquake.

Probability - Medium. The State of New Hampshire's Multi-Hazard Mitigation Plan 2023 Update ranks all the Counties in the State with at moderate risk to earthquakes but the Committee. See Table 4, Hazard Identification and Risk Assessment.

Past Occurrence - Large earthquakes have not affected the Town of Newington within recent memory. The strongest damaging quakes to impact New Hampshire were centered in Tamworth on December 20 and 24, 1940, both with a measured magnitude of 5.8. The Hazard Mitigation Committee expects a magnitude 3.4 to 4.5 magnitude to be the worst-case scenario.

Community Vulnerability - New England is particularly vulnerable to the injury of its inhabitants and structural damage because of our built environment. Few New England States currently include seismic design in their building codes. Massachusetts introduced earthquake design requirements into their building code in 1975 and Connecticut very recently did so but these specifications are for new buildings or very significantly modified buildings. New Hampshire has no such code specifications. Existing buildings, bridges, water supply lines, electrical power lines and facilities, etc. have rarely been designed for earthquake forces. The Committee determined that earthquakes do not pose a frequent threat to Newington, but if one were to occur the most

vulnerable structures include roads, bridges, brick structures, infrastructure, and utility lines, as well as secondary hazards such as fire, power outages or a hazardous material leak or spill.

Drought

Description - Drought is a period of unusually constant dry weather that persists long enough to cause deficiencies in water supply (surface or underground). Droughts are slow-onset hazards that can severely affect drinking water supplies, crops, recreation resources, and wildlife. If drought conditions extend over several years, the direct and indirect economic impacts can be significant. High temperatures, high winds, and low humidity can worsen drought conditions and make areas more susceptible to wildfire. In addition, human actions and demands for water resources can accelerate drought-related impacts.

Location – The Committee determined that drought poses risks to water supplies throughout Town, both private and municipal. Potable water is supplied to Newington by the City of Portsmouth's regional water system. There is a separate water system serving Pease International Tradeport. The risks of wildfire associated with drought conditions are greatest in forested and open grassland areas.

Extent - Although New Hampshire is typically thought of as a water-rich state, there are times the demand for water can be difficult to meet. A combination of increased population and extended periods of low precipitation can cause reduced water supplies. Drought can impact Newington after extended periods of limited rain and snowfall, often for several months, and is a town-wide hazard, impacting both private wells and public water systems. Rockingham County experienced extreme drought in 2021 and 2022 referred to as a D3 on the U.S. Drought Monitor Scale. The Hazard Mitigation Committee expects extreme drought to be the worst-case scenario. The Town of Newington monitors the information provided by the DES Drought Management Program and works with the City of Portsmouth water department to alert residents during drought about the need for water conservation. The U.S. Drought Monitor Scale is in the appendix of this Plan.

Probability - Medium. See Table 4, Hazard Identification and Risk Assessment.

Past Occurrence - The State of New Hampshire Multi-Hazard Mitigation Plan 2023 Update rates Rockingham Count at low risk for drought. However, drought conditions persisted across southern New Hampshire for much of 2016, 2017 and 2019, resulting in private wells going dry.

Community Vulnerability - The Committee determined that water supply and fire flow are the most at risk due to drought conditions, and there is an increased risk of wildfire.

Wildfire

Description - Wildfire is defined as an uncontrolled and rapidly spreading fire, including grass and forest fires. A forest fire is an uncontrolled fire in a woody area. They often occur during drought and when woody debris on the forest floor is readily available to fuel the fire. Grass fires are uncontrolled fires in grassy areas.

Location - The Committee determined that the forested and grasses areas spread throughout Town are at risk to wildfires.

Extent - A wildfire in the Town of Newington is unlikely, but if a crown fire were to occur it could be damaging to structures abutting large, wooded areas. A large grass fire could damage structures and neighborhoods near large open areas. The largest wildfire in Newington in recent memory has not exceeded two acres and the Committee expects a wildfire of less than five acres to be the worst-case scenario. The Wildland-Urban Interface Scale, a tool to quantify the expected severity of wildfire events in developed areas, is included in the Appendix.

Probability - **Medium.** The State of New Hampshire's Multi-Hazard Mitigation Plan 2023 Update rates Rockingham County with moderate risk to wildfires. See Table 4, Hazard Identification and Risk Assessment.

Past Occurrence - No Large fires have occurred within recent memory.

Community Vulnerability - The Committee determined that all forested and open areas in Newington are prone to wildfires, with the threat increasing during periods of drought.

Extreme Temperatures

Description - Temperatures across New Hampshire have increased by an average of three degrees since 1901, the result of climate change. Warming is highest during the fall and winter seasons and is associated with a decrease in frequency and severity of cold extremes. Conditions of extreme heat are defined as a prolonged period of excessively hot weather, with temperatures above the average high temperature for a particular region for that time of year, often combined with high humidity. In New Hampshire, extreme heat conditions are defined as two days of temperatures over 90 degrees. The heat index is a measure of how hot it really feels when relative humidity is factored in with actual air temperature. The hottest temperature recorded in the region was 104 degrees on August 2, 1975.

Winter storms, blizzards, and episodes of high barometric pressure accompanied by clear night skies can bring extreme cold temperatures to the region, increasing the risk of frostbite and hypothermia. The risk of extended power outages increases during winter storms, increasing the vulnerability of elderly and vulnerable residents. The coldest temperature recorded in the region was -26 degrees on January 22, 1984.

Location – Extreme temperatures can affect all areas of Newington.

Extent - Extreme heat events impact Newington for 3-4 days each summer, and extreme cold events impact the Town 3-4 days days each winter. Extreme heat evetns have impacted Newington in 2021, 2023, and 2024, with temperatures exceeding 90 degrees. Heat Index measures a number in degrees Farenheit that tells how hot it feels when relative humidity is added to the air temperature. The National Weather Service Heat Index and the Wind Chill Chart are included in the Appendix.

Probability - High– The Committee ranked the probability of extreme temperatures as high. See Table 4, Hazard Identification and Risk Assessment.

Past Occurrence – Annually. Since the last Plan Update, Newington has experienced an increase in days with a high heat index. Winter days with below average temperatures have remained the same.

Community Vulnerability - The Committee determined that all parts of Newington are at risk of impacts associated with extreme temperatures. Extreme heat can cause heat-related illnesses, like heat stroke or heat exhaustion, which occur when the body is unable to cool itself fast enough. The young, elderly and vulnerable populations are especially vulnerable to heat stroke. The EMDs maintains a list of these populations and proactivey checks on residents during periods of extreme temperatures.

Climate Change

Description - Climate is defined as the long-term, prevailing pattern of temperature, precipitation, and other weather variables at a given location as described by statistics, such as means and extremes. Climate differs from weather in that weather is the current state or short-term variation of these variables at a given location. Climate change is the observed change in atmospheric variables over time that are the result of natural and anthropogenic, or human-caused, influences. Climate change is directly related to the ongoing increase in global temperature, a rise that is influenced by the steady increase in the concentration of atmospheric greenhouse gases that has been occurring and continues to occur across the globe.

Location – Climate change can affect all areas of Newington, in the form of increased temperatures, extreme precipitation events, sea-level rise, and coastal storm surge.

Extent – Extreme heat events impact Newington for 3-4 days each summer and the number of days may increase as the result of climate change. The average annual temperature in New Hampshire has increased three degrees since the early 20th century. Winter warming has been larger than any other season. Future winter warming will have large effects on snowfall and snow cover. Flooding from extreme precipitation events, sea-level rise, and coastal storm surge increasingly impact Newington. Mean precipitation and precipitation extremes are projected to increase in the future, with associated increases in flooding. Newington is planning for a 1-to-1.7-foot sea-level rise by 2050, and a six-foot rise by 2010.

Probability – High. The Committee determined the probability of climate change impacting Newington as high given the increase in hazard events since the last Plan Update. See Table 4, Hazard Identification and Risk Assessment.

Past Occurrence – Annually. Since the 2019 Plan Update, Newington has experienced drought, extreme heat, coastal storms, sea-level rise, and extreme precipitation events, as described under the individual hazard.

Community Vulnerability - The Committee determined that all parts of Newington are at risk of impacts associated with climate change and the effects of climate change pose real and significant threats to community safety, resilience, and quality of life.

Infectious Disease

Description – 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. A definition of infectious diseases by the Mayo Clinic is in the Appendix.

According to the Unites States Centers for Disease Control and Prevention (CDC), the number of people with a disease that is usually present in a community is referred to as the baseline or endemic level of the disease. This number of infections is not necessarily the desired level, which may in fact be zero, but rather is the typical or normal number of people infected. In the absence of intervention and if the number of infections is not high enough to deplete the pool of susceptible persons, the disease may continue to occur at this level indefinitely. Thus, the baseline level is often regarded as the expected level of the disease. While some diseases are so rare in each population that a single case warrants an epidemiologic investigation (e.g., rabies, plague, polio), there are other diseases that occur more commonly so that only deviations from the norm (i.e., seeing more cases than expected) warrants investigation.

Epidemics occur when an agent (the organism) and susceptible hosts are present in adequate numbers, and the agent can be effectively conveyed from a source to the susceptible people. More specifically, an epidemic may result from a recent increase in amount or virulence of the agent, the recent introduction of the agent into a setting where it has not been before, an enhanced mode of transmission so that more susceptible persons are exposed, a change in the susceptibility of people's response to the agent, and/or factors that increase exposure or involve introduction through new portals of entry.

Epidemics may be caused by infectious diseases, which can be transmitted through food, water, the environment, or person-to-person or animal-to-person, and noninfectious diseases, such as chemical exposure, which causes increased rates of illness. Infectious diseases that may cause an epidemic can be broadly categorized into the following groups: foodborne (E.coli), water (Giardiasis), vaccine preventable (Measles), sexually transmitted (HIV), person-to -person (TB), arthropod borne (Lyme), zoonotic (Rabies), and opportunistic fungal and fungal infections (Candidiasis). An epidemic may also result from a bioterrorist event in which an infectious agent is released into a susceptible population, often through an enhanced mode of transmission, such as aerosolizing.

Location – Infectious disease can affect all areas of Newington.

Extent – The magnitude and severity of infectious disease 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:

- Endemic – Constant presence and/or usual prevalence of a disease or infection agent in a population within a geographic area
- Hyperendemic – 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.

Probability – High. The probability of infectious disease is high. See Table 4, Hazard Identification and Risk Assessment.

Past Occurrence – Infectious diseases, such as seasonal influenza, and gastrointestinal illness occur annually in Newington. The COVID-19 pandemic impacted Newington beginning in 2020 and the town continues to experience cases of COVID-19 and community transmission.

Community Vulnerability – The Committee determined that all parts of Newington are at risk of impacts associated with infectious disease. Rates of illness, duration of disease, and the ability to treat or prevent illness once the causative agent is identified are just a few factors that will further determine the vulnerability of the population.

In response to the COVID-19 pandemic, Newington town staff collaborated to oversee information sharing and coordination of the Town's pandemic response. Information was distrubited via Town and school newsletters and emails. Newington was the host of a state vaccination site, at the former Sears building at Fox Run Mall, and the Police and Fire Department provided assistance. The elementary school developed a pandemic response plan and assisted with the distribution of masks and test kits. The Police Department also worked with the state to identify essential businesses operating in Newington. The COVID-19 pandemic impacted both town and school operations, the general work force, and supply chains for everyday items.

Table 4 summarizes Newington's vulnerability to the natural hazards identified in this Plan Update. Flooding, from sea-level rise, coastal storm surge, and extreme precipiation events resulting from climate change, is the greatest risk facing the community. Newington's location along a tidal river and Little and Great Bays increases the probability that flooding will result in death or injury, physical losses and damages, and interrruptions of service. Newington's commerical core includes large malls and retail centers and is an important economic development resource for the region and state.

Table 4 – Hazard Identification and Risk Assessment

Scoring for Probability Columns A, B & C	**Column A** Probability of death or injury	**Column B** Probability of physical losses and damage	**Column C** Probability of interruption of service	**Column D** Probability of occurring within 25 years	**Column E** (A+B+C/3) Impact average	**Column F** (D x E) Relative threat	**Column G** Risk
1=Very Low (0-20%)							**High** 13.0-21.9
2=Low (21-40%)							
3=Moderate (41-60%							**Medium** 6.0-12.9
4=High (61-80%)							
5=Very High (81-100%							**Low** 0-5.9
	Human Impact	**Property Impact**	**Business Impact**	**Probability of Occurrence**	**Severity**	**Risk Severity x Occurrence**	
Natural Hazard							
Flooding	4.00	5.00	5.00	5.00	4.66	23.30	High
Hurricane/High Wind	3.00	5.00	5.00	5.00	4.33	21.66	High
Coastal Storms	3.00	5.00	5.00	5.00	4.33	21.66	High
Severe Winter Weather	4.00	4.00	4.00	5.00	4.00	20.0	High
Climate Change includes sea-level rise, extreme precipitation events	2.00	5.00	5.00	5.00	4.00	20.00	High
Extreme Temperatures	3.00	3.00	2.00	5.00	2.66	13.33	High
Infectious Disease	5.00	1.00	5.00	4.00	3.66	14.66	High
Lightning/Hail	2.00	3.00	2.00	5.00	2.33	11.66	Medium
Drought	1.00	3.00	2.00	5.00	2.00	10.00	Medium
Wildfires	2.00	4.00	3.00	3.00	3.00	9.00	Medium
Earthquakes	2.00	4.00	4.00	2.00	3.33	6.66	Medium

Table 5 highlights Presidentially declared disaster and emergency declaration for natural hazard events in New Hampshire from 1986 – 2024.

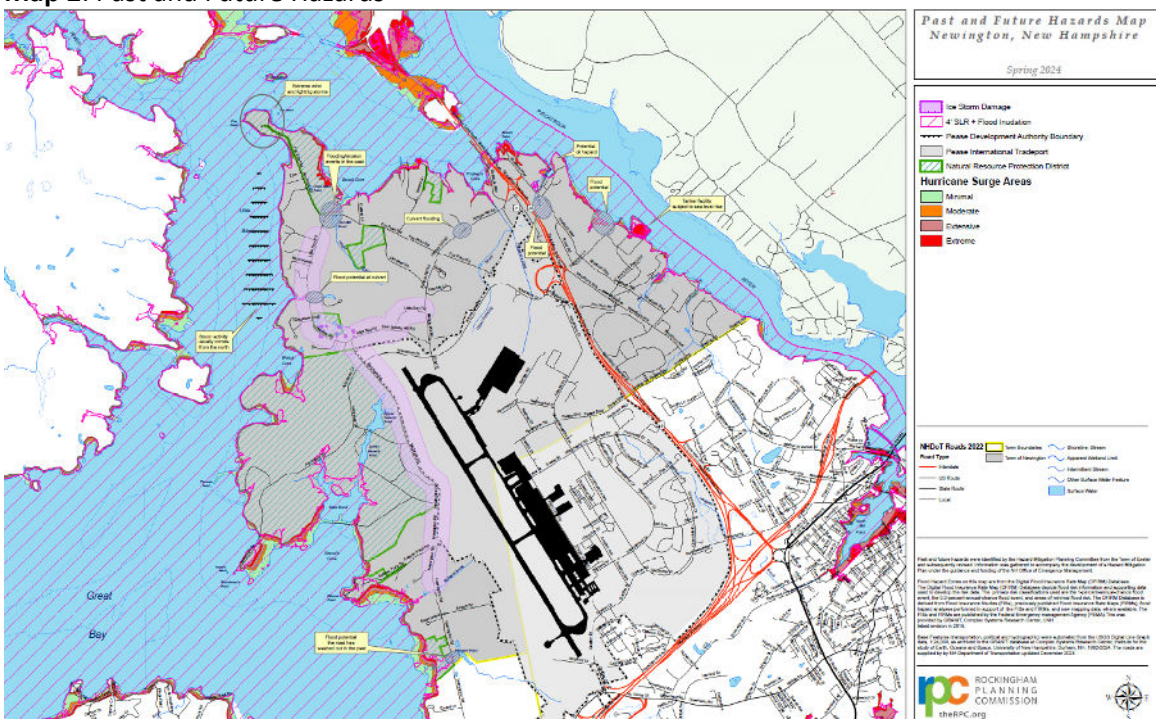
Table 5: State of New Hampshire
Presidentially Declared Disasters (DR) and Emergency Declarations (EM) 1982-2018
Source: *State of NH Multi-Hazard Mitigation Plan, 2013 Update and FEMA*

Date Declared	Event	FEMA DR	Program	Amount	Counties Declared
08/27/86	Severe storms/flooding	FEMA-771-DR	PA	$1,005,000	Cheshire and Hillsborough
04/16/87	Severe storms/flooding	FEMA-789-DR	PA/IA	$4,888,889	Carroll, Cheshire, Grafton, Hillsborough, Merrimack, Rockingham, and Sullivan
08/29/90	Severe storms/winds	FEMA-876-DR	PA	$2,297,777	Belknap, Carroll, Cheshire, Coos, Grafton, Hillsborough, Merrimack, and Sullivan
09/09/91	Hurricane	FEMA-917-DR	PA	$2,293,449	Statewide
11/13/91	Coastal storm/flooding	FEMA-923-DR	PA/IA	$1,500,000	Rockingham
03/16/93	Heavy snow	FEMA-3101-DR	PA	$832,396	Statewide
01/03/96	Storms/floods	FEMA-1077-DR	PA	$2,220,384	Carroll, Cheshire, Coos, Grafton, Merrimack, and Sullivan
10/29/96	Severe storms/flooding	FEMA-1144-DR	PA	$2,341,273	Grafton, Hillsborough, Merrimack, Rockingham, Strafford, and Sullivan
01/15/98	Ice storm	FEMA-1199-DR	PA/IA	$12,446,202	Belknap, Carroll, Cheshire, Coos, Grafton, Hillsborough, Merrimack, Strafford, and Sullivan
07/02/98	Severe storms	FEMA-1231-DR	PA/IA	$3,420,120	Belknap, Carroll, Grafton, Merrimack, Rockingham, and Sullivan
10/18/99	Hurricane/tropical storm Floyd	FEMA-1305-DR	PA	$750,133	Belknap, Cheshire, and Grafton
3/2001	Snow emergency	FEMA-3166-EM	PA	$4,500,000	Cheshire, Coos, Grafton, Hillsborough, Merrimack, Rockingham, and Strafford
2/17/2003 - 2/18/2003	Snow emergency	FEMA-3177-EM	PA	$3,000,000	Cheshire, Hillsborough, Merrimack, Rockingham, and Strafford
09/12/03	Severe storms/flooding	FEMA-1489-DR	PA	$1,300,000	Cheshire and Sullivan

03/11/03	Snow emergency	FEMA-3177-EM	PA	$3,000,000	Cheshire, Hillsborough, Merrimack, Rockingham, and Strafford
01/15/04	Snow emergency	FEMA-3193-EM	PA	$3,200,000	Belknap, Carroll, Cheshire, Coos, Grafton, Hillsborough, Merrimack, and Sullivan
03/30/05	Snow emergency	FEMA-3207-EM	PA	$4,654,738	Belknap, Carroll, Cheshire, Grafton, Hillsborough, Merrimack, Rockingham, Strafford, and Sullivan
03/30/05	Snow emergency	FEMA-3208-EM	PA	$1,417,129	Carroll, Cheshire, Coos, Grafton, and Sullivan
04/28/05	Snow emergency	FEMA-3211-EM	PA	$2,677,536	Carroll, Cheshire, Hillsborough, Rockingham, and Sullivan
10/26/05	Severe storm/flooding	FEMA-1610-DR	PA/IA	$14,996,626	Belknap, Cheshire, Grafton, Hillsborough, Merrimack, and Sullivan
05/31/06	Severe storm/flooding	FEMA-1643-DR	PA/IA	$17,691,586	Belknap, Carroll, Grafton, Hillsborough, Merrimack, Rockingham, and Strafford
4/15/2007 - 4/23/2007	Severe storm/flooding	FEMA-1695-DR	PA/IA	$27,000,000	Belknap, Carroll, Cheshire, Coos, Grafton, Hillsborough, Merrimack, Rockingham, Strafford, and Sullivan
08/11/08	Severe storms/tornado/flooding	FEMA-1782-DR	PA	$1,691,240	Belknap, Carroll, Merrimack, Rockingham, and Strafford
09/05/08	Severe storms/flooding	FEMA-1787-DR	PA	$4,967,595	Belknap, Coos, and Grafton
10/03/08	Severe storms/flooding	FEMA-1799-DR	PA	$1,050,147	Hillsborough and Merrimack
12/11/08	Severe winter storm	FEMA-3297-EM	DF A/P A	$900,000	Belknap, Carroll, Cheshire, Coos, Grafton, Hillsborough, Merrimack, Rockingham, Strafford, and Sullivan
01/02/09	Severe winter storm	FEMA-1812-DR	DF A/P A	$19,789,657	Belknap, Carroll, Cheshire, Coos, Grafton, Hillsborough, Merrimack, Rockingham, Strafford, and Sullivan
03/29/10	Severe winter storm	FEMA-1892-DR	PA	$9,103,138	Merrimack, Rockingham, Strafford, and Sullivan
05/12/10	Severe winter storm	FEMA-1913-DR	PA	$3,057,473	Hillsborough and Rockingham

07/22/11	Severe storms/flooding	FEMA-4006-DR	PA	$1,664,140	Coos and Grafton
09/03/11	Tropical storm Irene	FEMA-4026-DR	PA/IA	$11,101,752	Belknap, Carroll, Coos, Grafton, Merrimack, Strafford, and Sullivan
12/07/11	October Nor'easter	FEMA-4049-DR	PA	$4,411,457	Hillsborough and Rockingham
06/18/12	Severe storms/flooding	FEMA-4065-DR	PA	$3,046,189	Cheshire
10/30/12	Hurricane Sandy	DR-4095 EM-3360	PA DFA	$2,132,376	Belknap, Carroll, Cheshire, Coos, Grafton, Hillsborough, Merrimack, Rockingham, Strafford, and Sullivan
2/8/2013 - 2/10/2013	Severe storm/blizzard	DR-4105	PA	$6,127,598	Belknap, Carroll, Cheshire, Hillsborough, Merrimack, Strafford, and Rockingham
6/26/2013 – 7/3/2013	Severe storms/flooding	DR-4139	PA	$6,389,705	Cheshire, Sullivan, and Grafton
1/26/2015 – 1/29/2015	Severe winter storm/snowstorm	DR-4209	PA	$4,607,527	Strafford, Rockingham, and Hillsborough
3/14/2017 – 3/15/2017	Severe winter storm/snowstorm	DR-4316	PA	$80,306.55	Belknap and Carroll
1/1/2017 – 1/2/2017	Severe storms/flooding	DR-4329	PA	$6,218,291	Grafton and Coos
10/29/2017 11/1/2017	Severe Storm/flooding	DR-4355	PA	$4,710,744	Sullivan, Merrimack, Belknap, Carroll, Grafton, Coos
3/2/2018 – 3/3/2018	Severe Storm/flooding	DR-4370	PA, IA	$3,344,036	Rockingham
3/13/2018 – 3/14/2018	Severe Winter Storm/snowstorm	DR-4371	PA, IA	$1,981,453	Carroll, Strafford, Rockingham
7/11/2019- 7/12/2019	Severe Storm/flooding	DR-4457	PA	$675,907,70	Grafton
7/17/2021- 7/19/2021	Severe Storm/flooding	DR-4622	PA	$1,195,832	Cheshire
3/13/2020 – 5/11/2023	COVID-19 Pandemic	EM-3445	PA, IA	NA	New Hampshire
1/20/2020- 5/11/2023	COVID-19 Pandemic	DR-4516	PA, IA	$284,982,234	New Hampshire
7/29/2021- 8/2/2021	Severe Storm/flooding	DR-4624	PA	$3,530,071	Cheshire, Sullivan
12/22/2022- 12/25/2022	Severe Storm/flooding	DR-4693	PA	$1,251,386	Belknap, Carroll, Grafton, Coos
7/9/2023- 7/13/2023	Severe Storm/flooding	DR-4740	PA	$170,675	Rockingham, Cheshire, Sullivan, Grafton, Belknap, Carroll, Coos
12/17/2023- 1/14/2024	Severe Storm/Flooding	DR-4761	PA	N/A	Coos, Grafton, Carroll
1/9/2024- 1/14/2024	Severe Storm/Flooding	DR-4771	PA	N/A	Rockingham, Grafton
Program Key: PA: Public Assistance IA: Individual Assistance DFA: Direct Federal Assistance					

Map 2: Past and Future Hazards



CHAPTER IV – CRITICAL FACILITIES

The Critical Facilities List for the Town of Newington has been created by Newington's Hazard Mitigation Committee. The Critical Facilities List has been broken up into four categories. The first category contains facilities needed for Emergency Response in the event of a disaster. The second category contains Non-Emergency Response Facilities that have been identified by the committee as non-essential. These are not required in an emergency response event but are considered essential for the everyday operation of Newington. The third category contains Facilities/Populations that the committee wishes to protect in the event of a disaster. The fourth category contains Potential Resources, which can provide services or supplies in the event of a disaster. Map 3: Critical Facilities at the end of this Chapter identifies the location of the facilities and the evacuation routes. A detailed description of critical facilities can be found in Tables 6 - 9.

Table 6: Category 1 - Emergency Response Services and Facilities

Critical Facility Name	Address	Comments
Fire Department	80 Fox Point Rd.	Emergency Response
Emergency Operations Center	71 Fox Point Rd.	Emergency Response
Police Department/EOC	71 Fox Point Rd.	Emergency Response
Incident Field Office	Pease Air National Guard	Emergency Response
DES Oil Mitigation Response	222 International Dr.	Emergency Response
Highway Garage	356 Nimble Hill Rd.	Emergency Response
Town Hall	205 Nimble Hill Rd.	Shelter with kitchen
General Sullivan/Ruth Griffin/John Rowe Bridge	Spaulding Turnpike	Evacuation Route

Table 7: Category 2 - Non-Emergency Response Facilities

The town has identified these facilities as non-emergency facilities; however, they are considered essential for the everyday operation of Newington.

Critical Facility Name	Address	Comments
Great Bay Marina	61 Beane Ln.	Fuel Storage
Sprague Terminal	372 Shattuck Way	Oil, Jet Fuel
Town Hall	205 Nimble Hill Rd.	Back-up power, shelter with kitchen
Wastewater Treatment Plan	105 Gosling Rd.	Infrastructure
McIntyre Road bridge, Nimble Hill Road, Shattuck Way		Evacuation Routes

Table 8: Category 3 - Facilities/Populations to Protect

The third category contains people and facilities that need to be protected in the event of a disaster.

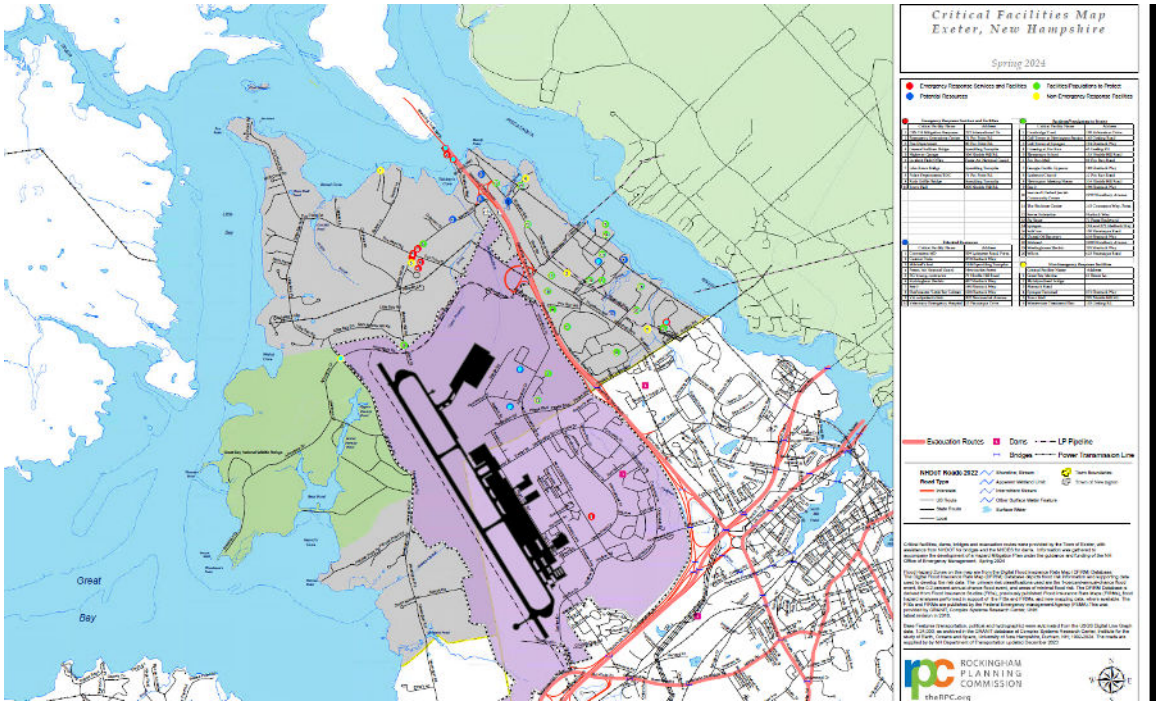
Critical Facility Name	Address	Comments
Cell Tower at Sprague	194 Shattuck Way	Communications
Cell Tower at Newington Station	165 Gosling Road	Communications
Elementary School	133 Nimble Hill Road	Emergency shelter/generator
Newington Meeting House	316 Nimble Hill Road	Historic structure
Sewer Substation	Shattuck Way	Infrastructure
Lutheran Church	22 Fox Run Road	Large population
Seacoast Chabad Jewish Community Center	2299 Woodbury Avenue	
The Birchtree Center	215 Commerce Way, Portsmouth	Large population; Uses old Town Hall as emergency shelter
Fox Run Mall	50 Fox Run Road	Retail center/large population, includes restaurants
Crossing at Fox Run	45 Gosling Rd.	Retail center/large population, movie theater
Walmart	2200 Woodbury Avenue	Retail center/large population
Sprague	194 and 372 Shattuck Way	Oil
Sea-3	190 Shattuck Way	LPG tank storage
United Oil Recovery	410 Shattuck Way	Oil/chemical recycling
Georgia Pacific Gypsum	180 Shattuck Way	Manufacturing
Westinghouse Electric	205 Shattuck Way	Power generation
Essential Power	200 Shattuck Way	Power generation
Granite Shore Power	165 Gosling Road	Power generation
SubCom	100 Piscataqua Road	Manufacturing
Wilcox	425 Piscataqua Road	Manufacturing
Sig Sauer	72 Pease Boulevard	Manufacturing
Cambridge Trust	100 Arboretum Drive	Business

Table 9: Category 4 - Potential Resources

This category contains facilities that provide potential resources for services or supplies in the event of a natural disaster.

Critical Facility Name	Address	Comments
Rockingham Electric	437 Shattuck Way	Equipment and supplies
Custom Pools	373 Shattuck Way	Equipment
RG Young, contractor	72 Nimble Hill Road	Equipment
Little Bay Lobster	158 Shattuck Way	Marine equipment
Veterinary Emergency Hospital	15 Piscataqua Drive	Animal shelter
VA outpatient clinic	302 Newmarket Avenue	Medical supplies
Pease/Air National Guard	Newmarket Street	Equipment, fuel
Mitchell's fuel	1149 Spaulding Turnpike	Fuel
Sea-3	190 Shattuck Way	Fuel
Convenient MD	599 Lafayette Road, Portsmouth	Medical services
Clear Choice MD	750 Lafayette Road, Portsmouth	Medical services
Portsmouth Regional Hospital	333 Borthwick Avenue, Portsmouth	Level two trauma transport hospital
Riverside and Pickering Marine Contractors	34 Patteson Lane	Marine equipment

Map 3: Critical Facilities Map



CHAPTER V – POTENTIAL HAZARD DAMAGE

Identifying Vulnerable Facilities
It is important to determine which critical facilities are the most vulnerable and to estimate their potential loss. The first step is to identify the facilities most likely to be damaged in a hazard event. To do this, the location of critical facilities illustrated on Map 3 was compared to the location of various topographical elements, floodplains, roads, and water bodies using GIS (Geographic Information Systems). Vulnerable facilities were identified by comparing their location to possible hazard events.

Calculating the Potential Loss
The next step in completing the loss estimation involved assessing the level of damage from a hazard event to structures in Newington. To estimate general losses, the total value for all structures in Newington in 2023, $959,456,671, was used to estimate potential damages.

The damage estimates are divided into two categories based on hazard types: hazards that are location specific (e.g. flooding), and hazards that could affect all areas of Newington equally, such as extreme temperatures. Damage estimates from hazards that could affect all of Newington equally are much rougher estimates, based on percentages of the total assessed value of all structures in the community. Damage estimates from hazards with a specific location are derived from the assessed values of the parcels within the hazard area. Assessing and tax map data were used to determine buildings at risk. After identifying the parcels and buildings that are at risk, the next step was to calculate a damage estimate for each potential hazard area. The following discussion summarizes the potential loss estimates due to natural hazard events.

Flooding
In addition to the potential of flood damage and high wind damage discussed above, sea level rise, coastal storm surge, and compound flooding could damage buildings and infrastructure along Great Bay, Little Bay, and the Piscataqua River. The assessed value of all residential and commercial structures in the Town of Newington in 2023 was $959,456,671. Assuming 1% to 5% damage, flooding could result in $9,594,566.71to $47,972,834 of structure damage.

In 2017, the Rockingham Planning Commission completed a Vulnerability Assessment for the Town of Newington identifying impacts associated with projected sea level rise and coastal storm surge. The Assessment estimated the value of infrastructure and residential structures impacted by a 6.3-foot sea level rise scenario, plus storm surge, could be $135,065,400. The report found areas most susceptible to coastal flooding are low-lying areas along Little Bay, Great Bay, and the Piscataqua River.

Newington has significant miles of coastal-tidally-influence shoreline along Little Bay and Great Bay, however due to the increase in elevation landward only certain areas are particularly vulnerable to flooding from seasonal high tides, coastal storms, and sea-level rise. These high-risk areas include land currently used for commercial, industrial, residential, and recreational development and small sections of local roads and NH Route 16 at the Little Bay bridges. The

Vulnerability Assessment identified the following areas as most susceptible to sea-level rise and storm related flooding:

- River Road/Piscataqua River waterfront commercial/industrial area
- Great Bay Marine and low-lying supporting lands
- Fox Point and Newington Town Park conservation lands
- Residential parcels and structures along the west and southwest shorelines
- Shattuck Way, a designated evacuation route
- Fabyan Point
- Only small segments of water distribution pipes are impacted by any of the six sea-level rise and storm surge scenarios. Three residential structures are in flood areas associated with 6.3 feet of sea-level rise, and nine residential structures are in flood areas associated with 6.3 feet of sea-level rise plus storm surge.

Table 10 – Summary of 2017 Vulnerability Assessment Data

Sea-Level Rise (SLR)Scenarios	**SLR 1.7 feet**	**SLR 4.0 feet**	**SLR 6.3 feet**	**SLR 1.7 feet + storm surge**	**SLR 4.0 feet + storm surge**	**SLR 6.3 feet + storm surge**
Infrastructure (# of sites)	0.1	0.1	0.3	0.2	0.4	0.6
Critical Facilities (# of sites)	NA	NA	1	NA	NA	3
Roadways (miles)	0.0	0.1	0.7	0.4	0.9	1.3
Residential Structures	0	0	3	2	6	8
Freshwater Wetlands (acres)	8.2	10.0	11.0	10.9	11.7	15.2
Tidal Wetlands (acres)	113.4	117.5	119.4	118.6	119.8	120.6
Conserved and Public Lands (acres)	20.8	104.4	159.3	126.5	177.1	229.4
100-year Floodplain (acres)	123.2	208.8	217.6	214.8	219.1	222.5

Hurricane/ High Wind Events

Hurricane - Hurricanes do affect the Northeast coast periodically. Since 1900, two hurricanes have made landfall in the State of New Hampshire. Due to the coastal location of the Town of Newington, hurricanes and storm surges present a real hazard to the community. Even degraded hurricanes or tropical storms could still cause significant damage to the structures and infrastructure of the Town of Newington. The assessed value of all residential and commercial structures in the Town of Newington in 2023 was $959,456,671. Assuming 1% to 5% damage, a hurricane could result in $9,594,566.71to $47,972,834 of structure damage.

Tornado - Tornadoes are relatively uncommon natural hazards in New Hampshire. On average, about six touchdowns occur each year. Damage largely depends on where the tornado strikes. If the strike is in an inhabited area, the impact could be severe. The assessed value of all residential and commercial structures in the Town of Newington in 2023 was $959,456,671. Assuming 1% to 5% damage, a tornado could result in $9,594,566.71to $47,972,834 of structure damage.

Severe Lightning - The amount of damage caused by lightning will vary according to the type of structure hit and the type of contents inside. There is no record of monetary damage inflicted in the Town of Newington from lightning strikes.

Severe Winter Weather

Heavy Snowstorms - Heavy snowstorms typically occur during January and February. New England usually experiences at least one or two heavy snowstorms with varying degrees of severity each year. Power outages, extreme cold and impacts to infrastructure are all effects of winter storms that have been felt in Newington in the past. All these impacts are a risk to the community, including isolation, especially of the elderly, and increased traffic accidents. Damage caused by severe winter weather and ice storms varies according to wind velocity, snow accumulation and duration. Newington was impacted by winter storms in March 2023 and March 2024, resulting in power outages and tree damage. Damage caused because of this type of hazard varies according to wind velocity, snow accumulation and duration. The assessed value of all residential and commercial structures in the Town of Newington in 2023 was $959,456,671. Assuming 1% to 5% damage, severe winter weather could result in $9,594,566.71to $47,972,834 of structure damage.

Ice Storms - Ice storms often cause widespread power outages by downing power lines, making power lines at risk in Newington. They can also cause severe damage to trees. Ice storms in Newington could be expected to cause damage ranging from a few thousand dollars to millions of dollars, depending on the severity of the storm.

Earthquakes

Earthquakes can cause buildings and bridges to collapse, disrupt gas, electricity, and phone lines and are often associated with landslides and flash floods. Four earthquakes in New Hampshire between 1924-1989 had magnitudes of 4.2 or more. Two of these occurred in Ossipee, one west of Laconia, and one near the Quebec border. If an earthquake were to impact the Town of Newington, underground lines would be susceptible. In addition, buildings that are not built to a high seismic design level would be susceptible to structural damage. The assessed value of all residential and commercial structures in the Town of Newington in 2023 was $959,456,671. Assuming 1% to 5% damage, an earthquake could result in $9,594,566.71to $47,972,834 of structure damage.

Wildfire

Forest fires are more likely to occur during years of drought. Climate change has resulted in the average length of snowpack decreasing over 12 days over the last fifty years and higher temperatures are allowing diseases and insects that damage trees to move north, providing more fuel for fires. Extreme weather events, such as high winds or ice storms, are also downing trees, providing more fuel for fires. The number of woodland fires in the state increased by over 200%

during the 2016, 2017, and 2022 droughts. The areas identified as at risk of wildfire by the Hazard Mitigation Committee are in forested parts of town, which often abut residential neighborhoods.

Drought

Extended drought can impact municipal water supplies, private drinking wells, and make vegetated areas more susceptible to wildfire (see above). The Town has no record of monetary damage related to drought. The Town advises residents to limit water use during periods of drought and monitors the information provided by the DES Drought Management Program. The Town works closely with the City of Portsmouth's, the water provider, to advise residents on water use during periods of drought. The U.S. Drought Monitor Scale is in the appendix of this Plan.

Extreme Temperatures

New Hampshire experiences between two to ten days per year where the heat index reaches 95 degrees and climate change is increasing the number of extreme heat events impacting Newington. NOAA estimates New Hampshire's temperatures have risen on average more than 3° F since the beginning of the 20th century. The greatest increase occurs in the winter, with an increase of more than 4° F since 1900. Extreme heat impacts health, stresses energy infrastructure, and exacerbates drought conditions.

The Committee determined that all parts of Newington are at risk of impacts associated with extreme heat and cold but the monetary value for this impact cannot be determined. Young and elderly populations are particularly vulnerable. The EMD maintains a list of vulnerable residents and checks in on these people as needed.

Climate Change

The potential hazard damage from climate change is described above under flooding and extreme temperatures.

Infectious Disease

Epidemics have the potential to cause a significant loss of life and/or widespread illness throughout the State, as well as cause disruptions to economies at all levels. The threat of a pandemic influenza, such as COVID-19, exemplifies a devastating situation where there may be an extreme shortage of essential service workers, a rapid transmission of disease from person-to-person, and no effective vaccination to prevent the illness. The monetary value of this impact cannot be determined.

CHAPTER VI – EXISTING HAZARD MITIGATION PROGRAMS

The next step involves identifying existing mitigation strategies for the hazards likely to affect the town and evaluating their effectiveness. This section outlines those programs and recommends improvements and changes to these programs to ensure the highest quality emergency service possible.

Table 11: Existing Hazard Mitigation Programs for the Town of Newington

Existing Protection	Area Covered	Responsible Local Agent	Effectiveness (Poor, Avg., Good)	Recommended Changes-Actions-Comments
2023 Zoning Ordinance	Town-wide	Code Enforcement Officer	Good	Reviewed annually and updated as needed, contains wetland, floodplain, and stormwater regulations
2022 Subdivision Regulations and Site Plan Review Regulations	Town-wide	Planning Board/Town Planner	Good	Reviewed annually and updated as needed.
2020 Master Plan	Town-wide	Planning Board	Good	Update underway
2022 Capital Improvement Program	Town-wide	Planning Board	Average	Update needed
2018 Building Codes	Town-side	Building Inspector/Code Enforcement Officer	Good	The code is in line with state and federal standards.
2017 Vulnerability Assessment	Town-wide	Planning Board/Board of Selectmen	Good	Identifies infrastructure, buildings, and natural resources threatened by sea-level rise and storm surge
2021 Emergency Operations Plan	Town-wide	EMD	Good	Updates as needed
Emergency Services: Police Department	Town-wide	Police Chief	Good	Local and regional training are required for all emergency service personnel

Existing Protection	Area Covered	Responsible Local Agent	Effectiveness (Poor, Avg., Good)	Recommended Changes-Actions-Comments
Emergency Services: Fire Department	Town-wide	Fire Chief	Good	Local and regional training are required for all emergency service personnel
Emergency Services: EMS	Town-wide	EMD/Fire Chief	Good	Service needs reviewed as needed
Emergency Services: EOC	Town-wide	EMD	Average	Located in second floor of police station
Police and Fire Mutual Aid Agreements	Town-wide	Police Chief and Fire Chief	Good	Participates in Seacoast Chiefs and other regional mutual aid agreements
Shelter Plan	Town-wide	EMD	Good	Updated 2022
Public Works	Town-wide	Road Agent	Good	Responsible for town stormwater infrastructure, tree maintenance in town ROW
Tree Trimming Program	Town-wide	Road Agent; Buildings, Safety and Health Officer	Good	DPW and the Buildings, Safety and Health Officer works with utilities to identify and remove hazard trees
State of NH Reverse 911	Town-wide	EMD	Good	Reviewed annually to ensure system works.
Public Alerts, Outreach and Education	Town-wide	EMD, Police Dept., Fire Dept., Town Department Heads/ Elementary School	Good	Information is shared in an effective and timely manner via Town and School websites, social media channels, and Town newsletter; EMD maintains phone list of elderly residents and others that may need assistance

CHAPTER VII – MITIGATION ACTIONS

The Action Plan was developed by analyzing the existing Town programs, the proposed improvements and changes to these programs. Additional programs were also identified as potential mitigation strategies. These potential mitigation strategies were ranked in five categories according to how they accomplished each item:

- Prevention
- Property Protection
- Structural Protection
- Emergency Services
- Public Information and Involvement

Table 12: List of Hazard Mitigation Strategies or Actions Developed by the Natural Hazard Mitigation Committee

Mitigation Strategies or Action	Mitigation Category	Hazard(s) Mitigated	Description	Status 2023: New/Completed/ Deferred/Removed
Replace culvert on Patterson Lane	Structural Protection	Flooding	Reduce road flooding	Completed
Evaluate stormwater systems and ensure proper functionality, especially around Fox Run Mall, to prepare for MSR water quality requirements	Prevention/ Structural Protection	Flooding	Large portions of Newington are located within the designated MS4 permit area. The Town will be responsible to ensure stormwater conveyed to town owned/maintained and operated stormwater infrastructure meets MS4 requirements and is treated prior to outtake to surface waters	Completed Town has received MS4 waiver from EPA
Provide residents with information on water conservation during periods of drought via Town social media channels and newsletter	Public Information and Involvement	Drought	Drought threatens public and private drinking water supplies and fire suppression	Completed

Mitigation Strategies or Action	Mitigation Category	Hazard(s) Mitigated	Description	Status 2023: New/Completed/ Deferred/Removed
Purchase and use portable, electronic road sign to post information on hazard mitigation and emergency preparedness techniques	Public Information and Involvement/ Emergency Services	All Hazards	Using a portable, electronic sign to announce hazard mitigation and emergency preparedness information can increase town hazard mitigation efforts	Completed
Develop plan for sharing Town-owned resources between Town departments	Emergency Services	All Hazards	Access to Town-owned equipment by all departments would enable efficient use of Town resources during periods of emergency response	Completed
Work with the City of Portsmouth to upgrade water supply serving Little Bay Road, Nimble Hill Road, and Newington Road for fire suppression and domestic water use	Prevention/ Structural Protection	All Hazards	Water infrastructure improvements are needed to improve water flow for fire suppression and adequate supply for residential use	Deferred
Establish and maintain an email listserv for town residents and businesses to be used to share pre-disaster and hazard mitigation information and other town information	Prevention/Public Information and Involvement	All Hazards	Establishing and maintaining a list of email addresses for town residents and businesses would enable the Town to share hazard mitigation information	New
Establish and maintain Town social media accounts to share pre-disaster and hazard mitigation information and other town information	Prevention/Public Information and Involvement	All Hazards	Establishing and maintaining Town social media accounts would enable the Town to share hazard mitigation information	New

Mitigation Strategies or Action	Mitigation Category	Hazard(s) Mitigated	Description	Status 2023: New/Completed/ Deferred/Removed
Install a permanent electronic sign board outside the Town Hall for emergency messaging and announcements	Prevention/Public Information and Involvement	All Hazards	Installing a sign outside Town Hall would enable the posting of information on storm preparedness and mitigation	New
Remove hazard trees along town road right of ways	Prevention	High wind events	Removing hazard trees could prevent future power outages, road closures, and structural damage	New
Install erosion and sediment control at Fox Point to protect regional water distribution infrastructure and conservation land	Structural Protection	Extreme precipitation Flooding	Installing erosion and sediment control at Fox Point will provide protection to regional water distribution infrastructure and protect conservation land from additional erosion	New
Study evacuation routes and the impact of weight limits on McIntyre Bridge on emergency evacuation	Structural Protection/ Emergency Services	All Hazards	Weight limits on McIntyre Bridge impede evacuation routes	New
Purchase and install replacement generators at the Police Dept., Fire Dept., Town Hall, and Highway Garage	Emergency Services	All Hazards	New generators are needed at municipal facilities to ensure emergency services	New
Develop and adopt an MOU with Seacoast Public Health Network to strengthen the partnership with the Town during public health emergencies.	Prevention/ Emergency Services/Public Information and Involvement	Infectious Diseases	Seacoast Public Health Network partners with municipalities to respond quickly and effectively in a public health emergency	New
Design and construct access for emergency vehicles along the Fox Point Road trail	Emergency Services	All Hazards	Creating vehicle access along the trail enables passage of emergency vehicles when other roads are unpassable	New

CHAPTER VIII – FEASIBILITY AND PRIORITIZATION OF PROPOSED MITIGATION STRATEGIES

The goal of each strategy or action is reduction or prevention of damage from a hazard event. To determine their effectiveness in accomplishing this goal, a set of criteria was applied to each proposed strategy. The Committee used STAPLEE assessment tool to rank the proposed mitigation actions. The STAPLEE method analyzes the Social, Technical, Administrative, Political, Legal, Economic and Environmental aspects of a project and is commonly used by public administration officials and planners for making planning decisions. The following questions were asked about the proposed mitigation strategies identified in Table 12:

- Does it reduce disaster damage?
- Does it contribute to other goals?
- Does it benefit the environment?
- Does it meet regulations?
- Will historic structures be saved or protected?
- Does it help achieve other community goals?
- Could it be implemented quickly?

STAPLEE criteria:

Social: Is the proposed strategy socially acceptable to the community? Are there equity issues involved that would mean that one segment of the community is treated unfairly?

Technical: Will the proposed strategy work? Will it create more problems than it solves?

Administrative: Can the community implement the strategy? Is there someone to coordinate and lead the effort?

Political: Is the strategy politically acceptable? Is there public support both to implement and to maintain the project?

Legal: Is the community authorized to implement the proposed strategy? Is there a clear legal basis or precedent for this activity?

Economic: What are the costs and benefits of this strategy? Does the cost seem reasonable for the size of the problem and the likely benefits?

Environmental: How will the strategy impact the environment? Will the strategy need environmental regulatory approvals?

Each proposed mitigation strategy was evaluated using the above criteria and assigned a score (Good = 3, Average = 2, Poor = 1) based on the above criteria. An evaluation chart with total scores for each strategy can be found in the collection of individual tables under Tables 6.

Table 13a: Work with the City of Portsmouth to upgrade water supply serving Little Bay Road, Nimble Hill Road, and Newington Road for fire suppression and domestic water use

Criteria	Score
Does it reduce disaster damage?	3
Does it contribute to other goals?	3
Does it benefit the environment?	2
Does it meet regulations?	3
Will historic structures be saved or protected?	3
Does it help achieve other community goals?	2
Could it be implemented quickly?	1
S: Is it Socially acceptable?	2
T: Is it Technically feasible and potentially successful?	3
A: Is it Administratively workable?	2
P: Is it Politically acceptable?	2
L: Is there Legal authority to implement?	2
E: Is it Economically beneficial?	1
E: Are other Environmental approvals required?	2
SCORE	**31**

Table 13b: Establish and maintain a voluntary email listserv of residents and businesses to share hazard mitigation and other town-related information

Criteria	Score
Does it reduce disaster damage?	1
Does it contribute to other goals?	3
Does it benefit the environment?	2
Does it meet regulations?	1
Will historic structures be saved or protected?	1
Does it help achieve other community goals?	3
Could it be implemented quickly?	3
S: Is it Socially acceptable?	3
T: Is it Technically feasible and potentially successful?	3
A: Is it Administratively workable?	3
P: Is it Politically acceptable?	2
L: Is there Legal authority to implement?	3
E: Is it Economically beneficial?	3
E: Are other Environmental approvals required?	3
SCORE	**34**

Table 13c: Establish and maintain Town social media accounts to share hazard mitigation information and other town information

Criteria	Score
Does it reduce disaster damage?	1
Does it contribute to other goals?	3
Does it benefit the environment?	2
Does it meet regulations?	1
Will historic structures be saved or protected?	1
Does it help achieve other community goals?	3
Could it be implemented quickly?	3
S: Is it Socially acceptable?	3
T: Is it Technically feasible and potentially successful?	3
A: Is it Administratively workable?	3
P: Is it Politically acceptable?	2
L: Is there Legal authority to implement?	3
E: Is it Economically beneficial?	3
E: Are other Environmental approvals required?	3
SCORE	**34**

Table 13d: Install permanent electronic sign outside Town Hall

Criteria	Score
Does it reduce disaster damage?	1
Does it contribute to other goals?	3
Does it benefit the environment?	2
Does it meet regulations?	1
Will historic structures be saved or protected?	1
Does it help achieve other community goals?	3
Could it be implemented quickly?	3
S: Is it Socially acceptable?	3
T: Is it Technically feasible and potentially successful?	3
A: Is it Administratively workable?	3
P: Is it Politically acceptable?	2
L: Is there Legal authority to implement?	3
E: Is it Economically beneficial?	3
E: Are other Environmental approvals required?	3
SCORE	**34**

Table 13e: Remove hazard trees

Criteria	Score
Does it reduce disaster damage?	3
Does it contribute to other goals?	3
Does it benefit the environment?	3
Does it meet regulations?	3
Will historic structures be saved or protected?	3
Does it help achieve other community goals?	3
Could it be implemented quickly?	3
S: Is it Socially acceptable?	3
T: Is it Technically feasible and potentially successful?	3
A: Is it Administratively workable?	3
P: Is it Politically acceptable?	3
L: Is there Legal authority to implement?	3
E: Is it Economically beneficial?	3
E: Are other Environmental approvals required?	3
SCORE	**42**

Table 13f: Install erosion and sediment control at Fox Point to protect regional water distribution infrastructure and conservation land

Criteria	**Score**
Does it reduce disaster damage?	3
Does it contribute to other goals?	3
Does it benefit the environment?	3
Does it meet regulations?	3
Will historic structures be saved or protected?	3
Does it help achieve other community goals?	3
Could it be implemented quickly?	2
S: Is it Socially acceptable?	3
T: Is it Technically feasible and potentially successful?	3
A: Is it Administratively workable?	3
P: Is it Politically acceptable?	3
L: Is there Legal authority to implement?	3
E: Is it Economically beneficial?	3
E: Are other Environmental approvals required?	1
SCORE	**39**

Table 13g: Assess evacuation routes and the impact of weight limits on McIntyre Bridge on emergency evacuation

Criteria	Score
Does it reduce disaster damage?	3
Does it contribute to other goals?	3
Does it benefit the environment?	2
Does it meet regulations?	3
Will historic structures be saved or protected?	1
Does it help achieve other community goals?	3
Could it be implemented quickly?	1
S: Is it Socially acceptable?	2
T: Is it Technically feasible and potentially successful?	3
A: Is it Administratively workable?	3
P: Is it Politically acceptable?	2
L: Is there Legal authority to implement?	3
E: Is it Economically beneficial?	2
E: Are other Environmental approvals required?	1
SCORE	**32**

Table 13h: Purchase and install replacement generators at the Police Department, Fire Department, Town Hall, and Highway Garage

Criteria	Score
Does it reduce disaster damage?	3
Does it contribute to other goals?	3
Does it benefit the environment?	3
Does it meet regulations?	3
Will historic structures be saved or protected?	1
Does it help achieve other community goals?	3
Could it be implemented quickly?	2
S: Is it Socially acceptable?	3
T: Is it Technically feasible and potentially successful?	3
A: Is it Administratively workable?	3
P: Is it Politically acceptable?	3
L: Is there Legal authority to implement?	3
E: Is it Economically beneficial?	3
E: Are other Environmental approvals required?	3
SCORE	**39**

Table 13i: Develop and adopt an MOU with Seacoast Public Health Network to strengthen the partnership with the Town during public health emergencies

Criteria	Score
Does it reduce disaster damage?	3
Does it contribute to other goals?	3
Does it benefit the environment?	3
Does it meet regulations?	3
Will historic structures be saved or protected?	1
Does it help achieve other community goals?	2
Could it be implemented quickly?	2
S: Is it Socially acceptable?	3
T: Is it Technically feasible and potentially successful?	3
A: Is it Administratively workable?	3
P: Is it Politically acceptable?	2
L: Is there Legal authority to implement?	2
E: Is it Economically beneficial?	2
E: Are other Environmental approvals required?	3
SCORE	**35**

Table 13j: Design and construct access for emergency vehicles along the Fox Point Road trail

Criteria	Score
Does it reduce disaster damage?	3
Does it contribute to other goals?	3
Does it benefit the environment?	3
Does it meet regulations?	3
Will historic structures be saved or protected?	3
Does it help achieve other community goals?	1
Could it be implemented quickly?	1
S: Is it Socially acceptable?	2
T: Is it Technically feasible and potentially successful?	2
A: Is it Administratively workable?	2
P: Is it Politically acceptable?	2
L: Is there Legal authority to implement?	2
E: Is it Economically beneficial?	3
E: Are other Environmental approvals required?	2
SCORE	**33**

CHAPTER IX – IMPLEMENTATION SCHEDULE FOR PRIORITY MITIGATION ACTIONS

This step involves developing an action plan that outlines who is responsible for implementing each of the prioritized strategies determined in the previous step, as well as when and how the actions will be implemented. The following questions were asked to develop an implementation schedule for the identified priority mitigation strategies:

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

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

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

Table 14 is the Action Plan, and includes the responsible party (WHO), how the project will be supported (HOW), and what the timeframe is for implementation of the project (WHEN). Also included is a cost estimate for each project if available.

Table 14: Action Plan for Proposed Mitigation Actions

STAPLEE Score	Project	Responsibility/ Oversight	Funding/ Support	Estimated Cost	Time frame
42	Remove hazard trees	Highway Dept.	Town	$10,000	Short Term 1 year
39	Install erosion and sediment control at Fox Point to protect regional water distribution infrastructure and conservation land	Town Administration	Town/NH DES/ EMPG	$350,000	Medium Term 2-3 years
39	Purchase and install replacement generators at the Police Dept., Fire Dept., Town Hall, and Highway Garage	Town Administration/ EMD	Town/EMPG	$50,000 each	Short Term 1 Year – Police Dept. Medium Term 2-3 years – Fire Dept., Town Hall, Highway Garage

STAPLEE Score	Project	Responsibility/ Oversight	Funding/ Support	Estimated Cost	Time frame
35	Develop and adopt an MOU with Seacoast Public Health Network to strengthen partnership with Town during public health emergencies	Town Administrator/ EMD/Health Officer	Town	$500	Short Term 1 year
34	Establish and maintain Town social media accounts to share hazard mitigation and other town information	Town Administration	Town	No cost	Short Term 1 year
34	Establish and maintain a voluntary email listserv of residents and businesses to share hazard mitigation and other town information	Town Administration	Town	$2,000	Short Term 1 year
34	Install permanent electronic sign outside Town Hall	Town Administration	Town/EMPG	$20,000	Medium Term 2-3 years
33	Design and construct access for emergency vehicles along the Fox Point Road trail	EMD/Highway Dept.	Town/EMPG	Unknow	Medium Term 2-3 years
32	Assess emergency evacuation routes and weight limits on McIntyre Bridge	Town Administration/ Highway Dept.	Town/NH DOT	$50,000	Medium Term 2-3 years
31	Work with City of Portsmouth to upgrade water supply serving Little Bay Road, Nimble Hill Road, and Newington Road for fire suppression and domestic water use	Town Administration	Town/DES	Unknown	Long Term 5 years
	Design and construct access for emergency vehicles along the Fox Point Road Trail	Town Administration/ EMD/Highway Dept.	Town/EMPG	?	?

Sources of funding and support for the projects listed in Table 14 include:

- Town of Newington – Annual Town Department and Town Board and Commission operating budgets, Capital Improvements Plan allocation, and department staff time.

- State of New Hampshire – The State of New Hampshire oversees several competitive grant programs designed to fund the projects listed in Table 13, including the Clean Water State Revolving Fund, Climate Pollution Reduction Grants, Coastal Resilience Grants, Drinking Water-Related Grants, Drinking Water State Revolving Fund, Drinking Water and Groundwater Trust Fund, Infrastructure Funding/ARPA, Watershed Assistance Grants, and the Department of Transportation Ten Year Plan prioritized projects.

- Federal – Sources of federal grants for hazard mitigation are included in Appendix b.

CHAPTER X – MONITORING, EVALUATING, AND UPDATING THE PLAN

Incorporating the Plan into Existing Planning Mechanisms

Upon review and approval by FEMA and the State of New Hampshire, the Plan Update will be adopted as a standalone document of the Town and as an appendix of the Town's Emergency Operations Plan (EOP). The Plan will also be consulted when the Town updates its Master Plan and Capital Improvement Program (CIP), develops the annual town budget, and amends local land use regulations. The Planning Board is responsible for updating the CIP annually and will review the Action Plan during each update. The Planning Board in conjunction with the Co-Emergency Management Directors will determine what items can and should be added to the CIP based on the Town's annual budget and possible sources of other funding. Considerations about future land use and proximity to current and potential hazard areas need to be inherently part of the planning process. NH RSA 674:2 III (e) gives cities the authority to include a natural hazards section, which documents the physical characteristics, severity, and extent of any potential natural hazards to the community, within the framework of a Master Plan.

Monitoring, Evaluating and Updating the Plan

Recognizing that many mitigation projects are ongoing, and that while in the implementation stage communities may suffer budget cuts, experience staff turnover, or projects may fail altogether, a good plan needs to provide for periodic monitoring and evaluation of its successes and failures and allow for updates of the Plan where necessary.

To track progress and update the Mitigation Strategies identified in the Action Plan, the Hazard Mitigation Committee shall remain active and will revisit the Plan annually and after each natural hazard event. These reviews will assess the Plan's effectiveness, accuracy, and completeness in achieving its stated purpose and goals. Plan reviews will also address the recommended improvements to the Plan as contained in the FEMA plan review checklist and any weaknesses the Town identified that the Plan did not adequately address. The Plan will also be thoroughly updated every five years. This review will incorporate any new information based on changing conditions in land use, hazard types, and climate change. The Co-Emergency Management Directors are responsible for initiating these reviews and will involve appropriate stakeholders. In keeping with the process of adopting the 2023 Plan Update, a public hearing to receive public comment on Plan maintenance and updating will be held during any review of the Plan. This publicly noticed meeting will allow for members of the community not involved in developing the Plan to provide input and comments each time the Plan is revised. The final revised Plan will be adopted by the Board of Selectmen appropriately, at a second publicly noticed meeting, and posted on the Town website to enable public review.

Changes will be made to the Plan to accommodate for projects that have failed or are not considered feasible after a review of their consistency with STAPLEE, the timeframe, the

community's priorities, and funding resources. Priorities that were not ranked high, but identified as potential mitigation strategies, will be reviewed as well during the monitoring and update of this Plan to determine feasibility of future implementation.

APPENDIX A – SUMMARY OF HAZARD MITIGAITON STRATEGIES

I. RIVERINE MITIGATION

A. PREVENTION - Prevention measures are intended to keep the problem from occurring in the first place, and/or keep it from getting worse. Future development should not increase flood damage. Building, zoning, planning, and/or code enforcement officials usually administer preventative measures.

1. Planning and Zoning - Land use plans are put in place to guide future development, recommending where - and where not - development should occur. Sensitive and vulnerable lands can be designated for uses that would not be incompatible with occasional flood events - such as parks or wildlife refuges. A Capital Improvements Program can recommend the setting aside of funds for public acquisition of these designated lands. The zoning ordinance can regulate development in these sensitive areas by limiting or preventing some or all development - for example, by designating floodplain overlay, conservation, or agricultural districts.

2. Open Space Preservation - Preserving open space is the best way to prevent flooding and flood damage. Open space preservation should not, however, be limited to the flood plain, since other areas within the watershed may contribute to controlling the runoff that exacerbates flooding. Land Use and Capital Improvement Plans should identify areas to be preserved by acquisition and other means, such as purchasing easements. Aside from outright purchase, open space can also be protected through maintenance agreements with the landowners, or by requiring developers to dedicate land for flood flow, drainage and storage.

3. Floodplain Development Regulations - Floodplain development regulations typically do not prohibit development in the special flood hazard area, but they do impose construction standards on what is built there. The intent is to protect roads and structures from flood damage and to prevent the development from aggravating the flood potential. Floodplain development regulations are generally incorporated into subdivision regulations, building codes, and floodplain ordinances, which either stand-alone or are contained within a zoning ordinance.

Subdivision Regulations: These regulations govern how land will be divided into separate lots or sites. They should require that any flood hazard areas be shown on the plat, and that every lot has a buildable area that is above the base flood elevation.

Building Codes: Standards can be incorporated into building codes that address flood proofing for all new and improved or repaired buildings.

Floodplain Ordinances: Communities that participate in the National Flood Insurance Program are required to adopt the minimum floodplain management regulations, as developed by FEMA. The regulations set minimum standards for subdivision regulations and

building codes. Communities may adopt more stringent standards than those set forth by FEMA.

4. Stormwater Management - Development outside of a floodplain can contribute significantly to flooding by covering impervious surfaces, which increases storm water runoff. Storm water management is usually addressed in subdivision regulations. Developers are typically required to build retention or detention basins to minimize any increase in runoff caused by new or expanded impervious surfaces, or new drainage systems. Generally, there is a prohibition against storm water leaving the site at a rate higher than it did before the development. One technique is to use wet basins as part of the landscaping plan of a development. It might even be possible to site these basins based on a watershed analysis. Since detention only controls the runoff rates and not volumes, other measures must be employed for storm water infiltration - for example, swales, infiltration trenches, vegetative filter strips, and permeable paving blocks.

5. Drainage System Maintenance - Ongoing maintenance of channel and detention basins is necessary if these facilities are to function effectively and efficiently over time. A maintenance program should include regulations that prevent dumping in or altering watercourses or storage basins; regrading and filling should also be regulated. Any maintenance program should include a public education component, so that the public becomes aware of the reasons for the regulations. Many people do not realize the consequences of filling in a ditch or wetland or regrading their yard without concern for runoff patterns.

B. PROPERTY PROTECTION - Property protection measures are used to modify buildings subject to flood damage, rather than to keep floodwaters away. These may be less expensive to implement, as they are often carried out on a cost-sharing basis. In addition, many of these measures do not affect a building's appearance or use, which makes them particularly suitable for historical sites and landmarks.

1. Relocation - Moving structures out of the floodplain is the surest and safest way to protect against damage. Relocation is expensive, however, so this approach will probably not be used except in extreme circumstances. Communities that have areas subject to severe storm surges, ice jams, etc. might want to consider establishing a relocation program, incorporating available assistance.

2. Acquisition - Acquisition by a governmental entity of land in a floodplain serves two main purposes: (1) it ensures that the problem of structures in the floodplain will be addressed; and (2) it has the potential to convert problem areas into community assets, with accompanying environmental benefits. Acquisition is more cost effective than relocation in those areas that are subject to storm surges, ice jams, or flash flooding. Acquisition, followed by demolition, is the most appropriate strategy for those buildings that are simply too expensive to move, as well as for dilapidated structures that are not worth saving or protecting. Relocation can be expensive; however, there are government grants and loans that can be applied toward such efforts.

3. Building Elevation - Elevating a building above the base flood elevation is the best on-site protection strategy. The building could be raised to allow water to run underneath it, or fill could be brought in to elevate the site on which the building sits. This approach is cheaper than relocation and tends to be less disruptive to a neighborhood. Elevation is required by law for new and substantially improved residences in a floodplain and is commonly practiced in flood hazard areas nationwide.

4. Floodproofing - If a building cannot be relocated or elevated, it may be floodproofed. This approach works well in areas of low flood threat. Flood proofing can be accomplished through barriers to flooding, or by treatment to the structure itself.

Barriers: Levees, floodwalls and berms can keep floodwaters from reaching a building. These are useful, however, only in areas subject to shallow flooding.

Dry Flood proofing: This method seals a building against the water by coating the walls with waterproofing compounds or plastic sheeting. Openings, such doors, windows, etc. are closed either permanently with removable shields or with sandbags.

Wet Flood proofing: This technique is usually considered a last resort measure, since water is intentionally allowed into the building to minimize pressure on the structure. Approaches range from moving valuable items to higher floors to rebuilding the floodable area. An advantage over other approaches is that simply by moving household goods out of the range of floodwaters, thousands of dollars can be saved in damages.

5. Sewer Backup Protection - Storm water overloads can cause backup into basements through sanitary sewer lines. Houses that have any kind of connection to a sanitary sewer system - whether it is downspouts, footing drain tile, and/or sump pumps, can be flooded during a heavy rain event. To prevent this, there should be no such connections to the system, and all rain and ground water should be directed onto the ground, away from the building. Other protections include:

- Floor drain plugs and floor drain standpipe, which keep water from flowing out of the lowest opening in the house.

- Overhead sewer - keeps water in the sewer line during a backup.

- Backup valve - allows sewage to flow out while preventing backups from flowing into the house.

6. Insurance - Above and beyond standard homeowner insurance, there is other coverage a homeowner can purchase to protect against flood hazard. Two of the most common are National Flood Insurance and basement backup insurance.

National Flood Insurance: When a community participates in the National Flood Insurance Program, any local insurance agent can sell separate flood insurance policies under rules and rates set by FEMA. Rates do not change after claims are paid because they are set on a national basis.

Basement Backup Insurance: National Flood Insurance offers an additional deductible for seepage and sewer backup, provided there is a general condition of flooding in the area that was the proximate cause of the basement getting wet. Most exclude damage from surface flooding that would be covered by the NFIP.

C. NATURAL RESOURCE PROTECTION - Preserving or restoring natural areas or the natural functions of floodplain and watershed areas provide the benefits of eliminating or minimizing losses from floods, as well as improve water quality and wildlife habitats. Parks, recreation, or conservation agencies usually implement such activities. Protection can also be provided through various zoning measures that are specifically designed to protect natural resources.

1. Wetlands Protection - Wetlands can store large amounts of floodwaters, slowing and reducing downstream flows, and filtering the water. Any development that is proposed in a wetland is regulated by either federal and/or state agencies. Depending on the location, the project might fall under the jurisdiction of the U.S. Army Corps of Engineers, which in turn, calls upon several other agencies to review the proposal. In New Hampshire, the N.H. Wetlands Board must approve any project that impacts a wetland. And, many communities in New Hampshire also have local wetland ordinances. Generally, the goal is to protect wetlands by preventing development that would adversely affect them. Mitigation techniques are often employed, which might consist of creating a wetland on another site to replace what would be lost through the development. This is not an ideal practice, however, since it takes many years for a new wetland to achieve the same level of quality as an existing one.

2. Erosion and Sedimentation Control - Controlling erosion and sediment runoff during construction and on farmland is important, since eroding soil will typically end up in downstream waterways. And, because sediment tends to settle where the water flow is slower, it will gradually fill in channels and lakes, reducing their ability to carry or store floodwaters. Practices to reduce erosion and sedimentation have two principal components: (1) minimize erosion with vegetation and; (2) capture sediment before it leaves the site. Slowing the runoff increases infiltration into the soil, thereby controlling the loss of topsoil from erosion and the resulting sedimentation. Runoff can be slowed by vegetation, terraces, contour strip farming, no-till farm practices, and impoundments (such as sediment basins, farm ponds, and wetlands).

3. Best Management Practices - Best Management Practices (BMPs) are measures that reduce nonpoint source pollutants that enter waterways. Nonpoint source pollutants are carried by storm water to waterways, and include such things as lawn fertilizers, pesticides, farm chemicals, and oils from street surfaces and industrial sites. BMPs can be incorporated into many aspects of new developments and ongoing land use practices. In New Hampshire, the Department of Environmental Services has developed best management practices for a range of activities, from farming to earth excavations.

D. EMERGENCY SERVICES - Emergency services protect people during and after a flood. Many communities in New Hampshire have emergency management programs in place, administered by an emergency management director (very often the local police or fire chief).

1. Flood Warning - On large rivers, the National Weather Service handles early recognition. Communities on smaller rivers must develop their own warning systems. Warnings may be disseminated in a variety of ways, such as sirens, radio, television, mobile public-address systems, or door-to-door contact. It seems that multiple or redundant systems are the most effective, giving people more than one opportunity to be warned.

2. Flood Response - Flood response refers to actions that are designed to prevent or reduce damage or injury, once a flood threat is recognized. Such actions and the appropriate parties include:

- activating the emergency operations center (emergency director)
- sandbagging designated areas (public works department)
- closing streets and bridges (police department)
- shutting off power to threatened areas (public service)
- releasing children from school (school district)
- ordering an evacuation (selectmen/city council/emergency director)
- opening evacuation shelters (churches, schools, Red Cross, municipal facilities)

These actions should be part of a flood response plan, which should be developed in coordination with the persons and agencies that share the responsibilities. Drills and exercises should be conducted so that the key participants know what they are supposed to do.

3. Critical Facilities Protection - Protecting critical facilities is vital, since expending efforts on these facilities can draw workers and resources away from protecting other parts of the community. Buildings or locations vital to the flood response effort:

- emergency operations centers
- police and fire stations
- hospitals
- highway garage
- selected roads and bridges
- evacuation routes
- buildings or locations that, if flooded, would create secondary disasters
- hazardous materials facilities
- water/wastewater treatment plants
- schools
- nursing homes

All such facilities should have their own flood response plan that is coordinated with the community's plan. Nursing homes, other public health facilities, and schools will typically be required by the state to have emergency response plans in place.

4. Health and Safety Maintenance - The flood response plan should identify appropriate measures to prevent danger to health and safety. Such measures include:

- patrolling evacuated areas to prevent looting

- providing safe drinking water
- vaccinating residents for tetanus
- clearing streets
- cleaning up debris

The plan should also identify which agencies will be responsible for carrying out the identified measures. A public information program can be helpful to educate residents on the benefits of taking health and safety precautions.

Structural Projects - Structural projects are used to prevent floodwaters from reaching properties. These are all man-made structures and can be grouped into the six types of discussed below. The shortcomings of structural approaches are that:

- they can be very expensive
- they disturb the land, disrupt natural water flows, and destroy natural habitats
- they are built to an anticipated flood event, and may be exceeded by a greater-than-expected flood
- they can create a false sense of security

Reservoirs - Reservoirs control flooding by holding water behind dams or in storage basins. After a flood peaks, water is released or pumped out slowly at a rate the river downstream can handle.

Reservoirs are suitable for protecting existing development, and they may be the only flood control measure that can protect development close to a watercourse. They are most efficient in deeper valleys or on smaller rivers where there is less water to store. Reservoirs might consist of man-made holes dug to hold the approximate amount of floodwaters, or even abandoned quarries. As with other structural projects, reservoirs:

- are expensive
- occupy a lot of land
- require periodic maintenance
- may fail to prevent damage from floods that exceed their design levels
- may eliminate the natural and beneficial functions of the floodplain

Reservoirs should only be used after a thorough watershed analysis that identifies the most appropriate location and ensures that they would not cause flooding somewhere else. Because they are so expensive and usually involve more than one community, they are typically implemented with the help of state or federal agencies, such as the Army Corps of Engineers.

Levees/Floodwalls - Probably the best know structural flood control measure is either a levee (a barrier of earth) or a floodwall made of steel or concrete erected between the watercourse and the land. If space is a consideration, floodwalls are typically used, since levees need more space. Levees and floodwalls should be set back out of the floodway, so that they will not divert floodwater onto other properties.

Diversions - A diversion is simply a new channel that sends floodwater to a different location, thereby reducing flooding along an existing watercourse. Diversions can be surface channels, overflow weirs, or tunnels. During normal flows, the water stays in the old channel. During flood flows, the stream spills over the diversion channel or tunnel, which carries the excess water to the receiving lake or river.

Diversions are limited by topography; they won't work everywhere. Unless the receiving water body is relatively close to the flood prone stream and the land in between is low and vacant, the cost of creating a diversion can be prohibitive. Where topography and land use are not favorable, a more expensive tunnel is needed. In either case, care must be taken to ensure that the diversion does not create a flooding problem somewhere else.

Channel Modifications - Channel modifications include making a channel wider, deeper, smoother, or straighter. These techniques will result in more water being carried away, but, as with other techniques mentioned, it is important to ensure that the modifications do not create or increase a flooding problem downstream.

Dredging: Dredging is often cost-prohibitive because the dredged material must be disposed of somewhere else, and the stream will usually fill back in with sediment. Dredging is usually undertaken only on larger rivers, and then only to maintain a navigation channel.

Drainage modifications: These include man-made ditches and storm sewers that help drain areas where the surface drainage system is inadequate or where underground drainage ways may be safer or more attractive. These approaches are usually designed to carry the runoff from smaller, more frequent storms.

Storm Sewers - Mitigation techniques for storm sewers include installing new sewers, enlarging small pipes, street improvements, and preventing back flow. Because drainage ditches and storm sewers convey water faster to other locations, improvements are only recommended for small local problems where the receiving body of water can absorb the increased flows without increased flooding.

In many developments, streets are used as part of the drainage system, to carry or hold water from larger, less frequent storms. The streets collect runoff and convey it to a receiving sewer, ditch, or stream. Allowing water to stand in the streets and then draining it slowly can be a more effective and less expensive measure than enlarging sewers and ditches.

Public Information - Public information activities are intended to advise property owners, potential property owners, and visitors about the hazards associated with a property, ways to protect people and property from these hazards, and the natural and beneficial functions of a floodplain.

1. **Map Information -** Flood maps developed by FEMA outline the boundaries of the flood hazard areas. These maps can be used by anyone interested in a property to determine if it is flood-prone. These maps are available from FEMA, the NH Office of Emergency Management, the NH Office of State Planning, or your regional planning commission.

Outreach Projects - Outreach projects are proactive; they give the public information even if they have not asked for it. Outreach projects are designed to encourage people to seek out more information and take steps to protect themselves and their properties. Examples of outreach activities include:

- Mass mailings or newsletters and e-newsletters to all residents
- Posting resource information on town website and social media accounts
- Notices directed to floodplain residents
- Displays in public buildings, malls, etc.
- Newspaper articles and special sections
- Radio and TV news releases and interview shows
- A local flood proofing video for cable TV programs and to loan to organizations
- A detailed property owner handbook tailored for local conditions
- Presentations at meetings of neighborhood groups

Research has shown that outreach programs work, although awareness is not enough. People need to know what they can do about the hazards, so projects should include information on protection measures. Research also shows that locally designed and run programs are much more effective than national advertising.

Real Estate Disclosure - Disclosure of information regarding flood-prone properties is important if potential buyers are to be able to mitigate damage. Federally regulated lending institutions are required to advise applicants that a property is in the floodplain. However, this requirement needs to be met only five days prior to closing, and by that time, the applicant is typically committed to the purchase. State laws and local real estate practice can help by making this information available to prospective buyers early in the process.

Library - Your local library can serve as a repository for pertinent information on flooding and flood protection. Some libraries also maintain their own public information campaigns, augmenting the activities of the various governmental agencies involved in flood mitigation.

Technical Assistance - Certain types of technical assistance are available from the NFIP Coordinator, FEMA, and the Natural Resources Conservation District. Community officials can also set up a service delivery program to provide one-on-one sessions with property owners. An example of technical assistance is the flood audit, in which a specialist visits a property. Following the visit, the owner is provided with a written report, detailing the past and potential flood depths, and recommending alternative protection measures.

Environmental Education - Education can be a great mitigating tool, if people can learn what not to do before damage occurs. And the sooner the education begins, the better. Environmental education programs for children can be taught in the schools, park and recreation departments, conservation associations, or youth organizations. An activity can be as involved as course curriculum development or as simple as an explanatory sign near a river. Education programs do not have to be limited to children. Adults can benefit from knowledge of flooding and mitigation measures. And decision-makers, armed with this knowledge, can make a difference in their communities.

II. EARTHQUAKES

A. PREVENTIVE - Planning/zoning to keep critical facilities away from fault lines.
Planning, zoning and building codes to avoid areas below steep slopes or soils subject to liquefaction.
Building codes to prohibit loose masonry, overhangs, etc.

B. PROPERTY PROTECTION:
Acquire and clear hazard areas.
Retrofitting to add braces, remove overhangs.
Apply mylar to windows and glass surfaces to protect from shattering glass.
Tie down major appliances provide flexible utility connections.
Earthquake insurance riders.

C. EMERGENCY SERVICES - Earthquake response plans to account for secondary problems, such as fires and hazardous materials spills.

D. EMERGENCY SERVICES - Slope stabilization.

III. DAM FAILURE

A. PREVENTIVE:
Dam failure inundation maps.
Planning/zoning/open space preservation to keep area clear.
Building codes with flood elevation based on dam failure.
Dam safety inspections.
Draining the reservoir when conditions appear unsafe.

B. PROPERTY PROTECTION - Acquisition of buildings in the path of a dam breach flood. Flood insurance.

C. EMERGENCY SERVICES - Dam conditioning monitoring; warning and evacuation plans based on dam failure.

D. EMERGENCY SERVICES - Dam improvements, spillway enlargements. Remove unsafe dams.

IV. WILDFIRES

A. PREVENTIVE:
Zoning districts to reflect fire risk zones.
Planning and zoning to restrict development in areas near fire protection and water resources.
Requiring new subdivisions to space buildings, provide firebreaks, on-site water storage, wide roads multiple accesses.
Building code standards for roof materials, spark arrestors.
Maintenance programs to clear dead and dry bush, trees.
Regulation on open fires.

B. PROPERTY PROTECTION:
Retrofitting of roofs and adding spark arrestors.
Landscaping to keep bushes and trees away from structures.
Insurance rates based on distance from fire protection.

C. NATURAL RESOURCE PROTECTION - Prohibit development in high-risk areas.

D. EMERGENCY SERVICES - Fire Fighting

V. WINTER STORMS

A. PREVENTIVE - Building code standards for light frame construction, especially for wind-resistant roofs.

B. PROPERTY PROTECTION:

Storm shutters and windows
Hurricane straps on roofs and overhangs
Seal outside and inside of storm windows and check steals in spring and fall.
Family and/or company severe weather action plan & drills:
include a NOAA weather radio
designate a shelter area or location
keep a disaster supply kit, including stored food and water
keep snow removal equipment in good repair; have extra shovels, sand, rock, salt and gas
know how to turn off water, gas, and electricity at home or work

C. NATURAL RESOURCE PROTECTION - Maintenance program for trimming tree and shrubs

D. EMERGENCY SERVICES - Early warning systems/NOAA Weather Radio Evacuation Plans

APPENDIX B – TECHNICAL AND FINANCIAL ASSISTANCE FOR HAZARD MITIGATION

Local Municipalities must have a FEMA-approved Hazard Mitigation Plan to be eligible for Hazard Mitigation Assistance Grants. Information on these grants may be found at: http://www.fema.gov/media-library-data/1424983165449-38f5dfc69c0bd4ea8a161e8bb7b79553/HMA_Guidance_022715_508.pdf

HAZARD MITIGATION GRANT PROGRAM (HMGP) - Authorized under Section 404 of the Stafford Act, the Hazard Mitigation Grant Program (HMGP) provides grants to States and local governments to implement long-term hazard mitigation measures after a major disaster declaration. 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. 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.
Hazard Mitigation Grant Program funding is only available in States following a Presidential disaster declaration. Eligible applicants are:

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

Individual homeowners and businesses may not apply directly to the program; however, a community may apply on their behalf. HMGP funds may be used to fund projects that will reduce or eliminate the losses from future disasters. Projects must provide a long-term solution to a problem, for example, elevation of a home to reduce the risk of flood damages as opposed to buying sandbags and pumps to fight the flood. In addition, a project's potential savings must

be more than the cost of implementing the project. Funds may be used to protect either public or private property or to purchase property that has been subjected to, or is in danger of, repetitive damage.

PRE-DISASTER MITIGATION GRANTS PROGRAM - The Pre-Disaster Mitigation (PDM) program provides technical and financial assistance to States and local governments for cost-effective pre-disaster hazard mitigation activities that complement a comprehensive mitigation program, and reduce injuries, loss of life, and damage and destruction of property. FEMA provides grants to States and Federally recognized Indian tribal governments that, in turn, provide sub-grants to local governments (to include Indian Tribal governments) for mitigation activities such as planning, and the implementation of projects identified through the evaluation of natural hazards.

FLOOD MITIGATION ASSISTANCE (FMA) PROGRAM - FEMA provides funding to assist States and communities in implementing measures to reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insurable under the National Flood Insurance Program (NFIP). There are three types of grants available under FMA: Planning, Project, and Technical Assistance Grants. FMA Planning Grants are available to States and communities to prepare Flood Mitigation Plans. NFIP-participating communities with approved Flood Mitigation Plans can apply for FMA Project Grants. FMA Project Grants are available to States and NFIP participating communities to implement measures to reduce flood losses. Ten percent of the Project Grant is made available to States as a Technical Assistance Grant. These funds may be used by the State to help administer the program. Communities receiving FMA Planning and Project Grants must be participating in the NFIP.

EMERGENCY MANAGEMENT PERFORMANCE GRANT GUIDELINES - Emergency Management Performance Grant (EMPG Program) funding is available to local communities and eligible Agencies for projects that fall in FOUR general areas of Emergency Management: Planning activities; Training activities; Drills and Exercises; and Emergency Management Administration. Contact Heather Dunkerley at NHHSEM, heather.dunkerley@dos.nh.gov, 603-223-3614 for assistance.
The following list of possible projects and activities is meant to guide you in selecting projects for an EMA Grant Submission. This list of suggested projects is not intended to be all-inclusive. Local communities or agencies may have other specific projects and activities that reflect local needs based on local capability assessments and local hazards.

Planning Activities may include:

- Develop a Hazard Mitigation Plan for your community.
- Prepare a hazard mitigation project proposal for submission to NHHSEM.
- Create, revise, or update Dam Emergency Action plans.
- Update your local Emergency Operations Plan (EOP). Consider updating a number of specific annexes each year to ensure that the entire plan is updated at least every four years.
- If applicable, develop or incorporate a regional HazMat Team Annex into your EOP.
- Develop an Anti-Terrorism Annex into your EOP.
- Develop a local/regional Debris Management Annex into your EOP.

- Develop and maintain pre-scripted requests for additional assistance (from local area public works, regional mutual aid, State resources, etc.) and local declarations of emergency.
- Develop and maintain written duties and responsibilities for EOC staff positions and agency representatives.
- Develop and maintain a list of private non-profit organizations within your local jurisdiction to ensure that these organizations are included in requests for public assistance funds.
- Prepare a submission for nomination as a "Project Impact" Community.

Training Activities may include:

- Staff members attend training courses at the Emergency Management Institute.
- Staff members attend a "field delivered" training course conducted by NHHSEM.
- Staff members attend other local, State, or nationally sponsored training event, which provides skills or knowledge relevant to emergency management.
- Staff members complete one or more FEMA Independent Study Courses.
- Identify and train a pre-identified local damage assessment team.

Drills and Exercises might include:

- Conduct multi-agency EOC Exercise (Tabletop or Functional) and forward an Exercise Evaluation Report, including after action reports, to NHHSEM (external evaluation of exercises is strongly encouraged). Drills or Exercises might involve any of the following scenarios:
    - Hurricane Exercise
    - Terrorism Exercise
    - Severe Storm Exercise
    - Communications Exercise
    - Mass Causality Exercise involving air, rail, or ship transportation accident
- Participate in multi-State or multi-Jurisdictional Exercise and forward Exercise Report to NHHSEM.
- HazMat Exercise with Regional HazMat Teams
- NHHSEM Communications Exercises
- Observe or evaluate State or local exercise outside your local jurisdiction.
- Assist local agencies and commercial enterprises (nursing homes, dams, prisons, schools, etc.) in developing, executing, and evaluating their exercise.
- Assist local hospitals in developing, executing and evaluating Mass Care, HazMat, Terrorism, and Special Events Exercises.
- Administrative Projects and Activities may include:
- Maintain an Emergency Operations Center (EOC) and alternate EOC capable of accommodating staff to respond to local emergencies.
- Establish and maintain a Call-Down List for EOC staff.
- Establish and maintain Emergency Response/Recovery Resource Lists.
- Develop or Update Emergency Management Mutual Aid Agreements with a focus on Damage Assessment, Debris Removal, and Resource Management.
- Develop and maintain written duties and responsibilities for EOC staff positions and agency representatives.

- Develop or Update Procedures for tracking of disaster-related expenses by local agencies.

FLOOD MITIGATION ASSISTANCE (FMA) PROGRAM - FMA was created as part of the National Flood Insurance Reform Act (NFIRA) of 1994 (42 U.S.C. 4101) with the goal of reducing or eliminating claims under the National Flood Insurance Program (NFIP). FMA regulations can be found in 44 CFR Part 78. Funding for the program is provided through the National Flood Insurance Fund. FMA is funded at $20 million nationally. FMA provides funding to assist States and communities in implementing measures to reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insurable under the National Flood Insurance Program (NFIP).

There are three types of grants available under FMA: Planning, Project, and Technical Assistance Grants. FMA Planning Grants are available to States and communities to prepare Flood Mitigation Plans. NFIP-participating communities with approved Flood Mitigation Plans can apply for FMA Project Grants. FMA Project Grants are available to States and NFIP participating communities to implement measures to reduce flood losses. Ten percent of the Project Grant is made available to States as a Technical Assistance Grant. These funds may be used by the State to help administer the program. Communities receiving FMA Planning and Project Grants must be participating in the NFIP. A few examples of eligible FMA projects include: the elevation, acquisition, and relocation of NFIP-insured structures.

States are encouraged to prioritize FMA project grant applications that include repetitive loss properties. The FY 2001 FMA emphasis encourages States and communities to address target repetitive loss properties identified in the Agency's Repetitive Loss Strategy. These include structures with four or more losses, and structures with 2 or more losses where cumulative payments have exceeded the property value. State and communities are also encouraged to develop Plans that address the mitigation of these target repetitive loss properties.

APPENDIX C – SAFFIR/SIMPSON HURRICANE SCALE

Courtesy of National Hurricane Center

This can be used to give an estimate of the potential property damage and flooding expected along the coast with a hurricane.

Category	Definition	Effects
One	Winds 74-95 mph	No real damage to building structures. Damage primarily to unanchored mobile homes, shrubbery, and trees. Also, some coastal road flooding and minor pier damage
Two	Winds 96-110 mph	Some roofing material, door, and window damage to buildings. Considerable damage to vegetation, mobile homes, and piers. Coastal and low-lying escape routes flood 2-4 hours before arrival of center. Small craft in unprotected anchorages break moorings.
Three	Winds 111-130 mph	Some structural damage to small residences and utility buildings with a minor amount of curtainwall failures. Mobile homes are destroyed. Flooding near the coast destroys smaller structures with larger structures damaged by floating debris. Terrain continuously lower than 5 feet ASL may be flooded inland 8 miles or more.
Four	Winds 131-155 mph	More extensive curtainwall failures with some complete roof structure failure on small residences. Major erosion of beach. Major damage to lower floors of structures near the shore. Terrain continuously lower than 10 feet ASL may be flooded requiring massive evacuation of residential areas inland as far as 6 miles.
Five	Winds greater than 155 mph	Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away. Major damage to lower floors of all structures located less than 15 feet ASL and within 500 yards of the shoreline. Massive evacuation of residential areas on low ground within 5 to 10 miles of the shoreline may be required.

Additional information: http://www.nhc.noaa.gov/aboutsshws.php

APPENDIX D – ENHANCED FUJITA TORNADO DAMAGE SCALE

The Enhanced Fujita Scale			
F-Scale Number	Potential Damage	Wind Speed	Type of Damage
F0	Light	65 – 85 mph	Little to no damage to man-made structures. Breaks branches off trees; pushes over shallow-rooted trees; damages signs
F1	Moderate	86 – 110 mph	Beginning of hurricane wind speed; peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off roads; Moderate damage.
F2	Considerable	111 – 135 mph	Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars from trains pushed over; large trees snapped or uprooted; light object missiles generated.
F3	Severe	136 – 165 mph	Roof and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; heavy cards lifted and thrown.
F4	Devastating	166 – 200 mph	Well-constructed houses leveled; structures with weak foundations blown away some distance; cars thrown and large missiles generated.
F5	Incredible	Over 200 mph	Strong frame houses leveled off foundations and carried considerable distances; automobile-sized missiles fly through the air in excess of 109 yards; trees debarked; steel reinforced concrete structures badly damaged. Complete devastation.

Additional Information:
http://www.spc.noaa.gov/faq/tornado/ef-scale.html

APPENDIX E – RICHTER MAGNITUDE SCALE

Earthquake Severity

Magnitudes	Earthquake Effects
Less than 3.5	Generally not felt but recorded.
3.5-5.4	Often felt, but rarely causes damage.
Under 6.0	At most slight damage to well-designed buildings. Can cause major damage to poorly constructed buildings over small regions.
6.1-6.9	Can be destructive in areas up to about 100 kilometers across where people live.
7.0-7.9	Major earthquake. Can cause serious damage over larger areas.
8 or greater	Great earthquake. Can cause serious damage in areas several hundred kilometers across.

Additional information: https://earthquake.usgs.gov/learn/topics/mercalli.php
https://earthquake.usgs.gov/learn/topics/measure.php
https://earthquake.usgs.gov/data/shakemap/

The Richter Magnitude Scale - Seismic waves are the vibrations from earthquakes that travel through the Earth; they are recorded on instruments called seismographs. Seismographs record a zig-zag trace that shows the varying amplitude of ground oscillations beneath the instrument. Sensitive seismographs, which greatly magnify these ground motions, can detect strong earthquakes from sources anywhere in the world. The time, locations, and magnitude of an earthquake can be determined from the data recorded by seismograph stations.

Earthquakes with magnitude of about 2.0 or less are usually call microearthquakes; they are not commonly felt by people and are generally recorded only on local seismographs. Events with magnitudes of about 4.5 or greater - there are several thousand such shocks annually - are strong enough to be recorded by sensitive seismographs all over the world. Great earthquakes, such as the 1964 Good Friday earthquake in Alaska, have magnitudes of 8.0 or higher. On the average, one earthquake of such size occurs somewhere in the world each year. The Richter Scale has no upper limit. Recently, another scale called the moment magnitude scale has been devised for more precise study of great earthquakes. The Richter Scale is not used to express damage. An earthquake in a densely populated area which results in many deaths and considerable damage may have the same magnitude as a shock in a remote area that does nothing more than frightens wildlife. Large-magnitude earthquakes that occur beneath the oceans may not even be felt by humans.

APPENDIX F – THUNDERSTORM CRITERIA

Extreme Weather Madness
Thunderstorm Criteria

THUNDERSTORM TYPES	Rainfall Rate/hr	MAX WIND GUST	HAIL SIZE	PEAK TORNADO Possibility	LIGHTNING FREQUENCY (5 min Intervals)	Darkness Factor	STORM IMPACT
T-1 – Weak thunderstorms or Thundershowers	.03-.10	< 25 MPH	None	None	Only a few strikes during the storm.	Slightly Dark. Sunlight may be seen under the storm.	1. No damage. 2. Gusty winds at times.
T-2 – Moderate Thunderstorms.	.10"-.25"	25-40 MPH	None	None	Occasional 1-10	Moderately Dark. Heavy downpours may cause the need for car lights.	1. Heavy downpours. 2. Occasional lightning. 3. Gusty winds. 4. Very little damage. 5. Small tree branches may break 6. Lawn furniture moved around
T-3 – Heavy Thunderstorms 1. Singular or lines of storms.	.25"-.55"	40-57 MPH	1/4 " to ¾"	EF0	Occasional to Frequent 10-20	Dark. Car lights used. Visibility low in heavy rains. Cars may pull off the road.	1. Minor Damage. 2. Downpours that produce some flooding on streets. 3. Frequent lightning could cause house fires. 4. Hail occurs within the downpours. 5. Small branches are broken. 6. Shingles are blown off roofs.
T-4 – Intense Thunderstorms 1. Weaker supercells 2. Bow Echos or lines of Storms	.55" – 1.25"	58 to 70 MPH	1" to 1.5"	EF0 to EF2	Frequent 20-30	Very Dark. Car lights used. Some street lights come on..	1. Moderate Damage. 2. Heavy rains can cause flooding to streams and creeks. Roadway flooding. 3. Hail can cause dents on cars and cause crop damage. 3. Wind damage to trees and buildings. 4. Tornado damage. 5. Power outages
T-5 – Extreme Thunderstorms 1. Supercells with familty of tornadoes. 2. Derecho Windstorms	1.25" – 4"	Over 70 Mph	Over 1.5" to 4"	EF3 to EF5	Frequent to Continuous. > 30	Pitch Black, Street Lights come on. House lights maybe used	1. Severe Damage to Trees and Property. Damage is widespread. 2. Flooding rains. 3. Damaging hail. 4. Damaging wind gusts to trees and buildings. 5. Tornadoes F3-F5 or family of tornadoes can occur. Tornadoes can cause total devastation. 6. Widespread power outages.

APPENDIX G – LIGHTNING RISK DEFINITIONS

Lightning Risk Definitions	
Low Risk	Thunderstorms are only expected to be isolated or widely scattered in coverage (20 Percent Chance). Atmospheric conditions do not support frequent cloud-to-ground lightning strikes.
Moderate Risk	Thunderstorms are forecast to be scattered in coverage (30-50 Percent Chance). Atmospheric conditions support frequent cloud-to-ground lightning strikes.
High Risk	Thunderstorms are forecast to be numerous or widespread in coverage (60-100 Percent Chance). Atmospheric conditions support continuous and intense cloud-to-ground lightning strikes.

APPENDIX H – HAIL SIZE DESCRIPTION

Hail Size Description Chart

Hailstone size	Measurement	
	in.	cm.
bb	< 1/4	< 0.64
pea	1/4	0.64
dime	7/10	1.8
penny	3/4	1.9
nickel	7/8	2.2
quarter	1	2.5
half dollar	1 1/4	3.2
golf ball	1 3/4	4.4
billiard ball	2 1/8	5.4
tennis ball	2 1/2	6.4
baseball	2 3/4	7.0
softball	3.8	9.7
Compact disc / DVD	4 3/4	12.1

Note: Hail size refers to the diameter of the hailstone.

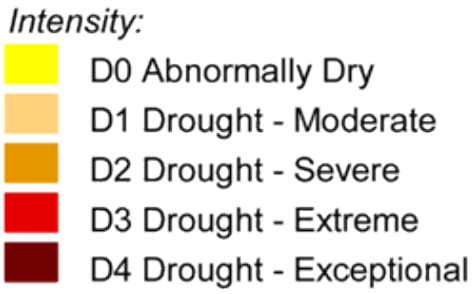
APPENDIX I – SPERRY-PITZ ICE ACCUMULATION INDEX

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

ICE DAMAGE INDEX	DAMAGE AND IMPACT DESCRIPTIONS
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 only a few hours. Roads and bridges may become slick and hazardous.
2	Scattered utility interruptions expected, typically lasting 12 to 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 & widespread utility interruptions with extensive damage to main distribution feeder lines & 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 needed.

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

APPENDIX J – DROUGHT MONITOR SCALE



APPENDIX K – SIZE OF CLASS WILDFIRE

Size Class of Fire

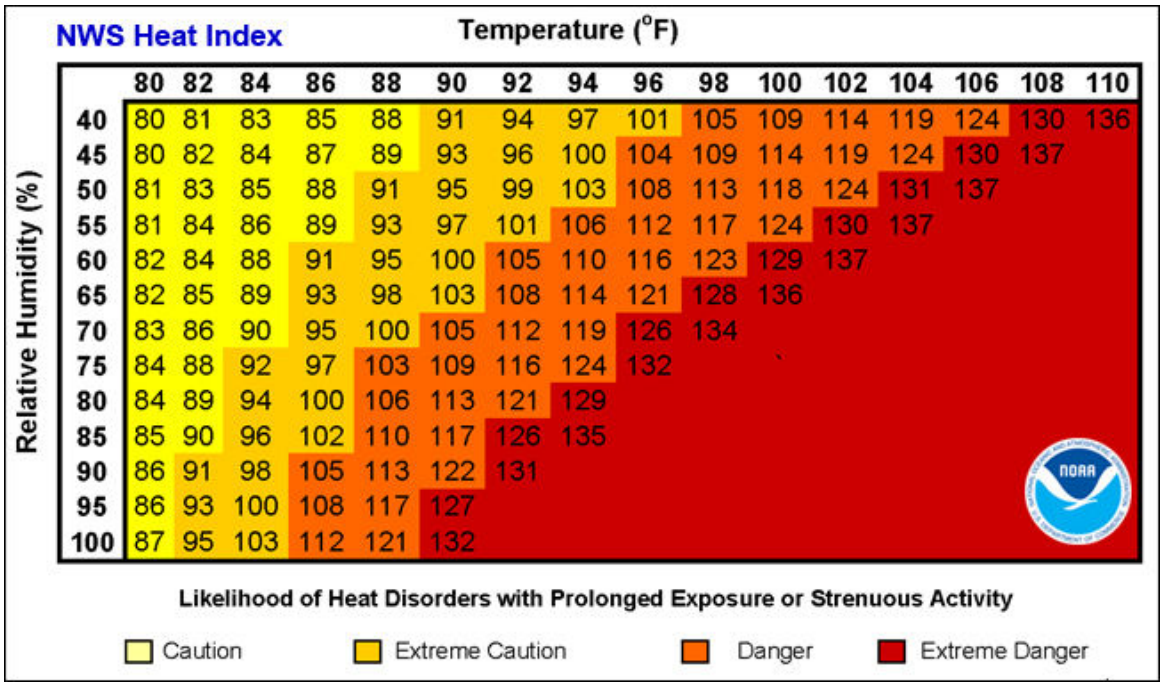
As to size of wildfire:

- Class A - one-fourth acre or less;
- Class B - more than one-fourth acre, but less than 10 acres;
- Class C - 10 acres or more, but less than 100 acres;
- Class D - 100 acres or more, but less than 300 acres;
- Class E - 300 acres or more, but less than 1,000 acres;
- Class F - 1,000 acres or more, but less than 5,000 acres;
- Class G - 5,000 acres or more.

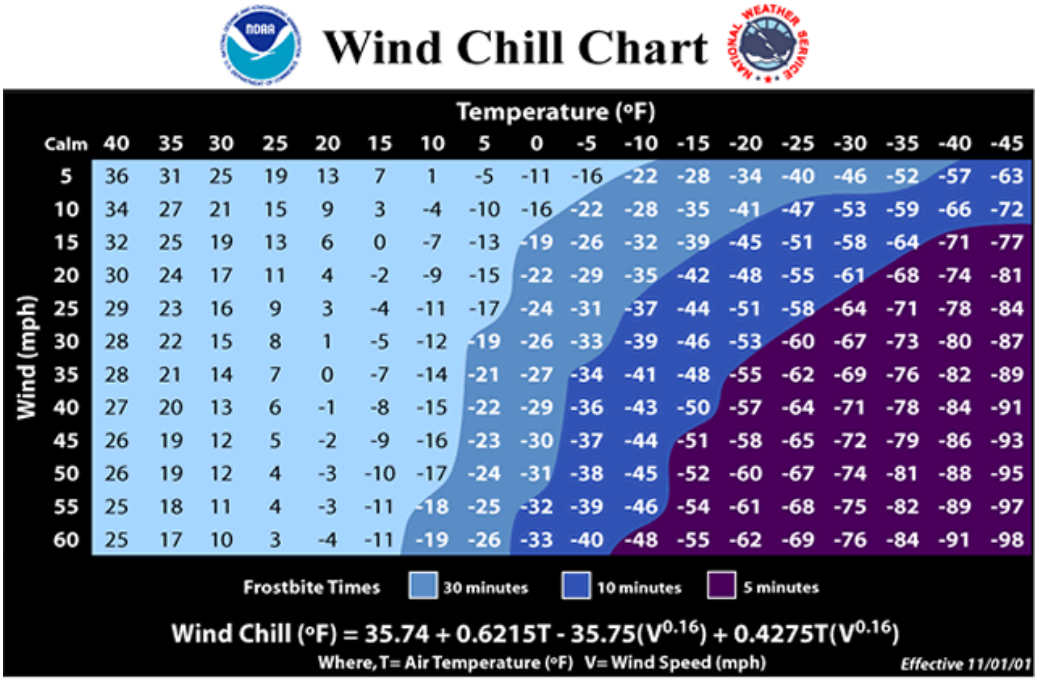
Table 4: E-Scale Building Construction Classes and Attributes

WUI scale	Building Construction Class	Ignition Vulnerabilities from Embers and Fire	Building Construction and Landscaping Attributes for Protection against Embers
E1 or F1	WUI 1	None	Normal Construction Requirements: - Maintained Landscaping - Local AHJ-Approved Access for firefighting equipment
E2 or F2	WUI 2	In this area, highly volatile fuels could be ignited by embers. Weathered, dry combustibles with large surface areas can become targets for ignition fro m embers.	Low Construction Hardening Requirements: - Treated combustibles allowed on structure - Attached treated combustibles allowed - Treated combustibles allowed around structure - Low flammability plants - Irrigated and well maintained Landscaping - Local AHJ-Approved Access for firefighting equipment
E3 or F3	WUI 3	Exposed combustibles are likely to ignite in this area from high ember flux or high heat flux	Intermediate Construction Hardening Requirements: - No exposed combustibles on structure - Combustibles placed well away from structure - Low flammability plants - Irrigated and well maintained landscaping - Local AHJ-Approved Access for firefighting equipment
E4 or F4	WUI 4	Ignition of combustibles from direct flame contact is likely.	High Construction Hardening Requirements: - No exposed combustibles - All vents, opening must be closed - Windows and doors must be covered with insulated non-combustible coverings. - Irrigated and well maintained low flammability landscaping - Local AHJ-Approved Access for firefighting equipment

APPENDIX L – EXTREME HEAT INDEX



APPENDIX M – WIND CHILL CHART



APPENDIX N – DEFITION OF INFECTIOUS DISEASES

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

Some infectious diseases can be passed from person to person. Some are transmitted by insects or other animals. And you may get others by consuming 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 may respond to rest and home remedies, while some life-threatening infections may need hospitalization.

Many infectious diseases, such as measles and chickenpox, can be prevented by vaccines. Frequent and thorough hand-washing also helps protect you from most infectious diseases.

APPENDIX O – DOCUMENTATION OF PLANNING PROCESS

The Co-Emergency Management Directors invited Department Heads from all the Town's departments and committees to participate in the Plan Update process, as well as staff from the school. As a result, the Plan Update Committee included the Town's Co-Emergency Management Directors, Town Administrator, Police Department Detective, Road Agent, Building Inspector, Health Officer, Town Planner, and School Principal. All Town staff were aware of the Plan Update and had the opportunity to participate if so wished.

Plan Update Committee Member Name	Plan Update Committee Member Title
Michael Bilodeau	Chief, Police Department and Co-Emergency Management Director, Town of Newington, NH
Jeremy Boston	Buildings, Safety, and Health Officer, Town of Newington, NH
Frank Burovac	Highway Department, Town of Newington, NH
Taylor Fiore	Administrator, Police Department, Town of Newington, NH
EJ Hoyt	Chief, Fire Department and Co-Emergency Management Director, Town of Newington, NH
John Krebs	Town Planner, Town of Newington, NH
Pete Latchaw	Principal, Newington Elementary School, Newington, NH
Martha Roy	Town Administrator, Town of Newington, NH
Leonard Thomas	Road Agent, Town of Newington, NH

Rockingham Planning Commission (RPC) staff worked with the Newington Town Administrator and Co-Emergency Management Directors to coordinate public outreach about the Plan Update process to residents, local businesses, organizations supporting socially vulnerable populations, and Emergency Management Directors in the abutting municipalities of Portsmouth, NH, Greenland, NH, and Dover, NH. The Co-Emergency Management Directors and Town Administrator maintain a list of businesses in Newington and a list of human resource organizations serving socially vulnerable and underrepresented Newington residents. The Town and RPC sent emails to these businesses and organizations informing them of the Plan Update, sharing a draft of the Plan, and inviting them to review and comment on the Plan and meet with the Plan Update Committee. Emergency Management Directors in the abutting communities received a similar email.

Social Service Organization	Contact Person
Southern New Hampshire Services - Provides social service programs for economically disadvantaged elderly, youth, and other vulnerable populations in Rockingham and Hillsborough County.	Ryan Clouthier, Chief Operating Officer

Greater Seacoast Community Health/Families First Health and Support Center – Not-for-profit community health and family resource center	Julie Meuse Foulks, Public Health Network Manager
Abutting Communities	**Contact Person**
Town of Dover, NH	Michael McShane, Fire Chief and EMD
Town of Greenland, NH	Dennis Cote, EMD
City of Portsmouth, NH	William McQuillen, Fire Chief and EMD
Business Community	**Contact Person**
Town maintains an email contact list for local businesses	EJ Hoyt, Co-EMD Martha Roy, Town Administrator

Public notices about the Plan Update meetings were posted on the Town website and social media accounts to inform viewers and followers about meetings and opportunities to comment on the Plan. Notice about the Plan Update process was also posted on the Rockingham Planning Commission's website and published in the RPC's monthly newsletter. The newsletter is distributed to local officials in the 27-town RPC region. All Plan Update meetings were open to the public. RPC staff facilitated the Plan Update Committee meetings, guided the plan update process, and prepared the Plan Update.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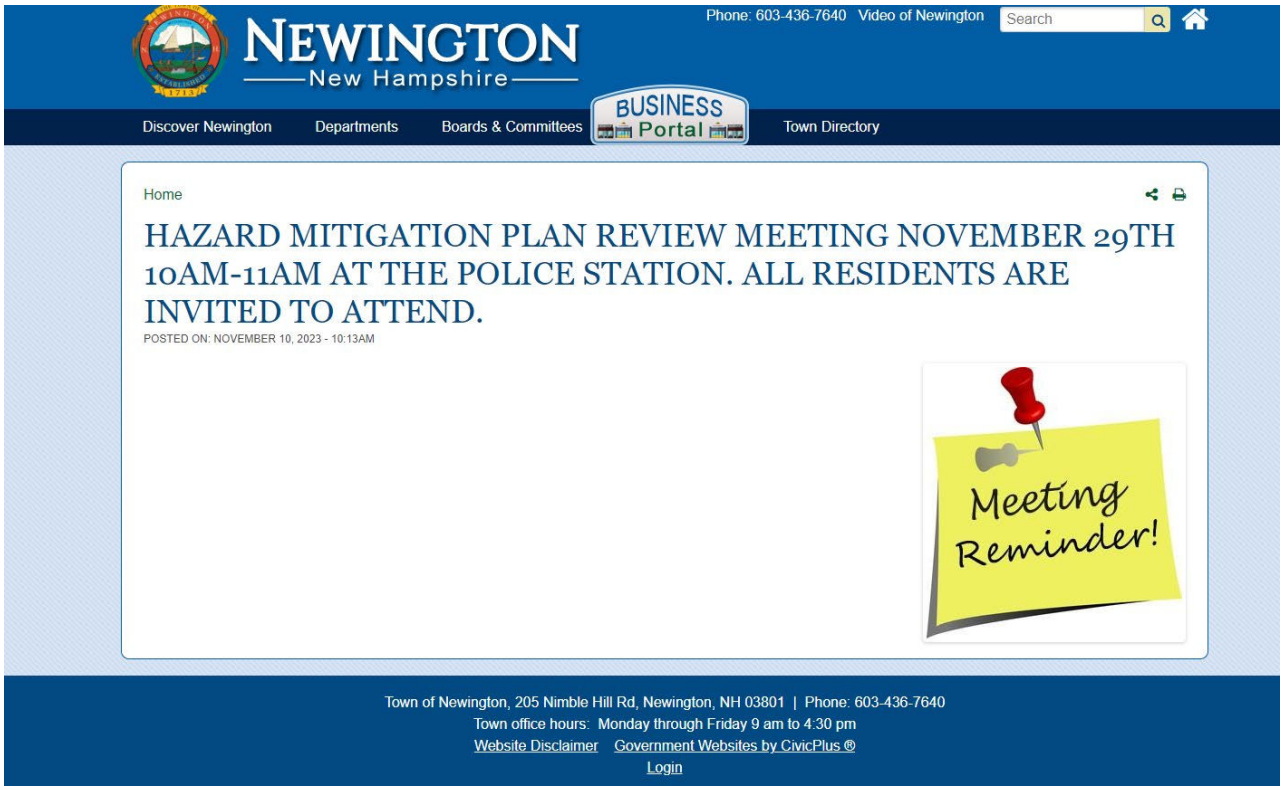
Newington Hazard Mitigation Plan Review Meeting July 24th 10am Police Station
POSTED ON: JULY 18, 2023 - 4:24PM
The Town of Newington is working with the Rockingham Planning Commission to update the Town's Hazard Mitigation Plan. A meeting to review and discuss hazards impacting Newington and identify strategies to mitigate the impacts of natural hazards will be held July 24th at 10am at the Police Station. The public is welcome to attend. For more information, contact either Police Chief Michael Bilodeau at 603-431-5461 or Fire Chief EJ Hoyt at 603-436-9441
Flooding
Attachment
Size
section3_hazard_mitigation_plan_2023.pdf
241.08 KB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HAZARD MITIGATION PLAN REVIEW MEETING NOVEMBER 29TH 10AM-11AM AT THE POLICE STATION. ALL RESIDENTS ARE INVITED TO ATTEND.
POSTED ON: NOVEMBER 10, 2023 - 10:13AM
Meeting Reminder!
Town of Newington, 205 Nimble Hill Rd, Newington, NH 03801 | Phone: 603-436-7640
Town office hours: Monday through Friday 9 am to 4:30 pm
Website Disclaimer
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RPC Begins Updates to Hazard Mitigation Plans in Four Communities

NH Homeland Security and Emergency Management has awarded FEMA grant funds to the RPC to work with the towns of Exeter, Newington, Hampton Falls, and North Hampton on updates to their Hazard Mitigation Plans. These Plans will include actions to mitigate and reduce the risks and impacts of natural hazards on people and property. Residents, landowners, business owners, municipal officials and other members of the public are welcome to attend plan update meetings. Please contact Theresa Walker, RPC Consulting Planner, for information on meeting dates, or to share comments or questions, theresawalker@comcast.net.

Meeting Date	Meeting Agenda	Meeting Participants
May 4, 2023 Town Department Head Meeting	Review Plan Update process with Selectmen and Town Department heads	Sheryl Bagley, Finance Director Lara Berry, Library Director Michael Bilodeau, Police Chief and Co-EMD Jeremy Boston, Building, Health, and Safety Officer Frank Buruvac, Highway Department Taylor Fiore, Administrator, Police Department EJ Hoyt, Fire Chief and Co-EMD Martha Roy, Town Administrator Leonard Thomas, Road Agent
June 8, 2023 Plan Update Committee	Review 2019 Plan; discuss and update community profile and natural hazards impacting town; update past and future hazards map	Plan Update Committee
July 24, 2023 Plan Update Committee	Review and update list of critical facilities and existing hazard mitigation programs	Plan Update Committee

November 23, 2023 Plan Update Committee	Review and update newly identified mitigation strategies and actions; prioritize proposed mitigation strategies; complete implementation schedule for priority mitigation strategies; discuss monitoring, evaluating and update the Plan	Plan Update Committee
May 20, 2024	Public Hearing on Draft Plan Update	Board of Selectmen and members of the Plan Update Committee

Newington Board of Selectmen Meeting Agenda
Tuesday, June 4, 2024, 5:30pm
Town Hall

5:30pm Call to Order

Minutes Approval: May 20, 2024

Manifest Approval: $22,859.93 dated 5/23/24 and $696,158.98 dated 5/30/24.

Facilities Use Requests:

- 3.3 Mile Race – Sabine Strong Foundation 33 – Brenda Blonigen- Sunday, 8/11/24, 5am -1pm 250 participating
- Newington Town Church Concert – Chris Cross -Town Hall Auditorium- Friday, 6/21/24, 7pm to 9pm – 85 to 95 people
- Newington Fire Hazmat Drill – Pat Moynihan -Town Hall Auditorium -Thursday, 6/20/24, 7am to 4pm
- Cushing Carnival-Fox Run Mall-6/15 & 6/16/24

Agenda:
5:30pm – Portsmouth Little Bay Road Waterline Replacement – Don Rochette, Underwood Engineering - Al Pratt, Portsmouth - PWD
6:10pm– Public Hearing –
Federal Emergency Management Agency - Hazard Mitigation Plan Review

Old Business:
Community Power Coalition Membership
Shattuck Way Paving
Fox Point Waterline Easement Landscape Plan
Juneteenth
deRochemont Room Update
Non- Public Sealed Minutes Review (9/18/2006) and (4/2/2007)

APPENDIX P – FEMA PLAN APPROVAL LETTER

U.S. Department of Homeland Security
FEMA Region 1
220 Binney Street
Cambridge, MA 02142

FEMA

January 6, 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 Newington, NH Hazard Mitigation Plan Update 2024* effective **January 6, 2025** through **January 5, 2030** in accordance with the planning requirements of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), as amended; the National Flood Insurance Act of 1968, as amended; the National Dam Safety Program Act, as amended; and Title 44 Code of Federal Regulations (CFR) Part 201.

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

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

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

Sincerely,

CHRISTOPHER J MARKESICH Digitally signed by CHRISTOPHER J MARKESICH
Date: 2025.01.07 09:01:10 -05'00'

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
Dean Savramis, Mitigation Division Director, DHS, FEMA Region 1
Josiah (Jay) Neiderbach, Hazard Mitigation Community Planner, DHS, FEMA Region 1

www.fema.gov