Town of Newfields, NH

Hazard Mitigation Plan

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EXECUTIVE SUMMARY

The Newfields Hazard Mitigation Plan was compiled to assist the Town of Newfields in reducing and mitigating future losses from natural and man-made hazard events. The Plan was developed by the Rockingham Planning Commission and participants from the Town of Newfields Hazard Mitigation Committee and contains the tools necessary to identify specific hazards and aspects of existing and future mitigation efforts.

The following natural hazards are addressed:

- Flooding
- Drought
- Extreme Heat
- Wildfire
- Earthquake
- Tornado/Severe Wind
- Hurricane
- Lightning
- Severe Winter Weather

The list of critical facilities includes but is not limited to:

- Electric power lines, substations;
- Fire stations;
- Transportation routes.

The Newfields Hazard Mitigation Plan is considered a work in progress and should be revisited frequently to assess whether the existing and suggested mitigation strategies are successful. Copies have been distributed to all municipal departments, including schools and the libraries, and a copy remains on file at the Rockingham Planning Commission.

CHAPTER I. INTRODUCTION

A. BACKGROUND

The New Hampshire Office of Emergency Management (NH OEM) has a goal for all communities within the State of New Hampshire to establish local hazard mitigation plans as a means to reduce future losses from natural or man-made hazard events before they occur. The NH OEM outlined a process whereby communities throughout the State may be eligible for grants and other assistance upon completion of a local hazard mitigation plan. A handbook entitled *Hazard Mitigation Planning for New Hampshire Communities* was created by NH OEM to assist communities in developing local plans. The state's Regional Planning Commissions are charged with providing assistance to selected communities to develop local plans.

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". The Newfields Hazard Mitigation Plan was prepared by the Newfields Hazard Mitigation Committee with the assistance and professional service of Rockingham Planning Commission under contract with the New Hampshire Office of Emergency Management (OEM) operating under the guidance of Section 206.405 of 44 CFR Chapter 1 (10-1-97 Edition). After a public hearing held in Newfields's Town Hall, the Plan was adopted by the Newfields Board of Selectmen on _____.

B. FUNDING SOURCE

This Plan was funded in part by the Office of Emergency Management, with grants from Emergency Management Assistance.

C. PURPOSE

The Newfields Hazard Mitigation Plan is a planning tool for use by the Town of Newfields in its efforts to reduce future losses from natural and/or man-made hazards. This plan does **not** constitute a section of the Town Master Plan.

D. HISTORY

On October 30, 2000, President Clinton 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 States 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 to receiving Hazard Mitigation Grant Program (HMGP) project grants***. Local governments must review and if necessary, update the mitigation plan annually to continue program eligibility.

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. The state is subject to many types of natural hazards: floods, hurricanes, nor'easters, winter storms, earthquakes, tornadoes 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.

E. SCOPE OF PLAN

The Newfields Hazard Mitigation Plan addresses the areas of natural hazards, which were identified by the Newfields Hazard Mitigation Committee under the following general categories:

1. **Flood, Drought, Extreme Heat and Wildfire**
2. **Geological Hazards** (Earthquake, Landslide, Volcanism and Radon)
3. **Severe Wind** (Tornado, Hurricane, Thunderstorm and Lightning)
4. **Winter Weather** (Snow, Ice Storm, Extreme Cold)

In addition, the Committee discussed issues related to man-made hazards. Further development of this topic should be included in any future revisions to this Plan.

F. METHODOLOGY

The Newfields Hazard Mitigation Committee developed the contents of this plan by using the *Hazard Mitigation Planning for New Hampshire Communities Guide* that was prepared by the Southwest Region Planning Commission for the Office of Emergency Management. The Committee held a total of three meetings from March 2008 to April 20078 in order to develop the Plan. On _____, the Newfields Board of Selectmen formally adopted the Plan. The Committee followed the planning step process that was outlined in the Hazard Mitigation Guide.

Step 1 – Form a Committee (March 10, 2008)

Prior to the first meeting, Art Reed, Newfields Police Chief, invited several members of the community to join the Newfields Hazard Mitigation Committee including the EMD, Fire Chief, a Planning Board and Selectboard representative, Highway Department representative, and others. Public notices were posted around Town to inform residents about the planning process to participate and be a member of the planning process. The initial meeting was held on March 10, 2008 to introduce the Mitigation Planning Process to the possible committee.

Step 2a – Identify Hazards (April 7, 2008)

The committee members identified areas where damage from natural disasters had occurred in the past, areas of potential risk in the future and man-made facilities that were at risk of loss of life, property damage or other risk factors. Rockingham Planning Commission provided GIS base maps which were used to "mark-up" areas of concern. The final maps identify Past Hazards and Areas at Risk and are presented in this plan along with a list of Past Hazards and High Risk Areas.

The purpose of this step was to "map the hazards". Each hazard was discussed and reviewed for its' past history as well as potential occurrence. The results of this step can be found in Chapter 3 and on the "Hazard Identification Maps."

Step 2b – Identify Critical Facilities (April 7, 2008)
The committee members identified facilities in four sections: facilities needed for emergency response; facilities not necessary for emergency response; facilities and populations the Town wishes to protect in the event of a disaster; and potential resources for services or supplies in the event of a disaster. Once these facilities and areas were identified Rockingham Planning Commission and the committee attempted to calculate the potential losses in case of a disaster. Rockingham Planning Commission provided GIS base maps, which were used to identify the location of these facilities. The final map identifies all Critical Facilities in Town and is presented in Chapter 4 of this plan along with a list of those facilities and their functions.

Step 3 - Assessing Vulnerability (April 7, 2008)
The committee developed vulnerability assessments for the hazards depicted on the map of potential hazards generated in step 2a. This information was used to estimate potential losses within the community in the event of a natural hazard episode.

Step 4a – Identify Existing Mitigation Strategies (April 21, 2008)
The committee identified all existing hazard mitigation measures including the Town's Emergency Management Plan and the Dams' Emergency Action Plans. The matrix, including the work done in Step 4a and 4b, are included in this plan.

Step 4b – Identify the Gaps in Existing Mitigation Strategies (April 21, 2008)
The committee then reviewed each of these existing measures and their effectiveness, coverage area, responsible parties and needs in the future. The summary of results can be found on the *Existing Hazard Mitigation Measures* chart in this plan.

Step 5 – Identify Potential Mitigation Strategies (May 12, 2008)
The committee had a brainstorming session where they listed other possible hazard mitigation actions in the categories of prevention, training, structural projects, equipment purchases and public information.

Step 6a – Prioritize and Develop the Action Plan (May 12, 2008)
The proposed hazard mitigation actions and strategies were reviewed and each strategy was rated (good, average or poor) for its effectiveness according to 7 factors (e.g., technical and administrative applicability, political and social acceptability, legal authority, environmental impact, financial feasibility). Each factor was then scored and all scores were totaled for each strategy. Strategies were ranked by overall score for preliminary prioritization then reviewed again under Step 6b.

Step 6b – Prioritizing Actions (May 12, 2008)
The preliminary prioritization list was reviewed in order to make changes and determine a final prioritization for new hazard mitigation actions and existing protection strategy improvements identified in previous steps. The committee members individually "ranked" their priorities based on the needs of the community. The committee then discussed the reasoning on why they chose their priorities and a list of the overall prioritized actions was created.

Step 7 – Develop Implementation Strategy (May 12, 2008)
Using the chart provided in the Hazard Mitigation Handbook, the committee created an implementation strategy which included the person(s) responsible for implementation (who), a schedule for completion (when), and a funding source and/or technical assistance source (how) for each identified hazard mitigation action.

Step 8 – Adopt and Monitor the Plan

Rockingham Planning Commission compiled the Steps 1 to 9 in a draft document, as well as helpful and informative

materials from *The State of New Hampshire Community Hazard Mitigation Planning Guide.* After acceptance by the committee, the Plan was made available for public review at the Town Offices and a public hearing was held on _____ during a regular Board of Selectmen meeting. The Plan was then submitted to the New Hampshire Office of Emergency Management and to FEMA for formal approval. The Board of Selectmen formally approved the Plan on _____. The letter of approval from FEMA can be found in the Appendix F.

G. ACKNOWLEDGEMENTS

The Town of Newfields would like to thank the following people for their time and effort spent to complete this Newfields Hazard Mitigation Plan:

Newfields Hazard Mitigation Planning Committee

Bill Meserve, Newfields Planning Board
Clay Mitchell, Newfields Planner
Jeff Buxton, Newfields Fire Department
Tom Conner, Newfields EMD
Brian Knipstein, Highway Department
Art Reed, Newfields Police Department
Michael Woodworth, Newfields Selectmen

Dylan L. Smith, Rockingham Planning Commission Regional Planner
David K. West, Rockingham Planning Commission GIS Specialist

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

Thank you!

The Town of Newfields also thanks the Federal Emergency Management Agency and the Office of Emergency Management as the primary funding source.

CHAPTER II. COMMUNITY PROFILE

A. INTRODUCTION[1]

The Town of Newfields, New Hampshire is located in Rockingham County in the South East Region of the State. Newfields is bordered by the Town of Newmarket to the north, the Town of Epping to the west, the Town of Stratham to the east and the Town of Exeter to the south.

Newfields, with an area of 7.1 square miles of land and 0.2 square miles of inland water area, has a population density of about 224.7 persons per square mile. From 2000 to 2006, Newfields population increased to 1,593 people gaining 36 residents. Based on Census 2000 information the median age is 36.5, with 31 percent of the population under the age of 18 and 7.5 percent age 65 and older. Based on NH Office of Energy and Planning data the total number of housing units in 2006 was 587 however based on census 2000 data there were 532 housing units. The average size per occupied housing units in 2000 was 3.01 persons. Per New Hampshire Office of Energy and Planning data, in 2006 there were 522 single family units, 55 multi-family units, and 10 manufactured units in Town.

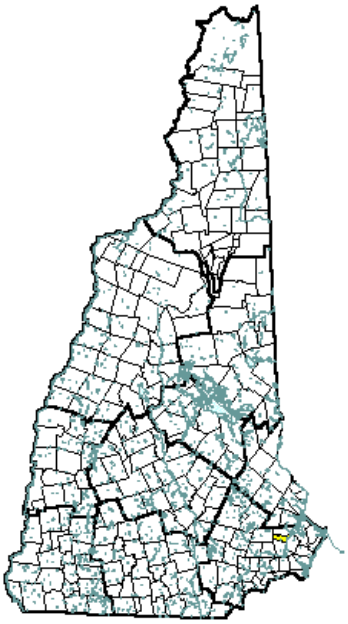

Figure 1: Location map of Newfields

B. PAST DEVELOPMENT TRENDS

Newfields is small and unpretentious. Agriculture and dairy farming figured prominently in its past and continue, to a reduced extent, in the present. Newfields still retains the small town rural atmosphere that evokes nostalgic memories of earlier, simpler, lifestyles and values. Much of the community is woodland and remarkably the growth seen in the last 35 years has not had much impact upon this resource. According to land use trend analysis undertaken by the University of New Hampshire in 2002, the Town of Newfields had roughly 3,540 acres of forest in 1962 and in 1998 there were 3,271 acres of woodlands. In comparison, over the same period of time active agriculture has gone from utilizing 444 acres in 1962 to utilizing only 244 acres in 1998, a nearly halving of the resource in 35 years.

The loss of these resources is mirrored in the increase in the use of land for residential and industrial/ commercial uses across Town. In 1962 , just over 191 acres of land was in residential use; by 1998 this figure had increased to just over 551 acres. Concurrently industrial/commercial uses of land occupied 18.5 Acres in 1962 and over 46.7 acres in 1998. These trends have combined to transform the community from a rural town to a more suburban community.

C. CURRENT DEVELOPMENT TRENDS[2]

The Town of Newfields encompasses an area of 7.3 square miles. Though agriculture has declined in importance, to the point where there are no longer any operating farms, there are many acres of fields with farmhouses and barns throughout the town. There are six small hills in the town, much of which are woodland. The elevation varies from sea level to a high point of 240 feet on Oakland Hill. Natural features of the town include the Piscassic Ice Pond and approximately 2.6 miles of shoreline along the Squamscott River.

[1]– Community Profiles maintained by the NH Department of Employment Security, Economic and Labor Market Information Bureau

[2]– 2002 Newfields Master Plan Update

Newfields is characteristic of New England's rural "small town" having a small central village, with roads and home development spreading from its center. Several houses along Main Street date back to the early 1700's but the most intensive development occurred in the mid-1800's due to the employment generated by the Squamscott Machine Company.

Most recently, during the 1990's, Newfields experienced a period of tremendous growth. From 1990 to 2000 the population in Newfields nearly doubled from 888 to 1551. Likewise, the number of persons per square mile has increased from 121 in 1990 to 212 in the year 2000.

As part of the 2002 Master Plan update, a new existing land use map (Map LU-1 Existing Land Use, 2002) was prepared by the Rockingham Planning Commission to serve as an inventory of the present day development patterns in Newfields. The purpose of this map is to provide an understanding of the extent and distribution of the Town's current development. In addition, by comparing the current maps with past land use maps, development trends can be identified.

As is indicated in the Land Use Tables provided in the Master Plan, the largest single category of land use is undeveloped land (including agriculture, excavations, old fields) which together account for two-thirds of the town's land area. The second largest category is residential, with a combined total (single family, multi-family and mobile home park) of about 22% of the land area. Transportation and utilities account for 3.4%; government / institution /educational make up 3% and commercial and industrial each represent 1.7% of existing land use.

The distribution of land uses, as depicted on the Existing Land Use map in the Master Plan shows a comparatively concentrated pattern of development in and around the downtown area, with mixed and commercial uses located in the center, surrounded by residential neighborhoods and institutional uses. This pattern is reinforced by the service area for the sewer and water district. The remainder of the town is dominated by three types of uses: lower density residential use, including roadside homes and outlying residential subdivisions, highway corridor commercial, office and industrial development, and undeveloped forested land.

Compared to many of the surrounding communities which have developed without a well defined downtown center (and without sewer and water systems) Newfields has a significant number of relatively large unfragmented parcels that remain undeveloped.

D. TOWN STATISTICS OF INTERESTS[3]

Demographics:

Population	2006	2000	1990	1980
Community	1,593	1,557	864	817
County	296,267	278,748	246,744	190,345

Population by age (2000)

Age under 5	146
Age 5 to 19	370
Age 20 to 34	194
Age 35 to 54	613
Age 55 to 64	112
Age 65 and over	116

County:	**RPC:**	**Labor Market Area:**	**Tourism Region:**
Rockingham	Rockingham Planning Commission	Haverhill MA-NH NECTA Division, NH Portion	Seacoast

Municipal & Emergency Services

Planning Board:	Appointed
Industrial Plans reviewed by:	Planning Board
Zoning:	1952/2006
Master Plan:	2002
Capital Improvement Plan:	No

Utilities

Electric Supplier:	PSNH
Water Supplier:	Newfields Water Dept
Sanitation:	Municipal
Municipal Treatment Plant:	Yes
Telephone Company:	Fairpoint
Cellular Telephone access:	Yes

Income (1999)

Per Capita Income	$28,687
Median 4-person Family Income	$75,078
Median Household Income	$71,375

Housing (2006)

Single-Family Units:	522
Multi-Family Units:	55
Manufactured Housing Units:	10
Total	**587**

Transportation

Road Access:	3 State Routes
Nearest Interstate Exit:	I-95, Exit 3, 8 mile distance
Railroad:	Boston and Maine
Public Transportation:	No
Nearest Airport:	Hampton Airfield: 2,100 foot turf runway
Nearest Commercial Airport:	Pease International

Emergency Services

Police Department:	Full time
Fire Department:	Volunteer
Town Fire Insurance Rating:	5/9
Emergency Medical Service:	Volunteer
Nearest Hospital:	Exeter Hospital, Exeter, 5 mile distance

[3]-Community Profiles maintained by the NH Department of Employment Security, Economic and Labor Market Information Bureau

CHAPTER III. HAZARD IDENTIFICATION

A. WHAT ARE THE HAZARDS?

The first step in hazard mitigation is to identify what hazards may affect the Town of Newfields, which is, in fact, prone to a large variety. These include: riverine flooding, river ice jams, severe wind events (hurricane residuals and tornado activity), wildfire, drought, ice storms, and severe winter storms. The six hazards that are most applicable to the State of New Hampshire and the Town of Newfields are:

- **Flooding**, including hurricanes, 100-year floodplain events, debris-impacted infrastructure, erosion, rapid snow pack melt;
- **Wind**, including hurricanes, tornadoes and lightning;
- **Fire**, including drought, forest fires and issues with isolated homes and residential areas;
- **Severe Winter Weather**, including heavy snow storms, ice storms and "Nor-Easters;"
- **Earthquake**, including landslides and other geologic hazards related to seismic activity; and
- **Man-Made Hazards**, including terrorism, oil spills.

Appendix A includes more in depth definitions of these hazards that have occurred or could occur in New Hampshire and/or Newfields.

B. PROFILE OF PAST AND POTENTIAL HAZARD EVENTS IN NEWFIELDS

The next step in hazard mitigation planning is to identify where hazard events have occurred in the past and, if possible, what facilities or areas were impacted. The Committee started with a base map that included the 100-year floodplain, political boundaries, water bodies, the road network and aerial photos. The Committee then located all of the past hazard events on the base map. This step in the planning process serves as a stepping stone for predicting where future hazards could potentially occur in the future. The Committee identified past events in the Town of Newfields and Rockingham County. These past events are listed in Table 3.1 below.

TABLE 3.1: PAST AND POTENTIAL HAZARD EVENTS IN NEWFIELDS AND ROCKINGHAM COUNTY

Type of Event	Date	Location	Impact
Flooding	yearly	Old Lee Road, Piscassic Road, Bald Hill Road, Piscassic Ice Pond, Main Street at Parting Brook (See Map 3.1)	These areas see flooding during the spring and summer months from spring runoff and heavy rain events. Usually, results from these events cause road washout, culvert failure, and road closure.
Flooding	1936	Statewide	Double flood; first due to rains and snowmelt; second, due to large rainfall.

Type of Event	Date	Location	Impact
Flooding (Hurricane)	1938	Statewide	Hurricane. Stream stages similar to those of March 1936.
Flooding	July and August 1986	Statewide	Severe summer storms with heavy rain; flash floods and severe winds.
Flooding (Heavy rain)	August 1990	Statewide	A series of storm events from August 7-10, 1990 with moderate to heavy rains produced widespread flooding in New Hampshire.
Flooding/Windstorm	1991	Rockingham County	Hurricane Bob; effects felt statewide; counties to the east were hardest hit
Flooding	1996	Rockingham County	This storm affected structures and infrastructure in the floodplain, North and west regions experienced the brunt of this storm
Flooding	1998	Rockingham County	Heavy damaged to secondary roads occurred from a series of rainfall events

POTENTIAL FLOODING HAZARDS: Riverine flooding is the most common disaster event in the State of New Hampshire (aside from frequent inconveniences from rather predictable moderate Winter Storms). Significant riverine flooding impacts some areas in the State in less than ten year intervals. New Hampshire has a high flood risk.

- More locally to Newfields, the potential for future flooding is considerable. Newfields has small brooks and rivers running through its territory. Many of the roads previously mentioned will continue to see flooding from rain events especially as the probability of these rain events increases from potential shifting climate scenarios.
- The committee has highlighted areas of flooding concern as depicted on Map 3.1. These areas where past flooding events have happened, if not mitigated, will continue to have negative implications on throughway travel and emergency response.

Type of Event	Date	Location	Impact
Wildfire	*No major wildfires have been recorded in Newfields that have caused significant structural damage or loss of human life.		

POTENTIAL FIRE HAZARDS: Historically, large NH Wildland Fires run in the roughly 50 year cycles. The increased incidence of large Wildland Fire activity in the late 1940s and early 1950s is thought to be associated, in part, with debris from the Hurricane of 1938. Present concerns are that the Ice Storm of 1998 has left a significant amount of woody debris in the forests of some parts of NH and may fuel future wildfires.

- In Newfields, the potential for a wildfire is fairly low, however long droughts, lightning strikes and areas that are heavily wooded, or where campsites exist may serve as potential areas of concern where future wildfire may originate from.

Type of Event	Date	Location	Impact
Drought	*No major droughts have been recorded in Newfields that have caused significant structural damage or loss of human life.		
Drought	1929-36	Statewide	Unknown
Drought	1939-44	Statewide	Severe in Southeast NH
Drought	1947-50	Statewide	Moderate impact
Drought	1960-69	Statewide	Unknown
Drought	1999	Most of State	Governors office declaration; Palmer Drought Survey Index indicated "moderate drought" for most of state

POTENTIAL DROUGHT HAZARDS: Historically, droughts in New Hampshire have had limited effect because of plentiful water resources and the sparse population. The major effects have been decreased crop yields, decreased water supplies, dry wells and decreased hydropower production. Since 1960, the population has more than doubled; this growth has increased demand for the State's water resources. Future droughts may have considerable effect on the State's densely populated areas along the seacoast and in the south-central area.

- The major risk that comes from drought in Newfields is that wildfires might start up more easily from manmade causes, lightning strikes, and water sources such as wells, rivers and fire ponds could also dry up.

Type of Event	Date	Location	Impact

*No major Landslide events have been recorded in the Town of Newfields although the committee did feel that the potential risk does exist (See Map 3.1).

POTENTIAL LANDSLIDE HAZARD: New Hampshire, although mountainous, consists largely of relatively "old" geologic forms which had been worn by the forces of nature for eons prior to the arrival of the Europeans. Consequently, much of the landscape is relatively stable and the exposure to this hazard is generally limited to recreational areas and sparsely populated areas in the North and North Central portion of the State.

- In Newfields, the risk of such an event in the future is very low due to the amount of forested lands, lack of steep slopes, and the location of roads. The committee did feel as though an area off of Oakland Road could be prone to a landslide event because of the steep slope topography of the land there. Residents are located on top of the "ridge." The Town should promote that if any future development, or timber harvesting occurs in this area that a large emphasis be put on maintaining the vegetation there, as well as utilizing BMP approaches that reduce erosional effects from water runoff.

*Please refer to the State of New Hampshire Hazard Mitigation Plan for more details on numerous storm events that occurred during the last two centuries.

Type of Event	Date	Location	Impact

Frequent lightning strikes occur in areas around Newfields that are enunciated on Map 3.1. Although minor structural damage has occurred to some homes the committee could not think of any one specific event that caused major structural damage or loss of human life.

POTENTIAL LIGHTNING HAZARD: In northern New England, tall pine trees seem to be a favorite target for lightning. The long shallow roots can collect positive charge from a relatively large area, while the tree's conductivity and height seem to make it a vulnerable target.

Despite the relatively low incidence of lightning in New Hampshire and Maine, the states have relatively high casualty rates (combined injury/death rate) due to lightning. New Hampshire ranks 16th in the nation, while Maine ranks 8th! While there are several factors contributing to this high rate, residents and visitors to Northern New England are likely to be 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 which attract people to Northern New England during the summer when the vulnerability to lightning strike is highest.

- Lightning strikes in Newfields could start a wildfire during periods of drought, or cause property damage on individual homes especially in the areas depicted on Map 3.1.

Type of Event	Date	Location	Impact
Earthquake	December 20, 1940	Ossipee	Richter Magnitude of a 5.5
Earthquake	June 1973	Near NH/Quebec Border	Richter Magnitude of 4.8
Earthquake	June 1982	West of Laconia	Richter Magnitude of 4.5

POTENTIAL EARTHQUAKE HAZARD: Between 1728 and 1989, 270 earthquakes have been recorded in the State of New Hampshire. New Hampshire lies in a zone of Moderate seismic vulnerability. Of particular interest to Risk Analysis in New Hampshire is the crescent shape of events originating in the Ossipee Range and including the cities of Laconia, Concord, Manchester, Merrimack and Nashua.

- In Newfields, the Hazard Mitigation Committee felt that there is no real risk to the Town to be impacted by a major earthquake.

Type of Event	Date	Location	Impact
Severe Winds	Yearly	Along the Squamscott River through the "Main Street" corridor (See map 3.1)	This area usually experiences heavy winds and downburst activy during summer months. Tree debris and power outages are usually the direct impact from these storm events.
Severe Winds (Hurricane)	1938	Statewide New England	The 1938 hurricane affected Newfields and most of the State with impacts to trees, roofs, chimneys, and power lines.
Severe Winds (Hurricane)	1954	Statewide	Hurricane Carol blew trees down and damaged some properties, and created some flooding.
Severe Winds (Hurricane)	1999	Statewide	Tropical Storm Floyd dumped heavy rains on New England. Presidential Declaration of Disaster in NH (Rockingham County included).

POTENTIAL SEVERE WIND HAZARD: New Hampshire is located in a Wind Zone 2 and in a Hurricane Susceptible Region.

- Newfields, is susceptible to downburst activity during thunderstorms, hurricanes and other severe winds events, which could result in loss of power and downed trees. There is a phone switching station in Town, which if impacted by debris, power outage etc, from sever wind/weather could cut telecommunications form various segments of the community.

*Please refer to the State of New Hampshire Hazard Mitigation Plan for more details on numerous storm events that occurred during the last two centuries.

Type of Event	Date	Location	Impact
Winter Weather	Yearly	Halls Mill Road	Ice causes cars to slide off road, and emergency vehicles must travel with extreme cautiousness during large winter storm events.
Winter Weather (Blizzard)	1958	Statewide New England	The "Blizzard of 58" was a widespread storm that produced snow accumulation in excess of 25 cm from Alabama to Maine. Intense cold and high winds persisted after the snow ended, prolonging the severe effects of the storm.
Winter Weather (Snow Storm)	February 1969	Statewide	The rapid development and deceleration of the storm brought paralyzing snow and increasing winds from New Jersey through most of New England. In Newfields this storm impacted structures with damage to buildings. Roads were blocked for a few days.
Winter Weather (Snow Storm)	Yearly	Halls Mill Road	Halls Mill Road access has been impacted in negative ways from heavy snow storms due to the build of snow drifts.

POTENTIAL WINTER WEATHER HAZARD: The potential for severe winter weather is always present for the northeastern part of the country, especially New England states. As demonstrated in the State Hazard Mitigation Plan, numerous snow storms and blizzards have occurred in the past.

- Newfields is always at risk to snow storms, ice storms, blizzards or other winter weather events, which could impact and damage trees, buildings and power lines. The major risks are power outages, impacted communications and a tough environment for fire suppression. Elderly and other residents are also likely to need assistance if a lengthy snow event were to occur in town.

*Please refer to the State of New Hampshire Hazard Mitigation Plan for more details on numerous storm events that occurred during the last two centuries.

Type of Event	Date	Location	Impact

*The committee did not mention any significant man made hazard events other then the Seabrook Nuclear Power Plants Ten Mile Zone, which does incorporate a portion of Newfields (See map 3.1).

POTENTIAL MAN-MADE HAZARD: Man-made hazards have occurred in Town and future man-made hazards are likely. Tanker trucks on the major routes throughout Town are easily identifiable, as is the Railroad Road, where the potential for man-made disasters could occur. If there is a spill air quality, water quality, and transportation to and out of Town could be negatively impacted.

CHAPTER IV. CRITICAL FACILITIES

The Critical Facilities section is divided into four categories. The first category contains critical facilities needed for emergency response in the event of a disaster. The second category contains critical facilities that are not utilized for emergency response. The third category contains people and facilities the Committee wishes to protect in the event of a disaster. The fourth category contains facilities that have been considered as potential resources for services or supplies in the event of a disaster. The "Critical Facilities Map" at the end of this Chapter identifies the facilities in all categories.

TABLE 4.1: CRITICAL FACILITIES IN NEWFIELDS

Category #1: Critical Facilities Necessary for Emergency Response (Red dots on Map 4.1)

Name of Facility, Structure or Location	Type of Facility	Location
1-Town Hall/EOC/Police Department	EOC/Municipal Government	See Map 4.1
2-Fire Department/EOC	Town Hall	See Map 4.1
3-Wastwater Treatment Plant	Water Treatment	See Map 4.1
4-Highway Shed	Public Works Garage	See Map 4.1
5-DOT Highway Shed	DOT Highway Shed	See Map 4.1
6-Water Tower	Town Water Supply	See Map 4.1
7-Cell Tower	Communications	See Map 4.1
8-Cistern	Fire Suppression	See Map 4.1
9– Fire Pond 1	Fire Suppression	See Map 4.1
10– Fire Pond 2	Fire Suppression	See map 4.1
11– Telephone Switching Box	Communications	See map 4.1
12– Telephone Switching Box	Communications	See map 4.1
13– Sewer Pump Station	Waste Water Treatment	See map 4.1
14– Sewer Pump Station	Waste Water treatment	See map 4.1

* Primary evacuation routes are shown on the map (See Map 4.1)

Category #1 are facilities that are necessary for emergency response or that if impacted by a natural or man-made hazard, would create a second disaster.

Category #2: Facilities Not Necessary for Emergency Response (Yellow dots on Map 4.1)

Name of Facility, Structure or Location	Type of Facility	Location
1– Community Wells (3)	Water infrastructure	See Map 4.1
2-Furture Community Well	Water infrastructure	See Map 4.1
3– Community Church	Congregation Facility	See Map 4.1
4– Wooden Train Bridge	Historic Building	See Map 4.1

Category #2 are facilities that would not create a second disaster if impacted, but are still important resources for the Town.

Category #3: Facilities & Population to Protect (Green dots on Map 4.1)

Name of Facility, Structure or Location	Type of Facility	Location
1-Newfields Elementary School	School	See Map 4.1
2– Daycare (up to 40)	Childcare	See Map 4.1
3– Daycare (up to 43)	Childcare	See Map 4.1
4– Veterinarian	Animal Hospital	See Map 4.1
5– Self Storage Facility	Storage	See Map 4.1
6– Campground	Attraction/Congregate facility	See Map 4.1
7– Ball Fields	Attraction/Congregate Facility	See Map 4.1
8– Hutchinson Sealing	Industrial Complex	See Map 4.1

Category #4: Potential Resources (Blue dots on Map 4.1)

Name of Facility, Structure or Location	Type of Facility	Location
1– Gas Station/Store	Gas/Food Supply	See Map 4.1
2– Country Store	Food/Supplies	See Map 4.1
3– Propane Storage	Propane	See Map 4.1
4– Contractor/Equipment	Contractor	See Map 4.1

Category #4 are potential resources in case of a disaster (food, medical supply, shelters, fuel, etc) and would be vital for emergency response and shelter operation. See Appendix B for complete list of potential resources.

CHAPTER V. DETERMINING HOW MUCH WILL BE AFFECTED

A. IDENTIFYING VULNERABLE FACILITIES

It is important to determine which critical facilities and other structures are the most vulnerable and to estimate their potential loss. The first step is to identify the facilities most likely to be damaged in a hazard event. To do this, the location of critical facilities illustrated on Map 4.1 were compared to the location of various topographical elements, floodplains, roads and water bodies. Vulnerable facilities were identified by comparing their location to possible hazard events. For example, all of the facilities within the 100-year floodplain were identified and used in conducting the potential loss analysis. Similarly, facilities located near steep slopes, earthquake sensitive areas, wildfire prone areas, etc… were identified and included in this analysis.

B. CALCULATING THE POTENTIAL LOSS

The Town of Newfields has been impacted in the past by natural disasters, including flooding, wildfires, river ice jams, severe winter storms and hurricanes. This section identifies areas in town that are most vulnerable to these events and estimates their potential loss. It is difficult to ascertain the amount of damage caused by a natural hazard because the damage will depend on the hazard's extent and severity, making each hazard event somewhat unique. In addition, human loss of life was not included in the potential loss estimates, but could be expected to occur, depending on the severity of the hazard.

Flooding

Flooding is often associated with hurricanes, ice jams, rapid snow melt in the spring and heavy rains.
The Town of Newfields has been impacted in the past by natural disasters, including flooding, severe winter storms and hurricanes. This section identifies areas in town that are most vulnerable to these events and estimates their potential loss. It is difficult to ascertain the amount of damage caused by a natural hazard because the damage will depend on the hazard's extent and severity, making each hazard event somewhat unique. In addition, human loss of life was not included in the potential loss estimates, but could be expected to occur, depending on the severity of the hazard.

The average replacement value was calculated by adding up the assessed values of all structures in the 100 year floodplains and then dividing by the number of structures. The Federal Emergency Management Agency (FEMA) has developed a process to calculate potential loss for structures during flood. The potential loss was calculated by multiplying the average replacement value by the percent of damage expected from the hazard event, and then by multiplying that figure by the number of structures. Residential and non-residential structures were separated. The costs for repairing or replacing bridges, railroads, power lines, telephone lines, and contents of structures are not included in this estimate. In addition, the figures used were based on buildings which are one or two stories high with basements. Percentage of damage to mobile homes during floods is higher. The estimates are somewhat conservative when taking into account that some of the residential structures in the floodplain are mobile homes.

- ***High Risk***

The following calculation is based on eight-foot flooding and assumes that, on average, one or two story buildings with basements receive 49% damage (Understanding Your Risks, Identifying Hazards and

Estimating Losses, FEMA page 4-13):

Residential Damage:
19 structures[5] x ($161,873 avg. replacement value x 0.49)= $1,507,037
Non-residential Damage:
2 structures[6] x ($328,200. replacement value x 0.49)= $321,636

- ***Medium Risk***

The following calculation is based on eight-foot flooding and assumes that, on average, one or two story buildings with basements receive 28% damage (Understanding Your Risks, Identifying Hazards and Estimating Losses, FEMA page 4-13):

Residential Damage:
19 structures[5] x ($161,873 avg. replacement value x 0.28)= $861,164
Non-residential Damage:
2 structures[6] x ($328,200 avg. replacement value x 0.28)= $183,792

- ***Low Risk***

The following calculation is based on eight-foot flooding and assumes that, on average, one or two story buildings with basements receive 20% damage (Understanding Your Risks, Identifying Hazards and Estimating Losses, FEMA page 4-13):

Residential Damage:
19 structures[5] x ($161,873 avg. replacement value x 0.20)= $615,117
Non-residential Damage:
2 structures[6] x ($328,200 avg. replacement value x 0.20)= $131,280

Earthquakes **$1,267,192 to $6,335,960**

Earthquakes can cause buildings and bridges to collapse, disrupt gas, electric and phone lines and are often associated with landslides and flash floods. Four earthquakes in New Hampshire between 1924-1989 had a magnitude of 4.2 or more. Two of these occurred in Ossipee, one west of Laconia, and one near the Quebec border. If an earthquake were to impact Newfields, utilities would be susceptible. In addition, buildings that are not built to a high seismic design level would be susceptible to structural damage. The assessed value of all residential and commercial structures in Newfields, including exempt structures such as schools and churches, is $126,719,200 (Newfields Assessor). Assuming 1% to 5% damage, an earthquake could result in $1,267,192 to $6,335,960 of structure damage.

[5]– 13 houses with assessed values between $71,300 and $281,900
[6]– 2 structures with assessed values between $101,400 and $20,917,900

Tornado/Severe Winds **$1,267,192 to $6,335,960**

Tornadoes are relatively uncommon natural hazards in New Hampshire. On average, about six touch down each year. Damage largely depends on where the tornado strikes. If it strikes an inhabited area, the impact could be severe. In the State of New Hampshire, the total cost of tornadoes between 1950 and 1995 was $9,071,389 (The Disaster Center). The assessed value of all residential and commercial structures in Newfields, including exempt structures such as schools and churches, is $126,719,200 (Newfields Assessor). Assuming 1% to 5% damage, an tornado/sever winds could result in $1,267,192 to $6,335,960 of structure damage.

Wildfires **$196,126 to $3,922,520**

A forest fire can strike at any time in any place. Forest fires may be expected to occur during years of drought. Presuming a small to medium size fire that destroys a small number of homes, damage from this hazard could be expected to range from $196,126 to $3,922,520 which would damage or destroy utilities from one to 20 homes. This figure is based on the median value for a residential structure in Newfields of $196,126[4] in 2007.

Heavy Snowstorms **$1,267,192 to $6,335,960**

Heavy snowstorms typically occur during January and February. New England usually experiences at least one or two heavy snow storms with varying degrees of severity each year. Power outages, extreme cold and impacts to infrastructure are all effects of winter storms that have been felt in Newfields in the past. All of these impacts are a risk to the community, including isolation, especially of the elderly, and increased traffic accidents. Damage caused as a result of this type of hazard varies according to wind velocity, snow accumulation and duration. The assessed value of all residential and commercial structures in Newfields, including exempt structures such as schools and churches, is $126,719,200 (Newfields Assessor). Assuming 1% to 5% damage, an heavy snowstorm could result in $1,267,192 to $6,335,960 of structure damage.

Ice Storms **$1,267,192 to $6,335,960**

Ice storms often cause widespread power outages by downing power lines, making power lines at risk in Newfields. They can also cause severe damage to trees. In 1998, an ice storm inflicted $12,466,202 worth of damage to New Hampshire as a whole. Ice storms in Newfields could be expected to cause damage ranging from a few thousand dollars to several million, depending on the severity of the storm. The assessed value of all residential and commercial structures in Newfields, including exempt structures such as schools and churches, is $126,719,200 (Newfields Assessor). Assuming 1% to 5% damage, an ice storm could result in $1,267,192 to $6,335,960 of structure damage.

Landslides **$1,267,192 to $6,335,960**

In the past, landslides events have not caused damage to structures in Newfields. Geological events, and heavy rains are often the cause for major landslides to occur. In Newfields commercial or residential structures have not been damaged from a landslide event. The risk of such an event is very low because of the vast forested areas and location of roads, however there is an area (located on map 3.1) that could be susceptible to future land slides especially if development accompanied by the stripping away of vegetation from slops occurs. The assessed value of all residential and commercial structures in Newfields, including exempt structures such as schools and churches, is $126,719,200 (Newfields Assessor). Assuming 1% to 5% damage, a major landslide event could result in $1,267,192 to $6,335,960 of structure damage.

[4]– There are 587 residential structures (housing units) in Newfields based on 2006 Economic & Labor Market Information Bureau, NH Employment Security and based on 2007 assessments the total amount of residential structures equate to approximately

Drought **$1,267,192 to $6,335,960**

In the past, no drought events have caused serious damage to crops and property in Newfields. Only a very few farms are still in activity in town. In the future, the amount of damage caused by drought will depend on the severity of the drought, but is estimated to be low. The major risk that could potentially arise from a major drought is that wildfires could start up more easily. If a wildfire were to start from a drought property damage could be considerable. The assessed value of all residential and commercial structures in Newfields, including exempt structures such as schools and churches, is $126,719,200 (Newfields Assessor). Assuming 1% to 5% damage, an extreme drought could result in $1,267,192 to $6,335,960 of structure damage.

Severe Lightning **$1,267,192 to $6,335,960**

In the past, severe lightning has caused very little damage to structures in Newfields. In the future, the amount of damage caused by lightning will vary according to the type of structure hit and the type of contents inside. If a building was to burn down due to lightning, or if a wildfire was to start due to lightning the damages would be significantly higher. The assessed value of all residential and commercial structures in Newfields, including exempt structures such as schools and churches, is $126,719,200 (Newfields Assessor). Assuming 1% to 5% damage, an lightning strike could result in $1,267,192 to $6,335,960 of structure damage.

Hurricanes **$1,267,192 to $6,335,960**

In the past, hurricanes have caused flooding and high winds that have fallen trees, left homes and businesses without power, and have caused minimum structural damage. If a building was to catch on fire due to high winds or electrical failures, damage from a Hurricane could be quite extensive. In general, high winds are a primary cause of hurricane-inflicted loss of life and property damage. If a significant hurricane were to impact Newfields, utilities would be susceptible. In addition , buildings that are not structurally capable to sustain heavy winds would be susceptible to structural damage. The assessed value of all residential and commercial structures in Newfields, including exempt structures such as schools and churches, is $126,719,200 (Newfields Assessor). Assuming 1% to 5% damage, an hurricane could result in $1,267,192 to $6,335,960 of structure damage.

National Flood Insurance Program (NFIP)

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

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

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

Flood damage is reduced by nearly $1 billion a year through partnerships with communities, the insurance industry, and the lending industry. Further, buildings constructed in compliance with NFIP building standards suffer approximately 80 percent less damage annually than those not built in compliance. Additionally, every $3 paid in flood insurance claims saves $1 in disaster assistance payments.

The NFIP is self-supporting for the average historical loss year, which means that operating expenses and flood insurance claims are not paid for by the taxpayer, but through premiums collected for flood insurance policies. The program has borrowing authority from the U.S. Treasury for times when losses are heavy, however, these loans are paid back with interest.

Repetitive Loss Properties

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

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

Newfields NFIP Statistics

Newfields entered the regular Phase of the NFIP on June 5, 1989 and the date of the current effective map is May 17, 2005. 6 flood insurance policies are in force, and no losses have been paid to date since Newfields joined the program.

Newfields Policy and Loss Statistics

Policies in force	Insurance in Force	Number of Paid Losses (since 1978)	Total Losses Paid (Since 1978)
6	$1,553,000	No Information Given	No Information Given

Source: FEMA Policy and claims database, as of September 30, 2008

Newfields NFIP Repetitive Flooding Losses

As of December of 2008, Newfields has had no repetitive loss property according to New Hampshire Office of Energy and Planning (NHOEP) records. This is determined by any repetitive damage claims on those properties that hold flood insurance through the NFIP.

Floodplain Management Goals/Reducing Flood Risks

A major objective to floodplain management is to continue participation in the NFIP. Communities that agree to manage Special Flood hazard Areas shown on NFIP maps participate in the NFIP by adopting minimum standards. The minimum requirements are the adoption of the floodplain Ordinances and Subdivision/Site Plan Review requirements for land designated as Special Flood hazard Areas. Under Federal Law, any structure located in the floodplain is required to have flood insurance. Federally subsidized flood insurance is available to any property owner located in a community participating in the NFIP. Communities that fail to comply with the NFIP will be put on probation and/or suspended. Probation is a first warning where all policy holders receive a letter notifying them of a $50 increase in their insurance. In the event of suspension, the policyholders lose their NFIP insurance and are left to purchase insurance in the private sector, which is of significantly higher cost. If a community is having difficulty complying with NFIP policies, FEMA is available to meet with staff and volunteers to work through the difficulties and clear up any confusion before placing the community on probation or suspension.

Potential Administrative Techniques to Minimize Flood Losses in Newfields

In order to reduce flood risks, the zoning enforcement officer should be familiar with the Floodplain Ordinance and the NFIP. In addition, the Planning Board should be familiar with the NFIP policies, especially those regulations that are required to be incorporated into the Subdivision/Site Plan Review regulations. A workshop sponsored by the NH Bureau of Emergency Management or the NH Office of Energy and Planning would be appropriate to educate current staff and volunteers on a bi-yearly basis.

An essential step in mitigating flood damage is participating in NFIP. Newfields should work to consistently enforce NFIP compliant policies to continue its participation in this program.

CHAPTER VI. EXISTING HAZARD MITIGATION PROGRAMS

After researching past hazards, potential future hazards and the associated losses from these potential hazards, the next step is to determine what mitigation strategies are currently in place to protect against such hazard events. This section involves identifying existing mitigation strategies for the hazards likely to affect the town and evaluate their effectiveness. It outlines those programs and recommends improvements and changes to these programs to ensure the highest quality emergency service possible.

The following is a list of current policies and regulations adopted by the Town of Newfields that protect people and property from natural hazards. The complete Existing Protection Matrix can be found on the following pages.

Summary of Existing Policies and Regulations

Master Plan
Land Use Regulations
Subdivision Regulations
Road Design Standards
Police Mutual Aid Agreements
Fire Department Hazmat contracting with START
Interstate Mutual Aid
Seacoast Chiefs
Seabrook Radiological Response Plan

Existing Program or Activity	Description	Area of Town Covered	Enforcement Department	Effectiveness	Improvements or Changes Needed/ Comments
Master Plan	Includes goals and objectives for future development of the town and identifies future development patterns.	Town-wide	Planning Board	Good	Is updated on a regular basis
Land Use Regulations	The regulations include floodplain development ordinance	Town-wide	Planning Board Board of Selectmen	OK	Updated on an as needed basis. Used with Subdivision Regulations to deal with planning and development issues in town.
Subdivision Regulations	Includes fire and emergency access, drainage, floodplain and bonding provisions as well as stormwater management regulations.	Town-wide	Planning Board	OK	Updated in 2008.
Road Design Standards	Local standards State based on ADT	Town-wide	Planning Board Board of Selectmen	Good	Is incorporated in Subdivision Regulations.
Police Mutual Aid Agreements	The Town has Police Mutual Aid Agreements with nearby communities which helps Towns provide emergency assistance on a regional/multijurisdictional basis.	Town-wide/ Multi-jurisdictional	Police	OK	The Town should continue to participate in regional emergency response training and activities as well as continue to cultivate emergency response relationships with nearby Towns.
Fire Department Hazmat contracting with START	The Seacoast Technical Assistance Response Team (START) provides an all hazards, all planning, emergency hazardous materials response by combining the resources of the fire service, communities, industry and individuals. This regional concept, as promoted by the Seacoast Chief Fire Officers Association, is progress through cooperation that provides for the protection of life and property while giving top priority to safety and environmental concerns.	Town-wide	Emergency Management/Fire Department	Good	The Town should continue to participate in regional emergency response training and activities.
Interstate Mutual Aid	Insures preparedness and response for Town Emergency personnel in the instance of a major disaster both Town wide and on a regional scale.	Town-wide/ Regional	Emergency Management Director	Good	Annual coordinated drills and assessments should be held to ensure effective emergency response.
Seacoast Chiefs	Newfields has a mutual aid packed with 51 Towns that assist each other and perform coordinated exercises that include special emergency response services such as dive teams, collapse teams etc...	Tow wide/ Regionally	Emergency Management/Fire Department	Good	The Town should continue to participate in regional emergency response training and activities.
Seabrook Radiological Response Plan	The radiological emergency response plan organizes NH emergency capabilities for a rapid and coordinated response to any incident at a commercial nuclear power plant in NH.	Tow wide/ Regionally	Emergency Management	Good/ Yet to be Determined	The Town should and will continue to participate in planning and training for a radiological emergency.

CHAPTER VII. NEWLY IDENTIFIED MITIGATION STRATEGIES/ACTIONS

A. HAZARD MITIGATION GOALS FOR THE TOWN OF NEWFIELDS, NH

Before identifying new mitigation actions to be implemented by the Town of Newfields, the Hazard Mitigation Committee established and adopted the following goals. These goals were taken from the State of New Hampshire Natural Hazards Mitigation Plan, which was prepared and is maintained by the New Hampshire Office of Homeland Security and Emergency Management (NHHSEM), and were changed to reflect the Town of Newfields needs and desires.

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

2. To reduce the potential impact of natural and man-made disasters on Newfields Emergency Response Capability.

3. To reduce the potential impact of natural and man-made disasters on Critical Facilities in the Town of Newfields.

4. To reduce the potential impact of natural and man-made disasters on Newfields infrastructure.

5. To improve Emergency Preparedness and communication network.

6. Improve Newfields Disaster Response and Recovery Capability.

7. To reduce the potential impact of natural and man-made disasters on private property.

8. To reduce the potential impact of natural and man-made disasters on Newfields economy.

9. To reduce the potential impact of natural and man-made disasters on Newfields natural environment.

10. To reduce Newfields liability with respect to natural and man-made hazards generally.

11. To reduce the potential impact of natural and man-made disasters on Newfields specific historic treasures and interests as well as other tangible and intangible characteristics which add to the quality of life of the citizens and guests of the Town.

12. To identify, introduce and implement cost effective Hazard Mitigation measures so as to accomplish the Town of Newfields Goals and Objectives and to raise the awareness of, and acceptance of Hazard Mitigation opportunities generally.

B. POTENTIAL MITIGATION STRATEGIES

The following list of mitigation strategies was developed by analyzing the town's development patterns, vulnerabilities and existing mitigation programs. These potential mitigation strategies were ranked in four categories according to how they accomplished each item:

- Prevention
- Structural Projects
- Emergency Services
- Public Information

The brainstorming session resulted in a list of actions that could be taken to mitigate future hazards. These results are compiled in Table 7.1.

TABLE 7.1: POTENTIAL MITIGATION STRATEGIES

Hazard Type	Potential Program or Activity	Description of Potential Strategy (ies)	Affected Location	Type of Activity
Flooding/All Hazards	Bridge Repair on New Road	Repairing this bridge on New road will allow for emergency personnel from the Towns of Newmarket and Newfields to respond effectively and efficiently to emergency situations if route 108 becomes blocked. It will also allow for a evacuation route to be utilized for the people of Newmarket and Newfields. Essentially, by repairing or replacing this bridge emergency personnel as well as the segment of both Newmarket and Newfields population living near this area will have another point of access/egress for response, or throughway travel.	Town-wide	Prevention Structural Project
Flooding	Route 85 @ Parting Brook Culvert Replacement/Road Elevation	Larger culverts and possible road elevation is needed to be done on this evacuation route to lessen the erosional effects, and increase the suitability for vehicular travel during heavy rain and spring runoff.	Route 85 @ Parting Brook	Prevention Structural Project
Flooding	Road Elevation/ Probable Culvert Replacement	Drainage is inadequate on the following roads during heavy rains and spring run-off. New culverts and possible road elevation would help mitigate the effects of erosion on these roads from water run-off, and would also help mitigate any hindrance of thruway travel that would impede emergency response as well as resident evacuation.	Bald Hill Road, and Route 87 @ Runaway	Prevention Structural Project
All Hazards	Emergency Operations Plan	This plan is in need of being developed/updated and will offer all members of Emergency Management in the Town of Newfields a better understanding of operation procedures in case of a disaster.	Town-wide	Prevention Emergency Services Public Information
All Hazards	Designation of Emergency Shelters	Currently there are no emergency shelters listed in the EOP. The Town should consider structures in Town that can be designated shelters and utilized during a major hazardous disaster.	Town-wide	Prevention
All Hazards	Emergency Equipment (Acquire Fixed and Mobile generators)	Acquire multiple power generators that are mobile (with lights) and fixed that will help Town Emergency Personnel effectively react to a Town wide disaster where power outages are widespread as well as to service the school, Town Hall, and waste water treatment facilities.	Town-wide/ School and Fire Association	Prevention Emergency Services
All Hazards	Rewire Newfields Elementary School for Emergency Generator Use	The School, which when designated as an emergency shelter, needs to be rewired in order to allow for generator use.	Elementary School	Prevention Structural Project
All Hazards	Expand Newfields Telecommunication Capabilities	Currently the telecommunications capabilities in Town are fair at best. The Town should look at potential areas in Town to expand their Telecommunications network. Also Verizon/ Fairpoint's switchboard is in Newfields and the committee felt it is important to have a mobile generator accessible in order to service the switchboard during a major power outage.	Town-wide	Prevention Structural Emergency Services
All Hazards	Develop an internal critical incident contact list	The Committee felt that along with developing effective regional collaboration the Town of Newfields should have a critical incident contact list in case of major emergencies that occur on a local, regional, or statewide level. There needs to be a clear channel of communication throughout the Towns civic and emergency personnel.	Town-wide	Prevention Emergency Services

Hazard Type	Potential Program or Activity	Description of Potential Strategy (ies)	Affected Location	Type of Activity
All Hazards/ Wildfire/ Manmade	Dry Hydrant/Cistern Placement Management Plan	The committee felt that it is important with collaboration from the fire department and planning board to assess areas in Town where dry hydrants/cisterns are needed to mitigate potential fire hazards and implement this plan by hopefully using State and/or Federal grant funds to purchase new dry hydrant equipment.	Town-wide	Prevention Structural
All Hazards/ Wildfire/ Manmade	New Cisterns	The committee felt that it is important the Town place new cisterns specifically at the following areas: Deertrees (Fin Ave), Partridge Hill, Sandborn Drive, Basit Lane. The committee also felt that new developments of subdivisions of 10 lots or greater should be required to have cisterns as part of the development.	Deertrees (Fin Ave), Partridge Hill, Sandborn Drive, Basit Lane, and Deertrees Lane	Prevention Structural
All Hazards	Emergency Brochure/ News Letter/ Web Page	Prepare an informational Brochure/Web Page/News letter that would be available on the Town's website and kept at the Town Offices which would include, but not be limited to information on emergency resources, where to go, and what to do in case of a disaster.	Town-wide	Prevention Public Information
Flooding	Update Storm Water Management Regulations utilizing new initiatives for lessening stormwater runoff	The Towns planning board hopes to develop effective storm water management regulations that ensure that new developments in Town are equipped for handing on site and off site water runoff during storm events, and to promote on site water infiltration by using new stormwater management initiatives.	Town-wide	Prevention
All Hazards	Increase parking Capability at the School	Currently parking at the school is inadequate for handling traffic flow and an onset of large amounts of people if the school is to be used for an emergency shelter.	Newfields Elementary School	Structural Prevention
All Hazards	Acquire a Printer/ Large Scale Plotter	By increasing the Towns mapping capabilities emergency personnel can be well equipped with maps, which may show "areas of concern" during major storm events as well as provide guidance to emergency personnel of where to be during major hazardous events.	Town-wide	Prevention Public Information
All Hazards	Ensure/Develop Handicap Accessibility at the EOC	Currently the EOC is not ADA accessible and needs to be.	EOC	Structural

IMPLEMENTATION THROUGH EXISTING PROGRAMS

The Committee should work with the Planning Board on amendments to the Master Plan and possibly the zoning ordinance to reflect the necessary actions identified in the Hazards Mitigation Plan. For instance, identifying areas where future development may not be suitable due to excessive flooding or potential of large disasters may be considered. Looking into making their flood ordinance more stringent then required by State statutes is another possibility. The Committee should work with the Planning Board to identify what changes could be made and what is necessary to add to the Master Plan and zoning ordinance.

CHAPTER VIII. FEASIBILITY AND PRIORITIZATION OF PROPOSED MITIGATION STRATEGIES

The goal of each strategy is reduction or prevention of damage from a hazard event. In order to determine their effectiveness in accomplishing this goal, a set of criteria was applied to each proposed strategy. The STAPLEE method analyses the Social, Technical, Administrative, Political, Legal, Economic and Environmental aspects of a project and is commonly used by public administration officials and planners for making planning decisions. The following questions were about the proposed mitigation strategies discussed in Table 7.1:

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

Each proposed mitigation strategy was evaluated and assigned a score based on the above criteria. The Social, Administrative, Political and Economic criteria have been awarded the following scores (Good = 3, Average = 2, Poor = 1). An evaluation chart with total scores for each strategy can be found in the collection of individual tables under Table 8.1.

The ranking of strategies with the scores displayed in the following pages was merely a guideline for further prioritizing. The committee then prioritized the strategies and prepared the action plan using additional criteria:

- Does the action reduce damage?
- Does the action contribute to community objectives?
- Does the action meet existing regulations?
- Does the action protects historic structures?
- Can the action be implemented quickly?

The prioritization exercise helped the committee seriously evaluate the new hazard mitigation strategies that they had brainstormed throughout the Hazard Mitigation Planning process. While the actions would all help improve the Town's disaster responsiveness capability, funding availability will be a driving factor in determining what and when new mitigation strategies are implemented. The Hazard Mitigation Committee decided to prioritize the new strategies from high priority (1) to low priority (4) as they felt the need to implement a few simultaneously, and attributed the same importance to many strategies.

TABLE 8.1: STAPLEE ANALYSES OF PROPOSED MITIGATION STRATEGIES

Mitigation Action: Bridge Repair on New Road

CRITERIA	EVALUATION RATING	SCORE
S Is it **S**ocially acceptable?	No segments of the community will be treated unfairly.	3
T Is it **T**echnically feasible and potentially successful?	It is technically feasible, and potentially successful.	3
A Is it **A**dministratively workable?	The road agent, Selectmen, and emergency staff are ready to implement this strategy. However B&R Railroad will need to be involved the decision making	2
P Is it **P**olitically acceptable?	There is wide support in the community to implement this strategy.	3
L Is there **L**egal authority to implement?	The Town has the authority to look for funding and professional resources for this project. However the Town of Newmarket would gain the most from this strategy.	2
E Is it **E**conomically beneficial?	The benefits would be significant to Newfields and Newmarket residents.	3
E Are other **E**nvironmental approvals required (e.g., EPA)?	DES and EPA Permits may be required for this project.	2
FINAL SCORE		**18**

Mitigation Action: Route 85 @ Parting Brook Culvert Replacement/Road Elevation

CRITERIA	EVALUATION RATING	SCORE
S Is it **S**ocially acceptable?	It benefits everyone equally.	3
T Is it **T**echnically feasible and potentially successful?	It is technically feasible, and potentially successful.	3
A Is it **A**dministratively workable?	The NHDOT will need to play a major role to help the Town implement this project.	1
P Is it **P**olitically acceptable?	There is wide support in the Town to implement a project like this however some might object to this project because it is located in one segment of Town.	2
L Is there **L**egal authority to implement?	The road is under NHDOT's jurisdiction.	1
E Is it **E**conomically beneficial?	The benefits would be significant to Newfields Residents.	3
E Are other **E**nvironmental approvals required (e.g., EPA)?	DES and EPA permits will be required for this project.	2
FINAL SCORE		**15**

Mitigation Action: Emergency Equipment (Acquire Fixed and Mobile generators)

	CRITERIA	EVALUATION RATING	SCORE
S	Is it Socially acceptable?	This strategy will equally benefit everyone is the instance of a massive power outage.	3
T	Is it Technically feasible and potentially successful?	Funding sources will need to be pinpointed in order to help this project get underway.	3
A	Is it Administratively workable?	The EMD/Emergency management Team are ready to take the lead on this project.	3
P	Is it Politically acceptable?	It is politically acceptable in the Town.	3
L	Is there Legal authority to implement?	There is legal authority to implement this action.	3
E	Is it Economically beneficial?	This project will be economically beneficial especially during a prolonged power outage.	3
E	Are other Environmental approvals required (e.g., EPA)?	DES and EPA permits will not be needed for this project	3
FINAL SCORE			**21**

Mitigation Action: Emergency Brochure/News Letter/ Web Page

	CRITERIA	EVALUATION RATING	SCORE
S	Is it **S**ocially acceptable?	This strategy will equally benefit everyone in town.	3
T	Is it **T**echnically feasible and potentially successful?	It is feasible to create an emergency brochure.	3
A	Is it **A**dministratively workable?	The Department heads of Emergency Personnel are ready to take the lead on this project.	3
P	Is it **P**olitically acceptable?	The implementation of this project will be supported especially when they see the benefits.	3
L	Is there **L**egal authority to implement?	The Town has the authority to implement this strategy.	3
E	Is it **E**conomically beneficial?	The costs will not be high and the benefits will be significant.	3
E	Are other **E**nvironmental approvals required (e.g., EPA)?	No permits will be required.	3
FINAL SCORE			**21**

Mitigation Action: Road Elevation/Probable Culvert Replacement on Bald Hill Road

CRITERIA	EVALUATION RATING	SCORE
S Is it **S**ocially acceptable?	This strategy will equally benefit everyone in town.	3
T Is it **T**echnically feasible and potentially successful?	The project will help reduce erosional impacts of water runoff.	3
A Is it **A**dministratively workable?	The Road Agent would lead this project.	3
P Is it **P**olitically acceptable?	The implementation of this project would benefit all residents.	3
L Is there **L**egal authority to implement?	The Town has the legal authority to implement this project.	3
E Is it **E**conomically beneficial?	The costs would be fairly low and the benefits significant.	3
E Are other **E**nvironmental approvals required (e.g., EPA)?	DES and EPA Permits will be required for this project.	2
FINAL SCORE		**20**

Mitigation Action: Road Elevation/Probable Culvert Replacement on Route 87 @ Runaway

CRITERIA	EVALUATION RATING	SCORE
S Is it **S**ocially acceptable?	This strategy will equally benefit everyone in Town.	3
T Is it **T**echnically feasible and potentially successful?	The project will help reduce erosional impacts of water runoff.	3
A Is it **A**dministratively workable?	The Selectmen will have to work with NHDOT to get this project started.	1
P Is it **P**olitically acceptable?	The implementation of this project would benefit all residents.	2
L Is there **L**egal authority to implement?	The NHDOT has legal jurisdiction over the work that takes place on this road.	1
E Is it **E**conomically beneficial?	The benefits of implementing this project would out weight the costs.	3
E Are other **E**nvironmental approvals required (e.g., EPA)?	DES and EPA Permits might be required for this project.	2
FINAL SCORE		**15**

Mitigation Action: Dry Hydrant/Cistern Placement Management Plan

CRITERIA	EVALUATION RATING	SCORE
S Is it **S**ocially acceptable?	This strategy would benefit everyone equally.	3
T Is it **T**echnically feasible and potentially successful?	The Town can take the lead on this.	3
A Is it **A**dministratively workable?	The Fire Department and Road Agent would be ready to administer this project.	3
P Is it **P**olitically acceptable?	There is public support for this strategy.	3
L Is there **L**egal authority to implement?	The Town has the legal authority to implement this plan.	3
E Is it **E**conomically beneficial?	The benefits would be great, and the costs would be moderate.	3
E Are other **E**nvironmental approvals required (e.g., EPA)?	No permits are required.	3
FINAL SCORE		**21**

Mitigation Action: Expand Newfields Telecommunications Capabilities

CRITERIA	EVALUATION RATING	SCORE
S Is it **S**ocially acceptable?	This project will benefit the entire community .	3
T Is it **T**echnically feasible and potentially successful?	This strategy needs preparation and coordination but is certainly feasible.	3
A Is it **A**dministratively workable?	The Selectmen will coordinate the effort for this project.	3
P Is it **P**olitically acceptable?	Public support might be split for implementing this project.	2
L Is there **L**egal authority to implement?	The Town has the legal authority to initiate this project.	3
E Is it **E**conomically beneficial?	The benefits of better communications in Town will be beneficial to all who reside and travel through Town.	3
E Are other **E**nvironmental approvals required (e.g., EPA)?	Permits from DES and the EPA will not be needed.	3
FINAL SCORE		**20**

Mitigation Action: Emergency Operations Plan

CRITERIA	EVALUATION RATING	SCORE
S Is it **S**ocially acceptable?	Good emergency response preparedness benefits the entire community.	3
T Is it **T**echnically feasible and potentially successful?	The project is very feasible when coordinated efficiently.	3
A Is it **A**dministratively workable?	The EMD and head emergency personnel are ready to coordinate the effort for this project.	3
P Is it **P**olitically acceptable?	There is wide support for effective emergency response.	3
L Is there **L**egal authority to implement?	The Town has legal authority to implement this project.	3
E Is it **E**conomically beneficial?	The cost are fairly low and the benefits high for implementing this project	3
E Are other **E**nvironmental approvals required (e.g., EPA)?	Permits are not needed.	3
FINAL SCORE		**21**

Mitigation Action: Designation of Emergency Shelters

CRITERIA	EVALUATION RATING	SCORE
S Is it **S**ocially acceptable?	It benefits everyone equally in Town.	3
T Is it **T**echnically feasible and potentially successful?	This can be done utilizing a planning process with Emergency personnel in Town.	3
A Is it **A**dministratively workable?	The EMD and emergency management team are ready to coordinate this activity.	3
P Is it **P**olitically acceptable?	Support from Town residents will be great.	3
L Is there **L**egal authority to implement?	The Town has the legal authority to implement this project.	3
E Is it **E**conomically beneficial?	The benefits far outweigh the costs for this project.	3
E Are other **E**nvironmental approvals required (e.g., EPA)?	No permits would be required.	3
FINAL SCORE		**21**

Mitigation Action: Update Storm Water Management Regulations utilizing new initiatives for lessening Stormwater runoff

CRITERIA	EVALUATION RATING	SCORE
S Is it **S**ocially acceptable?	This project will benefit the entire community as it will help the Town mitigate stormwater runoff.	3
T Is it **T**echnically feasible and potentially successful?	Developing better stormwater management regulation is very feasible and potentially successful.	3
A Is it **A**dministratively workable?	The Planning Board can take the lead on this project.	3
P Is it **P**olitically acceptable?	There is wide support in the Town to mitigate stormwater runoff	3
L Is there **L**egal authority to implement?	The Town has the authority to implement this project.	3
E Is it **E**conomically beneficial?	The cost of this project will not be significant but the benefits will be high.	3
E Are other **E**nvironmental approvals required (e.g., EPA)?	No permits would be needed for this project	3
FINAL SCORE		**21**

Mitigation Action: Develop an internal critical incident contact list

CRITERIA	EVALUATION RATING	SCORE
S Is it **S**ocially acceptable?	This project will benefit the entire community as it will help the Town's emergency response efficiency.	3
T Is it **T**echnically feasible and potentially successful?	The project is technically feasible and potentially successful with good coordination..	3
A Is it **A**dministratively workable?	The Emergency management team/committee will have to take the lead on this project.	3
P Is it **P**olitically acceptable?	There is wide support in Town to support efficient emergency response.	3
L Is there **L**egal authority to implement?	The Town has the authority to implement this project.	3
E Is it **E**conomically beneficial?	The cost of this project will not be significant but the benefits will be high.	3
E Are other **E**nvironmental approvals required (e.g., EPA)?	No permits would be needed for this project	3
FINAL SCORE		**21**

Mitigation Action: Acquire a printer/large scale plotter

CRITERIA	EVALUATION RATING	SCORE
S Is it **S**ocially acceptable?	This project will benefit the entire community but some in the community might not want to fund this project.	2
T Is it **T**echnically feasible and potentially successful?	Obtaining a large printer for mapping purposes will benefit the towns emergency capabilities.	3
A Is it **A**dministratively workable?	The Planning Board/Town Planner can take the lead on this project.	3
P Is it **P**olitically acceptable?	Support in the Town might be split because of spending Town funds on this project.	2
L Is there **L**egal authority to implement?	The Town has the authority to implement this project.	3
E Is it **E**conomically beneficial?	The cost of this project might be significant and the benefits not as high.	2
E Are other **E**nvironmental approvals required (e.g., EPA)?	No permits would be needed for this project	3
FINAL SCORE		**18**

Mitigation Action: Develop an internal critical incident contact list

CRITERIA	EVALUATION RATING	SCORE
S Is it **S**ocially acceptable?	This project will benefit the entire community as it will help the Town's emergency personnel respond efficiency.	3
T Is it **T**echnically feasible and potentially successful?	The project is technically feasible and potentially successful with good coordination..	3
A Is it **A**dministratively workable?	The Emergency management team/committee will have to take the lead on this project.	3
P Is it **P**olitically acceptable?	There is wide support in Town to support efficient emergency response.	3
L Is there **L**egal authority to implement?	The Town has the authority to implement this project.	3
E Is it **E**conomically beneficial?	The cost of this project will not be significant but the benefits will be high.	3
E Are other **E**nvironmental approvals required (e.g., EPA)?	No permits would be needed for this project	3
FINAL SCORE		**21**

Mitigation Action: Rewire Newfields Elementary School for Emergency Generator Use

CRITERIA	EVALUATION RATING	SCORE
S Is it **S**ocially acceptable?	This project will benefit the entire community especially in the instance of an emergency where the school is needed to be used as a emergency shelter.	3
T Is it **T**echnically feasible and potentially successful?	It is technically feasible to rewire the school.	3
A Is it **A**dministratively workable?	The School Board, SAU 16 and the Emergency Management Team will need to coordinate to make this project feasible.	3
P Is it **P**olitically acceptable?	The Town will support this project especially if this is designated as one of the primary shelters.	3
L Is there **L**egal authority to implement?	The Town has the authority to implement this project.	3
E Is it **E**conomically beneficial?	The cost of this project might be significant but the benefits will be equally as high.	3
E Are other **E**nvironmental approvals required (e.g., EPA)?	No permits would be needed for this project	3
FINAL SCORE		**21**

Mitigation Action: Increase parking Capability at the School

CRITERIA	EVALUATION RATING	SCORE
S Is it **S**ocially acceptable?	This project will benefit the entire community when parking will be needed at the potential primary emergency shelter.	3
T Is it **T**echnically feasible and potentially successful?	The project is technically feasible and potentially successful with good coordination..	3
A Is it **A**dministratively workable?	The School Board, SAU 16 and the Emergency Management Team will need to coordinate to make this project feasible.	3
P Is it **P**olitically acceptable?	There is support in Town to support parking expansion especially in lieu of the school becoming a primary shelter.	3
L Is there **L**egal authority to implement?	The Town has the authority to implement this project.	3
E Is it **E**conomically beneficial?	The cost of this project might be significant and the Town has yet to approve funds for this project.	2
E Are other **E**nvironmental approvals required (e.g., EPA)?	No permits would be needed for this project	3
FINAL SCORE		**20**

Mitigation Action: Ensure/Develop Handicap Accessibility at the EOC

CRITERIA	EVALUATION RATING	SCORE
S Is it **S**ocially acceptable?	This project will benefit the community.	3
T Is it **T**echnically feasible and potentially successful?	It is technically feasible develop ADA accessibility at the EOC.	3
A Is it **A**dministratively workable?	The Selectmen and Fire Depart will need to coordinate on this project.	3
P Is it **P**olitically acceptable?	The Town will support this project.	3
L Is there **L**egal authority to implement?	The Town has the authority to implement this project.	3
E Is it **E**conomically beneficial?	The cost of this project might be moderate but the benefits will be high.	3
E Are other **E**nvironmental approvals required (e.g., EPA)?	No permits would be needed for this project	3
FINAL SCORE		**21**

Mitigation Action: Increase parking Capability at the School

CRITERIA	EVALUATION RATING	SCORE
S Is it **S**ocially acceptable?	This project will benefit the entire community when parking will be needed at the potential primary emergency shelter.	3
T Is it **T**echnically feasible and potentially successful?	The project is technically feasible and potentially successful with good coordination..	3
A Is it **A**dministratively workable?	The School Board, SAU 16 and the Emergency Management Team will need to coordinate to make this project feasible.	3
P Is it **P**olitically acceptable?	There is support in Town to support parking expansion especially in lieu of the school becoming a primary shelter.	3
L Is there **L**egal authority to implement?	The Town has the authority to implement this project.	3
E Is it **E**conomically beneficial?	The cost of this project might be significant and the Town has yet to approve funds for this project.	2
E Are other **E**nvironmental approvals required (e.g., EPA)?	No permits would be needed for this project	3
FINAL SCORE		**20**

Mitigation Action: New Cisterns

*Note: The committee felt that Deertrees (Fin Ave), Bassett lane, Partridge Hill, and Sandborn Drive would all receive the same STAPLEE score therefore they evaluated them simultaneously.

CRITERIA	EVALUATION RATING	SCORE
S Is it **S**ocially acceptable?	This project will benefit the community.	3
T Is it **T**echnically feasible and potentially successful?	It is technically feasible place cisterns in these areas.	3
A Is it **A**dministratively workable?	The Fire Department and Road Agent will need to coordinate on this project.	3
P Is it **P**olitically acceptable?	The Town will support this project.	3
L Is there **L**egal authority to implement?	The Town has the authority to implement this project.	3
E Is it **E**conomically beneficial?	The cost of this project might be moderate but the benefits will be high.	3
E Are other **E**nvironmental approvals required (e.g., EPA)?	Environment permits will likely be needed to implement this project.	2
FINAL SCORE		**20**

CHAPTER IX. IMPLEMENTATION SCHEDULE FOR PRIORITY MITIGATION STRATEGIES

After prioritization of each of the strategies using the STAPLEE system and other criteria, the committee developed the actual action plan that outlines who is responsible for implementing each strategies, as well as when and how the actions will be implemented. The following questions were asked to develop an implementation schedule for the identified priority mitigation strategies.

WHO?	Who will lead the implementation efforts? Who will put together funding requests and applications?
WHEN?	When will theses actions be implemented, and in what order?
HOW?	How will the community fund these projects? How will the community implement these projects? What resources will be needed to implement these projects?

In addition to the prioritized mitigation projects, Table 9.1 includes the responsible party (WHO), how the project will be supported (HOW), and what the timeframe is for implementation of the project (WHEN).

As demonstrated in Table 9.1, most major structural mitigation projects would be funded through federal and state grants, as well as local money when a match is required. The Town of Newfields does have a capital improvement program that identifies different financial sources which may include a plan for the execution of each project. Some projects, including most training and education of residents on emergency and evacuation procedures could be tied into the Emergency Operation Plan and implemented through that planning effort.

TABLE 9.1: PRIORITIZED MITIGATION PROJECTS AND ACTION PLAN

Rank	Project	Responsibility/Oversight	Funding/Support	Timeframe
1	Emergency Operations Plan	Emergency Management Director/Emergency Management Team	Federal and State grants will be needed to fund this project along with Town budgeted funds	1 year
1	Emergency Brochure/News Letter/ Web Page	Police Chief	Town Funds along with potential State and Federal grants should be utilized for this project	Updated periodically/ ongoing
1	Bald Hill Road Elevation/Probable Culvert Replacement	Road Agent	Federal and State grants will be needed to fund this project along with Town budgeted funds	1-2 years
1	Emergency Equipment (Acquire Fixed and Mobile generators)	Emergency Management Director/Emergency Management Team	Federal and State grants will be needed to fund this project along with Town budgeted funds	1-2 years depending on the availability of funding
1	Designation of Emergency Shelters	Emergency Management Director/Emergency Management Team	Non-needed	6 months to 1 year
1	Rewire Newfields Elementary School for Emergency Generator Use	School Board, SAU 16, and the Emergency Management Team	Federal and State grants will be needed to fund this project along with Town budgeted funds	1-2 years
2	Dry Hydrant/Cistern Placement Management Plan	Fire Department	Potential local funds may be needed for this project	1-2 years
2	Develop an internal critical incident contact list	Emergency Management Team/Committee	Non-needed	6-12 months
2	Increase parking Capability at the School	School Board, SAU 16, and the Emergency Management Team	Federal and State grants will be needed to fund this project along with Town budgeted funds	1-2 years
2	New Cisterns	Road Agent/Fire Department	Federal and State grants will be needed to fund this project along with Town budgeted funds	2 years
3	Expand Newfields Telecommunication Capabilities	Selectmen	The private sector will be the primary financial contributor	2-5 years
3	Update Storm Water Management Regulations utilizing new initiatives for lessening stormwater runoff	Planning Board	Local funds might need to be used but this is a planning effort that can be done internally	1-3 years
3	Acquire a Printer/Large Scale Plotter	Planning Board/Town Planner	Federal and State grants will be needed to fund this project along with Town budgeted funds	1-3 years

TABLE 9.1: PRIORITIZED MITIGATION PROJECTS AND ACTION PLAN (CNTD)

Rank	Project	Responsibility/Oversight	Funding/Support	Timeframe
3	Ensure/Develop Handicap Accessibility at the EOC	Fire Department/Selectmen	Federal and State grants will be needed to fund this project along with Town budgeted funds	3-5 years
4	Route 85 @ Parting Brook Culvert Replacement/Road Elevation	Selectmen	Federal and State grants will be needed to fund this project	5 years
4	Road Elevation/Probable Culvert Replacement on Routes 85 and 87	Selectmen/Road Agent	Federal and State grants will be needed to fund this project	5 years
4	Bridge Repair on New Road	Selectmen	Federal and State grants will be needed to fund this project along with Town budgeted funds and potential funds used from the neighboring Town of Newmarket	5-10 years

Chapter X. Monitoring, Evaluating and Updating the Plan

Incorporating the Plan into Existing Planning Mechanisms

Upon completion and approval by FEMA and the State of New Hampshire, the Plan will be adopted as a stand alone document of the Town and as an appendix of the Town's Emergency Operations Plan (EOP). Future updates the EOP will incorporate the Plan as a referenced appendix, but the two plans will always be printed as separated documents. The EOP is subject to annual review.

The Plan will also be consulted when the Town updates its Capital Improvement Program (CIP). The Planning Board is responsible for updating the CIP annually, and will review the Action Plan during each update. The Planning Board in conjunction with Newfields Emergency Management will determine what items can and should be added to the CIP based on the Town's annual budget and possible sources of other funding.

The Plan will also be referenced in any future update of the Newfields Master Plan. Portions of the Plan could be incorporated into a Natural Hazards Chapter of the Master Plan. It will also be the responsibility of the Planning Board to incorporate current and future strategies identified in the Plan into proposed zoning ordinances and updates to Town Subdivision and Site Plan Review Regulations.

Monitoring, Evaluating and Updating the Plan

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

In order to track progress and update the Mitigation Strategies identified in the Action Plan (Table 10), it is recommended that the Town revisit the Plan annually, or after a hazard event. If it is not realistic or appropriate to revise the Plan every year, then the Plan will be revisited no less then every five years per FEMA's five year All Hazards Mitigation Plan update requirement. The Emergency Management Director is responsible for initiating this review with members of the Town that are appropriate including members of the public. In keeping with the process of adopting the 2008 Plan, a public hearing to receive public comment on Plan maintenance and updating will be held during any review of the Plan. This publicly noticed meeting will allow for members of the community not involved in developing the Plan to provide input and comments each time the Plan is revised. The final revised Plan will be adopted by the Board of Selectmen appropriately, at a second publicly noticed meeting.

Changes should be made to the Plan to accommodate for projects that have failed or are not considered feasible after a review for their consistency with STAPLEE, the timeframe, the community's priorities, and funding resources. Priorities that were not ranked high, but identified as potential mitigation strategies, should be reviewed as well during the monitoring and update of this Plan to determine feasibility of future implementation.