Town of Plainfield, New Hampshire

Hazard Mitigation Plan Update 2019

Town Adoption Date: October 2, 2019
FEMA Approval Date: October 14, 2019

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Original Edition: 2009
2014 Update: August 21, 2014
2019 Update Edition: October 14, 2019

Chapter 1
INTRODUCTION

Authority

This Hazard Mitigation Plan was prepared in accordance with the Disaster Mitigation Act of 2000 (DMA), Section 322, Mitigation Planning. Accordingly, this Hazard Mitigation Plan will be referred to as the "Plan".

Funding Source

This Plan was funded by the NH Homeland Security and Emergency Management (HSEM) through a Pre-Disaster Mitigation (PDM) grant, with matching funds by the Town of Plainfield.

Purpose

This Hazard Mitigation Plan is a planning tool to be used by the Town of Plainfield, as well as other local, state and federal governments, in their effort to reduce the effects from natural and man-made hazards.

Introduction

On October 30, 2000 the President signed into law the Disaster Mitigation Act of 2000 (DMA 2000). The ultimate purpose of DMA 2000 is to:

- Establish a national disaster hazard mitigation program that will reduce loss of life and property, human suffering, economic disruption, and disaster assistance costs resulting from disasters, and
- Provide a source of pre-disaster hazard mitigation funding that will assist State and local governments in accomplishing that purpose.

DMA 2000 amends the Robert T. Stafford Disaster Relief and Emergency Assistance Act by, among other things, adding a new section, 322 – Mitigation Planning. This places new emphasis on local mitigation planning. **It requires local governments to prepare and adopt jurisdiction-wide hazard mitigation plans as a condition of receiving Hazard Mitigation Assistance (HMA) grants.** Local governments must review and if necessary, update the mitigation plan every five years to continue program eligibility. However, it is recommended that this Plan be reviewed/updated annually or after a hazard event to be consistent with Chapter 7.

Why Develop a Mitigation Plan?

The full cost of the damage resulting from natural hazards – personal suffering, loss of lives, disruption of the economy, loss of tax base – is difficult to measure. Our State is subject to many types of natural hazards: floods, hurricanes, severe winter weather, earthquakes, tornadoes, downbursts, and wildfires, all of which can have significant economic and social impacts. Some, such as hurricanes, are seasonal and strike in predictable locations. Others, such as floods, can occur anytime of the year and almost anywhere in the State.

Scope of the Plan

The scope of this Plan includes the identification of natural hazards affecting the town, as identified by the Hazard Mitigation Planning Committee. The hazards reviewed under the scope of this plan include the relevant hazards that are outlined in the State of New Hampshire's Multi-Hazard Mitigation Plan Update 2018. Some hazards identified in the State Plan were deemed not applicable to the Town of Plainfield (Avalanche and Solar Storms)

Dam Failure	**Hail**	**Public Health**
Drought	**Human Caused**	**Severe Wind**
Extreme Heat	**Hurricane**	**Winter Weather**
Earthquake	**Landslide**	**Wild/Forest Fire**
Flooding	**Lightning**	

Methodology

During the 2019 Update, the Hazard Mitigation Planning Committee with the assistance of Hubbard Consulting LLC held a total of 4 meetings on April 18, 2019 May 7, 2019, May 16, 2019 and May 23, 2019. Public notices were posted at the Plainfield Town Hall, Meriden Town Hall and the Town Website inviting members of all town departments and boards, surrounding communities, businesses, academia, State agencies and non-profit agencies. In addition, email notifications were sent to adjacent communities, the Upper Valley Regional Planning Commission, the Chamber of Commerce and the NH HSEM. There were no members of the general public that attended the committee meetings. The Emergency Management Directors from surrounding towns were notified of the Plan Update and asked to comment on the Plan (see Appendix B). The committee analyzed and revised the following sections of the Plan and provided input to update them: Chapters 1, 2, 3, 4, 5, 6 and 7. After acceptance by the committee, the Plan was submitted to the NH HSEM for formal Approval. The Board of Selectmen formally adopted the plan on October 2, 2019. FEMA approved the plan on October 14, 2019.

The committee developed this Plan as a result of the above meetings and the following planning process.

Step 1: Form a Hazard Mitigation Planning Committee

Prior to the first public information meeting the Emergency Management Director contacted town department heads to serve on the committee. In addition, a press release was published in the town office and post office inviting residents, businesses, neighboring communities, academia and other private non-profit interests to participate in the planning process. Finally, an email invitation was sent to EMDs of surrounding towns, State Agencies, Regional Planning Commission and the local Chamber of Commerce (See Appendix B). The Committee Members consisted of town personnel, KUA and elementary school staff.

Step 2: Set Hazard Mitigation Goals and Objectives
At the first working meeting the committee reviewed and made minor revisions to the town's Hazard Mitigation Goals. The Hazard Mitigation Goals were adapted from the State's Multi-Hazard Mitigation Plan Update 2018. This first step is extremely important in helping the committee understand the purpose of the Plan and the direction it should go. (See the end of this chapter for the "Hazard Mitigation Goals of the Town of Plainfield, NH".)

Step 3: Hazard Identification
The Committee members identified natural hazards and human-caused hazards that have or could potentially affect the Town of Plainfield. The results of this step can be found in Chapters 2 and 3.

Step 4: Critical Facilities Analysis
The committee members updated the Critical Facilities List for the town. The Critical Facilities List is divided into 3 sections: Facilities needed for Emergency Response; Facilities not necessary for emergency response; and places and populations to protect in the event of a disaster. The results of this step can be found in Chapter 4.

Step 5: Capability Assessment
The committee members identified what plans and policies are already in place to reduce the effects of hazards. The results of this step can be found in Chapter 5. Many of these plans and technical reports were reviewed and incorporated during the planning process, including the Plainfield Emergency Operations Plan and the Plainfield Master Plan.

Step 6: Develop Objectives
The Committee identified "Problem Statements" for each of the hazards identified earlier in the planning process. All of the hazards have at least one problem statement associated with them (See Problem Statement in Appendix B). These problem statements were then utilized as objectives in developing mitigation projects, as described in the next step.

Step 7: Develop Specific Mitigation Measures
As a result of the problem statements identified in step 6, the committee brainstormed specific projects or mitigation measures to address each hazard. The Committee Members used the "*Mitigation Project Identification Worksheet*", as shown in Appendix B, to identify mitigation projects that directly address the hazards affecting the community. Finally, the committee prioritized the top priority projects and listed them in the Mitigation Action Plan found at the end of Chapter 6.

Step 8: Adopt and Implement the Plan
After acceptance by the committee the Plan was submitted to the NH Homeland Security and Emergency Management for formal Approval. The Board of

Selectmen formally adopted the Plan on October 2, 2019. The letter of approval from FEMA can be found in Appendix C.

With respect to any ongoing mitigation projects, the lead and support agencies/people for such activity will be tasked with implementing the Plan's mitigation projects. The committee approved the "Prioritized Mitigation Projects" list, which identifies responsibility, funding/support and a timeframe for each of the prioritized projects. The Emergency Management Director should be tasked with requesting annual reports as to the progress of each project.

Step 9: Monitor and Update the Plan

It is important that this plan be monitored and updated annually or after a presidentially declared disaster. Chapter 7 specifically addresses this issue.

Hazard Mitigation Goals
Town of Plainfield, NH

During the 2019 update, the Committee reviewed the 2014 Plainfield Hazard Mitigation Plan goals and made no revisions. The Committee added a new Goal (#2) in response to an increase in severe weather events over the recent years.

1. To improve upon the protection of the general population, the citizens of the Town of Plainfield and guests, from natural and man-made hazards.

2. To reduce the impact of increased severe weather incidents (flooding, snow and ice storms).

3. To reduce the potential impact of natural and man-made disasters on the Town of Plainfield's:
   - Emergency Response Capability
   - Critical Facilities
   - Infrastructure
   - Private property
   - Economy
   - Natural environment
   - Historic treasures

4. To improve the Town of Plainfield's:
   a. Emergency preparedness and communication network.
   b. Disaster response and recovery capability.

5. To identify, introduce and implement cost effective Hazard Mitigation measures so as to accomplish the Town's Goals and Objectives.

6. To work in cooperation with the State of New Hampshire's Hazard Mitigation Goals, including:

a. Address the challenges posed by climate change as they pertain to increasing the risk and impacts of the hazards identified within this plan; and

b. Strengthen Continuity of Operations and Continuity of Government across the State and local levels to ensure continuation of essential services

Hazard Mitigation Planning Committee 2019

The Plainfield Hazard Mitigation Committee was comprised of the following individuals who met from April 2019 to May 2019.

Name	Title/Affiliation
Bill Taylor	Plainfield Fire Chief
Jim McCarragher	Plainfield Emergency Management Director
Melissa Underhill	Kimball Union Academy (KUA) Director of Health Services
Paul Roberts	Plainfield Police Chief
Rich Collins	Plainfield Road Agent
Rob Taylor	Plainfield Selectmen
Sondra Blake	Plainfield Elementary School Principal
Stephen Halleran	Plainfield Town Administrator
Steve Yannuzzi	Upper Valley Public Health Network

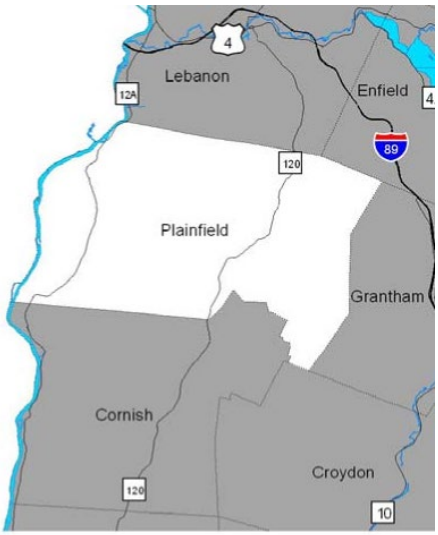
The committee members listed above participated in monthly committee meetings, provided departmental information, contributed in their field of expertise, reviewed and commented on committee meeting minutes, reviewed drafts of the Plan and worked together to identify and prioritize mitigation projects.

Many thanks to all the hard work and effort from each and every one of you. This plan would not exist without your knowledge and experience.

Thank you!

Chapter 2
COMMUNITY PROFILE

Community Description



Plainfield is located in Sullivan County in the northern portion of the Connecticut River Valley. Located in the northern portion of the Connecticut River Valley, Plainfield is situated opposite the confluence of the Ottauquechee and Connecticut Rivers. The Town has markedly varied terrain, including a mix of slopes, wet lowlands, river bottom, upland terraces, and the summit of Croydon Mountain. The Town is divided into three general regions, flat terrace by the River, hilly uplands, and the Croydon Mountain range.

Plainfield's streams and brooks drain four major watersheds: Connecticut River, Mascoma River, Blood's Brooks, and Blow-Me-Down Brook. Ultimately, all of Plainfield's surface water flows into the Connecticut River.

National Flood Insurance Program (NFIP)

Floodplains for this Plan are defined as the 100-year and 500-year flood hazard zones, as depicted on the May 23, 2006 Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM). Plainfield has participated in the National Flood Insurance Program (NFIP) administered by FEMA, since April 18, 1983. In order to enable landowners to qualify for federally insured flood insurance, the Town, in its administration of site plan review, subdivision regulations and zoning, regulates development in the floodplain using federal standards. There are currently 15 NFIP policies and the Town has no repetitive loss properties.

The Town's existing ordinance meets the minimum requirements of the NFIP, according to the latest Community Assistance Visit in 2005 and a general technical assistance visit on May 11, 2009. The Town will continue to maintain procedures and regulations that are in compliance with the NFIP by conducting Community Assistance Visits (CAVs) and Community Assistance Contacts (CAC) with the Office of Strategic Initiative (OSI) and updating the Floodplain Ordinance as federal requirements are updated. The Town will continue to hold CAVs/CACs with OSI in the future. In addition, the Town provides NFIP brochures in Town facilities frequented by the public. Flood maps are available online.

Type	Policies in Force	Insurance in Force	Number of Closed Paid Losses	$ of Closed Paid Losses
Single Family	14	$2,810,100	0	0
All other Residential	0	0	0	0
Non-Residential	1	$275,000	0	0
Total	**15**	**$3,085,100**	**$0**	**$0**

Disaster Risk

Plainfield is prone to a variety of natural hazards. The following table summarizes the impact and probability of natural and man-made hazards.

Natural Hazards	Human Impact Probability of death or injury 0: n/a 1: Low 2: Moderate 3: High 4: Catastrophic	Property Impact Physical loss damage 0: n/a 1: Low 2: Moderate 3: High 4. Catastrophic	Business Impact Interruption of service 0: n/a 1: Low 2: Moderate 3: High 4. Catastrophic	Severity *Avg. of Human / Property / Business*	Probability *In 25 years* Likelihood this will occur 0: Improbable 1: Remote 2: Occasional 3: Probable 4: Frequent	Risk *Severity x Probability* 0-3: Low 4-7: Moderate 8-11 High 12-16: Severe
Severe Winter Weather	2	2	2	2	4	8
Flood	1	2	2	1.7	4	6.8
Severe Wind *(Tornado/ Downburst)*	2	2	2	2	3	6
Lightning	1	2	1	1.3	4	5.2
Communicable Disease	3	1	2	2	2	4
Hurricane	1	2	1	1.3	3	3.9
Wild/Forest Fire	1	2	1	1.3	3	3.9
Earthquake	3	3	3	3	1	3
Dam Failure	2	2	2	2	1	2
Drought	1	1	1	1	2	2
Landslide	1	1	1	1	2	2
Extreme Heat	1	0	1	.66	3	2
Hail	1	1	1	1	1	1
Avalanche	-	-	-	-	-	-
Solar Storms	-	-	-	-	-	-

Human Caused Hazards	Human Impact Probability of death or injury 0: n/a 1: Low 2: Moderate 3: High 4: Catastrophic	Property Impact Physical loss damage 0: n/a 1: Low 2: Moderate 3: High 4. Catastrophic	Business Impact Interruption of service 0: n/a 1: Low 2: Moderate 3: High 4. Catastrophic	Severity *Avg. of Human / Property / Business*	Probability* *In 25 years* Likelihood this will occur 0: Improbable 1: Remote 2: Occasional 3: Probable 4: Frequent	Risk *Severity x Probability* 0-3: Low 4-7: Moderate 8-11 High 12-16: Severe
Haz Mat (Transport)	3	2	2	2.3	3	6.9
Mass Casualty (Trauma or Medical)	3	1	2	2	3	6
Utility Interruption	1	1	2	1.3	4	5.2
Transport Incident *(plane, cars, etc.)*	1	1	1	1	3	3
Haz Mat (Fixed)	1	1	1	1	2	2
Armed Attack (assault, sniper)	3	1	1	1.6	1	1.6
Biological Terrorism	3	1	1	1.6	1	1.6
Radiological Release	2	1	2	1.6	1	1.6
Urban Fire	2	2	1	1.6	1	1.6
Civil Disorder	1	1	1	1	1	1
Terrorist Attack (WMD)	3	2	1	2	0	0

*Probability Terms are defined as:

Improbable:	Not likely to occur in any 25 year period.
Remote:	Less than 1% probability in the next 25 year period.
Occasional:	Between 1% and 50% probability in the next 25 year period.
Probable:	Between 50% and 99% probability in the next 25 year period.
Frequent:	Near 100% probability in the next year.

The following Hazards as Identified in the State of NH Multi Hazard Mitigation Plan 2018 were not included in this Plan.

Avalanche:	The topography of the town is not conducive to avalanche.
Solar Storms:	The town does not feel it can actually mitigate this hazard.
Extreme Cold:	The town considers extreme cold temperatures under severe winter weather and the community has not seen extreme cold with significant impact.

CALCULATING POTENTIAL LOSS

It is difficult to determine the amount of damage that could be caused by natural or human-caused hazards because the damage will depend on the hazard's extent and severity, making each hazard event somewhat unique. Therefore, to calculate potential economic loss, we have assumed that structures impacted by hazards could result in damage of either 1% or 5% of the assessed value.

Based on this assumption, the potential loss from any of the identified hazards would range from $3,084,205 (1%) or $15,421,025 (5%) based on the 2018 town valuations which lists the Town wide assessed values to be 308,420,510 (See table below). Human loss of life was not included in the potential loss estimates, but could be expected to occur, depending on the severity and type of the hazard.

TOWN WIDE ASSESSED VALUES			
Type	**2018 Value**	**1% Damage**	**5% Damage**
Land	$79,395,210	$793,952	$3,969,760
Buildings	$217,482,500	$2,174,825	$10,874,125
Public Utilities	$7,626,000	$76,260	$381,300
Tax Exempt	$3,916,800	$39,168	$195,840
Total	$308,420,510	$3,084,205	$15,421,025
Source: NH DRA 2018 MS-1			

Development Trends

According to the Master Plan, Plainfield's land use plan "is based on the premise that Plainfield's natural resources should be conserved" and "future development…should be directed and limited by the ability of the environment to support that development." With its attractive, rural location and proximity to Lebanon and Claremont, Plainfield is experiencing development pressures. Less naturally suitable lands, such as parcels containing wetlands, steep slopes and other features have recently become candidates for development. The Town of Plainfield aims to regulate development so that natural areas with high resource values, such as floodplains and wetlands, are protected.

In addition, the future land use sections recommends that the "…Planning Board should continue to review, revise and amend regulations and ordinances in order to encourage future growth in Plainfield that is consistent with the community Vision. Looking ahead necessarily involves making assumptions about what the future will be like and adopting guidelines to direct development. It is assumed that Plainfield will continue to be a desirable place to live and that the protection of open space, critical natural resources and scenic vistas should be pursued in equal measure to the potential future development pressures. Plainfield should continue to regulate development so that natural resources are protected. One area of interest is protecting surface water and groundwater resources from pollution and planning for possible future community water supply needs."
Plainfield has experienced low to moderate growth, as shown in the number of new housing units in 2017.

Housing Trends for Regional Geographic Areas				
HOUSING UNITS	**US Census Tables**			**NH OSI Housing Total Est. Units**
	1990	**2000**	**2010**	**2017**
Plainfield % Growth	784	877 12%	983 11%	993 2%
Sullivan County % Growth	19,532	20,158 4%	21,515 7%	22,177 3%
Grafton County % Growth	42,206	43,729 4%	51,124 15%	52,939 4%

Population

Current projections from the New Hampshire Office of Strategic Initiative show the population growth rate will increase at a low rate in Plainfield over the next twenty years, where the year-round population in 2040 is projected to be 2,435.

Plainfield Population Growth	
Year	**Population**
2017	2,356
2010	2,364
2000	2,254
1990	2,059
1980	1,749
1970	1,323
Source:http://www.nhes.nh.gov/elmi/products/cp/profiles-htm/Plainfield.htm	

The Hazard Mitigation Planning Committee utilized the current Plans to review and incorporate development changes. However, due to no substantial changes in development, there were no changes in priorities made to the Plan. Consequently, the Town's overall vulnerability to the identified hazards has remained the same.

Plainfield Population Projections	
Year	**Population**
2020	2,376
2025	2,386
2030	2,418
2035	2,434
2040	2,435

Chapter 3
HAZARD IDENTIFICATION

WINTER WEATHER

Probability: Frequent

Definition:
Heavy Snow Storms: 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 that freezes upon impact. Ice coating at least one-fourth inch in thickness is heavy enough to damage trees, overhead wires and similar objects. **Extreme Cold:** Extreme temperatures are a period of prolonged and/or excessive hot or cold that presents a danger to human health and life. **Blizzard**: A blizzard is a violent snowstorm with winds blowing at a minimum speed of 35 miles (56 kilometers) per hour and visibility of less than one-quarter mile (400 meters) for three hours. **Nor'Easter**: A Nor'easter is a large weather system traveling from south to north, passing along the coast. As the storm's intensity increases, the resulting counterclockwise winds impacted the coast and inland areas in a Northeasterly direction. Winds from a Nor'easter can exceed hurricane force winds.

Location:
There is a town-wide vulnerability to severe winter weather. Nor'easters (wind), Ice Storms, Heavy Snow Accumulations and Severe Cold can occur at any place within the town and generally affect the entire town when it happens. The higher elevations are more likely to experience snow or ice before the lower terrain.

Impact:
Heavy snow accumulations (generally considered one that deposits six or more inches of snow in a 12-hour period) especially those associated with nor'easters can have a significant affect on the Town, including extended power outages, road closures, collapsed roofs and increased snow removal costs. During ice storms, ice forms on cold surfaces, such as trees and power lines, and may continue to form until the ice is quite deep, as much as several inches thick. Ice damage results in power outages, road closures and forest damage. Ice on the roads can be the most difficult for a rapid emergency response. Private roads are difficult for emergency response vehicles due to restricted access during winter.

Extent:
NOAA's National Climatic Data Center produced the *Regional Snowfall Index* (RSI) for significant snowstorms that impact the eastern two thirds of the U.S. The RSI ranks snowstorm impacts on a scale from 1 to 5, similar to

CATEGORY	RSI VALUE	DESCRIPTION
1	1–3	Notable
2	3–6	Significant
3	6–10	Major
4	10–18	Crippling
5	18.0+	Extreme

the Fujita scale for tornadoes or the Saffir-Simpson scale for hurricanes. In addition, the National Weather Service developed and utilizes the Sperry-Piltz Ice Accumulation Index (SPIA) to forecast the impact of an ice storm. The index below ranges from an ice storm rated as "0" which has little impact, to an index rating of 5 that has catastrophic damage to exposed utility systems.

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.

Previous Occurrence:

December of 1929: Ice Storm caused disruption and damage to telephone, telegraph, and power system.

December 1942: Ice storm has severe intensity for Sullivan County.

Dec.- Jan. 1969: Ice storm with power disruption to many communities.

February 8-10, 1969: Snow accumulations up to 27" in southeastern New Hampshire and up to 42" in northeastern New Hampshire.

January 20, 1978: 20inch snowstorm leaving 20' high snowdrifts

January 7-9, 1998 (NOAA): A severe Ice Storm hit sections of New Hampshire from January 7 through January 9 1998. Statewide, the storm knocked out power to about 55,000 customers, an estimated 125,000 people. During the time without power, residents and those involved with the restoration efforts had to contend with snow, additional freezing rain, rain, slippery roads, falling ice and other debris, sub-zero temperatures, strong winds, and dangerous wind chills. Debris cleanup from the storm was expected to last into the summer. Within the state, there were no deaths directly attributed to the storm, although one utility worker was partially paralyzed when struck by a falling tree while making repairs to a line. Carbon monoxide poisoning was a problem and many residents were treated at area hospitals. Long-term effects from the ice storm are expected to persist for many years.

December 11-12, 2008 (NOAA): A major winter storm brought a mixture of snow, sleet, and freezing rain to New Hampshire from the morning of December 11th to the morning of December 12th. The greatest impact in the state was in southern and central New Hampshire where a significant ice storm occurred. Precipitation amounts across the southern and central part of the state ranged from 1 to 3 inches, ice accretion to trees and wires in these areas generally ranged from about a half inch to about an inch. The weight of the ice caused branches to snap, and trees to either snap or uproot, and brought down power lines and poles across the region. About 400 thousand utility customers lost power during the event, with some customers without power for two weeks. Property damage across northern, central and southeastern New Hampshire was estimated at over $5 million. In Plainfield the local EOC was activated and the local shelter opened for 3 days. Emergency responders and town officials canvassed neighborhoods to determine needs (shelter, medical, transportation, etc.). The Town received $15,500 in emergency grant funds.

February 24, 2010 (NOAA) - Sullivan County Declared Disaster: A major storm system affected the northeastern U.S. from February 23rd through March 2nd. Areas of surface low pressure rotating around an upper level atmospheric system brought high winds, heavy snow, heavy rain, inland and coastal flooding, and coastal erosion to the area during the period. The intensifying low brought a continuation of the high winds, heavy rain,

heavy snow, coastal flooding, and coastal erosion to the northeast. The high winds brought down trees and branches throughout the area and caused widespread power outages and blocked many roadways. Snowfall ranged from 12 to 24 inches in Sullivan County. The Town of Plainfield experienced a large number of damaged and downed trees, leaving 600 cubic yards of debris scattered throughout town.

March 6, 2011 (NOAA): Light rain, associated with the approaching cold front began to fall Sunday morning. The precipitation became heavy by late afternoon as the intensifying area of low pressure approached New Hampshire from the south. At the same time, colder air started funneling into the state from the north and changed the rain to snow across Coos County. As the colder air continued to move southward late Sunday afternoon and evening, the rain changed to freezing rain across Grafton County and the higher elevations of Sullivan and Merrimack Counties. Across the state, heavy snow, freezing rain and rain continued through the night and finally ended early Monday afternoon, March 7th. In addition to the precipitation, strong and gusty winds developed across the region Sunday night and continued Monday. Winds gusted to about 20 to 25 mph across much of southern New Hampshire during the storm with gusts of about 30 to 45 mph as the storm moved east Monday afternoon. In Grafton and Sullivan Counties, ice accretion in combination with the wind, brought down trees and tree limbs across Grafton and Sullivan Counties leading to numerous power outages and more than $700,000 in damage. In Plainfield, voting day logistics had to be changed to the town hall with backup power, as the regular voting location at the school had no power. Kimball Union Academy and the elementary school were without power for several days.

February 8-9, 2013 (FEMA Disaster Declaration DR-4105): An historic winter storm deposited tremendous amounts of snow over all of southern New England from February 8 to Saturday, February 9. The storm brought heavy snow, high winds, and blizzard conditions to the southeastern part of the state. Snowfall amounts were generally 18 inches or more in the southeast where blizzard conditions caused considerable blowing and drifting snow. In western and northern sections, snowfall amounts were in the 4 to 18 inch range. Southeastern New Hampshire had blizzard conditions for about 3 to 10 hours

March 12, 2014 (NOAA): Low pressure moving east from the Ohio Valley on the morning of the 12th and a developing low off the mid-Atlantic coast caused heavy snow across much of western and northern New Hampshire. Snow and mixed precipitation continued through much of the day on the 13th as the low moved through the Gulf of Maine and into the Canadian Maritimes. The northern half of the State generally saw between 6 and 18 inches of snow with lesser amounts to the south.

November 26-27, 2014 (NOAA): An area of low pressure developed off the Carolina coast on the morning of the 26th and raced rapidly up the eastern seaboard during the day to Nova Scotia by the morning of the 27th. The low brought heavy snow to all of New Hampshire with a mixture of precipitation along the coast. Snowfall amounts generally ranged from 4 to 8 inches in the northern mountains, including the Town of Plainfield, to 10 to 15 inches across portions of Sullivan, Grafton, Belknap, and Carroll Counties, to 4 to 8 inches across the southeastern part of the state.

December 29-30, 2016 (NOAA): An area of low pressure moving northeast from the Carolinas on the morning of the 29th combined with a low dropping southeast from Canada to form an intense area of low pressure that moved through the Gulf of Maine during the early morning hours of the 30th. Much of New Hampshire, including the Town of Plainfield, received between 6 and 16 inches of snow with lesser amounts along the Connecticut River Valley. Along the Seacoast, most of the precipitation fell as rain with only an inches or two of snowfall accumulation. Inland from the coast and across southern areas, the rain changed to a heavy, wet snow which clung to trees and wires which

resulted in scattered power outages. Statewide, more than 11,000 homes and businesses saw outages due to the storm. Power was out for about a week in Plainfield as a result of this storm. EOC was opened and emergency personnel conducted house checks.

March 14, 2017 (FEMA Disaster Declaration #4316): The storm brought heavy snow to all of New Hampshire with high winds leading to blizzard or near blizzard conditions across much of central and southern portions of the State. High winds and/or heavy wet snow downed trees and created numerous power outages across southeastern portions of the State. The snow became very heavy throughout the State during the late morning and afternoon. Winds also increased during the afternoon leading to blizzard conditions in parts of the State. Snowfall amounts across New Hampshire ranged from about 12 to 20 inches. The heavy snow combined with the strong winds lead to whiteout conditions in many areas. Town meeting was held despite the bad weather.

January 4, 2018 (NOAA): The energy from a storm slipping southeast from the Great Lakes merged with the energy from low pressure off the southeast U.S. coast to form an intense area of low pressure off the mid-Atlantic coast by the morning of January 4th. The intense low brought heavy snow and high winds to much of the region, with blizzard conditions to the Seacoast area. In addition, the storm brought coastal flooding and erosion along the coast. The storm brought 10 to 15 inches of snow to much of New Hampshire will lesser amounts along the Connecticut River Valley.

March 13, 2018 (FEMA Disaster Declaration #4371): Low pressure off the Southeast U.S. coast on the morning of the 12th intensified rapidly as it moved slowly northeast to just southeast of Cape Cod by the morning of the 13th. The low continued its slow movement to Nova Scotia by the morning of the 14th. The storm brought heavy snow to the almost the entire State with the heaviest snow falling in a strip just inland from the coast. Snowfall amounts ranged from about 6 inches across Coos County to more than 24 inches across portions of Hillsborough, Rockingham, Belknap, and Carroll Counties. Town meeting was held despite the bad weather.

November 20 and 26 2018 (NOAA): Two early snowstorms occurred this November. Early on the morning of the 20th a band of snow developed over central New Hampshire, just to the north of the mid-level warm front. Snow persisted under this feature into the midafternoon, where a narrow swath received 6 to 8 inches of snow. As temperatures aloft cooled in the mid-afternoon, the snow to liquid ratios became very high for the last 1 to 2 inches of snow. On November 26th surface temperatures near freezing made for a heavy, wet snow and scattered power outages due to downed tree limbs. Total snowfall in Plainfield ranged from 6 inches to a foot or more in the higher elevations.

FLOODING

Probability: Frequent

Definition:

Flooding is the temporary overflow of water onto land that is not normally covered by water. Flooding results from the overflow of major rivers and tributaries and/or inadequate local drainage. Flooding events considered in this Plan include 100-year and 500-year floodplain events, rapid snowpack melt, short but intense rainstorms and ice jams.

Location:
Flooding occurs in the 100-year floodplain as designated on the FEMA Flood Insurance Rate Map. These areas primarily include Connecticut River and Mascoma River and other minor tributaries. Ice Jams also occur along the Connecticut River. Roads most commonly affected are River Road, Penniman Road and Willow Brook Road. The potential is moderate but the impact historically is minimal.

Impact:
The extent of damage caused by any flood depends on the depth and duration of flooding, the topography of the area flooded, velocity of flow, rate of rise, and the amount and form of development in the floodplain. Most of the past flooding events result in erosion and damage to culverts and roads throughout town.

Extent:
FEMA defines flood hazards by the 100-year and 500-year flood events. A 100-year flood event is defined as flood event having a 1% chance of being equaled or exceeded in any given year. The 500-year flood12a
event is defined as flood event having a .2% chance of being equaled or exceeded in any given year. The Town of Plainfield Flood Insurance Rate Maps (FIRM) identify both an A and AE zones. A zones are subject to the 100-year flood, however because there have been no detailed hydraulic studies, there is no Base Flood Elevation (BFE) determined for these zones. The AE zones are subject to the 100-year flood and have BFEs delineated on the FIRM.

Previous Occurrence:
March 11-21, 1936: Double flood; first due to rains and snowmelt; second, due to large rainfall.
August 1955: Heavy rains caused extensive damage throughout the river basin.
June 30 - July 5 1973: Flood damage to culverts, bridges, streambeds, and drainage facilities.
July - August 1986 Statewide flooding from severe summer storms, heavy rains, flash flooding and severe winds.
August 7-11, 1990: A series of storm events with moderate to heavy rains.
August 7-11, 1991: FEMA DR-917-NH: Hurricane Bob struck New Hampshire causing extensive damage in Rockingham and Stafford counties, but the effects were felt statewide.
January 3, 1996 FEMA DR-1077-NH – Storms and flooding
October 29, 1996 FEMA DR-1144-NH – Severe storms and flooding
July 2, 1998: FEMA DR-1231-NH – Severe storms and flooding
October 8, 2005 FEMA DR- 1610 Rainfall amounts ranged from around 3 inches in southern New Hampshire up to 9.26 inches at Pinkham Notch. This resulting flooding of small rivers and streams caused additional damage to roads that had been damaged earlier in the month. Tragically, two young people lost their lives in the nearby Town of Unity when they attempted to drive over a bridge that had already been washed away.
April 15-23, 2007: A Nor'easter came through New Hampshire and left behind another round of flooding for many of the state's communities. For many of these communities it was the second time within a year that they were affected by flooding that met or exceeded the 100-year flood. In Plainfield the flooding damaged River Road and Willow Brook Road. The town received $35,000 in HMGP money.
August 28, 2011 (NOAA) - Sullivan County Declared Disaster

Heavy rain from Tropical Storm Irene caused widespread flooding of small rivers and streams across many counties in New Hampshire. Damage to roads and bridges was extreme with repair costs in the millions. Heavy rain from Tropical Storm Irene caused flooding on small rivers and streams throughout Sullivan County.

May 29, 2012 (FEMA Declare Disaster #4065) A warm front moved through southern NH early Tuesday morning, leaving the area in a very moist, warm, and unstable airmass. The front set off showers and thunderstorms across much of eastern New York, western Massachusetts and parts of southern New Hampshire.

June 28, 2013 (FEMA Declaration Disaster #-4139): The storm brought heavy snow to all of New Hampshire with high winds leading to blizzard or near blizzard conditions across much of central and southern portions of the State. High winds and/or heavy wet snow downed trees and created numerous power outages across southeastern portions of the State. Snow began around 4 am in the southwestern corner of the State on the 14th and spread rapidly northeast. By 11 am, snow was falling throughout the entire state. The snow became very heavy throughout the State during the late morning and afternoon. Winds also increased during the afternoon leading to blizzard conditions in parts of the State.

October 30, 2017 (FEMA Declared Disaster DR#4355): An area of low pressure over the southeastern United States on the morning of Sunday, October 29th, intensified rapidly Sunday night and Monday, October 30, as it moved northward and moisture and energy from the remnants of Tropical Storm Philippe merged with the storm. The combined system brought high winds to much of New Hampshire Sunday night into Monday morning, with the highest winds in southern and central sections of the State. In addition, heavy rain accompanied the high winds over New Hampshire leading to both flash flooding and main-stem river flooding. The highest rainfall amounts were observed in the White Mountains. While the high winds and heavy rain ended during the morning of the 30th, flooding persisted into the late afternoon of November 1st. FEMA Disaster they got about $20,000 in reimbursement funds. The Town of Plainfield experienced moderate flooding. Stage Road was closed and some areas of Town were without power for a week. The Town received approximately $20,000 in FEMA Disaster Declaration funds.

April 21, 2019: A portion of the Connecticut riverbank off Route 12A in Plainfield washed out from high water and ice jams, undercutting the integrity of the roadway near the intersection with River Road and plucking the guardrail from its soil.

SEVERE WIND / TORNADO

Probability: Probable

Definition:

A tornado is a violent windstorm characterized by a twisting, funnel-shaped cloud. These events are spawned by thunderstorms and occasionally by hurricanes. They may also occur singularly or in multiples. A downburst is a severe, localized wind blasting down from a thunderstorm. These “straight line” winds are distinguishable from tornadic activity by the pattern of destruction and debris. Downbursts fall into two categories: Microburst which covers an area less than 2.5 miles in diameter; and Macroburst which covers an area at least 2.5 miles in diameter.

Location:

Severe wind events (downburst, tornadoes or high winds associated with thunderstorms) can occur anywhere in Plainfield. Generally, the higher elevations are more susceptible as well as more vulnerable due to the fact that they are home to emergency response/mutual aid towers. Due to the sporadic nature of tornados and severe wind events, they could occur anywhere in the Town of Plainfield.

Impact:
Depending on the size and location of these events, the destruction to property may be devastating. Several of the more significant and recent events within southern New Hampshire have caused several millions of dollars in damage and at least 5 fatalities. An F-2 Tornado, according to the Fujita scale, maintains wind speeds from 13-157 mph. A tornado occurring in Plainfield would cause considerable damage. Roofs could be torn off frame houses; mobile homes demolished; large trees snapped or uprooted; and light object missiles would be generated as a result of an F-2 Tornado.

Extent:
According to the Enhanced Fujita scale, which rates tornado intensity, an EF-2 tornado maintains wind speeds from 111-135 mph and can cause considerable damage.

EF 0	65-85 mph
EF 1	86-110 mph
EF 2	111-135 mph
EF 3	136-165 mph
EF 4	166-200 mph
EF 5	Over 200 mph

Previous Occurrence:
July 18, 2006: Severe winds downed several trees in town.
August 16, 2007: A severe thunderstorm downed numerous trees and power lines in Plainfield. Numerous severe thunderstorms produced damaging winds and large hail during the evening of August 16th.
May 9, 2009: Severe downburst downed many trees and closed some roads for two days.
August 15, 1999: F1 tornado hit Ledieu Hill to 120. Caused damage to timber lots and minor building damage.
August 21, 2011 (NOAA): A strong upper trough and associated cold front pushed into the region on the afternoon of the 21st. Good low level moisture and instability combined with an impressive wind field aloft to produce numerous severe thunderstorms during the afternoon and evening hours. All reports of damage were due to strong winds. A severe thunderstorm downed trees on Route 12a near Freeman Road in Plainfield.
November 24, 2013 (NOAA): Strong winds developed behind an arctic cold front during the afternoon of the 24th. Winds gusted to between 40 and 50 mph across much of New Hampshire. Snapped trees and branches caused power outages throughout the region. Power companies reported that about 30,000 customers lost electrical service. In Concord where winds gusted to 58 mph, a large fiber communications cable fell across I-93 blocking the interstate highway for three hours.
July 1, 2017 (NOAA): A very strong shortwave and associated cold front were approaching from the west on the morning of July 1st. Ahead of the front, a very warm and moist air mass was in place over New England with values of precipitable water around 2 inches. Strong directional and speed shear contributed to numerous supercells that produced damaging winds, large hail, and 5 confirmed tornadoes across the border in Maine. In addition, very heavy rain associated with these cells produced extensive flash flooding to many area roads, with damage totaling in the millions. This thunderstorm downed trees and wires on Route 120, Black Hill Road and Route 12A in Plainfield.

LIGHTNING

Probability: Frequent

Definition:
By definition, all thunderstorms contain lightning. Lightning is a giant spark of electricity that occurs within the atmosphere, or between the atmosphere and the ground. As lightning passes through the air, it heats the air to a temperature of 50,000 F, considerably hotter than the surface of the Sun.

Location:
The entire town is at moderate risk to lightning hazard. The higher elevation areas have an increased probability, however lightning strikes can occur anywhere in the Town.

Impact:
Residents and visitors to the New Hampshire area are more vulnerable to being struck by lightning because of the activities with which they are involved, particularly on those warm summer days when lightning is most likely to occur. Often, many people are outside enjoying the variety of recreational activities that attract people to New England during the summer when the vulnerability to lightning strike is highest. More likely to be affected are structures and utilities, often resulting in structure fires and power outages.

Extent:
The National Oceanographic Atmospheric Administration (NOAA) defines the extent of lightning activity with a LAL scale as shown in the table below.

LAL 1	No Thunderstorms
LAL 2	Isolated thunderstorms. Light rain will occasionally reach the ground. Lightning is very infrequent. 1 to 5 cloud ground strikes in a 5-minute period.
LAL 3	Widely scattered thunderstorms. Light to moderate rain will reach the ground. Lightning is infrequent, 6 to 10 cloud to ground strikes in a 5-minute period.
LAL 4	Scattered thunderstorms. Moderate rain is commonly produced. Lightning is frequent, 11 to 15 cloud to ground strikes in a 5-minute period.
LAL 5	Numerous thunderstorms. Rainfall is moderate to heavy. Lightning is frequent and intense, greater than 15 cloud to ground strikes in a 5-minute period.
LAL 6	Dry lightning (same as LAL 3 but without rain). This type of lightning has the potential for extreme fire activity and is normally highlighted in fire weather forecasts with a Red Flag Warning.

Previous Occurrence:
Plainfield experiences annual lightning events The congregational church on Meriden Hill has been struck by lightning twice in the last 100 years and was rebuilt. Several residential properties have been partially damaged by fire from lightning strikes. There have been no significant lightning strikes in the last five years.

HURRICANE

Probability: Probable

Definition:
A hurricane is a tropical cyclone in which winds reach speeds of 74 miles per hour or more and blow in a large spiral around a relatively calm center. The eye of the storm is usually 20-30 miles wide and the storm may extend over 400 miles. High winds are a primary cause of hurricane-inflicted loss of life and property damage. The Saffir-Simpson Hurricane Wind Scale is a 1 to 5 rating based on a hurricane's sustained wind speed. This scale estimates potential property damage. Hurricanes reaching Category 3 and higher are considered major hurricanes because of their potential for significant loss of life and damage. Category 1 and 2 storms are still dangerous, however, and require preventative measures.

Location:
When hurricane events occur in Plainfield they affect the entire town. Certainly, the heavy rainfall associated with hurricanes will impact the 100-year floodplain, but the high winds can have an impact on the whole town.

Impact:
New Hampshire's exposure to direct and indirect impacts from hurricanes is real, but modest, as compared to other states in the region. That being said, the probability of hurricanes occurring in Plainfield is possible. The largest impact is on the floodplain areas due to heavy rains. High winds cause trees to fall thereby causing power outages, structural damage to buildings, road closures and debris management issues.

Extent:
Wind speeds within hurricanes may reach 250 miles per hour in a Category 5 hurricane, as measured on the Saffir-Simpson Hurricane Scale. Tropical depressions are considered to be of hurricane force when winds reach 74 miles per hour. Damage resulting from winds of this force can be substantial, especially considering the duration of the event, which may last for many hours.

Category	Wind Speed (mph)	Damage at Landfall
1	74-95	Minimal
2	96-110	Moderate
3	111-130	Extensive
4	131-155	Extreme
5	> 155	Catastrophic

Previous Occurrence:
September 21, 1938 - The Great New England Hurricane: Statewide there were 13 Deaths, 1,363 families received assistance. Disruption of electric and telephone services for weeks. 2 Billion feet of marketable lumber blown down. Flooding occurred throughout the State, in some cases equaling and surpassing the Flood of 1936. Total Direct Losses - $12,337,643
August 19, 1991 - Hurricane Bob: Extensive amount of trees blown down and property damage Statewide and localized flooding.
August 28, 1971 - Tropical Storm Doria's center passed over New Hampshire resulting in heavy rain and damaging winds.
August 28, 2011: Heavy rain from Tropical Storm Irene caused widespread flooding of small rivers and streams across many counties in New Hampshire. Damage to roads and bridges was extreme with repair costs in the millions. Heavy rain from Tropical Storm Irene

caused flooding on small rivers and streams throughout Sullivan County. The Town received almost $20,000 as result of a Presidential Declaration DR-4026-NH.

Since Tropical Storm Irene, the Town has not experienced any significant impact from hurricanes or tropical storms.

WILDFIRE

Probability: Probable

Definition:
Any free burning uncontainable wild land fire not prescribed for the area which consumes the natural fuels and spreads in response to its environment.

Location:
The Ice Storms of 1998 and 2008 left a significant amount of woody debris in the forests of the region and may fuel future Wildfires similar to the debris caused by the Hurricane of 1938. Fires in New Hampshire are predominantly human-caused, and roughly half of the total fire activity is in the most populous three southern counties. The proximity of many populated areas to the forested lands exposes these areas and their populations to the potential impact of wildfire. Wildfires are most likely to occur along areas traveled by humans, such as roads, rail trails and recreational areas.

Impact:
Fires in New Hampshire are predominantly human-caused, and roughly half of the total fire activity is in the most populous three southern counties. The proximity of many populated areas to the forested lands exposes these areas and their populations to the potential impact of wildfire. The estimated impact to structures could be derived from the information included in the critical facilities in Chapter 4.

Extent:
The extent of damage to structures and the general populations will vary depending on climate, warning, and the time of year. Even the time of day could affect the extent, as there is an increase of recreational hikers and tourists during the daytime. The National Wildfire Coordinating Group (NWCG) classifies a wildfire into one of several ranges of fire, based upon the number of acres burned. The following list provides NWCG's scale for wildfire values:

Value	Description
A	Up to .25 acres
B	0.26 to 9.9 Acres
C	10.0 to 99.9 Acres
D	100 to 299 Acres
E	300 to 999 Acres
F	1000 to 4999 Acres
G	5000 to 9999 Acres
H	10000 to 49999 Acres
I	50000 to 99999 Acres
J	100000 to 499999 Acres
K	500000 to 999999 Acres
L	1000000 + Acres

Previous Occurrence:
There have been 83 major fires (both structure and wildfires) in Plainfield since 1785. The three biggest fires are noted below:
June 1953: Corbin Park fire started by lightning and burned until late fall. Some areas were not out until snow flew. This event cost the town of Plainfield $6,534.37 and cost the State of NH over $1 million. No homes were destroyed in this forest fire.
October 23, 1982: The Plainfield Town Highway Garage was destroyed by fire.

November 29, 1984: fire in Plainfield Village: Northern New England Storage, Inc., steel frame building, two businesses, and an apartment burned. People were evacuated from the area because of toxic fumes. There have been no other significant wildfire in Plainfield since the 1984 fire.

COMMUNICABLE DISEASE

Probability: Occasional

Definition:
Infectious diseases are illnesses caused by organisms—such as bacteria, viruses, fungi or parasites. 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.

Location:
The entire State of New Hampshire, including the Town of Plainfield, is at risk for Infectious Diseases. The prevalent diseases can change based on the time of year, such as the influenza virus in the winter and foodborne disease in the summer.

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

According to NH DHHS's 2007 Influenza Pandemic Public Health Preparedness and Response Plan, it is estimated that an influenza pandemic will cause nearly 16,000 hospitalizations and nearly 4,000 deaths.

Extent:
The magnitude and severity of infectious diseases is described by its speed of onset (how quickly people become sick or cases are reported) and how widespread the infection is. Some infectious diseases are inherently more dangerous and deadly than others, but the best way to describe the extent of infectious diseases relates to the disease occurrence:

- Endemic – Constant presence and/or usual prevalence of a disease or infection agent in a population within a geographic area
- Hyperendemic – The persistent, high levels of disease occurrence
- Cluster – Aggregation of cases grouped in place and time that are suspected to be greater than the number expected even though the expected number may not be known
- Epidemic – An increase, usually sudden, in the number of cases of a disease above what is normally expected
- Outbreak – The same as epidemic, but over a much smaller geographical area

Previous Occurrence:

The Town of Plainfield has not experienced any unique public health emergencies specific to the Town. However, annually the State of New Hampshire experiences influenza and other respiratory outbreaks

EARTHQUAKE

Probability: Remote

Definition:
An earthquake is a rapid shaking of the earth caused by the breaking and shifting of rock beneath the earth's surface. 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 magnitude and intensity of an earthquake is determined by the use of scales such as the Richter scale and Mercalli scale.

Location:
According to the State of New Hampshire Multi-Hazard Mitigation Plan, New Hampshire is considered to lie in an area of "Moderate" seismic activity with respect to other areas of the United States and is bordered to the North and Southwest by areas of "Major" activity. Generally, the entire Town is at risk to earthquakes.

Impact:
Earthquakes can cause buildings and bridges to collapse, disrupt gas, electric and phone lines, and often cause landslides, flash floods, fires, and avalanches. It is assumed that all the buildings in the Town have not been designed to withstand seismic activity. More specifically, the older historic buildings that are constructed of non-reinforced masonry are especially vulnerable to any moderate sized earthquake. In addition, utilities (water, sewer, etc.) are susceptible to earthquake damage. Plainfield has experienced the effect of small to moderate earthquakes that had minor to no effect on the town's infrastructure.

Extent:
Earthquakes with a magnitude of 2.0 to 4.9 on the Richter scale are considered minor to light, and those 5.0 to 6.9 are considered moderate to strong. However, if a large (6+ on the Richter Scale) occurred in or around the town, it is assumed that structural damage would be moderate to severe.

Richter Scale	Magnitude Earthquake Effects
2.5 or less	Usually not felt but can be recorded by seismograph.
2.5 to 5.4	Often felt, but only causes minor damage.
5.5 to 6.0	Slight damage to buildings and other structures.
6.1 to 6.9	May cause a lot of damage in very populated areas.
7.0 to 7.9	Major earthquake. Serious damage.
8.0 or greater	Great earthquake. Can totally destroy communities near the epicenter.

Previous Occurrence:
The Town of Plainfield has not experienced any significant earthquakes. The following table summarizes earthquakes of 2.5 magnitude or greater that have occurred in New Hampshire and New England:

Location	Date	Magnitude
Ossipee, NH	December 20, 1940	5.5
Ossipee, NH	December 24, 1940	5.5
Dover-Foxcroft, ME	December 28, 1947	4.5
Kingston, RI	June 10, 1951	4.6
Portland, ME	April 26, 1957	4.7
Middlebury, VT	April 10, 1962	4.2
Near NH Quebec Border, NH	June 15, 1973	4.8
West of Laconia, NH	Jan. 19, 1982	4.5
Ontario-Quebec Border	June 23, 2010	5.0
Boscawen, NH	September 26, 2010	3.1
Virginia	August 23, 2011	5.8
Southern Maine	October 16, 2012	4.0
Contoocook, NH	March 21, 2016	2.9
East Kingston, NH	February 15, 2018	2.7

DAM FAILURE

Probability: Remote

Definition:
According to the NH Department of Environmental Services (DES), a dam is any artificial barrier which impounds or diverts water which: has a height of 6 feet or more; or is located at the outlet of a great pond, regardless of height or storage; or is an artificial barrier which impounds liquid Industrial or liquid commercial wastes, or septage or sewage, regardless of height or storage.

Location:
There are no dams located in Plainfield with a significant risk. However, Wilder Dam and Moore Dam, both upstream on the Connecticut River, are High Hazard Dams that could impose a great risk to people and infrastructure in Plainfield. The Emergency Action Plan for this Plan is available through the NH Department of Environmental Services and on file at the Town Office.

Impact:
A dam failure or breach could occur due to extreme rainfall amounts and/or a human caused incident. A failure or breech would result in rapid loss of water that is normally held by the dam resulting in an inundation downstream.

Extent:
NH Department of Environmental Services categorizes Dams into one of four classifications, which are differentiated by the degree of potential damages that a failure of the dam is expected to cause. The classifications are designated as non-menace, low hazard, significant hazard and high hazard. A **High Hazard** dam means a dam that has a high hazard potential because it is in a location and of a size that failure or misoperation of the dam would result in probable loss of human life as a result of: Water levels and velocities causing the structural failure of a foundation of a habitable residential structure or commercial or industrial structure, which is occupied under normal conditions; Water

levels rising above the first floor elevation of a habitable residential structure or a commercial or industrial structure, which is occupied under normal conditions when the rise due to dam failure is greater than one foot; Structural damage to an interstate highway, which could render the roadway impassable or otherwise interrupt public safety services; the release of a quantity and concentration of material, which qualify as "hazardous waste" as defined by RSA 147-A:2 VII; and Any other circumstance that would more likely than not cause one or more deaths.

Previous Occurrence:
There is no history of significant dam failures in Plainfield.

DROUGHT

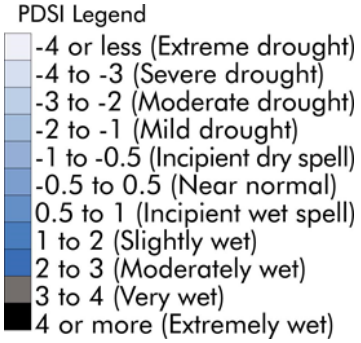
Probability: Occasional

Definition:
Drought is a deficiency in precipitation over an extended period, usually a season or more, resulting in a water shortage causing adverse impacts on vegetation, animals, and/or people.

Location:
Droughts are difficult to define geographically. Due to their widespread nature a drought would affect the entire Town. However, a drought can affect fire suppression in those areas that do not have access to water for fire suppression.

Impact:
A drought is defined as a long period of abnormally low precipitation, especially one that adversely affects growing or living conditions. Droughts are not as damaging to the Town as floods or winter weather. However, a severe drought can affect public water supply, increase the probability of fires, and impede fire suppression. Those areas with minimal fire protection are at a higher risk because of a prolonged drought.

Extent:
The Palmer Drought Severity Index (PDSI) was devised in 1965 and was the first drought indicator to assess moisture status comprehensively. It uses temperature and precipitation data to calculate water supply and demand, incorporates soil moisture, and is considered most effective for un-irrigated cropland. It primarily reflects long-term drought and has been used extensively to initiate drought relief. It is more complex than the SPI and the Drought Monitor.



Previous Occurrence:
According to the State of New Hampshire Multi-Hazard Mitigation Plan, the southern portion of NH experienced droughts in 1957, 1963, 1965, 1966, 1970, 2001, and 2010. The statewide drought of 2001/02 had a minimal impact on water sources for fire protection in Plainfield. Most recently, according to www.drought.gov, almost 45% of the State of New Hampshire, including the Town of Plainfield, was in a severe drought at the beginning of 2017. Plainfield has not experienced a significant drought since the last Plan update.

LANDSLIDE

Probability: Occasional

Definition:
A Landslide is the downward or outward movement of slope forming materials reacting under the force of gravity. These include mudflows, mudslides, debris flows, rockslides, debris avalanches, debris slides and earth flows. Landslides 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.

Location:
According to the Plainfield Hazard Mitigation Committee, there is landslide potential on River Road, Willow Brook Road and portions of Rt. 12A along the Connecticut River.

Impact:
The impact of landslides in Plainfield is going to impact roads and the traffic on those roads. Willow Brook Road and Rt 12A are high through-commuter road and road closures can impact commuter traffic as well as impact local traffic control. Lastly, damage to roads from landslides is a cost to the Town and to the State to repair local and State roads.

Extent:
While no universally accepted standard or scientific scale has been developed for measuring the severity of all landslides, severity can be measured several other ways: Steepness/grade of the Slope (measured as a percent); Geographical Area o Measured in square feet, square yards, etc.; or Earthquake, either causing the event or caused by the event (measured using the Moment Magnitude Intensity or Mercalli Scale)

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

Previous Occurrence
April 21, 2019: A portion of the Connecticut riverbank off Route 12A in Plainfield washed out, undercutting the integrity of the roadway near the intersection with River Road and plucking the guardrail from its soil.

EXTREME HEAT

Probability: Probable

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

Location:
Extreme heat events are difficult to define geographically. Due to their widespread nature, a period of extreme heat would affect the entire town.

Impact:
A heat wave is defined as 3 or more consecutive days of 90 degrees or higher. Extreme heat conditions may impact the health of residents and visitors. Facilities without generators and air-conditioners that house the elderly and disabled are very susceptible to human health issues. Utilities are also vulnerable as the demand for air-condition rises. Prolonged high temperature has also been associated with civil unrest.

Extent:
According to OSHA, the risk of heat-related illness becomes greater as the weather gets hotter and more humid. This situation is particularly serious when hot weather arrives suddenly early in the season, before workers have had a chance to adapt to warm weather. This table provides guidelines for the risk related to extreme heat.

Heat Index	Risk Level	Protective Measures
Less than 91°F	Lower (Caution)	Basic heat safety and planning
91° to 103°F	Moderate	Implement precautions and heighten awareness
103° to 115°F	High	Additional precautions to protect workers
Greater than 115°F	Very High to Extreme	Triggers even more aggressive protective measures

Previous Occurrence:
The summer of 1999 was one of the hottest summers on record. As of 7/27/99, there had been 13 days with temperatures recorded above 90 degrees, 5 days above 95 degrees and 2 above 97 degrees. There was a large increase in emergency response calls, however there were no deaths associated with this event. The Town of Plainfield experiences extreme heat temperatures several days during the summer but with little impact to the population. The Town has not experienced a significant heat wave since the last Plan update. On occasion, elderly populations seek public cooling spaces.

HAIL

Probability: Remote

Definition: Hail is defined as a showery precipitation in the form of irregular pellets or balls of ice more than 5 mm in diameter, falling from a cumulonimbus cloud.

Location:
Due to its widespread nature a hail event could affect any part of Town.

Impact:

Hail can damage communications and IT functions and can damage agricultural crops. Due to the complexities and various factors involved in the formation of hail particle size and weight, the impact can vary tremendously.

Extent:
The bigger the diameter of the hailstone, the bigger the impact on agriculture, infrastructure and other objects.

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

Previous Occurrence:
July 19, 2010: Thunderstorms produced large hail about 1" in size.

There has been no significant Hail events since 2010.

AVALANCHE and SOLAR STORMS

Due to no history or significant potential of avalanche and solar storms within the Town of Plainfield, the Committee chose not to recognize these hazards in this Plan.

Chapter 4
CRITICAL FACILITIES

Introduction

The Critical Facilities section is divided into four categories. The first category contains critical facilities needed for emergency response in the event of a disaster. The second category contains critical facilities that are not utilized for emergency response. The third category contains populations and facilities the Committee wishes to protect in the event of a disaster. The fourth category includes areas of town that are generally prone to hazard events.

1. Critical Facilities Necessary for Emergency Response

1. Police Dept. Vehicles (Not a facility, but most critical equipment for Police)
2. Plainfield Fire Station
3. Meriden Fire Station
4. Meriden Town Hall Offices
5. Highway Garage
6. Meriden Wastewater Treatment Facility
7. Plainfield and Meriden Water Districts
8. Cornish Rescue Squad Headquarters (Cornish)
9. Primary Emergency Shelter: Singing Hills
10. Potential Emergency Shelters: Kimball Union Academy (KUA) Dining Hall Christ Community Church, Meriden Congregational Church

2. Facilities Not Necessary for Emergency Response

11. Plainfield Old Town Hall
12. Plainfield Post Office
13. Meriden Post Office
14. Philip Read Memorial Library
15. Meriden Public Library

3. Facilities & Populations to Protect

16. Plainfield Elementary School
17. Runnemede School
18. Kimball Union Academy (and daycare)
19. Singing Hills Retreat
20. 7th Day School

4. Critical Areas

21. River Road
22. Penniman Road
23. Willow Brook Road
24. Methodist Hill

Critical Facilities in Plainfield, NH

Facility Name	Generator	In 100-Year Flood	Type of Hazard Impact Most Vulnerable To	Assessed Value
Meriden Fire Station	Yes	Yes	Flooding, HazMat (gas station across street)	$239,900
Plainfield Fire Station	Yes	No	Wind (metal building)	$346,600
Meriden Town Hall Offices	Yes	No	KUA Water Tank breach, wind events (slate roof)	$499,300
Plainfield Highway Garage	Yes	No	Fire	$350,000
Meriden WWT Facility	Yes	No	Flood	$803,700
Plainfield Water District	No	No	Flooding if it bursts, Terrorism	$27,400
Meriden Water District	No	No	Drought	$355,600
Plainfield Old Town Hall	No	No	None	$333,700
Plainfield Post Office	No	No	Terrorism/HazMat	$115,800
Meriden Post Office	No	No	Terrorism/HazMat	$114,200
Philip Read Memorial Library	No	No	None	$1,153,500
Meriden Public Library	No	No	Earthquake (brick building)	$303,300
Plainfield Community Baptist Church	No	No	Earthquake (Structural cracks)	$782,700
Christ Community Church (Shelter)	No, but wired	No	Wind	$3,412,300
Meriden Congregational Church (Shelter)	No	No	Earthquake (Structural cracks)	$1,327,500
Plainfield Elementary	No	No	Wind	$4,265,300
Singing Hills (Shelter)	Yes	No	Wind and Wildfire	$2,822,100
7th Day School	No	No	None	$1,301,700
Kimball Union Academy (Shelter)	Yes (student center, dining hall)	No	Earthquake, Terrorism, Public Health, HazMat (Pool)	$1,771,300
Anne's Country Convenience Store	Yes	No	Hurricane, Winter Weather	$407,800
Meriden Deli-Mart	No	Yes	Flood	$375,600

Chapter 5
CAPABILITY ASSESSMENT

The table on the following page is a list of current policies and regulations adopted by the Town of Plainfield that protect people and property from natural and man-made hazards. The table includes a description of the policy/regulation, the responsible agent, the policy's effectiveness and recommended strategies to improve mitigation efforts.

Integration of Mitigation Priorities into Planning and Regulatory Tools

The Town should conduct periodic review of these regulations and this Hazard Mitigation Plan. Reviewing these plans on a regular basis will ensure the integration of mitigation strategies. This review will continue to be a priority of the Plainfield Emergency Management Director and will likely include yearly requests in the annual budget process. Moreover, as suggested in the onset of this document, this *Plan* is a planning tool to be used by the Town of Plainfield, as well as other local, state, and federal governments, in the effort to reduce future losses from natural and/or man-made hazardous events before they occur. Under the Prioritized Mitigation Projects *Action Plan* (found in Chapter 6), all parties listed under the Responsibility/Oversight category shall also review this listing annually, and consider the listed (and updated) mitigation projects within their annual budget requests.

Existing Protection Matrix Plainfield, NH				
Existing Protection	**Description**	**Responsible Agent**	**Effectiveness*** ***Poor/Average/Exc.***	**Status**
Floodplain Ordinance	The minimum National Flood Insurance Program (NFIP) requirements have been adopted as part of the Town's Zoning Ordinance. This regulates all new and substantially improved structures located in the 100-year floodplain, as identified on the FEMA Flood Maps.	Planning Board / Zoning Board / Building Inspector	Excellent	Continue to enforce floodplain regulations, including substantially improved structures; and amend regulations as necessary per federal requirements.
Emergency Operations Plan	The Town maintains an EOP that meets the recommendations by the NH Homeland Security Emergency Management. This plan identifies the response procedures and capabilities of the Town of Plainfield in the event of a natural or man-made disaster.	EMD	Excellent	Planned for update in 2021.
Digital Tax Maps	The Conservation Commission commissioned a new set of digital tax maps, to be used as an analytical tool for making recommendations that will help conserve the most important natural land features and open spaces.	Conservation Commission	Excellent	Continue to update maps.
Elevation Certificates Maintained	Elevation certificates are maintained for new and substantially built structures in the 100-year floodplain.	Building Inspector	Excellent	The Town continues to administer, enforce, and ensure that Elev. Cert. are properly filed, certified and implemented.
School Emergency Plans	KUA and Plainfield Elementary School both have emergency Plans. The Town of Plainfield participates in their updates and emergency training.	EMD	Excellent	Continue to participate in school emergency response planning. The town is reaching out to churches and day care centers and another private school to develop emergency plans.

Existing Protection Matrix Plainfield, NH				
Existing Protection	**Description**	**Responsible Agent**	**Effectiveness* *Poor/Average/Exc.***	**Status**
Hazardous Materials Plan / Team	There are no substantial Hazardous Material facilities that warrant a Hazardous Material Plan. There is also a regional HazMat response team that serves the town.	Fire Chief	Excellent	Continue to participate in the Midwest Hazardous Response Team.
Master Plan	The Master Plan serves as the guiding document for future development in Plainfield. It also serves as the guiding document to assist the Planning Board as it updates the Town Zoning Ordinance, Subdivision and Site Plan Review Regulations and other regulations that fall under its jurisdiction.	Planning Board	Excellent	Updated in 2013
Upper Valley Regional Public Health Network	The Upper Valley Public Health Network works to assure coordinated and comprehensive delivery of essential public health services and serves as a local liaison with state agencies involved in the public's health and safety.	Human Services Director and EMD	Average	Increase participation in the Public Health planning process
Emergency Warning System	The town is part of the Grafton County Code Red which can notify all landlines as well as people's cell phones if they have signed up voluntarily. Supplementing Code Red are PA systems in all Fire & Police vehicles. The elementary school and KUA have notification systems.	Police / Fire / EMD / Town Office	Average	Reach out to people with no landlines to sign up for Code Red.

*Effectiveness terms are defined as:
Poor: Outdated and/or ineffective and needs to be reviewed/updated.
Average: Meets minimum requirements and may require potential reviews/updates.
Excellent: Regulations meets all requirements and requires no reviews/updates.

Chapter 6
MITIGATION PROJECTS

Hazard Identification

The Committee utilized the *Hazard Identification Worksheet*, as shown in Appendix B, to identify potential hazards, the historical occurrence, locations, assets at risk and the probability of each hazard. The results of this process can be found in Chapters 2 and 3.

Problem Statements

From the Hazard Identification process the Committee developed a list of Problem Statements for each Hazard (see Appendix B). Based on the hazards and risks within the town, the Committee summarized the 'problems' associated for every hazard identified. These problem statements allowed the Committee to identify mitigation alternatives during the project identification step described below.

Goals Identified

During the 2019 update, the Committee reviewed the 2014 Plainfield Hazard Mitigation Plan goals and made no revisions. The Goals were not modified for any substantial content, as there has not been any substantial change in development.

Project Identification

Using the *Mitigation Project Identification Worksheet* (see Appendix B) as a guide, the Committee members identified mitigation projects for each problem Statement. Specific objectives included: Prevention, Property Protection, Public Education, Natural Resource Protection, Emergency Services and Structural Projects.

This process resulted in the *Mitigation Project Identification Matrix*. For illustrative purposes the table below is an excerpt from the *Matrix* included in Appendix B. In this *Matrix*, the committee was able to determine a basic benefit/cost by using the STAPLEE method. For each project identified, the committee considered the STAPLEE Criteria (Social, Technical, Administrative, Political, Legal, Economic and Environmental) to guide their decision in prioritizing the projects. One component of STAPLEE is the Economic criteria which aided the committee in determining whether the benefits outweigh the costs.

Hazard	Problem Statement	**Mitigation Project** *(Objectives: Prevention /Property Protection/ Public Educ./ Nat.Resource /Emerg.Serv / Structural)*	Social	Technical	Administrative	Political	Legal	Economic	Environments
Lightning	Critical facilities are at risk to lightning strikes.	Install/Upgrade lightning protections systems (grounding, lightning rods, surge protectors, etc.) on Critical Facilities.	+	+	+	+	+	+	+

Completed Projects since 2014

The Town of Plainfield completed the latest version of this plan in 2014. Since that time, the town has completed the projects listed below. These completed projects are not included in the 2019 edition of the Hazard Mitigation plan. In addition, the Committee added new projects to the Mitigation Action Plan, all of which are included in the Action Plan.

Completed Projects since 2014
Many of the 'Continuing Projects" were partially completed or considered ongoing. So there were no fully completed projects from the 2014 Plan.
Deleted Projects since 2014
Adopt and enforce International building Code (IBC) and International Residential Code (IRC).
Ensure school officials are aware of the best area of refuge in school buildings.
Continuing Projects since 2014 *(Note: these projects were identified by the committee as either on-going or annual projects that they wanted to maintain or were just simply not completed since the last plan.)*
Update special needs population database annually and distribute to dispatch.
Inform public about severe winter weather impacts.
Conduct an outreach program to citizens in the 100-year floodplain, as well as those in the inundation pathway of dams.
Continue to enhance GIS mapping for more effective mitigation planning, including flood risk.
Continue to enforce floodplain regulations, including substantially improved structures; and amend regulations as necessary per federal requirements.
Implement a regular drainage maintenance system.
Apply soil stabilization measures, such as planting soil stabilization vegetation on publicly owned slopes.
Establish guidelines for all utilities regarding tree pruning around lines
Conduct multi hazard drills in schools and public buildings
Construct additional dry hydrants, cisterns and fire ponds, per the recommendations of the 2009 Water Resource Plan.
Educate public on generator safety/carbon monoxide.
Install lightning protection devises and methods (lighting rods, grounding, etc.) on communications infrastructure and other critical facilities.
Implement security protection for the Meriden Water Tank.
Update radio equipment for Fire, Police, EMS and Public Works.

2019 Prioritized Mitigation Projects:

In 2019, each committee member reviewed the updated list of Mitigation Projects. After careful evaluation, the committee ranked the projects by voting for half of the projects. The project that received the most votes was ranked as the highest priority and the project receiving the least amount of votes received the lowest priority. (See Prioritized Mitigation Projects in Appendix B.) The committee was able to determine a basic benefit/cost by using the STAPLEE method. For each project identified, the committee considered the STAPLEE Criteria (Social,

Technical, Administrative, Political, Legal, Economic and Environmental) to guide their decision in prioritizing the projects. The prioritized projects are identified in the Mitigation Action Plan.

There have been no significant changes to mitigation priorities for the Town of Plainfield. The Town has not experienced any changes in resources, new hazard impacts, or development patterns that merit changes to mitigation priorities. The Hazard Mitigation Committee identified new projects as described below and prioritized them as discussed above.

Incorporating Mitigation Into Local Planning

In order for the requirements of this plan to be effective, it is essential that the Town of Plainfield incorporate the strategies and actions into its planning process. Educating employees working within the Town Agencies along with members of the various Boards on the provisions of the plan is critical for ensuring that disaster preparedness and risk mitigation become part of their planning process when holding discussions, making decisions, and developing plans and Standard Operating Procedures (SOPs). As noted above, information outreach is a high priority action item that will impact more than just Town employees and Board members. Since interested citizens attend various Town meetings where decisions are made, having a community base that understands the importance of disaster mitigation planning will also assist in ensuring that future plans and actions integrate the requirements found in this plan.

The Board of Selectmen will instruct the Town Agency Heads to review their SOPs and ensure that where appropriate, the requirements of this plan are integrated into those procedures. They will also coordinate with both the Zoning Board and the Planning Board to ensure that risk mitigation planning continues to be a part of their recommendation/decision process in order to fulfill the goals and objectives outlined in this plan.

Since the last update of this Plan in 2013, the Town incorporated Hazard Mitigation Planning into the following documents:

- Plainfield Emergency Operations Plan (EOP) – The EOP is designed to allow the Town to respond more effectively to disasters as well as mitigate the risk to people and property. The EOP was updated in 2015 and was reviewed to ensure that where appropriate, specific mitigation actions outlined in the HMP were also addressed in the EOP.

Mitigation Action Plan

The projects identified in 2014 included preparedness projects as well as mitigation projects. During the 2019 update, the committee separated mitigation projects from preparedness projects (a.k.a Non-Mitigation). Both mitigation and non-mitigation projects are compiled in the Mitigation Action Plan found on Page 6-4 which identifies Responsibility, Funding, Time frame, Hazards Addressed and the Priority for each mitigation project.

Mitigation Action Plan - Plainfield, NH						
Mitigation Action	**Responsibility/ Oversight**	**Funding/ Support**	**Timeframe***	**Hazards Addressed**	**Estimated Cost**	**Priority**
1. Construct additional dry hydrants, cisterns and fire ponds, per the recommendations of the 2009 Water Resource Plan.	Fire Chief	Water Districts	Ongoing	Drought	$2-3,000 per	High
2. Update special needs population database annually and distribute to Dispatch.	Police Department	Town Operating Budget	Ongoing	All Hazards	$0	High
3. Implement a regular drainage maintenance system.	Highway Department	Town Operating Budget	Ongoing	Flood, Hurricane	$50 – 60,000 / year	High
4. Installing 'Beaver Deceivers' devices on problem culverts to prevent road damage.	Conservation / Road Agent	Conservation Fund	Ongoing	Flood, Hurricane	$1,500 per	Medium
5. Educate public on generator safety/carbon monoxide.	Emergency Management Director	Staff Time	Short	Winter Weather	$250	Medium
6. Establish guidelines for all utilities regarding tree pruning around lines	Highway Department	Utility Companies	Ongoing	Hurricane, Severe Wind, Winter Weather	$0	Medium
7. Relocate portions of River Road and Willow Brook Road away from Connecticut River to prevent future erosion and flooding.	Board of Selectmen	Town Budget and Grants	Medium	Flood, Hurricane	To be determined	Medium
8. Apply soil stabilization measures, such as planting soil stabilization vegetation on publicly owned slopes	Conservation Commission	Conservation Fund	Ongoing	Landslide, Flood	$2,500 / year	Medium
9. Install lightning protection devises and methods (lighting rods, grounding, etc.) on communications infrastructure and other critical facilities.	Police Chief	Town Budget / Grants	Short	Lightning	$5,000	Medium
10. Conduct an outreach program to citizens in the 100-year floodplain, as	EMD	Town Operating Budget	Short Term	Dam Failure, Flood, Hurricane	$500	Medium

Mitigation Action Plan - Plainfield, NH						
Mitigation Action	**Responsibility/ Oversight**	**Funding/ Support**	**Timeframe***	**Hazards Addressed**	**Estimated Cost**	**Priority**
well as those in the inundation pathway of dams.						
11. Continue to work with the Upper Valley Public Health Network on public health matters.	Human Services Director	Staff Time	Ongoing	Public Health	$0	Medium
12. Continue to enhance GIS mapping for more effective mitigation planning, including flood risk.	Town Administrator	Town Operating Budget	Ongoing	All Hazards	$1,000 / year	Medium
13. Appropriate funding for tree trimming on roads where utility companies don't trim.	Selectmen / Highway Department	Town Budget	Ongoing	Hurricane, Severe Wind, Winter Weather	$10,000 / year	Medium
14. Adopt and enforce International building Code (IBC) and International Residential Code (IRC)	Building Inspector / Planning Board	Staff Time	Ongoing	All Hazards	$0	Low
15. Inform public about severe winter weather impacts.	Emergency Management Director	Staff Time	Short	Winter Weather	$250	Low
16. Continue to enforce floodplain regulations, including substantially improved structures; and amend regulations as necessary per federal requirements.	Planning and Zoning	Town Operating Budget	Ongoing	Flood, Hurricane	$0	Low
NON-MITIGATION PROJECTS						
1. Update radio equipment for Fire, Police, EMS and Public Works.	Police Chief	Grants	Ongoing	All Hazards	$63,000	High
2. Install air conditioning at Town Office, Library and other municipal buildings and notify public of local and regional cooling centers.	Facility Manager	Capital Reserve Fund	Medium	Extreme Heat	$25,000 per building	Medium
3. Install an automatic transfer switch for the Town Office / EOC for the generator.	Facility Manager	Capital Reserve Fund	Short	Hurricane, Severe Wind, Winter Weather	$3-5,000	Medium

Mitigation Action Plan - Plainfield, NH						
Mitigation Action	**Responsibility/ Oversight**	**Funding/ Support**	**Timeframe***	**Hazards Addressed**	**Estimated Cost**	**Priority**
4. Conduct multi hazard drills in schools and public buildings.	Fire Chief / Police Chief / Principal	NH HSEM	Short	Human Caused	$0	Medium
5. Implement security protection for the Meriden Water Tank.	Water District	Water District	Medium	Human Caused	$15,000	Low

*Timeframe: Short Term=1 year or less, or ongoing Medium Term=2-3 years Long Term=4-5 years
* Ongoing: Projects that are reviewed and implemented on a daily, monthly or annual basis.

Chapter 7
ADOPTION, IMPLEMENTATION, MONITORING

Adoption

The Plainfield Selectmen by majority vote officially adopted the *Plainfield Hazard Mitigation Plan 2019 Update* on October 2, 2019. This plan identified Mitigation Actions to be implemented as outlined in Chapter 6.

Implementation

There were 16 mitigation projects and 5 non-mitigation projects that were prioritized by the Committee. For each project the Committee identified who, when and how they would be implemented. Please refer to the "Action Plan" in Chapter 6 for a description of the timeframe and persons or departments responsible for implementation of the Prioritized Projects.

It will be the future responsibility of the Emergency Management Director to ensure implementation of these Prioritized Projects.

Monitoring & Updates

The *Plainfield Hazard Mitigation Plan 2019 Update* must be reviewed, evaluated and updated at least once every five years. The Emergency Management Director is responsible for initiating this review and needs to consult with members of the Plainfield Emergency Management Committee, in order to track progress and update the Prioritized List in Chapter 6. The EMD will ensure the following:

- The Hazard Analysis will be evaluated for accuracy.
- Projects completed will be evaluated to determine if they met their objective.
- Projects not completed since the last updated will be reviewed to determine feasibility of future implementation.
- New projects will be identified and included in future updates as needed.
- The public, members of the Committee and State and non-profit agencies, will continue to be invited and involved during this process.
- In keeping with the process of adopting the 2019 Plainfield Hazard Mitigation Plan, a public hearing to receive public comment will be held. This will require the posting of two public notices, and where appropriate by posting a notice on the town's Web Site.
- Updates to the *Plan* may be adopted subsequent to a public meeting or hearing by the Plainfield Board of Selectmen.
- Once every five years, the EMD will submit an updated plan to HSEM for approval.

Annual Hazard Mitigation Plan Update, Monitor & Evaluate Schedule and Public Involvement			
Meeting Schedule	**Task**	**Town of Plainfield Responsibilities**	**Public Involvement** (neighboring communities)
Annually or as needed	Assess current status of funding for mitigation projects. Discuss any new projects/plans that should be obtained for your community.	Dept. heads and Board of Selectmen to locate and apply for sources of funding and implement the proposed strategies and plans.	Residents, businesses, and neighboring / watershed communities.
Annually or as needed	Meet to discuss the Hazard Mitigation Plan content and any updates needed for the plan	Department Heads or other agencies.	Residents, businesses, and neighboring / watershed communities.
Annually or as needed	Discussion and evaluation of Training Programs and public outreach efforts. New public outreach methods discussed.	Department Heads or other agencies.	Residents, businesses, and neighboring / watershed communities.

CERTIFICATION OF ADOPTION

TOWN OF PLAINFIELD, NH
PO Box 380, Meriden, NH 03770
October 2, 2019

A RESOLUTION ADOPTING THE TOWN OF PLAINFIELD, NH HAZARD MITIGATION PLAN UPDATE 2019

WHEREAS, the Town of Plainfield, NH has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of - only those natural hazards profiled in the plan (i.e. *flooding, thunderstorm, severe wind, winter storms, earthquakes, and dam failure)*, resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Town of Plainfield, NH, has developed and received conditional approval from the NH Homeland Security and Emergency Management for its Hazard Mitigation Plan Update 2019 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held between April 2019 and May 2019 regarding the development and review of the Hazard Mitigation Plan Update 2019; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for the Town of Plainfield, NH; and

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

WHEREAS, adoption of this Plan will make the Town of Plainfield, NH eligible for funding to alleviate the impacts of future hazards; now therefore be it RESOLVED by the Board of Selectmen: The Plan is hereby adopted as an official plan of the Town of Plainfield, NH

1. The respective official identified in the mitigation strategy of the Plan are hereby directed to pursue implementation of the recommended actions assigned to them;
2. Future revisions and Plan maintenance required by 44 CFR 201.6, FEMA and NH HSEM are hereby adopted as part of this resolution for a period of five (5) years from the date of this resolution.
3. An annual report on the progress of the implementation elements of the Plan shall be presented to the Board of Selectmen by April 1st of each year.

Adopted, this 2nd day of October, 2019.

Board of Selectmen, Chair

Board of Selectmen

Board of Selectmen

MICHELLE MARSH
NOTARY PUBLIC
STATE OF NEW HAMPSHIRE
- MY COMMISSION EXPIRES AUGUST 2, 2022 -

County of Sullivan, ss.
State of New Hampshire
On this 2 day of Oct, 2019
Ron Eberhardt, Robert Taylor + Eric Braun
known to me or proven to be the instrument subscriber, personally appeared before me and acknowledged that he/she executed the foregoing instrument.
Notary Public

ACRONYMNS

BMP – Best Management Practices
CDBG - Community Development Block Grant
CRS – Community Rating System
DES – Department of Environmental Services
DHS – Department of Homeland Security
DMA – Disaster Mitigation Act
DOT – Department of Transportation
EAP – Emergency Action Plan
EMD – Emergency Management Director
EMPG – Emergency Management Performance Grant
EMS – Emergency Medical Services
EOC – Emergency Operations Center
EOP – Emergency Operations Plan
FEMA – Federal Emergency Management Agency
FIRM – Flood Insurance Related Maps
FMA – Flood Mitigation Assistance Program
GIS – Geographic Information System
HAZMAT – Hazardous Material
HMGP – Hazard Mitigation Grant Program
HSEM – Homeland Security and Emergency Management
ICC – International Code Council
NFIP – National Flood Insurance Program
NH HSEM – NH Homeland Security and Emergency Management
PDM – Pre-Disaster Mitigation
OEP – Office of Energy Planning
RC&D – Resource Conservation and Development
USGS – United State Geological Survey

APPENDICES

APPENDIX A

Hazard Mitigation Resources

Type	Resource	Link
Hazard Assessment	FEMA Disaster Declarations	https://www.fema.gov/disasters
	National Oceanic and Atmospheric Administration Storm Events Database	https://www.ncdc.noaa.gov/stormevents/
	United States Geological Survey (USGS) Earthquake Archives	http://earthquake.usgs.gov/earthquakes/search
	National Geophysical Data Center / World Data Service (NGDC/WDS): Significant Earthquake Database	https://www.ngdc.noaa.gov/nndc/struts/form?t=101650&s=1&d=1
NESEC	The Northeast States Emergency Consortium (NESEC) to provides free assistance to help local, state, regional and other organizations	http://nesec.org/mapyourrisk/
Funding Possibilities	Hazard Mitigation Grant Program (HMGP)	http://www.fema.gov/hazard-mitigation-grant-program
	Flood Mitigation Assistance Grant Program (FMA)	https://www.fema.gov/flood-mitigation-assistance-grant-program
	Pre-Disaster Mitigation Grant Program (PDM)	http://www.fema.gov/pre-disaster-mitigation-grant-program
	HMA grant programs – eligible activities by grant program	https://www.fema.gov/hazard-mitigation-assistance-mitigation-activity-chart
	Flood Mitigation Assistance (FMA) Grant Program	https://www.fema.gov/flood-mitigation-assistance-grant-program
	U.S. Economic Development Administration: Road and water infrastructure upgrades and potential projects.	http://www.eda.gov/funding-opportunities/
	FEMA; USGS National Earthquake Hazards Reduction: Technical program assistance under grants to states and local jurisdictions	http://www.fema.gov/national-earthquake-hazards-reduction-program
Technical Assistance	State Hazard Mitigation Officers	http://www.fema.gov/state-hazard-mitigation-officers
	USDA, Natural Resources Conservation Service (NRCS) Conservation Technical Assistance	http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/technical/cta
Publications	FEMA Region I Webliography	http://www.fema.gov/about-region-i/about-region-i/hazard-mitigation-planning-webliography
	Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards	http://www.fema.gov/media-library/assets/documents/30627?id=6938
	FEMA B-797, Hazard Mitigation Field Book – Roadways	http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=4271
	Flood Hazard Mitigation Handbook for Public Facilities	http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=3724
	FEMA 386-6, Mitigation Planning How To #6: Integrating Historic Property & Cultural Resource into Hazard Mitigation Planning	http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=1892
	FEMA P-787 Catalog of FEMA Building Science Branch: Publications and Training Courses (2015)	http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=3184
	Integrating Hazard Mitigation Into Local Planning: Case Studies and Tools for Community Officials (2013)	http://www.fema.gov/media-library/assets/documents/31372
	Local Mitigation Planning Handbook (2013)	https://www.fema.gov/media-library/assets/documents/31598

APPENDIX B

Documentation of Planning Process

Including:

Agendas
Attendance Sheets
Public Notices / Email Notices
Problem Statements
Mitigation Project Identification Matrix
Prioritized Mitigation Projects

Plainfield, NH
Hazard Mitigation Plan

April 18, 2019
Committee/Public Meeting
AGENDA

1. Introductions

2. Review/Update Goals

3. Review/Update Hazard History

4. Review/Update Risk Matrix

5. MISC:
   a. Any significant changes in development since fall of 2010, especially in hazard prone areas?
   b. Participation/activities in NFIP since 2010?
   c. Was the HMP incorporated into other planning mechanisms? If not, why?

6. Review for next meeting:

   Update Critical Facilities (Chap. 4)
   Update Capability Assessment (Chap.5)
   Distribute Sample Mitigation Projects

ATTENDEES

Name	Title/Affiliation
Bill Taylor	Plainfield Fire Chief
Jane Hubbard	Hubbard Consulting LLC
Jim McCarragher	Plainfield EMD
Paul Roberts	Plainfield Chief of Police
Rob Taylor	Plainfield Board of Selectmen
Steve Halleran	Plainfield Town Administrator
Steve Yanuzzi	Upper Valley Public Health Network

Plainfield, NH
Hazard Mitigation Plan

May 7, 2019

Committee/Public Meeting
AGENDA

1. Update 2013 Projects

2. Update Critical Facilities Chapter

3. Update Existing Mitigation Strategies Chapter

4. Distribute Sample Mitigation Projects

5. Review for next meeting:

   Identify NEW Mitigation Projects

ATTENDEES

Name	Title/Affiliation
Bill Taylor	Plainfield Fire Chief
Jane Hubbard	Hubbard Consulting LLC
Melissa Underhill	Kimball Union Academy, Director of Health Services
Paul Roberts	Plainfield Chief of Police
Rich Collins	Plainfield Road Agent
Rob Taylor	Plainfield Board of Selectmen
Sandra Blake	Plainfield Elementary School Principal
Steve Halleran	Plainfield Town Administrator

Plainfield, NH
Hazard Mitigation Plan

May 16, 2019

Committee/Public Meeting
AGENDA

1. Identify NEW Mitigation Projects
   Using the 'ProblemStatementsToProjects' form
   STAPLEE Worksheet

2. Review for next meeting:

   Prioritize Projects
   Complete the Mitigation Action Plan

ATTENDEES

Name	Title/Affiliation
Jane Hubbard	Hubbard Consulting LLC
Jim McCarragher	Plainfield EMD
Melissa Underhill	Kimball Union Academy, Director of Health Services
Paul Roberts	Plainfield Chief of Police
Rob Taylor	Plainfield Board of Selectmen
Steve Halleran	Plainfield Town Administrator

Plainfield, NH
Hazard Mitigation Plan

May 23, 2019

Committee/Public Meeting
AGENDA

1. Prioritize Mitigation Projects

2. Complete the Mitigation Action Plan

3. Review for next meeting:

   Review Draft of Hazard Mitigation Plan

ATTENDEES

Name	Title/Affiliation
Bill Taylor	Plainfield Fire Chief
Jane Hubbard	Hubbard Consulting LLC
Jim McCarragher	Plainfield EMD
Rob Taylor	Plainfield Board of Selectmen
Steve Halleran	Plainfield Town Administrator

PUBLIC NOTICE TO THE RESIDENTS OF PLAINFIELD, NH

PUBLIC NOTICE
April 18, 2019 6 to 8pm
Location: Plainfield Fire Department
Plainfield, NH

The Town of Plainfield, with the local Hazard Mitigation Planning Committee, is working to update Plainfield's *Hazard Mitigation Plan.* The *Plan* identifies potential natural and man-made hazards throughout the town and various projects and/or strategies to mitigate their effects. The President signed into law, the Disaster Mitigation Act of 2000 (DMA). The Act requires all local governments to prepare and adopt jurisdiction-wide hazard mitigation plans as a condition of receiving Hazard Mitigation Grant Program (HMGP) and Pre-Disaster Mitigation (PDM) project grants.

All residents, neighboring communities, businesses, and interested parties are formally invited to participate in the plan update process.

For more information, please contact Jane Hubbard at jhubb_99@yahoo.com

The above notice was posted at the Town Office, Post Office and Library on 4/1/19, 4/24/19, 5/9/19 and 5/17/19. In addition, email notices were sent to neighboring towns, chamber of commerce and the regional planning commission, as shown below.

The Town of Plainfield, NH is in the process of updating its Hazard Mitigation Plan. This Plan is a tool to be used by the Town, as well as other local, state and federal governments, to reduce the effects of natural and man-made hazards. Our communities and organizations share common hazards which do not respect governmental boundaries. Therefore, we are personally inviting you to participate in the planning process to update the Town's Hazard Mitigation Plan.

We encourage you to attend the first Committee meeting on March 20, 2019 at 6:00pm at the Plainfield Fire Department. If you are unable to attend this meeting you may access a copy of the planning documents and/or comment on hazard mitigation issues by emailing Jane Hubbard with Hubbard Consulting LLC at jhubb_99@yahoo.com or at 603-848-8801.

For further information on mitigation planning, we are attaching a fact sheet. We look forward to hearing your ideas on how to mitigate future hazards for the community.

Thank you, on behalf of the Town of Plainfield,
Jane Hubbard

Cornish EMD
Dale Lawrence
dalehlawrence@yahoo.com

Croydon Board of Selectmen
selectboardcroydon@hotmail.com

Enfield Board of Selectmen
townhall@enfield.nh.us

Grantham EMD
grantham_emd@comcast.net

Chris Christopoulos
Lebanon EMD
chris.christopoulos@lebanonnh.gov

Upper Valley Regional Planning Commission
Steve Schneider
sschneider@uvlsrpc.org

Lebanon Area Chamber of Commerce
lebanonchamber@lebanonchamber.com

Plainfield Elementary School
Sandra Blake
sbrake@plainfieldschool.org

Upper Valley Region Public Health Network
Steve Yannuzzi
Steven.J.Yannuzzi@hitchcock.org

Julia Chase
NH HSEM Field Rep
Julia.Chase@dos.nh.gov

Jennifer Gilbert, NFIP Coord.
Office of Energy & Planning
jennifer.gilbert@nh.gov

Hazard	Problem Statements	Projects *RED is NOT Mitigation* ***BOLD are existing projects from last edition of plan***	Social	Technical	Administrative	Political	Legal	Economic	Environment
Dam Failure	Wilder Dam in Lebanon and Moore Dam in Littleton could cause significant flood damage in Plainfield.								
	Emergency Actions Plans for Wilder Dam (High Hazard) and Moore Dam (High Hazard) should be reviewed, updated and shared with the public.	**Conduct an outreach program to citizens in the 100-year floodplain, as well as those in the inundation pathway of dams.**	+	+	+	+	+	+	+
	Man made ponds and beaver ponds pose a minimal to moderate threat of flood damage.	Installing 'Beaver Deceivers' devices on problem culverts to prevent road damage.	+	+	+	+	+	+	+
Drought	An extended drought increases the probability of fires and may hinder fire suppression in minimal fire protection areas.	**Construct additional dry hydrants, cisterns and fire ponds, per the recommendations of the 2009 Water Resource Plan.**	+	+	+	+	+	+	+
	The town relies on shuttling and tankers for fire suppression for a majority of the town.								
	About 600 citizens rely on water from the Plainfield and Meriden Water Districts.								
Earthquake	Town municipal critical facilities may be at risk.	NONE IDENTIFIED							
Extreme Heat	Special populations are at risk during extreme heat events.	**Update special needs population database annually and distribute to Dispatch.**	+	+	+	+	+	+	+
		Install air conditioning at Town Office, Library and other municipal buildings and notify public of local and regional cooling centers.	+	+	+	+	+	-	+
	Potential for increase in wildfire.	See wildfire							
	Increase in power outages and brownouts.								

Hazard	Problem Statements	Projects *RED is NOT Mitigation* ***BOLD are existing projects from last edition of plan***	Social	Technical	Administrative	Political	Legal	Economic	Environment
Flooding	Heavy and prolonged rain events cause flood damage primarily to roads and culverts.	**Continue to enhance GIS mapping for more effective mitigation planning, including flood risk.**	+	+	+	+	+	+	+
	Areas vulnerable to flooding include River Road, Penniman Road, Grantham Mt. Road, Willow Brook Road and Croydon Turnpike.	**Continue to enforce floodplain regulations, including substantially improved structures; and amend regulations as necessary per federal requirements.**	+	+	+	+	+	+	+
		Implement a regular drainage maintenance system.	+	+	+	+	+	+	+
		Conduct an outreach program to citizens in the 100-year floodplain, as well as those in the inundation pathway of dams.	+	+	+	+	+	+	+
		Relocate portions of River Road and Willow Brook Road away from Connecticut River to prevent future erosion and flooding.	+	+	+	+	+	+	+
	Heavy and prolonged rain events cause flood damage primarily to roads and culverts.								
Hurricane	Power outages from downed utilities, minor structural damage, debris removal, limited access and flooding can affect the town as a result of a hurricane.	Install an automatic transfer switch for the Town Office / EOC for the generator.	+	+	+	+	+	+	+
		Establish guidelines for all utilities regarding tree pruning around lines	+	+	+	+	+	+	+
	Creates the need for temporary shelter.								
Landslide	River Road (municipally owned) and a portion of Rt. 12A (State owned) is susceptible to landslide hazards.	DUPLICATE: Relocate portions of River Road and Willow Brook Road away from Connecticut River to prevent future erosion and flooding.	+	+	+	+	+	+	+
		Apply soil stabilization measures, such as planting soil stabilization vegetation on publicly owned slopes	+	+	+	+	+	+	+
Lightning	Structural and forest fires can result from frequent lightning strikes								
	Utilities are at risk from lightning strikes.	**Install lightning protection devises and methods (lighting rods, grounding, etc.) on communications infrastructure and other critical facilities.**	+	+	+	+	+	+	+

Hazard	Problem Statements	Projects *RED is NOT Mitigation* ***BOLD are existing projects from last edition of plan***	Social	Technical	Administrative	Political	Legal	Economic	Environment
Severe Wind (*Downburst)*	Wind damage can result in downed utilities causing power outages and limit access.	Appropriate funding for tree trimming on roads where utility companies don't trim.	+	+	+	+	+	+	+
	High density population/recreational areas are at high risk in severe wind events.								
Wild/Forest Fire	Need to develop additional sources of fire suppression (cisterns, fire ponds, etc), as recommended in the 2009 Water Resource Plan.	See Drought							
	~~Need to develop additional sources of fire suppression (cisterns, fire ponds, etc), as recommended in the 2009 Water Resource Plan.~~								
Winter Weather	All structures are susceptible to collapse due to heavy snow loads.	**Adopt and enforce International building Code (IBC) and International Residential Code (IRC)**	+	+	+	+	+	+	+
	Resulting power outages result in increased emergency response calls and could require opening a shelter.	**Educate public on generator safety/carbon monoxide.**	+	+	+	+	+	+	+
		Inform public about severe winter weather impacts.	+	+	+	+	+	+	+
	Severe damage to roads due to potholes.								
	Severe cold (at 20below degrees) the school does not have heat.								
Human Caused	Several areas are more vulnerable to terrorist incidents: Dartmouth Hitchcock Center in neighboring Lebanon/Hanover, Wilder Dam, Moore Dam, and I-91 across the river in Vermont.								
	Transportation related haz-mat spills are likely due to the local connector roads to and from Vermont.								

Hazard	Problem Statements	Projects *RED is NOT Mitigation* ***BOLD are existing projects from last edition of plan***	Social	Technical	Administrative	Political	Legal	Economic	Environment
Human Caused Cont.	Kimball Union Academy is a private high school with students from all over the world. They have emergency plans.								
	Municipal buildings, including schools, are at risk to armed assault.	**Conduct multi hazard drills in schools and public buildings**	+	+	+	+	+	+	+
		Implement security protection for the Meriden Water Tank.	+	+	+	+	+	+	+
		Update radio equipment for Fire, Police, EMS and Public Works.	+	+	+	+	+	+	+
	The Town is at risk to aviation accidents (Lebanon Airport).								
Public Health	Continue to work with Public Health Emergency Preparedness Plan (PHEPRP)	Continue to work with the Upper Valley Public Health Network on public health matters.	+	+	+	+	+	+	+

For purposes of prioritizing the mitigation projects listed in the table below, each committee member should **vote for half of the projects (total of 8) by placing a check mark in the "# of votes" column.** The projects will be prioritized based upon the total number of votes received for each project.

PRIORITZED MITIGATION PROJECTS	***# OF VOTES***
1. Conduct an outreach program to citizens in the 100-year floodplain, as well as those in the inundation pathway of dams.	2
2. Installing 'Beaver Deceivers' devices on problem culverts to prevent road damage.	3
3. Construct additional dry hydrants, cisterns and fire ponds, per the recommendations of the 2009 Water Resource Plan.	5
4. Update special needs population database annually and distribute to Dispatch.	4
5. Continue to enhance GIS mapping for more effective mitigation planning, including flood risk.	2
6. Continue to enforce floodplain regulations, including substantially improved structures; and amend regulations as necessary per federal requirements.	0
7. Implement a regular drainage maintenance system.	4
8. Relocate portions of River Road and Willow Brook Road away from Connecticut River to prevent future erosion and flooding.	3
9. Establish guidelines for all utilities regarding tree pruning around lines.	3
10. Apply soil stabilization measures, such as planting soil stabilization vegetation on publicly owned slopes	3
11. Install lightning protection devises and methods (lighting rods, grounding, etc.) on communications infrastructure and other critical facilities.	2
12. Appropriate funding for tree trimming on roads where utility companies don't trim.	2
13. Adopt and enforce International building Code (IBC) and International Residential Code (IRC)	1
14. Educate public on generator safety/carbon monoxide.	3
15. Inform public about severe winter weather impacts.	0
16. Continue to work with the Upper Valley Public Health Network on public health matters.	2

For purposes of prioritizing the NON-mitigation projects listed in the table below, each committee member should **vote for half of the projects (total of 2) by placing a check mark in the "# of votes" column.**

PRIORITZED NON-MITIGATION PROJECTS	***# OF VOTES***
1. Install air conditioning at Town Office, Library and other municipal buildings and notify public of local and regional cooling centers.	2
2. Install an automatic transfer switch for the Town Office / EOC for the generator.	2
3. Conduct multi hazard drills in schools and public buildings	2
4. Implement security protection for the Meriden Water Tank.	0
5. Update radio equipment for Fire, Police, EMS and Public Works.	5

Priority: 0-1 Low 2-3 Medium 4-5 High

___5__ total voters

APPENDIX C

Approval Letter from FEMA

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

FEMA

OCT 30 2019

Alexxandre Monastiero, State Hazard Mitigation Officer
New Hampshire Department of Safety, Homeland Security and Emergency Management
33 Hazen Drive
Concord, New Hampshire 03303

Dear Ms. Monastiero:

As outlined in the FEMA-State Agreement for FEMA-DR-4457, your office has been delegated the authority to review and approve local mitigation plans under the Program Administration by States Pilot Program. Our Agency has been notified that your office completed its review of the Town of Plainfield, New Hampshire Hazard Mitigation Plan Update 2019 and approved it effective **October 14, 2019** through **October 13, 2024** in accordance with the planning requirements of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), as amended, the National Flood Insurance Act of 1968, as amended, and Title 44 Code of Federal Regulations (CFR) Part 201.

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

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

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

Sincerely,

Captain W. Russ Webster, USCG (Ret.), CEM
Regional Administrator
FEMA Region I

WRW:ms

cc: Fallon Reed, Chief of Planning, New Hampshire