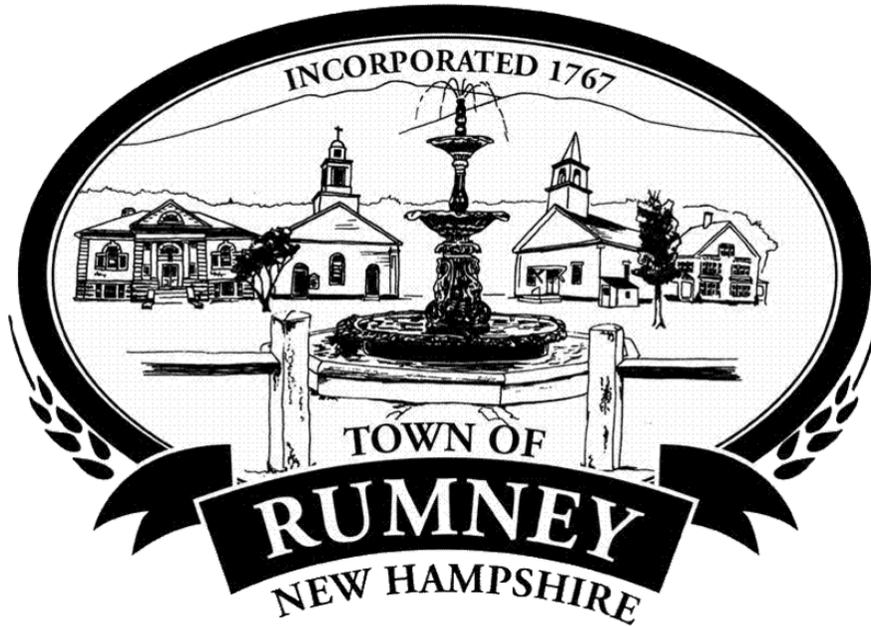


# TOWN OF RUMNEY, NH



## Hazard Mitigation Plan

*Date Adopted:* \_\_\_\_\_

*Date Approved:* \_\_\_\_\_

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*Original Edition: May 2, 2011*

*Updated Edition: -----, 2016*

## 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 an Pre Disaster Mitigation (PDM) Grant, with in-kind matching funds by the Town of Rumney.

### Purpose

This Hazard Mitigation Plan is a planning tool to be used by the Town of Rumney, 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 those that are outlined in the State of New Hampshire's Multi-Hazard Mitigation Plan Update 2013. With one exception; due to no history or risk of avalanche in the Town, the Committee chose not to recognize the risk of this hazard in this Plan.

**Flooding**  
**Dam Failure**  
**Drought**  
**Extreme Heat**  
**Earthquake**

**Hail**  
**Human Caused**  
**Hurricane**  
**Landslide**

**Lightning**  
**Severe Wind**  
**Winter Weather**  
**Wildfire**

## Methodology

In 2009, the Town of Rumney established a Hazard Mitigation Committee to develop the first edition of the Rumney Hazard Mitigation Plan. A total of 5 meetings were held from November 2009 to May 2010 in order to capture data and provide input for the HMP. On \_\_\_\_\_, the Rumney Board of Selectmen formally adopted the HMP.

The Plan was updated in 2016. The Rumney Hazard Mitigation Planning Committee with the assistance of Hubbard Consulting LLC held a total of five meetings on December 2, 2015, January 21, 2016, March, 23, 2016, April 13, 2016 and May 19, 2016. Public notices were posted at the Town Office, Town Website, Post Office and the Record Enterprise Newspaper, 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 North Country Council, the Chamber of Commerce and the NH HSEM. A representative of North Country Council attended one meeting and neighboring Town's EMD attended 2 meetings and commented on the Plan. The feedback from the neighboring EMD and the NCC were added into the plan as appropriate. 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 and FEMA Region 1 for formal Approval. The Board of Selectmen formally adopted the Plan on \_\_\_\_\_.

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 Town contacted town department heads and posted public notices to residents, business owners and neighboring towns, requesting that they consider serving on the Committee (See Appendix B).

The Committee Members consisted of town staff. A press release was published in the local newspaper and town office inviting residents, businesses, neighboring communities, academia and other private non-profit interests to participate in the planning process.

#### Step 2: Set Hazard Mitigation Goals and Objectives

At the first working meeting the committee reviewed and updated the town's Hazard Mitigation Goals. Hazard Mitigation Goals were adapted from the State of New Hampshire's Natural Hazards Mitigation Plan 2013. 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 Rumney, NH".)

#### Step 3: Hazard Identification

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

#### Step 4: Critical Facilities Analysis

The committee members created a 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 affects 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 Rumney Emergency Operations Plan and Rumney 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 and FEMA Region 1 for formal Approval. The Board of Selectmen formally adopted the Plan on \_\_\_\_\_. The letter of approval from FEMA Region 1 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.

## Mitigation Goals, Objectives & Actions

During the 2016 update, the Committee reviewed the 2011 Rumney Hazard Mitigation Plan goals and made only minor revisions. The Goals were not modified for any substantial content, as there has not been any substantial change in development. The goals for the Town of Rumney are as follows:

1. To improve upon the protection of the general population, the citizens of the Town of Rumney and guests, from natural and man-made hazards.
2. To reduce the potential impact of natural and man-made disasters on the Town of Rumney's:
  - a. Emergency Response Capability
  - b. Critical Facilities
  - c. Infrastructure
  - d. Private property
  - e. Economy
  - f. Natural environment
  - g. Historic treasures
3. To improve the Town of Rumney's:
  - a. Emergency preparedness and communication network.
  - b. Disaster response and recovery capability.
4. To identify, introduce and implement cost effective Hazard Mitigation measures so as to accomplish the town's Goals and Objectives.
5. To work in cooperation with the State of New Hampshire's Hazard Mitigation Goals.

## 2016 Hazard Mitigation Planning Committee

<b>Name</b>	<b>Title/Affiliation</b>
Angel Ekstrom	Central NH Public Health Network
Bill Taffe	Rumney EMS Director
Brett Miller	Rumney Police Chief
Dan Kimble	Rumney Selectmen
Dave Coursey	Rumney Fire Chief
Diana Kindell	Rumney Planning Board
Ed Haskell	Rumney Selectmen
Frank Simpson	Rumney Road Agent
Jane Hubbard	Hubbard Consulting LLC
Janice Mulherin	Rumney Conservation Commission
Jay Wagner	Ellsworth EMD
Jonan Torsey	Rumney Elementary School
Joe Chivell	Rumney Administrative Assistant / Asst. EMD
Mark Andrew	Rumney Selectmen / EMD
Michelle Morin	North Country Council
Paul Hatch	NH HSEM Field Representative
Paulette Bowers	Rumney Town Clerk
Rebecca Bordonaro	Rumney Health Officer / Asst. EMS Director
Sonny Ouellette	Rumney Transfer Station Manager

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!*



Natural Hazards	Location / Assets at Risk	Human Impact	Property Impact	Business Impact	Severity	Probability* In 25 years	Risk Severity x Probability
		Probability of death or injury 0: n/a 1: Low 2: Moderate 3: High 4: Catastrophic	Physical loss damage 0: n/a 1: Low 2: Moderate 3: High 4. Catastrophic	Interruption of service 0: n/a 1: Low 2: Moderate 3: High 4. Catastrophic	Avg. of Human / Property / Business 0: n/a 1: Low 2: Moderate 3: High 4. Catastrophic	Likelihood this will occur 0: Improbable 1: Remote 2: Occasional 3: Probable 4: Frequent	0-4: Low 5-8: Moderate 9-12: High 13-16: Severe
Severe Winter Weather	Homes, school roof	2	2	2	2	4	8
Hurricane	Utilities	2	3	3	2.6	3	7.8
Flood (Ice Jams)	Rt.25, Roads/ Bridges	1	3	3	2.3	3	6.9
Severe Wind (Tornado/Downburst)		2	3	2	2.3	2.5	5.75
Drought	Shallow Wells Fire Danger	1	2	1	1.3	3	3.9
Lightning		1	2	1	1.3	3	3.9
Wild/Forest Fire	Rattlesnake Mt., homes	1	3	1	1.6	2	3.2
Earthquake	Fire Station, Library, Old School	2	2	2	2	1	2
Extreme Heat	Elderly population	2	0	0	.6	3	1.8
Dam Failure	Roads & homes on West Branch of Baker River	1	2	1	1.3	1	1.3
Landslide	Rattlesnake Mt.	1	1	1	1	1	1
Hail	Town wide	0	1	1	.6	1	.6

\*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.

Human Caused Hazards	Location / Assets at Risk	Human Impact	Property Impact	Business Impact	Severity	Probability* In 25 years	Risk Severity x Probability
		Probability of death or injury 0: n/a 1: Low 2: Moderate 3: High 4: Catastrophic	Physical loss damage 0: n/a 1: Low 2: Moderate 3: High 4. Catastrophic	Interruption of service 0: n/a 1: Low 2: Moderate 3: High 4. Catastrophic	Avg. of Human / Property / Business 0: n/a 1: Low 2: Moderate 3: High 4. Catastrophic	Likelihood this will occur 0: Improbable 1: Remote 2: Occasional 3: Probable 4: Frequent	0-4: Low 5-8: Moderate 9-12: High 13-16: Severe
Utility Interruption		1	2	2	1.6	4	6.4
Conflagration	Campgrounds, Bible Conference Center	3	3	3	3	2	6
Haz Mat (Transport)	Rte 25 & School St.	2	2	1	1.6	3	4.8
Mass Casualty (Trauma or Medical)		3	1	1	1.6	3	4.8
Transport Incident (plane, train, etc.)	Rte 25, Quincy Rd.	2	1	1	1.3	3	3.9
Terrorist Attack (WMD)		3	3	3	3	1	3
Armed Attack (assault, sniper)	School, Town Hall, private schools, churches, business	3	2	2	2.3	1	2.3
Bomb Threat		3	2	2	2.3	1	2.3
Biological Terrorism		2	2	2	2.3	1	2.3
Haz Mat (Fixed)	School	1	2	1	1.3	1	1.3
Civil Disorder		1	1	1	1	1	1

\*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

**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 \$1,184,330 (1%) or \$5,921,652(5%) based on the 2015 town valuations which lists the assessed value of all structures in Rumney to be \$118,433,035. (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.

<b>ASSESSED VALUE OF ALL STRUCTURES</b>			
<b>Type</b>	<b>2015 Value</b>	<b>1% Damage</b>	<b>5% Damage</b>
Residential	88,787,535	887875.35	4439376.75
Manufactured Housing	3,613,200	36,132	180660
Commercial	10,151,80	101518	507590
Tax Exempt	2,797,700	27977	139885
Utilities	13,082,800	130828	654140
<b>Total</b>	<b>118,433,035</b>	<b>1,184,330</b>	<b>5,921,652</b>

*Source: NH DRA 2015 MS-1*

**CURRENT DEVELOPMENT TRENDS <sup>1 2</sup>**

Population, Housing Stock, and Growth Patterns

According to the NH Employment Security website, “Population change for Rumney totaled 856 over 54 years, from 820 in 1960 to 1,676 in 2014. The largest decennial percent change was a 39 percent increase between 1970 and 1980. The 2014 Census estimate for Rumney was 1,676 residents, which ranked 151st among NH incorporated cities and towns.” The minimal amount of growth over since 2010 does not require any changes to priorities of this Plan.

*Table 1: Rumney Population*

<b>Year</b>	<b>Population</b>
2014	1,676
2010	1,480
2000	1,479
1990	1,447
1980	1,212
1970	870

SOURCE: <http://www.nhes.nh.gov/elmi/products/cp/profiles-htm/Rumney.htm>

Current projections from the New Hampshire Office of Energy and Planning show the population growth rate will grow at a very slow rate over the next twenty-five years, where the year-round population in 2040 is projected to be 1,439 an increase of 2% (Table 2).<sup>3</sup>

*Table 2: Rumney Population Projection*

<b>Year</b>	<b>Population</b>
2015	1,422
2020	1,384
2025	1,409
2030	1,426
2040	1,439

<sup>1</sup> 2010 US Census Data

<sup>2</sup> Town of Rumney Master Plan 2013

<sup>3</sup> Municipal Population Projections 2010 to 2040. NH Office of Energy and Planning, 2013, <https://www.nh.gov/oep/data-center/documents/2013-projections-municipalities.pdf> 2016

### **FUTURE DEVELOPMENT**

The New Hampshire Office of Energy & Planning (NH OEP) estimates the population of Rumney to be 1,384 in 2020, which is a reduction in population. The Committee concurred that there are no targeted areas in Rumney where significant future development is expected to occur.

The Hazard Mitigation Planning Committee utilized the Master Plan and local knowledge to review and incorporate development changes. However, due to no substantial changes in development with no impacts or changes to Rumney's overall vulnerability, there were no changes in priorities made to the Rumney Hazard Mitigation Plan Update 2016.

## 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.

**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 meet or 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

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

impacts on a scale from 1 to 5, similar to 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.

**Previous Occurrence:**

**January of 1923:** 4 storms within a week left over 30 inches of snow.

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

**February 6, 1978** Blizzard

**February 8-10, 1969:** Event Accumulations up to 27" in southeastern New Hampshire and up to 42" in northeastern New Hampshire. Regions with snow accumulations exceeding 50 cm: parts of the New York City and Boston metropolitan areas, western Connecticut, western and eastern Massachusetts, southern Vermont, northern Rhode Island, eastern New Hampshire, and southern Maine.

**February 22-28, 1969:** Events Accumulations to 98" in Western Central New Hampshire, 34" in coastal areas and 2 to 3' across New Hampshire generally. The storm produced excessive amounts of snow across New England with accumulations of greater than 75 cm across large sections of eastern Massachusetts, New Hampshire, and Maine.

**February 5-7, 1978:** Events accumulations to 28" in northeast New Hampshire, 25" in west central New Hampshire and 33" along coastal New Hampshire. Hurricane-force winds and record-breaking snowfall made this storm one of the more intense to occur this century across parts of the northeastern United States. Regions with snow accumulations exceeding 50 cm: sections of northeastern Pennsylvania, northern New Jersey, western and southeastern New York, Connecticut, Rhode Island, Massachusetts, southern Vermont, and parts of New Hampshire and Maine.

**Ice Storm 1998:** A severe ICE STORM hit sections of New Hampshire from January 7 through January 9. The hardest hit areas in northern and central New Hampshire were generally between about 1000 and 2000 ft above sea level. 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. For many homes, the lack of electrical power also meant no heat, no running water, no means for cooking food. The storm caused an estimated 30 million dollars in damages.

**Snow Emergencies:** March 2001 and Feb.2003

**March 6-7, 2011:** Light rain, associated with the approaching cold front began to fall Sunday morning. As the colder air continued to move 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. Across northern New Hampshire, snowfall accumulations from the storm ranged from 8 to 22 inches. In Grafton and Sullivan Counties, significant ice accretions were reported, although local amounts were likely higher. This ice, 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. The rainfall and melting snow caused river levels to rise which caused river ice to break and move downstream. (See also Flooding)

**October 29, 2011:** The storm brought a heavy, wet snow to southern and central New Hampshire. Snow began to fall across southern New Hampshire late Saturday afternoon, became heavy during the night, and ended before 7 am Sunday morning. There was minimal impact to Rumney.

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.

**March 18-19, 2013 DR-4105:** An area of low pressure moving east from the Ohio Valley intensified off the New Jersey coast during the morning of the 19th and then moved northeast to Nova Scotia by the morning of the 20th. The developing low brought heavy snow to the entire State with close to a foot of snow in southeastern sections. Across the western part of the state, from 6 to 10 inches of snow fell. There was minimal impact in Rumney.

**November 26-27, 2014:** A 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 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. There was minimal impact in Rumney.

## 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 Rumney 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 Rumney is possible. The largest impact is on the floodplain areas due to heavy rains. High winds cause trees to fall down 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 affected southern New England, resulted in 13 Deaths and 1,363 families received assistance. Disruption of electric and

telephone services for weeks. 2 Billion feet of marketable lumber blown down. Flooding throughout the State, in some cases equaling and surpassing the Flood of 1936. Total Direct Losses were \$12,337,643.

**August 31, 1954:** Hurricane Carol affected southern New England. Extensive amount of trees blown down and property damage. Large crop loss. Localized flooding.

**October 1999:** This was originally a Hurricane that heavily impacted North Carolina and dumped heavy rains on New England resulting in a Presidential Declaration of Disaster in NH; FEMA DR-1305-NH in Belknap, Grafton and Cheshire Counties. In Rumney, Buffalo Road washed out as a result of the storm.

**August 28, 2011 DR-4026:** Tropical Storm Irene brought 2-3 inches of rain to southeastern New Hampshire and higher amounts throughout New Hampshire. Downed trees and power lines caused widespread outages, but was completely restored within several days. Rainfall amounts across the state ranged from 1.5 to 3 inches across southeastern New Hampshire with 3 to 6 inches across most of the remainder of the State, except in the White Mountains where 5 to 8 inches of rain fell. In the White Mountains, much of the rain fell within a period of only several hours causing serious flash flooding of rivers and streams across Carroll, Grafton, and Coos Counties. Heavy rain from the Storm caused flooding on the Baker River at Rumney (flood stage 10.0 ft), which crested at 14.0 ft. Extensive damage occurred on Buffalo Road, Buffalo Road Bridge and Groton Hollow Road. Bridges were washed out stranding residents. Campgrounds along the Baker River were evacuated. The Town's EOC was open and power outages lasted for days.

**October 29-31, 2012 Hurricane Sandy DR-4095:** On Monday, October 29th, A band of heavy rain and high winds associated with Sandy moved northward into New Hampshire. The high winds associated with this band of heavy rain downed numerous trees and caused widespread power outages. These strong and persistent winds combined with the powerful gusts to down numerous trees throughout the State and caused widespread power outages, especially across southern New Hampshire. The Town of Rumney experienced minimal damage as a result of this storm.

## RIVERINE FLOODING

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**Probability:** Probable

**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, storm surges, and/or inadequate local drainage. Flooding events considered in this Plan include 100-year and 500-year floodplain events, rapid snow pack melt and ice jams.

**Location:**

The Town of Rumney lies in the Baker River Watershed. The Baker River, is subject to flash flooding as the Baker and its upper tributaries drain a substantial portion of the south face of the Mount Moosilauke Range and the west face of the Carr Mt. Range in the White Mountain National Forest. Flooding occurs in the 100 year floodplain as designated on the FEMA Flood Insurance Rate Map. These areas primarily include the Baker River and the smaller streams and tributaries throughout town.

**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 flood event is defined as flood event having a .2% chance of being equaled or exceeded in any given year. The Town of Rumney Flood Insurance Rate Maps (FIRM) identify both an A and AE zones. A zones are subject to the 100-year flood, however because there has 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 1936:** Double flood; first due to rains and snowmelt; second, due to large rainfall.

**September 1938:** Hurricane of 1938 caused statewide flooding.

**1973:** The town was cut off from surrounding communities. Main Street and Buffalo Road were in extreme danger of being undercut. Quincy Road was flooded. There was limited ability to reach hospitals.

**August 1986:** FEMA DR-771-NH: Severe summer storms with heavy rains, tornadoes; flash flood and severe winds.

**April 1987:** Severe Storms & Flooding. FEMA DR-789-NH

**August 1990:** FEMA DR-876-NH: A series of storm events from August 7-11, 1990 with moderate to heavy rains produced widespread flooding in New Hampshire.

**August 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 1996:** FEMA DR-1077-NH – Storms and flooding

**October 1996:** FEMA DR-1144-NH – Severe storms and flooding

**July 1998:** FEMA DR-1231-NH – Severe storms and flooding

**September 1999:** FEMA DR-1305-NH in Belknap, Grafton and Cheshire Counties This was originally a Hurricane that heavily impacted North Carolina and dumped heavy rains on New England resulting in a Presidential Declaration of Disaster in NH. Rainfall totals from the event generally ranged from about 4 to 7 inches statewide.

**April 2007:** Flooding and damages were countywide. The storm brought heavy rain to the region which, when combined with snow melt, produced widespread flooding across much of the region. The flooding of small rivers and streams was worst in southern and coastal areas and led to numerous road closures. In addition to the meteorological factors, damage from the wind was exacerbated because of the heavy rain that accompanied the wind and the soft, wet ground caused by the spring thaw. The wind knocked over numerous trees and branches throughout the region and caused numerous and prolonged power outages throughout the region. Rumney experience power outages, road damage and erosion. One home was damaged and needed to be rebuilt. The Town received \$39,000 in FEMA reimbursement.

**March 6-7, 2011:** Heavy rain and snow melt caused an ice jam and a brief period of minor flooding on the Baker River at Rumney (flood stage 10.0 ft), which crested at 10.6 ft. According to CRREL, "In a 'Memo for Record' issued by Andy Tuthill, CRREL on 11 Mar 2011, in which the river ice conditions in NH and VT were reported following an aerial recon on 8 Mar 2011, following heavy rainfall on 5-6 Mar 2011, Andy reported, "A mile-long (jam on) the Baker River in Rumney was causing minor field flooding. With the expected rise of 1.5 ft Baker at Rumney will still remain." Only minor road damage occurred.

## LIGHTNING

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**Probability:** Probable

**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:**

**2001/2002:** A person was struck by lightning in Stinson lake.

## DROUGHT

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**Probability:** Probable

**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.

**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 as a result 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.

PDSI Legend

-	-4 or less (Extreme drought)
-	-4 to -3 (Severe drought)
-	-3 to -2 (Moderate drought)
-	-2 to -1 (Mild drought)
-	-1 to -0.5 (Incipient dry spell)
-	-0.5 to 0.5 (Near normal)
-	0.5 to 1 (Incipient wet spell)
-	1 to 2 (Slightly wet)
-	2 to 3 (Moderately wet)
-	3 to 4 (Very wet)
-	4 or more (Extremely wet)

**Previous Occurrence:**

According to the State of New Hampshire Multi-Hazard Mitigation Plan Update 2013, the White Mountain area experienced droughts in 1953, 1957, 1964, 1978, 1984 and 2002. The 2001/02 drought was not as severe but resulted in some private wells going dry. There have been no droughts in Rumney in the last five years.

## EXTREME HEAT

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**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-conditioning rises.

**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 town has experienced frequent heat waves in any given 25-year period. However, the impact upon the town and its residents is minimal.

**SEVERE WIND**

**Probability:** Occasional

**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 Rumney. 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 Rumney.

**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 Rumney 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. 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 EF-2 Tornado.

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:**

**September 9, 2006:** Trees and wires blown down on Mill Road.

**April 2007:** Severe wind associated with a snow/mix storm caused damage throughout town.

**August 21, 2011:** 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 and wires on Stinson Lake Road in Rumney.

**July 4, 2012:** A warm front moved through northern New England on the morning of July 4th. Wind damage was the major feature of these storms as initial pulse type storms organized into lines and bowing segments. Some large hail was also reported with some of the stronger cells. Three people were injured by lightning in Laconia. A severe thunderstorm downed trees and wires on Buffalo Road in Rumney.

**July 17, 2013:** A shortwave and associated cold front were approaching from the northwest during the late afternoon and evening hours of July 17th. Very high precipitable water values and very warm temperatures ahead of the front combined with increasing shear to produce numerous severe thunderstorms, mainly during the evening hours. Due to high freezing levels, wind damage and very heavy rain were the main features of these storms as they moved through the region. A severe thunderstorm downed a tree on wires on Route 25 near School Street in Rumney.

**September 11, 2013:** A late summer surge of heat and humidity enveloped much of the northeast on the 11th of September. Afternoon temperatures climbed into the lower to mid 90s with dew points in the lower 70. This line of storms produced numerous reports of wind damage and large hail as it crossed the forecast area through the late evening hours before pushing offshore shortly before midnight. A severe thunderstorm downed trees and wires closing Route 25 in Rumney.

**WILDFIRE**

**Probability:** Occasional

**Definition:**

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

**Location:**

Rattlesnake Mountain and the White Mountain National Forest have an abundance of soft wood and a high percentage of wildland/urban interface, which puts the town at a high risk for wildfires. Many houses and camps are located in forested areas are not easily accessible.

**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.

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

**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:

**Previous Occurrence:**

**May 2008:** The town experienced a moderate wildfire. Approximately 70 firefighters (from Rumney and neighboring towns, and national crews from the US Forest Service) battled a fire for several days on the cliffs of Rattlesnake Mountain that consumed about 50 acres covering 100-foot rock faces.

**May 2015:** There was a brush fire on Quincy Road that burned approximately 12 acres. No structures were impacted but 1 vehicle was destroyed. 17 mutual aid towns responded over 3 days, costing \$10,000 in labor.



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## DAM FAILURE

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**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 is one dam, the Baker River Flood Control Dam, Site 8, NH Dam #066.08 which is classified as a "High Hazard Dam". This dam although located in neighboring Dorchester has an inundation map that includes Rumney. Hildreth Dam in neighboring Town of Warren could have an impact on the Town, but Rumney is not included in the Dam's Emergency Action Plan.

**Impact:**

A dam failure or breach could occur due to extreme rainfall amounts and/or a human caused incident. A failure or breach would result in rapid loss of water that is normally held by the dam resulting in an inundation downstream. The impact of a dam failure at Hildreth Dam would be severe. The maps on the following page show the inundation pathway of a dam failure.

**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 is defined by the NH Department of Environmental Services as "a dam with High Hazard Potential, the failure of which would result in any of the following: probably loss of life; significant economic loss; major damage to town; Class I and II State highways. A Non-Menace structure is a dam that is not a menace because it is in a location and of a size that failure or misoperation of the dam would not result in probable loss of life or loss to Property.

**Previous Occurrence:**

There are no recorded dam failures.

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## EARTHQUAKE

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**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 Update 2013, 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 of 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, gas, etc) are susceptible to earthquake damage. Rumney 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 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

## 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:** Several thunderstorms progressed into central and southern New Hampshire during the late afternoon and evening hours. The majority of storms caused wind damage and some large hail was also reported. 1.25 inch hail was reported in Rumney.

## LANDSLIDE

**Probability:** Remote

**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.

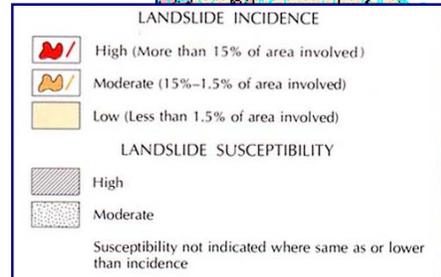
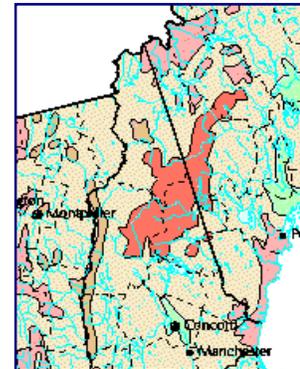
**Location:** Slopes in excess of 25% are susceptible to landslides, especially where soils are thin or highly erodible. These areas are generally located near mountain peaks and along the sides of ridges. In addition, the increase of single residential homes on steep slopes will create higher risk.

**Impact:**

Due to the limited area that is susceptible to landslides, the impact is minimal. At the moment the only potential impact would be to recreational trails and possibly the cost of debris removal from roads.

**Extent:**

Although New Hampshire has a moderate risk statewide, there have been relatively few landslide events. The most well-known landslide is the Old Man of the Mountain; a symbol of the State of New Hampshire that collapsed in 2003. Most other events of this hazard type are often attributed to corresponding flood events. The Table to the right shows the incidence and susceptibility of landslides throughout the State.



**Previous Occurrence:**

There have been no substantial landslides in Rumney.

## AVALANCHE

Due to no history or risk of avalanche within the Town of Rumney, the Committee chose not to recognize the risk of this hazard in this Plan.

## HUMAN CAUSED HAZARDS

### Areas at Risk:

Route 25 (multiple vehicle and hazmat)

### Vulnerability:

The Human Caused Hazard Vulnerability Table was completed by the Committee utilizing a vulnerability tool developed by FEMA.

Critical Facility	Human Caused Hazard Vulnerability Score							
	Visibility	Target	Accessibility	Mobility	Hazardous Materials	Collateral Damage	Site Population	TOTAL
Police Station	3	4	5	5	1	4	1	<b>23</b>
Town Offices	3	4	5	5	1	4	1	<b>23</b>
Russell Elementary School	3	4	3	5	1	4	1	<b>21</b>
Fire Station	3	2	3	5	1	4	1	<b>19</b>
Highway Garage	2	2	5	5	1	2	1	<b>18</b>
Transfer Station	4	1	3	5	1	1	1	<b>16</b>

1-11 Low Vulnerability

12-22 Moderate Vulnerability

23-35 High Vulnerability

## **Chapter 4 CRITICAL FACILITIES**

### **Introduction**

The Critical Facilities List for the Town of Rumney has been identified by the Rumney Hazard Mitigation Planning Committee. The list is divided into three sections: Facilities needed for Emergency Response (Category 1), Facilities Not Necessary for Emergency response (Category 2), and Populations and facilities to protect in the event of a disaster (Category 3). In addition, the Inventory of Critical Facilities table assesses the value of these structures.

#### **CATEGORY 1 (Facilities needed for immediate Emergency Response)**

- Fire
- Emergency Medical Services (EMS)
- Police
- Hospital
- Shelter
- Town Office Building
- Emergency Operations Center (EOC)
- Public Works
- Evacuation Routes
- Emergency Fuel

#### **CATEGORY 2 (Facilities NOT immediately necessary during an emergency event)**

- Public Utilities
- Communications
- Transportation
- Water Supply/Treatment

#### **CATEGORY 3 (Populations & Places to Protect)**

- Schools
- Daycares
- High Concentration Populations
- Elderly Facilities
- Healthcare Facilities
- Recreation areas
- Historic Resources

Rumney, NH Inventory of Critical Facilities and Assets							
Facility	Name/Location	Owner	Category 1	Category 2	Category 3	Assessed Value (Bldg. Only)	Hazard Vulnerability
			✓	✓	✓		
Town-Offices	Rumney Town Offices/79 Depot St	Municipal	✓			\$171,300	Hazardous Materials/Human Caused
EOC Primary	Rumney Town Offices/79 Depot St	Municipal	✓			NA – part of Town Offices	All Hazards
Police Station	Rumney Police Dept./79 Depot St	Municipal	✓			NA – part of Town Offices	Hazardous Materials/Human Caused
Fire Station	Rumney Fire Dept./59 Depot St	Municipal	✓			\$307,000	Hazardous Materials/Human Caused
	West Rumney Station/Old Rt. 125	Municipal	✓			\$91,200	Hazardous Materials/Human Caused
Hospital	Speare Memorial Hospital Plymouth	Private	✓			n/a	All Hazards
Shelters	Russell Elementary School SAU #48/195 School St. (daytime only)	Municipal	✓			\$2,131,800	All Hazards
	Regional Shelter @ Plymouth State University	PSU	✓			n/a	All Hazards
Highway Dept.	Rumney Highway Garage/13 Heal Drive	Municipal	✓			\$201,200	Hazardous Materials/Human Caused
	Old Highway Shed	Municipal			✓	\$80,800	
Public Utilities	NH Coop Sub-station/Depot St.	Private		✓		\$6,257,200	Hurricane, Severe Wind, Winter Weather
	Fairpoint Switching Station/Main St.	Private		✓		\$199,900	Hurricane, Severe Wind, Winter Weather
	Time Warner Cable Svc.	Private		✓		Leased from pole providers – no assessment	Hurricane, Severe Wind, Winter Weather
	Eversource Transmission Line	Private		✓		\$287,200	Hurricane, Severe Wind, Winter Weather
Transportation	No Public Transportation	-		✓		-	-
Emergency Fuel	State DOT/next to town shed (diesel)	State		✓		n/a	Hurricane, Severe Wind, Winter Weather
	State Shed in Wentworth for all fuels	State		✓		n/a	Hurricane, Severe Wind, Winter Weather
	Yeaton Oil in Plymouth	Private		✓		n/a	Hurricane, Severe Wind, Winter Weather
Water Supply	No public water supply					-	-
Waste Disposal	Transfer Station/1363 Buffalo Rd.	Municipal		✓		\$95,900	All Hazards

Rumney, NH Inventory of Critical Facilities and Assets							
Facility	Name/Location	Owner	Category 1	Category 2	Category 3	Assessed Value (Bldg. Only)	Hazard Vulnerability
			✓	✓	✓		
School	Russell Elementary School (K-8) / 195 School St.	SAU 48			✓	\$2,131,800	All Hazards
	Beckett School	Private			✓	\$325,000	All Hazards
High Population Areas	Rumney Village	Varies			✓	Varies	All Hazards
	New England Fellowship	Private			✓	Varies	All Hazards
	Stinson Lake Area	Varies			✓	Varies	All Hazards
	Russell School	SAU48			✓	\$2,131,800	All Hazards
Health Care	None	-			✓	-	-
Elderly Facilities	None	-			✓	-	-
Recreation areas	Stinson Lake	State			✓	Varies	Lightning, Severe Wind, Wildfire
	Stinson Lake Public Boat Ramp	State			✓	Land Only	Lightning, Severe Wind, Wildfire
	Rumney Climbing Rocks/Buffalo Rd	USFS			✓	Land Only	Lightning, Severe Wind, Wildfire
	Rattlesnake Mt.	USFS			✓	Land Only	Lightning, Severe Wind, Wildfire
	Jim Darling Natural Area	Town			✓	Land Only	Lightning, Severe Wind, Wildfire
	Baker Athletic Area	Town			✓	Land Only	Lightning, Severe Wind, Wildfire
	Quincy Bog Natural Area	Private			✓	Land Only	Lightning, Severe Wind, Wildfire
	Baker River Area	Varies			✓	Land Only	Lightning, Severe Wind, Wildfire
	Stinson Mt. Trail	USFS			✓	Land Only	Lightning, Severe Wind, Wildfire
	Quincy Pasture Forest	Private			✓	Land Only	Lightning, Severe Wind, Wildfire
Snowmobile Trails	Varies			✓	Land Only	Lightning, Severe Wind, Wildfire, Winter Weather	
Historic	Rumney Town Hall/Historical Society	Town			✓	\$152,100	Earthquake, Lightning, Severe Wind, Winter Weather
	Byron G. Merrill Library	Town			✓	\$221,000	Earthquake, Lightning, Severe Wind, Winter Weather
	Mary Baker Eddy House on Stinson Lake Road	Longyear Foundation			✓	\$148,800	Earthquake, Lightning, Severe Wind, Winter Weather

## Chapter 5 CAPABILITY ASSESSMENT

The following table is a list of current policies and regulations adopted by the Town of Rumney that protect people and property from natural and man-made hazards. The Town reviewed and incorporated mitigation strategies into these policies and regulations, as appropriate. The table includes a description of the policy/regulation, the responsible agent, the policy’s effectiveness and mitigation strategies to improve mitigation efforts.

<b>Rumney, NH Existing Protection Matrix</b>					
<b>Existing Protection</b>	<b>Description</b>	<b>Responsible Agent</b>	<b>Effectiveness Poor/Average/Exc</b>	<b>Recommended Changes</b>	<b>Comments</b>
Emergency Operations Plan	The Town will be updating an EOP that meets the recommendations by the NH Homeland Security & Emergency Management. The EOP identifies the response procedures and capabilities of the Town.	EMD	Average	Update in 2017	Updated 2011
Zoning Ordinance	None	Not Applicable	Not Applicable	None	Failed every time it was voted on. Follow what the state suggests.
Building Code	None	Planning Board	Not Applicable	Develop a checklist of state building codes.	Prior approval for septic only. Planning board is currently developing checklist.
Floodplain	The town is currently not participating in the National Flood Insurance Program (NFIP)	Not Applicable	Not Applicable	Consider joining the NFIP	None

<b>Rumney, NH Existing Protection Matrix</b>					
<b>Existing Protection</b>	<b>Description</b>	<b>Responsible Agent</b>	<b>Effectiveness Poor/Average/Exc</b>	<b>Recommended Changes</b>	<b>Comments</b>
Emergency Warning System	Code Red through Grafton County reverse call. Door-to-Door notification. School has 'Blackboard Connect' notification system. PA systems and road signage in all Fire & Police vehicles. Public access channel.	EMD	Average	Public awareness of Code Red to register on web site.	None
Subdivision Regulations	The purpose of Rumney's subdivision regulations is to provide for the orderly present and future development of the town by promoting the public health, safety, convenience and welfare of the town's residents.	Planning Board	Average	Consider cistern/hydrant in subdivisions.	Currently updated
Road Design Standards	Rumney's Subdivision Regulations include road design standards that control the amount and retention of storm water runoff.	Planning Board	Average	Consider drainage requirements of new roads	Part of Subdivision Regs
Bridge Maintenance Program	Buffalo Road Bridge is on the state Red List. Inspection and clean-up occur annually. The state inspects all bridges every other year and maintains their bridges.	Road Agent	Poor	Upgrade bridges	Capital reserve for bridges
Storm Drain / Culvert Maintenance	The Rumney Road Agent and the State DOT clean the drainage basins once a year and after major flooding events. Culverts are repaired as needed.	Road Agent	Excellent	None	None
State Dam Program	The Department of Environmental Services (DES) has a Dam Maintenance and Safety Inspection program.	NH DES	Average	None	None
Wetlands Protection	The State standards includes wetland buffer regulations.	Planning Board & Conservation Commission	Average	None	None

<b>Rumney, NH Existing Protection Matrix</b>					
<b>Existing Protection</b>	<b>Description</b>	<b>Responsible Agent</b>	<b>Effectiveness Poor/Average/Exc</b>	<b>Recommended Changes</b>	<b>Comments</b>
Hazardous Materials Plan / Team	There is a regional HazMat response team that serves the town. There are no substantial Hazardous Material facilities but there are about 12 business with MSDS that is reported to the Fire Department.	Fire Chief	Excellent	Training on awareness level.	Central NH Haz Mat Team
Public Education Programs	The Fire Department & EMS conducts fire prevention & wellness programs. The Police Department conducts periodic programs.	EMD	Average	Update links to town website for public awareness.	Fire prevention & preparedness at school. Teaching CPR.
Master Plan	The Master Plan serves as the guiding document for future development in Rumney.	Planning Board	Average	None	Updated in 2012
Capital Reserve Funds	A decision making tool used to plan and schedule town improvements over at least a six-year period. The Capital Reserve provides a suggested timeline for budgeting and implementing needed capital improvements.	Dept. Heads/Board of Selectmen	Excellent	None	All departments covered.
Transfer Station Contingency Plan	Minimize hazards to human health and the environment from fires, explosions, or any unplanned sudden release of hazardous waste or hazardous waste constituents to air, soils, surface waters or groundwater.	Transfer Station Superintendent	Average	None	None
Mutual Aid Agreements	Police/Fire/EMS	Police/Fire/EMS	Excellent	None	36 town mutual aid
School Emergency Planning & Training	The School has an emergency response plan and coordinates with police and fire for training.	School Principal	Average	Continue to update and train.	Noen

\*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.

### **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 Rumney 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 Rumney, 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.

## 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 Chapter 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 2016 update, the Committee reviewed the 2011 Rumney Hazard Mitigation Plan goals and made only minor 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. In total, there were 11 projects identified.

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.

Mitigation Project Identification Matrix									
Hazard	Problem Statement	Projects <i>Prevention /Property Protection/ Public Educ./ Nat.Resources /Emerg.Serv / Structural</i>	Social	Technical	Administrate	Political	Legal	Economic	Environment
Extreme Heat	Elderly population would be at risk during an extended period of extreme heat.	Educate citizens regarding the dangers of extreme heat and cold and the steps they can take to mitigate them.	+	+	+	+	+	+	+

**Completed Projects since 2011**

The Town of Rumney completed the latest version of this plan in 2011. Since that time the town has completed the projects listed below. These completed projects are not included in the 2016 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.

<b>Completed Projects since 2011</b>
Replace forestry vehicle.
Buffalo Road Bridge replacement (from tropical storm Irene) has had temp repairs and complete repair began in August of 2016.
<b>Continuing Projects since 2011</b>
<i>(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 started because the responsible department simply did not initiate action.)</i>
Develop a memorandum of agreement with potential shelters, such as the Bible Conference Center and Rumney Baptist Church for use of their facilities.
Improve EOP for both the Town and School to develop response plans to human caused hazards, specifically the potential for a haz mat emergency along Route 25 especially near Russell School.
Work with appropriate State and Federal agencies to protect the Buffalo Road from further degradation due to river erosion.
Implement projects as identified in the Rural Fire Resource Plan 2009 and the Community Water Protection Plan of 2004.
EOP should develop a road plan identifying flood prone roads and alternate routes to access people or the hospital in the event of a flood (to the extent possible).
Develop an operational plan for a community shelter (i.e. staff, feeding, supplies, MOU w/ School, etc) and enhance physical infrastructure for existing shelter.
EOP should develop a list of susceptible people and a way of checking on them periodically in a disaster situation, with the assistance from the Welfare Officer, Health Officer and EMS.
Upgrade road signage to meet state/federal requirements.
Implement Hazard Materials Training.
Update website to include general emergency preparedness information, specifically including information on extreme heat, lightning, wildfire and human caused hazards.
Identify and furnish a secondary Emergency Operations Center (EOC).
Include Dam notification list in the EOP.
EOP should develop a means by which townspeople could fill water jugs at a "public" source such as the Russell School or other town facility that has a deep well.
Evaluate the primary EOC to include a generator, interoperable communications (phones and radios), appropriate workspace, and consider a new location outside of the floodplain.
Reconsider joining the National Flood Insurance Program (NFIP).

**2016 Prioritized Mitigation Projects:**

In 2016, 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 Rumney. 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 Rumney 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 Department 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 2011, the Town incorporated Hazard Mitigation Planning into the following documents:

- Master Plan – The Master Plan is updated every 5 to 10 years in accordance with RSA 674. The most recent edition was adopted in 2014 and included the 2011 Hazard Mitigation Plan as an Appendix. The Master Plan also includes a discussion of capital improvements within the Town.
- Rumney 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

2014 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 2011 included preparedness projects as well as mitigation projects. During the 2016 update, the committee prioritized only the mitigation projects. The 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. The preparedness (NON-Mitigation) projects are identified on page 6-5.

### MITIGATION ACTION PLAN

The following is the completed list of projects, recommended by the Committee. The following action plan identifies Responsibility, Funding and a Time frame for the mitigation projects for each objective. The actions will begin as soon as the plan is approved and the community is eligible for funding, unless otherwise stated, and will be completed as noted in the implementation date column in the table below.

Mitigation Action Plan - Rumney, NH						
Mitigation Action	Responsibility/ Oversight	Funding/ Support	Timeframe	Hazards Addressed	Estimated Cost	Priority
1. Develop a plan to use the town office, school and fire station as an alternate source of water.	EMD, School Administrative Assistant	Town Budget	Short Term	Drought	\$100	High
2. Work with appropriate State and Federal agencies to protect Buffalo Road from further streambank erosion.	Highway Department	Town Budget / Federal Budget / Grants	Long Term	Flood	\$100,000 to 500,000	High
3. Coordinate with the US Forest Service to provide signage and public education about the dangers of landslide on Rattlesnake Mountain.	EMD	USFS	Mid Term	Landslide	\$0	High
4. Implement Projects as identified in the Rural Fire Resource Plan 2009 and the Community Water Protection Plan.	Fire Department	Town Budget & Grants	On-going*	Drought, Wildfire	\$2,000 to \$10,000 per site	Medium
5. Identify functional needs populations that are vulnerable in disasters.	Police & EMS	Town Budget & Grants	Ongoing	All Hazards	\$500	Medium
6. Educate citizens regarding the dangers of extreme heat and cold and the steps they can take to mitigate them.	EMD	Town Budget & Grants	Ongoing	Extreme Heat, Winter Weather	\$500	Medium
7. Reconsider joining the National Flood Insurance Program.	Planning Board	Town Budget & Grants/ NH OEP	Long Term	Flood	\$10,000	Medium
8. Educate citizens regarding the dangers of lightning wind and the steps they can take to mitigate them.	EMD	Town Budget	Ongoing	Lightning	\$500	Medium
9. Install lightning protection systems (internal and external) on critical facilities.	Safety Committee	Town Budget & School Budget	Short Term	Lightning	\$500 to \$10,000	Medium
10. Conduct seismic retrofitting for critical public facilities at risk to earthquakes (i.e. securing objects and shatterproof film for windows, etc.)	Town Safety Committee 7 School	Town Budget & Grants	Long Term	Earthquake	\$100 to \$5,000	Low

<b>Mitigation Action Plan - Rumney, NH</b>						
<b>Mitigation Action</b>	<b>Responsibility/ Oversight</b>	<b>Funding/ Support</b>	<b>Timeframe</b>	<b>Hazards Addressed</b>	<b>Estimated Cost</b>	<b>Priority</b>
11. Educate citizens regarding the dangers of hurricanes and extreme wind and the steps they can take to mitigate them.	EMD	Town Budget	Ongoing	Hurricane, Severe Wind	\$500	Low
<b>NON MITIGATION PROJECTS</b>						
1. Develop a notification list for residents impacted by dam breach and include in the EOP.	EMD	Staff Time	Mid Term	Dam Failure	\$0	n/a
2. Evaluate the primary EOC to include a generator, interoperable communications and appropriate workspace.	EMD	Town Budget & Grants	Ongoing	All Hazards	\$0	n/a
3. Provide shelter operations training.	EMD	Staff Time	Short Term	All Hazards	\$0	n/a

\*Timeframe: Short Term=1 year or less, or ongoing Medium Term=2-3 years Long Term=4-5 years

## **Chapter 7**

### **ADOPTION, IMPLEMENTATION, MONITORING**

#### **Adoption**

The Rumney Selectmen by majority vote officially adopted the *Rumney Hazard Mitigation Plan Update 2016* on \_\_\_\_\_ 2016. The formal Adoption is on page 7-3.

#### **Implementation**

There were 11 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 *Rumney Hazard Mitigation Plan Update 2016* should be reviewed and evaluated annually; and formally updated every five years. The Emergency Management Director is responsible for initiating this review and needs to consult with members of the Rumney Hazard Mitigation Planning 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 update will be reviewed to determine feasibility of future implementation.
- Lastly, new projects will be identified and included in future updates as needed.
- The public, members of the Committee, surrounding communities, businesses, academia, State agencies and non-profit agencies, will continue to be invited and involved during this process. These groups can be notified through invitations, public notices, newspapers articles, brochures and/or other public outreach activities.
- In keeping with the process of adopting the Rumney Hazard Mitigation Plan Update 2016, a public hearing to receive public comment will be held. This will require the posting of two public notices.
- Updates to the *Plan* may be adopted subsequent to a public meeting or hearing by the Rumney Board of Selectmen.
- Once every five years, the EMD will submit an updated plan to FEMA for approval.

<b>Annual Hazard Mitigation Plan Update, Monitor &amp; Evaluate Schedule and Public Involvement</b>			
<b>Meeting Schedule</b>	<b>Task</b>	<b>Town of Rumney Responsibilities</b>	<b>Public Involvement (neighboring communities)</b>
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 RUMNEY, NH  
PO Box 220, Rumney, NH 03266**

**DATE**

**A RESOLUTION ADOPTING THE TOWN OF RUMNEY, NH HAZARD MITIGATION PLAN UPDATE 2016**

WHEREAS, the Town of Rumney, 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, high 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 Rumney, NH, has developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for its Hazard Mitigation Plan Update 2016 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held between December 2015 and May 2016 regarding the development and review of the Hazard Mitigation Plan Update 2016; and

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

WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural hazards that impact the Town of Rumney, 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 Rumney, 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 Rumney, 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 and FEMA 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 1<sup>st</sup> of each year.

Adopted, this \_\_\_\_\_ day of \_\_\_\_\_, 2016.

\_\_\_\_\_  
Board of Selectmen, Chairman

\_\_\_\_\_  
Authorizing Signature

\_\_\_\_\_  
Board of Selectmen

\_\_\_\_\_  
Authorizing Title

\_\_\_\_\_  
Board of Selectmen

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## ACRONYMNS

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**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

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Appendix A  
Appendix B  
Appendix C

Hazard Mitigation Resources  
Documentation of Planning Process  
Approval Letter from FEMA

## **APPENDIX A**

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### **Hazard Mitigation Resources**

## ◆ HAZARD MITIGATION GRANT PROGRAM - "Section 404 Mitigation"

The Hazard Mitigation Grant Program (HMGP) in New Hampshire is administered in accordance with the 404 HMGP Administration Plan which was derived under the authority of Section 404 of the Stafford Act in accordance with Subpart N. of 44 CFR.

The program receives its funding pursuant to a Notice of Interest submitted by the Governor's Authorized Representative (or GAR, i.e. the Director of NH HSEM) to the FEMA Regional Director within 60 days of the date of a Presidentially Declared Disaster.

The amount of funding that may be awarded to the State/Grantee under the HMGP may not exceed 15% of (over and above) the overall funds as are awarded to the State pursuant to the Disaster Recovery programs as are listed in 44 CFR Subpart N. Section 206.431 (d) (inclusive of all Public Assistance, Individual Assistance, etc.). Within 15 days of the Disaster Declaration, an Inter-Agency Hazard Mitigation Team is convened consisting of members of various Federal, State, County, Local and Private Agencies with an interest in Disaster Recovery and Mitigation. From this meeting, a Report is produced which evaluates the event and stipulates the State's desired Mitigation initiatives.

Upon the GAR's receipt of the notice of an award of funding by the Regional Director, the State Hazard Mitigation Officer (SHMO) publishes a Notice of Interest (NOI) to all NH communities and State Agencies announcing the availability of funding and solicits applications for grants. The 404 Administrative Plan calls for a State Hazard Mitigation Team to review all applications. The Team is comprised of individuals from various State

**Eligible Subgrantees include:**

- State and Local governments,
- Certain Not for Profit Corporations
- Indian Tribes or authorized tribal organizations
- Alaskan corporations not privately owned.

**Minimum Project Criteria**

- Must conform with the State's "409" Plan
- Have a beneficial impact on the Declared area
- Must conform with:
  - NFIP Floodplain Regulations
  - Wetlands Protection Regulations
  - Environmental Regulations
  - Historical Protection Regulations
- Be cost effective and substantially reduce the risk of future damage
- Not cost more than the anticipated value of the reduction of both direct damages and subsequent negative impacts to the area if future disasters were to occur i.e., min 1:1 benefit/cost ratio
- Both costs and benefits are to be computed on a "net present value" basis
- Has been determined to be the most practical, effective and environmentally sound alternative after a consideration of a range of options
- Contributes to a long-term solution to the problem it is intended to address
- Considers long-term changes and has manageable future maintenance and modification requirements

Agencies.

**Eligible Projects** may be of any nature that will result in the protection to public or private property and include:

- Structural hazard control or protection projects
- Construction activities that will result in protection from hazards
- Retrofitting of facilities
- Certain property acquisitions or relocations
- Development of State and local mitigation standards
- Development of comprehensive hazard mitigation programs with implementation as an essential component
- Development or improvement of warning systems

## ◆ FLOOD MITIGATION ASSISTANCE (FMA) PROGRAM

New Hampshire has been a participant in the Flood Mitigation Assistance Program (FMA or FMAP) since 1996/97. In order to be eligible, a community must be a participant in the National Flood Insurance Program.

In 1997, the State was awarded funds to assist communities with Flood Mitigation Planning and Projects. A Planning Grant from the 1996/97 fund was awarded to the City of Keene in 1998. In preparation for the development of the Flood Mitigation Plan, the Planning Department of the City of Keene created a digital data base of its floodplain including the digitizing of its tax assessing maps as well as its Special Flood Hazard Areas in GIS layers. The Plan Draft was submitted to FEMA for review and approval in March of 2000. The Plan includes a detailed inventory of projects and a "model" project prioritization approach.

In 1998, the FMAP Planning Grant was awarded to the Town of Salem. Given the complexity of the issues in the Spicket River watershed, the Town of Salem subcontracted a substantial portion of the development of its Flood Mitigation Planning to SFC Engineering Partnership of Manchester, NH, a private engineering firm. Salem submitted a Plan and proposed projects to the State and FEMA in May of 1999 which were approved by FEMA. This made Salem the first community in NH to have a FEMA/NFIP approved Flood Mitigation Plan.

### Flood Mitigation Assistance Program

- NFIP Funded by a % of Policy Premiums
- Planning Grants
- Technical Assistance Grants to States (10% of Project Grant)
- Project Grants to communities
- Communities must have FEMA approved Flood Mitigation Plan to receive Project Funds

## *Eligible Projects*

*(44 CFR Part 78)*

- Elevation of NFIP insured residential structures
- Elevation and dry-proofing of NFIP insured non-residential structures
- Acquisition of NFIP insured structures and underlying real property
- Relocation of NFIP insured structures from acquired or restricted real property to sites not prone to flood hazards
- Demolition of NFIP insured structures on acquired or restricted real property
- Other activities that bring NFIP insured structures into compliance with statutorily authorized floodplain management requirements
- Beach nourishment activities that include planting native dune vegetation and/or the installation of sand-fencing.
- Minor physical mitigation projects that do not duplicate the flood prevention activities of other Federal agencies and lessen the frequency of flooding or severity of flooding and decrease the predicted flood damages in localized flood problem areas. These include: modification of existing culverts and bridges, installation or modification of flood gates, stabilization of stream banks, and creation of small debris or flood/storm water retention basins in small watersheds (not dikes, levees, seawalls etc.)

## ◆ PRE-DISASTER MITIGATION PROGRAM (PDM)

FEMA has long been promoting disaster resistant construction and retrofit of facilities that are vulnerable to hazards in order to reduce potential damages due to a hazard event. The goal is to reduce loss of life, human suffering, economic disruption, and disaster costs to the Federal taxpayer. This has been, and continues to be accomplished, through a variety of programs and grant funds.

Although the overall intent is to reduce vulnerability before the next disaster threatens, the bulk of the funding for such projects actually has been delivered through a "post-disaster" funding mechanism, the Hazard Mitigation Grant Program (HMGP). This program has successfully addressed the many hazard mitigation opportunities uniquely available following a disaster. However, funding of projects "pre-disaster" has been more difficult, particularly in states that have not experienced major disasters in the past decade. In an effort to address "pre-disaster mitigation", FEMA piloted a program from 1997-2001 entitled "Project Impact" that was community based and multi-hazard oriented.

Through the Disaster Mitigation Act of 2000, Congress approved creation of a national Pre-disaster Hazard Mitigation program to provide a funding mechanism that is not dependent on a Presidential disaster declaration. For FY2002, \$25 million has been appropriated for the new grant program entitled the ***Pre-Disaster Mitigation Program (PDM)***. This new program builds on the experience gained from Project Impact, the HMGP, and other mitigation initiatives.

Eligible projects include:

- State and local hazard mitigation planning
- Technical assistance [e.g. risk assessments, project development]
- Mitigation Projects
  - Acquisition or relocation of vulnerable properties
  - Hazard retrofits
  - Minor structural hazard control or protection projects
- Community outreach and education [up to 10% of state allocation]

The funding is 75% Federal share, 25% non-Federal, except as noted below. The grant performance periods will be 18 months for planning grants, and 24 months for mitigation project grants. The PDM program is available to regional agencies and Indian tribes. Special accommodation will be made for "small and impoverished communities", who will be eligible for 90% Federal share, 10% non-Federal.

## ◆ COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM

*These Federal funds are provided through the U.S. Department of Housing and Urban Development (HUD) and are administered by the CDBG Program of the New Hampshire Office of State Planning.*

Some CDBG disaster related funding has been transferred to FEMA recently and the SHMO is scheduled to receive guidance as to which specific funds and, new program management criteria.

The specific CDBG funds designated for hazard mitigation purposes are made available to address "unmet needs" pursuant to a given Disaster Declaration to States which request them. For these funds, project selection guidance is provided by NH HSEM and NHOSP administers the grant.

Pursuant to Declaration DR-1144-NH, \$557,000.00 was made available to the State and pursuant to DR-1199-NH, the grant award is targeted at \$1,500,000.00.

In October of 1998, HUD announced the program guidelines for the expenditure of the DR-1144-NH related funding and the community of Salem applied for, and has received preliminary approval for funding to acquire a 19 unit trailer park in the Floodplain.

### **Community Development Block Grant**

- *U.S. Dept. of Housing and Urban Development*
- *Funds for a Declared Disaster's "Unmet Needs"*
- *Projects must meet one of three National Objectives*
- *Provide a direct benefit to low and moderate income persons or households*
- *Prevent or eliminate slums and blight*
- *Eliminate conditions which seriously and immediately threaten the public health and welfare*

*Additional conditions with respect to the expenditure of these funds includes the provision that at least 50% of the grant award must be expended in a manner which benefits individuals who earn 80% or less than the area's (county's) median income.*

<b>WEBSITES FOR MITIGATION RESOURCES</b>	
American Planning Association	<a href="http://planning.org">http://planning.org</a>
Community Rating System	<a href="http://www.fema.gov/national-flood-insurance-program-community-rating-system">http://www.fema.gov/national-flood-insurance-program-community-rating-system</a>
FEMA Mitigation Planning	<a href="http://www.fema.gov/multi-hazard-mitigation-planning">http://www.fema.gov/multi-hazard-mitigation-planning</a>
FEMA Public Assistance Program	<a href="https://www.fema.gov/public-assistance-local-state-tribal-and-non-profit">https://www.fema.gov/public-assistance-local-state-tribal-and-non-profit</a>
Flood Mitigation Assistance Program	<a href="http://www.fema.gov/flood-mitigation-assistance-program">http://www.fema.gov/flood-mitigation-assistance-program</a>
Hazard Mitigation Grant Program	<a href="http://www.fema.gov/hazard-mitigation-grant-program">http://www.fema.gov/hazard-mitigation-grant-program</a>
HAZUS and HAZUS–MH	<a href="https://www.fema.gov/hazus">https://www.fema.gov/hazus</a>
Mitigation Success Stories	<a href="http://www.fema.gov/mitigation-best-practices-portfolio">http://www.fema.gov/mitigation-best-practices-portfolio</a>
National Flood Insurance Program	<a href="http://www.fema.gov/nfip">http://www.fema.gov/nfip</a>
National Hurricane Program	<a href="http://www.fema.gov/hazards/hurricanes/nhp.shtm">http://www.fema.gov/hazards/hurricanes/nhp.shtm</a>
NOAA Storm Events	<a href="http://www.ncdc.noaa.gov/stormevents/">http://www.ncdc.noaa.gov/stormevents/</a>
NH Homeland Security & Emergency Management	<a href="http://www.nh.gov/safety/divisions/hsem/">http://www.nh.gov/safety/divisions/hsem/</a>
Pre-Disaster Mitigation Program	<a href="https://www.fema.gov/pre-disaster-mitigation-grant-program">https://www.fema.gov/pre-disaster-mitigation-grant-program</a>
Small Business Administration	<a href="http://www.sba.gov/disaster">http://www.sba.gov/disaster</a>
U.S. Army Corps of Engineers	<a href="http://www.usace.army.mil">http://www.usace.army.mil</a>
U.S. Department of Agriculture (USDA)	<a href="http://www.usda.gov/da/disaster/nda.htm">http://www.usda.gov/da/disaster/nda.htm</a>
USDA , Natural Resources Conservation Service	<a href="http://www.nrcs.usda.gov">http://www.nrcs.usda.gov</a>
U.S. Department of Housing and Urban Development	<a href="http://portal.hud.gov/hudportal/HUD">http://portal.hud.gov/hudportal/HUD</a>

## **APPENDIX B**

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### **Documentation of Planning Process**

#### **Including:**

**Agendas**

**Attendance Sheets**

**Public Notices / Email Notices**

**Problem Statements**

**Mitigation Project Identification Matrix**

**Prioritized Mitigation Projects**

# Rumney, NH Hazard Mitigation Plan

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## December 2, 2015 Committee/Public Meeting AGENDA

1. Introductions
2. Review/Update Goals
3. Review/Update Hazard History
4. Review/Update Risk Matrix
5. Review/Update Problem Statements – if time/applicable
6. MISC:
  - a. Any significant changes in development since 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?
7. Review for next meeting:
  - Update Critical Facilities (Chap. 4)
  - Update Capability Assessment (Chap.5)
  - Distribute Sample Mitigation Projects

### ATTENDEES

Bill Taffe	Rumney EMS Director
Brett Miller	Rumney Police chief
Dan Kimble	Rumney Selectmen
Dave Coursey	Rumney Fire Chief
Diana Kindell	Rumney Planning Board
Frank Simpson	Rumney Road Agent
Janice Mulherin	Rumney Conservation Commission
Joe Chivell	Rumney Administrative Asst. / Asst. EMD
Mark Andrew	Rumney Selectmen / EMD
Paulette Bowers	Rumney Town Clerk
Rebecca Bordonaro	Rumney Health Officer / Asst. EMD Director
Sonny Oulette	Rumney Transfer Station Manager
Bonnie Lockwood	Consultant, McGrew Management Services
Jane Hubbard	Consultant, Hubbard Consulting LLC

# Rumney, NH Hazard Mitigation Plan

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January 21, 2016

## Committee/Public Meeting AGENDA

1. Update Critical Facilities (Chapter 4)
2. Update Capability Assessment (Chapter 5)
3. Update 2010 Mitigation Projects (*completed/keep/remove*)
4. Review Sample Mitigation Projects

Bill Taffe	Rumney EMS Director
Brett Miller	Rumney Police chief
Dan Kimble	Rumney Selectmen
Dave Coursey	Rumney Fire Chief
Diana Kindell	Rumney Planning Board
Ed Haskel	Rumney Selectmen
Frank Simpson	Rumney Road Agent
Janice Mulherin	Rumney Conservation Commission
Joe Chivell	Rumney Administrative Asst. / Asst. EMD
Jonan Torsey	Rumney Elementary School
Mark Andrew	Rumney Selectmen / EMD
Paulette Bowers	Rumney Town Clerk
Sonny Oullette	Rumney Transfer Station Manager
Bonnie Lockwood	Consultant, McGrew Management Services
Jane Hubbard	Consultant, Hubbard Consulting LLC

# Rumney, NH Hazard Mitigation Plan

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March 23, 2016

## Committee/Public Meeting AGENDA

1. Review STAPLEE Criteria and FEMA Mitigation Ideas manual
  
2. Identify NEW mitigation projects using the 'Problem Statements To Projects' Worksheet
  
3. Next Meeting:
  - a. Prioritize Mitigation Projects
  - b. Complete the Mitigation Action Plan

Angel Ekstrom	Central NH Public Health Network
Brett Miller	Rumney Police chief
Dan Kimble	Rumney Selectmen
Dave Coursey	Rumney Fire Chief
Diana Kindell	Rumney Planning Board
Ed Haskel	Rumney Selectmen
Mark Andrew	Rumney Selectmen / EMD
Paulette Bowers	Rumney Town Clerk
Sonny Oullette	Rumney Transfer Station Manager
Bonnie Lockwood	Consultant, McGrew Management Services
Jane Hubbard	Consultant, Hubbard Consulting LLC

# Rumney, NH Hazard Mitigation Plan

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April 13, 2016

## Committee/Public Meeting AGENDA

1. Prioritize Mitigation Projects
2. Complete Mitigation Action Plan
3. Next Meeting:
  - a. Review Final Draft of HMP

Brett Miller	Rumney Police Chief
Dan Kimble	Rumney Selectmen
Dave Coursey	Rumney Fire Chief
Diana Kindell	Rumney Planning Board
Ed Haskel	Rumney Selectmen
Frank Simpson	Rumney Road Agent
Joe Chivell	Rumney Administrative Asst. / Asst. EMD
Mark Andrew	Rumney Selectmen / EMD
Paulette Bowers	Rumney Town Clerk
Sonny Oullette	Rumney Transfer Station Manager
Bonnie Lockwood	Consultant, McGrew Management Services
Jane Hubbard	Consultant, Hubbard Consulting LLC

# Rumney, NH Hazard Mitigation Plan

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May 19, 2016

## Committee/Public Meeting AGENDA

1. Review Final Draft of HMP

Brett Miller	Rumney Police Chief
Dave Coursey	Rumney Fire Chief
Diana Kindell	Rumney Planning Board
Frank Simpson	Rumney Road Agent
Joe Chivell	Rumney Administrative Asst. / Asst. EMD
Jonan Torsey	Rumney Elementary School
Mark Andrew	Rumney Selectmen / EMD
Paulette Bowers	Rumney Town Clerk
Rebecca Bordonaro	Rumney Health Officer / Assist. EMS Director
Sonny Oullette	Rumney Transfer Station Manager
Bonnie Lockwood	Consultant, McGrew Management Services
Jane Hubbard	Consultant, Hubbard Consulting LLC

## **PUBLIC NOTICE TO THE RESIDENTS OF RUMNEY, NH**

### **PUBLIC NOTICE**

**December 2, 2015 6:00pm to 8:00pm  
Rumney Town Office Building  
Rumney, NH**

The Town of Rumney, with the Hazard Mitigation Planning Committee, is working to update Rumney'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). It 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 603-848-8801 or via email at [jhubb\\_99@yahoo.com](mailto:jhubb_99@yahoo.com)

*The above notice was posted at the Town Office, Town Website, the local Post Office and the Record Enterprise newspaper. In addition, email notices were sent to neighboring towns, chamber of commerce and the regional planning commission, as shown below.*

*The following was emailed on 11/17/15, 1/6/16, 3/17/16, 4/5/16 and 5/16/16:*

The Town of Rumney, 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 December 2, 2015 at 5:00pm at the Rumney Town Hall, Rumney, NH. Please RSVP by 11/30. 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](mailto:jhubb_99@yahoo.com) or at [603-848-8801](tel: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 Rumney,  
Jane Hubbard

Emailed to the following contacts:

Kelly Bolder  
Campton EMD  
[kbolgerinov@aol.com](mailto:kbolgerinov@aol.com)

Cookie Hebert  
Dorchester EMD  
[cookienh@aol.com](mailto:cookienh@aol.com)

Jay Wagner  
Ellsworth EMD  
[whalerd15@hotmail.com](mailto:whalerd15@hotmail.com)

Roger Thompson  
Groton EMD  
[grotonroger@gmail.com](mailto:grotonroger@gmail.com)

Paul Freiset  
Plymouth EMD  
[townadmin@plymouth-nh.org](mailto:townadmin@plymouth-nh.org)

Janice Sackett  
Warren EMD  
[janicesackett@yahoo.com](mailto:janicesackett@yahoo.com)

Jeff Ames  
Wentworth EMD  
[jiredbones@yahoo.com](mailto:jiredbones@yahoo.com)

Central NH Chamber of Commerce  
[info@centralnh.org](mailto:info@centralnh.org)

Christine Frost, Exec. Dir  
North Country Council  
[cfrost@nccouncil.org](mailto:cfrost@nccouncil.org)

Jonann Torsey  
Russell Elementary School Principal  
[resinfo@pemibaker.org](mailto:resinfo@pemibaker.org)

Parker Moore  
State Hazard Mitigation Officer  
[Parker.moore@dos.nh.gov](mailto:Parker.moore@dos.nh.gov)

Paul Hatch  
NH HSEM Field Rep  
[Paul.hatch@dos.nh.gov](mailto:Paul.hatch@dos.nh.gov)

Jennifer Gilbert, NFIP Coord.  
Office of Energy & Planning  
[jennifer.gilbert@nh.gov](mailto:jennifer.gilbert@nh.gov)

Hazard	Problem Statement	<p align="center"><b>Projects</b>  <i>Prevention /Property Protection / Public Educ. / Nat .Resource / Emerg. Serv. / Structural</i>  <b>Bold</b> are carry-over from 2011 Plan  <i>Red</i> are NOT Mitigation</p>	Social	Technical	Administrative	Political	Legal	Economic	Environments
<b>Avalanche</b>	Not Applicable		+	-	+	+	+	+	+
<b>Dam Failure</b>	1. There are several dams located in and outside of Rumney, that if breached could cause damage to roads, including major access routes.	<b>Develop a notification list for residents impacted by dam breach and include in the EOP.</b>	+	+	+	+	+	+	+
<b>Drought</b>	2. An extended drought increases the probability of fires and may hinder fire suppression in minimal fire protection areas.	<b>Implement Projects as identified in the Rural Fire Resource Plan 2009 and the Community Water Protection Plan.</b>	+	+	+	+	+	-	+
	3. Private wells would be affected in an extended drought.	None identified.							
<b>Earthquake</b>	4. Critical facilities are susceptible to earthquake damage.	Develop a plan to use the town office, school and fire station as an alternate source of water.	+	+	+	+	+	+	+
<b>Extreme Heat</b>	5. Elderly population would be at risk during an extended period of extreme heat.	<b>Identify functional needs populations that are vulnerable in disasters.</b>	-	+	+	+	+	+	+
		Educate citizens regarding the dangers of extreme heat and cold and the steps they can take to mitigate them.	+	+	+	+	+	+	+
<b>Flood</b>	6. Heavy and prolonged rain events cause flood damage to roads and culverts and bridges and has the potential for residential flooding.	<b>Reconsider joining the National Flood Insurance Program.</b>	-	+	+	-	+	+	+
	7. Loss of Buffalo Road would make access to Transfer Station extremely difficult.	<b>Work with appropriate State and Federal agencies to protect Buffalo Road from further streambank erosion.</b>	+	+	+	+	+	+	-
	8. Flooding limits the ability for rescue vehicles to reach victims and access to hospitals.	None identified.							

Hazard	Problem Statement	<p align="center"><b>Projects</b>  <i>Prevention /Property Protection / Public Educ. / Nat .Resource / Emerg. Serv. / Structural</i>  <b>Bold</b> are carry-over from 2011 Plan  <i>Red</i> are NOT Mitigation</p>	Social	Technical	Administrative	Political	Legal	Economic	Environments
Hail	Not Applicable								
Hurricane	9. Power outages from downed utilities, minor structural damage, limited access and flooding can affect the town as a result of a hurricane.	<b>Evaluate the primary EOC to include a generator, interoperable communications and appropriate workspace.</b>	+	+	+	+	+	-	+
		Educate citizens regarding the dangers of hurricanes and extreme wind and the steps they can take to mitigate them.	+	+	+	+	+	+	+
Landslide	10. Rattlesnake Mountain, Buffalo Road and the active gravel pit are susceptible to the risk of landslide.	Coordinate with the US Forest Service to provide signage and public education about the dangers of landslide on Rattlesnake Mountain.	+	+	-	+	+	+	+
Lightning	11. Structural and forest fires can result from lightning strikes.	None identified.							
	12. Populations involved in outdoor activities are at risk from lightning strikes.	Educate citizens regarding the dangers of lightning wind and the steps they can take to mitigate them.	+	+	+	+	+	+	+
	13. Critical Facilities are at risk to lighting strikes.	Install lightning protection systems (internal and external) on critical facilities.	+	+	+	+	+	-	+
Severe Wind <i>(Tornado/Downburst)</i>	14. Wind damage can result in downed utilities causing power outages and limited access.	<b>Evaluate the primary EOC to include a generator, interoperable communications and appropriate workspace. (DUPLICATE)</b>	+	+	+	+	+	-	+
		Educate citizens regarding the dangers of hurricanes and extreme wind and the steps they can take to mitigate them. (DUPLICATE)	+	+	+	+	+	+	+
Wild/Forest Fire	15. High fuel load areas (National Forest and Rattlesnake Mt.) are more susceptible to wildfires.	<b>Implement Projects as identified in the Rural Fire Resource Plan 2009 and the Community Water Protection Plan. (DUPLICATE)</b>	+	+	+	+	+	-	+

Hazard	Problem Statement	<p align="center"><b>Projects</b>  <i>Prevention /Property Protection / Public Educ. / Nat .Resource / Emerg. Serv. / Structural</i>  <b>Bold</b> are carry-over from 2011 Plan  <i>Red</i> are NOT Mitigation</p>	Social	Technical	Administrative	Political	Legal	Economic	Environments
	16. Wildfires can be difficult to access due to lack of roads in certain areas of town.	None identified.							
Winter Weather	17. Extended power outages due to winter storms may require activation of a shelter.	Educate citizens regarding the dangers of extreme heat and cold and the steps they can take to mitigate them. (DUPLICATE)	+	+	+	+	+	+	+
		Provide shelter operations training.	+	+	+	+	+	+	+
		Identify functional needs populations that are vulnerable in disasters. (DUPLICATE)	-	+	+	+	+	+	+
	18. Severe cold and road conditions can impede emergency response.	None Identified							
Human Caused Hazards	19. Utility interruption is the biggest risk for the town.								
	20. Municipal buildings, including schools, are at risk to human caused hazards.	Continue planning, training and exercising with the school.	+	+	+	+	+	+	+
Purchase and install additional security cameras and a panic button at Town Hall.		+	+	+	+	+	+	+	

For purposes of prioritizing the mitigation projects listed in the table below, each committee member should **VOTE FOR HALF OF THE PROJECTS (total of 6)** 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.

<b>PRIORITIZED MITIGATION PROJECTS</b>	<b># OF VOTES</b>
1. Implement Projects as identified in the Rural Fire Resource Plan 2009 and the Community Water Protection Plan.	7
2. Develop a plan to use the town office, school and fire station as an alternate source of water.	10
3. Conduct seismic retrofitting for critical public facilities at risk to earthquakes (i.e. securing objects and shatterproof film for windows, etc.)	2
4. Identify functional needs populations that are vulnerable in disasters.	5
5. Educate citizens regarding the dangers of extreme heat and cold and the steps they can take to mitigate them.	5
6. Reconsider joining the National Flood Insurance Program.	4
7. Work with appropriate State and Federal agencies to protect Buffalo Road from further streambank erosion.	10
8. Educate citizens regarding the dangers of hurricanes and extreme wind and the steps they can take to mitigate them.	3
9. Coordinate with the US Forest Service to provide signage and public education about the dangers of landslide on Rattlesnake Mountain.	8
10. Educate citizens regarding the dangers of lightning wind and the steps they can take to mitigate them.	4
11. Install lightning protection systems (internal and external) on critical facilities.	6

Priority: Low:0-3

Medium:4-7

High:8-11

\_\_10\_\_ voters total

## **APPENDIX C**

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### **Approval Letter from FEMA**