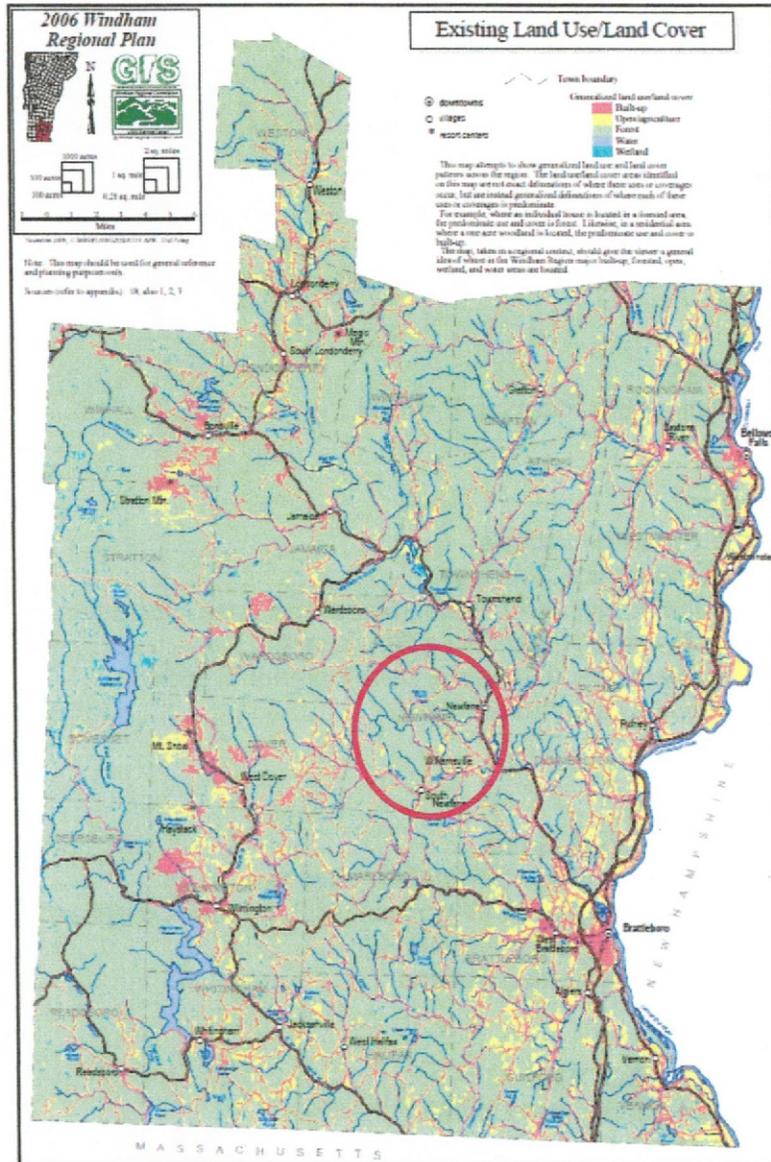


Single Jurisdiction Hazard Mitigation Plan Town of Newfane, Vermont



Prepared for:

Town of Newfane, VT
Route 30, P.O. Box 296, Newfane, VT 05345
Windham County

Prepared by:

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DRAFT DATE: December 11, 2012

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INTRODUCTION AND PURPOSE

This Single Jurisdiction Hazard Mitigation Plan is an update to a FEMA approved and town adopted annex to the Windham Region Multi-Jurisdiction All Hazard Mitigation Plan that expired on December 5, 2012. The town has decided to update to a Single Jurisdiction Plan.

Mission and Purpose...

The purpose of this plan is to assist the Town of Newfane in identifying all of the hazards facing the town and to identify strategies to begin reducing risks from identified hazards.

Hazard mitigation is any sustained action that reduces or eliminates long-term risk to people and property from natural and human-caused hazards and their effects. Based on the results of previous Project Impact efforts, FEMA and state agencies have come to recognize that it is less expensive to prevent disasters than to repeatedly repair damage after a disaster has struck. This plan recognizes that communities have opportunities to identify mitigation strategies and measures during all of the other phases of Emergency Management – preparedness, response and recovery. Hazards cannot be eliminated, but it is possible to determine what the hazards are, where the hazards are most severe and identify local actions that can be taken to reduce the severity of the hazard.

Hazard mitigation strategies and measures alter the hazard by eliminating or reducing the frequency of occurrence, averting the hazard by redirecting the impact by means of a structure or land treatment, adapt to the hazard by modifying structures or standards or avoid the hazard by stopping or limiting development, and could include projects such as:

- Flood-proofing structures
- Tying down propane/fuel tanks in flood-prone areas
- Elevating furnaces and water heaters
- Identifying and modifying high traffic incident locations and routes
- Ensuring adequate water supply
- Elevating structures or utilities above flood levels
- Identifying and upgrading undersized culverts
- Proactive land use planning for floodplains and other flood-prone areas
- Proper road maintenance and construction
- Ensuring critical facilities are safely located
- Establish and enforce appropriate building codes
- Public information

WINDHAM REGION GEOGRAPHY

The Region includes the towns of Athens, Brattleboro, Brookline, Dover, Dummerston, Grafton, Guilford, Halifax, Jamaica, Londonderry, Marlboro, Newfane, Putney, Rockingham, Stratton, Townshend, Vernon, Wardsboro, Westminster, Whitingham, Wilmington, and Windham in Windham County; the neighboring towns of Readsboro, Searsburg, and Winhall are in Bennington County; and Weston is in Windsor County. Situated in Vermont's southeastern corner, the Region is bordered by Bennington and Windsor Counties to the west and north, Massachusetts to the south and New Hampshire to the east. The Region's area is nearly 600,000 acres, or over 900 square miles.

The topography is generally hilly, with steep slopes on the river valleys on the east slopes on the Green Mountains. The Connecticut River Valley contains areas of relatively flat and gently rolling land. The Green Mountains form the western edge of the region with a landscape of ridges and mountain peaks with narrow stream valleys. Stratton Mountain is the highest point in the region at 3,936 feet. The lowest point is along the Connecticut River in Vernon at 200 feet.

In addition to the Connecticut, other major rivers of the region are the Deerfield, Green, North, Saxtons, West, and Williams, all tributaries of the Connecticut. There are two major flood control

reservoirs on the West River, Ball Mountain and Townshend, and two major storage reservoirs for hydropower generation on the Deerfield River, Somerset and Harriman.

NEWFANE GEOGRAPHY & TOWN PROFILE

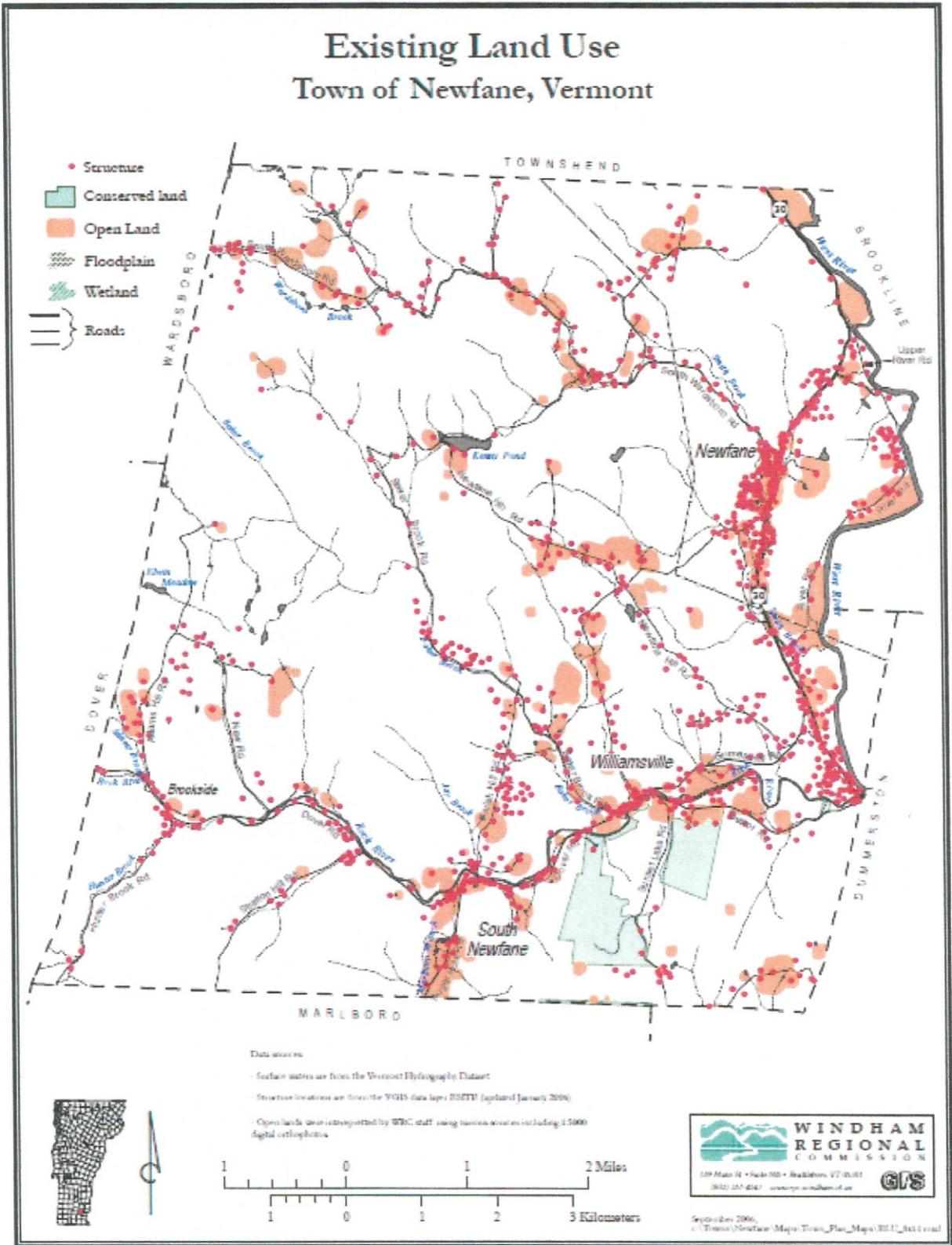
The Town of Newfane covers approximately 24,500 acres in the West River Valley of Windham County. In terms of local settlement patterns there are three separate villages (Newfane Village, Williamsville and South Newfane) connected by a network of local roads. Each village is a uniquely clustered settlement, dominated by older, historic homes with small commercial and community-related services. These village centers are surrounded by a more rural, forested landscape which has experienced residential growth over the years. Housing development has been targeted most significantly in many of the more rural, back-road areas of the community, including areas on and around Parish Hill Road, South Wardsboro Road, Timson Hill Road, and Newfane Hill Road. Very little new development has occurred in the villages of Williamsville and South Newfane or in the more inaccessible, western-central geographic areas of Newfane.

Newfane is located at the crossroads for a significant portion of the traffic that moves throughout the region. The Town is located between Brattleboro, the region's economic center of activity, and the various ski areas and bedroom communities to the north and west. These areas are linked by two major roadways, Route 30 which travels through the eastern portion of Newfane, and the Depot and Dover Roads, which pass through Williamsville and South Newfane and on to Route 100 where tourists can have access to several ski areas.

Newfane's major surface waters, depicted on the Natural Resources Map and the Existing Land Use Map, include the following rivers, brooks and ponds: West River, Rock River, Baker Brook, Smith Brook, Hunter Brook, Wardsboro Brook, Adams Brook, Joy Brook, Marlboro Branch, and Kenney Pond. There are a number of smaller privately developed ponds in the Town as well, some of which provide water for fire fighting. The majority of the local rivers, brooks and streams are classified by the State of Vermont as Class B Waters. This classification means that the water quality is suitable for bathing and recreation, irrigation and agricultural uses, has good fish habitat and aesthetic value, and is acceptable for public water supply with filtration and disinfection. There are some streams in the southeastern portion of Town near Lost Mile Road that are classified by the State of Vermont as Class A waters because they feed into the drinking water supply for the Town of Brattleboro.

The climate is generally temperate with moderately cool summers and cold winters; as in the rest of Vermont. Average annual precipitation is around (54) inches, snowfall averages (91) inches. The weather is unpredictable, and large variations in temperature, precipitation, and other conditions may occur both within and between seasons.

The map on the following page is the most current for the Town of Newfane.



PREQUISITES

Adoption by the Local Governing Body

Certificate of Adoption
Town of Newfane, VT
Board of Selectmen

**A Resolution Adopting the Single Jurisdiction Hazard Mitigation Plan, for
the Town of Newfane, VT**

WHEREAS, the Town of Newfane, VT has worked with the Windham Regional Commission to identify natural hazards, analyze past and potential future damages due to natural disasters, and identify strategies for mitigating future damages; and

WHEREAS, The Town of Newfane, VT Hazard Mitigation Plan analyzes natural hazards and assesses risks within the community; and

WHEREAS, the Town of Newfane, VT Hazard Mitigation Plan recommends the implementation of action(s) specific to the community to mitigate against damage from natural hazard events; and

NOW, THEREFORE BE IT RESOLVED that the Town of Newfane, VT adopts the Hazard Mitigation Plan for the Town of Newfane, VT.

Duly adopted this _____ day of _____
date month, year

Board of Selectmen

Name, Chair

name

name

ATTEST

Gloria Cristelli, Town Clerk

PLANNING PROCESS

Town residents who took part in the planning process for developing the Hazard Mitigation Plan for Newfane tend to be affiliated with more than one association for the town. In rural areas of Vermont, it is typical that people who are most interested in the safety, health and welfare of their community will preside on more than one board, and for example, hold the role of Fire Chief, or school teacher, or be a small business owner, in addition to owning personal property in the town. Therefore, although the meeting may not have as many in attendance, as in a more populated community, those present at the meeting are representing not only a variety of roles, but many roles that would be held by individuals in a more populated town or city.

Documentation of the Planning Process

This Single Jurisdiction Hazard Mitigation Plan is an update to a FEMA approved and town adopted annex to the Windham Region Multi-Jurisdiction All Hazard Mitigation Plan that expired on December 5, 2012. The town has decided to update to a Single Jurisdiction Plan.

Community Involvement was minimal in the initial planning process 5 years ago, as meeting times were difficult to establish where fire department representatives could sit down at the same time and not be on call. For the current process in 2012-2013 greater efforts have been made to provide a means and opportunity for public involvement and participation in the way of making comment on the plan during the planning process.

The Town of Newfane will continue to work with the Windham Regional Commission to monitor, evaluate, and update the plan throughout the next 5 year cycle. This will take active involvement on the part of the Town Emergency Management Director working with Windham Regional Commission staff to identify and plan for ongoing hazard mitigation work and coordination among stakeholders to identify structures and engineering projects that can help mitigate future hazardous events; e.g. bridge and culverts replacements, road replacements and grading, as well as any repetitive loss structures that may be in the Special Flood Hazard Area as identified on FEMA Flood Maps (e.g. FHBM and FIRM maps).

The following hazard mitigation planning meetings were held during the initial planning process for the first rendition of this plan:

- July 15, 2008 Newbrook Fire Station in Newfane, VT
- September 10, 2008 Newbrook Fire Station in Newfane, VT
- There was also email and phone correspondence during drafting between Josh O'Neill and E.M.D. David Moore

The following people were involved in the initial hazard mitigation planning process in 2008:

- David Moore, Emergency Management Director, Newfane
- Steve Jones, Chief, Williamsville/ South Newfane Fire Department WSNFD
- Todd Lawley, Fire Chief, Newbrook Fire Department
- Josh O'Neill, Windham Regional Commission; Planner

2012-2013 planning process includes the following:

- ❖ Meeting on Jan. 15th – see description in the next section “Planning Process with Neighboring Towns”
- ❖ new public participation??
- ❖ Explain the Opportunity provided for public participation and the Means.
- ❖ Be descriptive. How was the public involved, explain resources for information provided, such as ANR?, NRCS?, DEC staff?, VT F&W?, etc. Additionally – add this info to the

planning process section – how did any of these staff from State Agencies inform your planning process?

The following people were involved in the single jurisdiction hazard mitigation planning process in 2013. See Appendix A for sign-in sheets.

Stakeholder	Affiliations	Home
Dinah Reed	Windham Regional Commission Planner	Brattleboro

Planning Process with Neighboring Towns

On the evening of January 15, 2013, representatives from eleven towns in the Windham Region came together to talk about proactive planning mechanisms they should consider doing to become better informed about making infrastructure decisions and land use decisions as they relate to hazard mitigation planning. The following towns were represented:

- Westminster – County Sherriff
- Londonderry – EMD, Selectboard member
- Windham – EMD
- Marlboro – EMD
- Jamaica – EMD, Selectboard member
- Townshend – EMD, Environmental Consultant, CERT/RACES
- Guilford – EMD, Selectboard Chair, Plow Guy
- Grafton – EMD
- Vernon – County Fire Fighter
- Newfane – EMD
- Brattleboro -- Brattleboro Retreat

The invitation for the meeting went out to all members of the LEPC 6 (Local Emergency Planning Committee), all Town Clerks and Town Managers, and all EMDs in the Windham region. The email asked that they bring anyone they know to participate.

The first part of the meeting was look at a series of maps of the region. There were two very large maps displayed of the entire region, showing hydrology, relief, development , public land, conservation land, wetlands, resort centers, villages and hamlets, and all classes of roads.

Several other smaller theme maps of the region were displayed showing; utilities, broadband and cell coverage, government facilities, watersheds, and health and social services facilities. Participants were asked to use sticky notes to write down problem areas and post them on those locations on the maps. Most of the problems identified were local, smaller, but reoccurring

problem areas. The map exercise was followed by a group discussion with WRC staff prompting the group with questions. Main points from the discussion are as follows:

- 1) An exchange of contact information needs to take place between towns so they have one another's phone numbers.
- 2) An inventory of resources available by adjacent towns would be very useful. Sometimes towns reach out further than they need to when it might be next door. Knowledge of smaller companies that can help towns.
- 3) Communication of debris in streams by upstream towns to downstream towns. Letting them know that in the next big rain event, a debris pile in their town may cause ponding, and once it releases it could potentially wreak havoc on downstream town.
- 4) Coordinating future road construction projects so there is always a through path from town to town.
- 5) MOU's regarding shelter space – if one town cannot provide enough, that adjacent towns can take in folks as overflow.
- 6) Mapping of tanks for regulated substances that are on personal property.

There was also discussion about a major intersection in Townshend, VT, of Rt. 30 and Rt. 35. If a major hazard spill or natural hazard shut down that intersection – it would have a very negative impact on access to and from seven surrounding towns.

There were EMDs and Selectboard officials in adjacent towns who met for the first time at the meeting. Several people left stating that the meeting was very helpful and important, being a town official whose best interest is to provide a safe community.

See Appendix , for documentation from the evening meeting.

RISK ASSESSMENT

The risk assessment portion of a Hazard Mitigation Plan contributes to the decision-making process for allocating available resources to mitigation projects. 44 CFR Part 201.6(c)(2) of FEMA's mitigation planning regulations requires local municipalities to provide sufficient hazard and risk information from which to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards.

Identifying and Profiling Hazards – The community has identified and focused mitigation action items on the following hazards: Flood, Winter Storm/Ice Storm and High Wind events. It should be noted that Earthquake, Landslide, Avalanche and Extreme Heat, Drought, Wildfire and Tornado/Microburst, are profiled in the State All Hazard Mitigation Plan. This local plan will only profile and analyze natural hazards that have been deemed as having a “highly likely” impact on the Town of Newfane.

In the “Assessing Vulnerability: Overview” section on page X, a “Highly Likely” occurrence is one that has a 100% probability of occurring every year. The methodology is fully explained in that section.

The following hazards include a narrative explaining Location/Geographic Area and Extent (magnitude or severity), Probability, and discussion of Past Occurrences of all natural hazards that affect the planning area.

REGIONAL FLOODING

Aug. 28, 2011 – The Federally Declared Disaster DR-4022, Tropical Storm Irene, tracked northeast across eastern New York and western New England during Sunday, August 28th, producing widespread flooding, and damaging winds across the region. The greatest impact from Irene across southern Vermont was due to heavy to extreme rainfall, which resulted in catastrophic flooding. Rainfall amounts generally averaged 4 to 8 inches. Much of the rain which fell occurred within a 12 hour period, beginning early Sunday morning, and ending Sunday evening. Route 9, the main route across southern Vermont was closed. Numerous evacuations were reported.

The Vermont Flood of 1927 was the deadliest natural disaster in the history of the State; eighty-four people were killed with over \$28 million in property damage. The Spring Floods of 1936, which had an affect on all of New England, caused \$113 million in damage, killed 24 people and made 77,000 people homeless. During this flood alone, the main street of Hooksett, New Hampshire was 18 to 20 feet underwater.

During 1978, flooding occurred throughout New England causing millions of dollars in damage. In 1996, flooding ravaged communities in northern New England resulting in significant damage and a Presidential Declaration of Emergency.

LOCAL FLOODING

Description and Geographic Area of Hazard

Flash flooding is a highly likely hazard event that typically occurs during summer when a large thunderstorm or a series of rain storms result in high volumes of rain over a short period of time. Flood damage has been most commonly associated with Smith Brook which runs through the Village area of Newfane along Route 30. Damage from flash floods is difficult to predict since, flash flood areas are not mapped at this time. Smith Brook has been identified by the local volunteer fire department to be a water body of great concern since it flows through the village area and is prone to overbank flow during storm events. The residential area of Rolling Meadows is a concern for evacuation during high rain events due to drainage issues and a need for erosion control on bank areas, possibly a need for riprap due to soil types. Three to four private residences are directly affected in this area during flood events. Smith Brook in the

village area flows along a commercial enterprise (WW lumber) which has the potential of becoming a total loss during a severe flooding event. The associated bridge (bridge #64) is also a concern in the area and if completely destroyed has a potential replacement cost between \$300,000 - \$500,000.

There has also been concern raised about Beaver Dams near Cushing Flats and the need to stay on top of the impact that Beaver Dams are having on altering stream flows during flood events.

Newfane participates in the NFIP. The Newfane Flood Hazard Bylaw was adopted February 15, 2007. The local NFIP Administrator is the Zoning Administrator who enforces the Flood Hazard Bylaw. In Vermont all applications for a permit under the town Flood Hazard Bylaw is first reviewed by the State Agency of Natural Resources. Other town ordinances that support flood hazard protection include; the Newfane Town Plan, zoning, subdivision regulations and a sewage ordinance. The Windham Regional Commission has provided a critical facilities map to the town, which includes the location of the 100 year flood plan.

Extent

Newfane experienced constant rain fall at the end of August and early September in 2011 that affected the area causing the Rock River, _____ to exceed its banks and flood.

Probability

According the town emergency committee, floods are deemed Highly Likely to occur in Newfane. Need to elaborate on probability based on studies (state-wide) etc. SGA's, FEH, etc.

Past Occurrences

Need annual occurrences that are local, small, not necessarily warranting an HMGP – not just Federally Declared issues.

August 28, 2011 - Rains from Tropical Storm Irene caused an extreme flash flooding and fluvial erosion hazard event in Southeast Vermont on August 28, 2011, to include the Town of Newfane. This event was Presidential Disaster Declaration DR 4022.

- Newfane is in the process of recording all documentation to receive Public Assistance for this hazard event. Rt. Xx anything else to say here?

In 2001 there was a summer flood associated with a microburst which caused some damage to Route 30. In April of 2007 many Town roads throughout Newfane were washed out after flooding and severe storms rolled through the State. In Town, dirt roads were especially hard hit and limited access to residents attempting to drive throughout Town. This storm event became a presidentially declared disaster on May 5, 2007 FEMA Disaster # 1698. The total period of severe storms and flooding was during the period of April 15-21, 2007.

August 12- September 12, 2004 -- Presidential Disaster Declaration DR – 1559. This event along with the 2003 event triggered funding from the FEMA Public Assistance Program which helped to pay for debris removal and overtime hours for emergency response workers.

July 21 through August 18, 2003 -- led to the FEMA Declaration DR – 1488. Many roads were washed out and culverts needed replacing.

Sources used

Local town knowledge and records

REGIONAL SEVERE WINTER STORM

The Region has a long history of severe winter storms and blizzards and usually experiences at least one or two Nor'easters each year with varying degrees of severity. There have been 114 winter storms in the Region since March 1960 that have resulted in \$5,133,582.00 in property

damages. A typical event begins as a low-pressure system that moves up the Atlantic Coast on a December morning and into the Canadian Maritimes dumping heavy snow across parts of Vermont. Snow typically begins in the morning and then changes over to sleet and rain in the valleys during the day, and then changes back to snow during the evening. Snowfall accumulations are generally three to six inches in the valleys and 6 to 12 inches in the mountains.

LOCAL WINTER STORM / ICE STORM

Description and Geographic Area of Hazard

Winter storms, with snow, ice and freezing temperatures in varying combinations, are fairly commonplace in Newfane and occur town wide. Heavy wet snows of early fall and late spring, as well as ice storms, often result in loss of electric power, leaving people without adequate heating capability. The other threat from these storms is downed trees, resulting in power failures and impassable roads or driveways.

Damage from heavy snow and ice storms can vary depending upon wind speeds, snow or ice accumulation, storm duration, and structural conditions (such heavy snow and ice accumulation on large, flat roofed structures). The assessed value of all residential and commercial property is \$250,809,281. Assuming a range of town-wide damage of 1% to 5%, a heavy snow or ice storm could result in \$2,531,417.00 to \$12,540,464.05 of total damage.

- **Power Failure**

Power failure is a common event in Newfane and can occur anywhere in town. Power failures are typically a condition of High Winds and Winter Storm because power lines become damaged or are brought down by wind. Power failures may also result from disruptions in the New England or national power grid, as indicated by the widespread power outages in 2003. Dead or dying trees in close proximity to power lines pose a particular threat for power failure.

Extent

The severity or magnitude of winter storm to occur in southeast Vermont can range from moderate to very severe. The winter of 2010-2011 had record snowfall of 124.3 inches.

Probability

According the town emergency committee, winter storm or ice storms are deemed Highly Likely to occur in Newfane.

Past Occurrences

Need local, small, annual occurrences – not just Federally Declared issues.

An ice storm which crossed the region in December of 2008 caused widespread downed trees and power outages in Windham County, The total cost of damages across the region crossed the one million dollar threshold which allowed for a Presidential Disaster Declaration DR-1816. Damage across the region mostly consisted of roads being blocked for short periods of time due to downed trees and utility lines. Thousands lost power for varying lengths of time and several shelters were opened in Windham County. Compared to neighboring southern New Hampshire communities, Windham County fared relatively well from the damage inflicted by the ice storm.

Sources used

www.usatoday.com/weather/storms/winter/2011-03-08-vermont-snow-reocrds

Local knowledge and town records

REGIONAL HIGH WIND / TROPICAL STORM / HURRICANE

Windstorms are high-wind events that are sufficient enough to cause damage to property and can occur at anytime during a year. These include high winds in conjunction with a

thunderstorm and high winds that sweep through the Region after the passage of a weather front. During the past forty-six (46) years, the Region has had seventy (70) windstorms that have caused significant damages.

LOCAL HIGH WIND / TROPICAL STORM / HURRICANE

Description and Geographic Area of Hazard

High wind events are highly likely in Newfane, with the potential for limited resulting damage. The mostly likely local threats for high winds are from nor'easters, hurricanes, downbursts or wind shear. Trees downed by high winds can block roads, and down power and communications lines. Mobile home parks and houses on ridge lines are at greater risk from wind damage. Most high winds events in Newfane have resulted in minor damage from downed trees and power lines.

Extent

Extent/magnitudes of Hurricanes and Tropical Storms are ranked using the Saffir-Simpson Scale in the Western Hemisphere, as follows: CAT1=74-95 mph winds, CAT2=96-110 mph winds, CAT3=111-130 mph winds, CAT4=131-155 mph winds, Tropical Storm=39-73 mph winds, Tropical Depression=0-38 mph winds.

Probability

Highly Likely

Past Occurrences

Need small, local, annual occurrences – not just Federally Declared issues.

Tropical Storm Irene did not have the impact from high winds in Windham County that were expected. The greatest issues in Windham County were damages caused by flooding from rain, which was addressed in the Flood section above.

Sources used

Local knowledge

Assessing Vulnerability: Overview

Methodology

A vulnerability analysis for each community begins with an inventory of possible natural hazards and an assessment of the risk that they pose. These are the questions to be answered. What hazards can affect your community? How bad can it get? How likely are they to occur? What will be affected by these hazards? How will these hazards affect you? The magnitude (percentage of the community affected) of the impact of the hazard can be classed as follows:

- Negligible: < 10% of properties damaged/Minimal disruption to quality of life.
- Limited: 10% to < 25% of properties damaged/Loss of essential facilities/services for up to 7 days/few (< 1% of population) injuries possible.
- Critical: 25% to 50% of properties damaged/Loss of essential facilities/services for > 7 days < 14 days/Major (< 10% of population) injuries/few deaths possible.
- Catastrophic: > 50% of properties damaged/loss of essential facilities/services for > 14 days/Severe (> 10% of population) injuries/multiple deaths possible.

The **frequency** of occurrence (Likelihood) is classified as shown:

- Unlikely: < 1% probability in the next 100 years.
- Possible: 1% to 10% probability in the next year, or at least one chance in the next 100 years.
- Likely: 10% to 100% probability in the next year, or at least one chance in the next 10 years.
- Highly Likely: Near 100% probability in the next year.

Additionally, seasonal patterns that may exist are considered, what areas are likely to be affected most, the probable duration of the hazard, the speed of onset (amount of warning time taking into consideration the existing warning systems).

The combination of the **magnitude** of the hazard and the **frequency** was used to determine the **community vulnerability** as HIGH, MODERATE or LOW. For example, a flood event is highly likely (nearly 100% probability in the next year) in many communities but the degree of impact varies. A highly likely flood with critical or catastrophic impact rates the community vulnerability as HIGH. Another community with a highly likely or likely (at least one chance in the next 10 years) flood with a limited impact would receive a vulnerability rating of MODERATE. The vulnerability of a community having the occurrence of an event as possible or unlikely with limited or negligible impact would be LOW.

Likelihood:

- U = unlikely
- P = possible
- L = likely
- HL = highly likely

Impact:

- N = negligible
- L = limited
- CR = critical
- CA = catastrophic

Possible Hazard	Likelihood	Impact	Community Vulnerability	Most vulnerable facilities and populations
Tornado/Microburst	Likely	Limited	Moderate	Villages
Flood	HL	CR	High	Whole Town, Roads, and Bridges
Hazardous materials	P	L	Moderate	Various Businesses + Route 30
Radiological Incident	U	L	Moderate	Route 30, Schools, Villages
Structure Fire	HL	CR	High	All facilities
Power Failure	HL	CR	High	All facilities
Winter & Ice Storm	HL	CR	High	All facilities
High Wind	HL	CR	High	All facilities
Air crash	U	L	Low	Newfane Elementary, Onion Field
Water Supply Contamination	U	L	Low	Unknown
Hurricane	P	CR	High	All Facilities
Earthquake	P	CR	High	All facilities
Dam Failures	P	L	Moderate	Cushing Flats, Jone Hill Rd., and Dover Rd.
Drought	U	L	Low	All facilities
Highway Accidents	HL	L	Low	Traveling public
Railroad Accidents	HL	L	Low	No Railroad in Town
Wildfire	HL	CR	Moderate	Affected Area
Landslide	L	L	Moderate	Steep Slopes and Ridgelines
School Safety Issues	H,L	H	Low	School
Terrorism	U	L	Low	Potentially, everyone in Town

Assessing Vulnerability: Addressing Repetitive Loss Properties

According to the State Hazard Mitigation Officer, Newfane has no repetitive loss properties.

The definition of severe repetitive loss as applied to this program was established in section 1361A of the National Flood Insurance Act, as amended, 42 U.S.C. 4102a. An SRL property is defined as a **residential property** that is covered under an NFIP flood insurance policy and:

- (a) That has at least four NFIP claim payments (including building and contents) over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or
- (b) For which at least two separate claims payments (building payments only) have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building.

For both (a) and (b) above, at least two of the referenced claims must have occurred within any ten-year period, and must be greater than 10 days apart. <http://www.fema.gov/severe-repetitive-loss-program>

Assessing Vulnerability: Identifying Structures

This section could be much more robust with an Inventory of town assets –
of houses
of total structures
of businesses
of employees
Market value (total) of structures

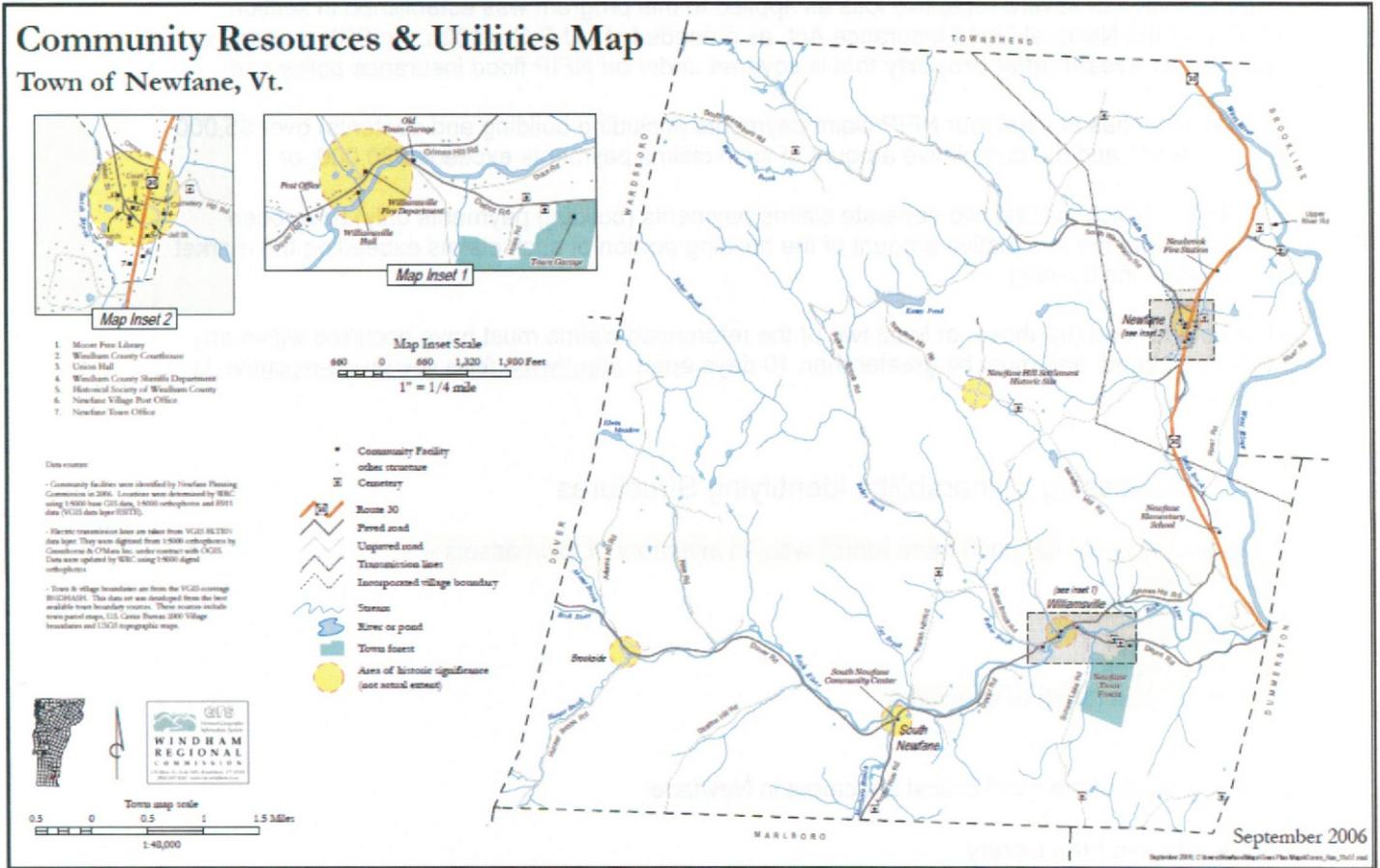
Below is a list of the most critical structures in Newfane:

- Moore Free Library
- Windham County Courthouse
- Union Hall
- Windham County Sherriff's Department
- Historical Society of Windham County
- Newfane Village Post Office
- Newfane Town Offices
- X

Below is a list of important community gathering places in Newfane:

- xx
- xx

The maps on the following pages are the most current for Newfane.

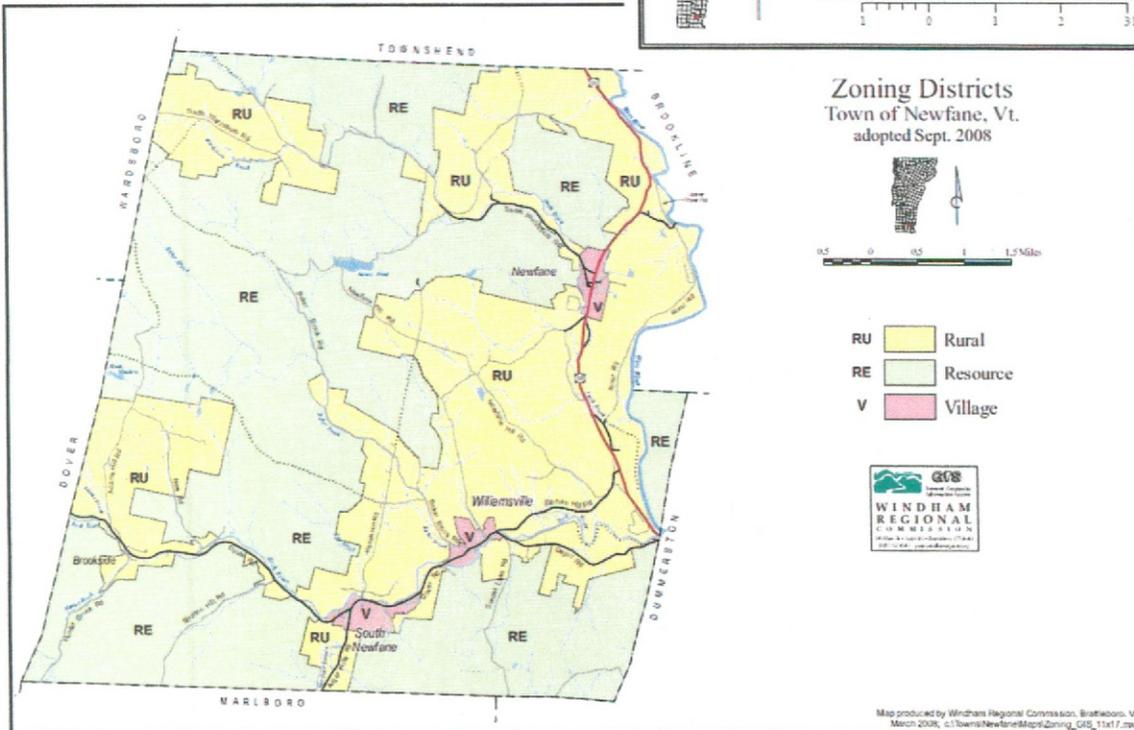
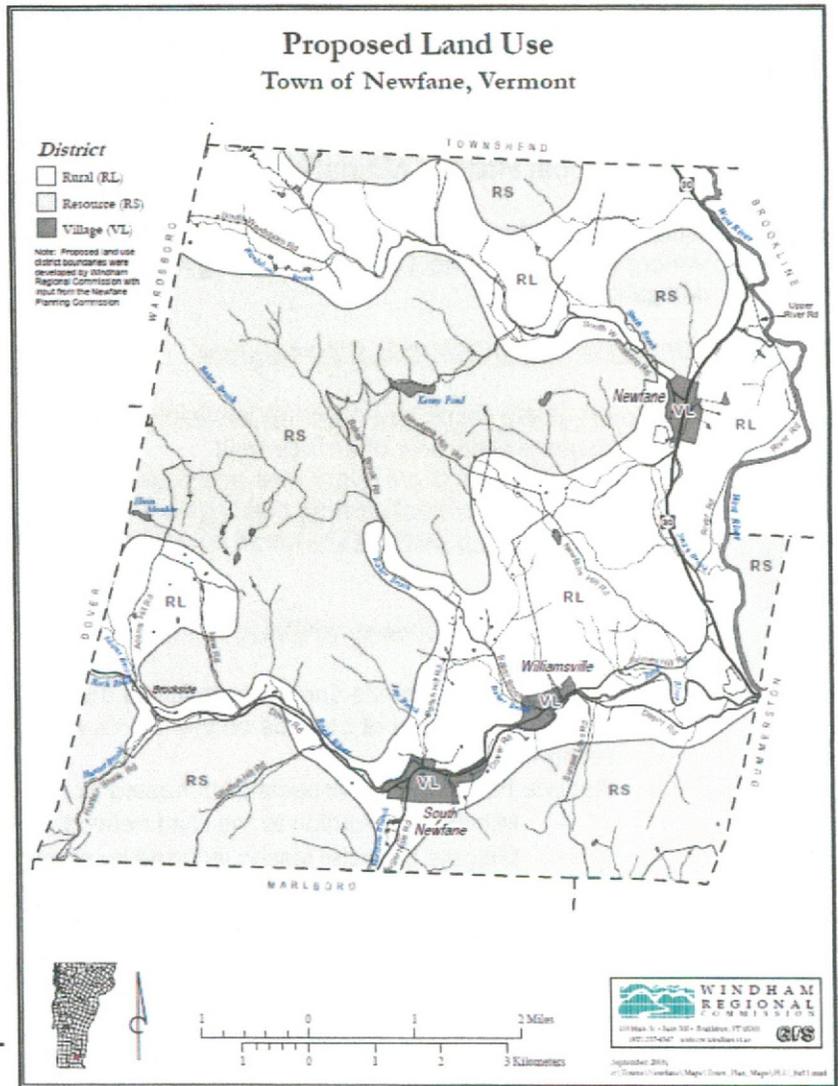


Assessing Vulnerability: Analyzing Development Trends

According to 2000 Census data, the number of persons living year-round in the Town of Newfane increased from 1,129 to 1,680 between 1980 and 2000. This represents a rate of growth of nearly 49% during that time period, nearly two and half times greater than that of either the State of Vermont (19%) or Windham County (20%). Census data indicated that Newfane is the tenth largest town in the Windham Region in 2000, down from ninth in 1990 (when the population was 1,555), but its growth rate over the decade, 8%, surpassed the region's growth rate of 5% in the same period. There are no large residential or commercial development projects planned in the immediate future that would affect municipal services or appreciably impact the Town's natural resources in a detrimental way.

Are there any changes in land use that would affect vulnerability and risk? Conservation easements, multi-use housing changes, ? Need to elaborate on this.

The maps on this page are the most current for Newfane.



MITIGATION STRATEGY

Local Hazard Mitigation Goals

The Hazard Mitigation Goals as outlined below were developed by consensus among the emergency management committee during meetings for the town of Newfane local Hazard Mitigation Plan.

WE NEED SPECIFIC GOALS TO Newfane.

Develop Problem Statement from risk assessment data for each hazard profiled

Specify: what, where, how often, how bad

Example: High winds occur every year and cause damage to property in particular areas. Then the Goal would be: protect existing buildings along particular corridor by _____
Mitigation Strategy, or action item would come from Goal – how do we address that particular goal?

(Writing policy that will change zoning is one of the best mitigation strategies...)

- Reduce the loss of life and injury resulting from all hazards.
- Reduce the impact of hazards on the town's water bodies, natural resources, and historic resources.
- Reduce the economic impacts from hazard events.
 - Minimize disruption to the road network and maintain access,
 - Mitigate financial losses incurred by municipal, residential, industrial, agricultural and commercial establishments due to disasters,
 - Ensure that community infrastructure is not significantly damaged by a hazard event.
 - Being proactive in implementing any needed mitigation projects for public infrastructure such as roads, bridges, culverts, municipal buildings, etc.
- Encourage hazard mitigation planning to be incorporated into other community planning projects, such as the Town Plan, Capital Improvement Plan, and Town Basic Emergency Operation Plan
- Ensure that members of the general public continue to be part of the hazard mitigation planning process.

Identification and Analysis of Mitigation Actions

What is current? What has been accomplished, deleted, set aside for now?

The Newfane Hazard Mitigation Committee identified the following new hazard mitigation activities as strategies mitigating for existing buildings and infrastructure.

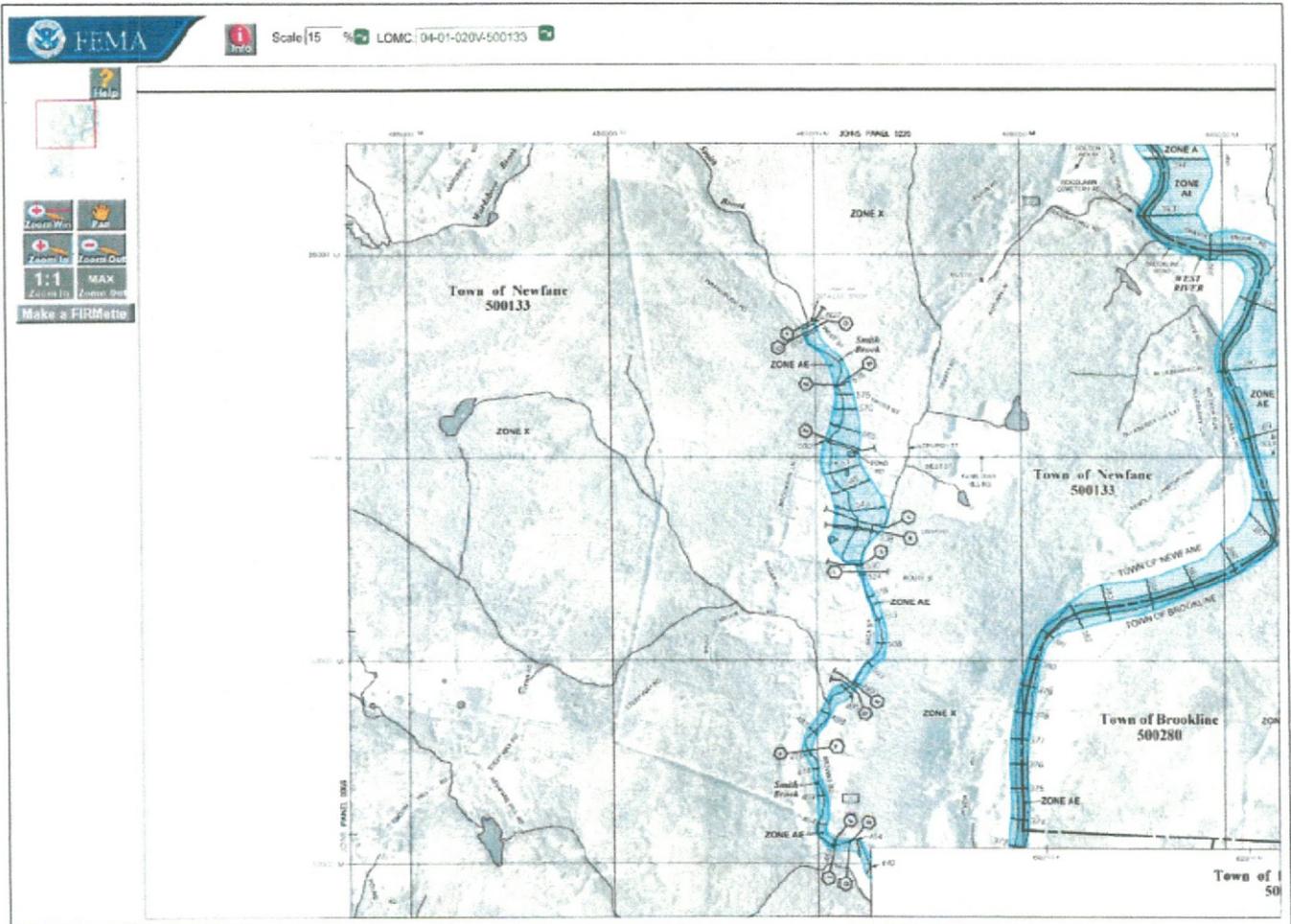
Xxx

xxx

Identification and Analysis of Mitigation Actions: National Flood Insurance Program (NFIP) Compliance

NFIP Description: The Town of Newfane has Flood Hazard Area Regulations as a stand-alone ordinance and currently participates in the National Flood Insurance Program which was updated in 2007. Additionally, Newfane has no repetitive loss properties per FEMA's definition.

NFIP Action: The Town works with the elected officials, the state and FEMA to correct existing compliance issues and prevent any further NFIP compliance issues through continuous communications, training and education.



Implementation of Mitigation Actions

Mitigation actions are listed in priority order, with the most critical needs listed at the top of the list. The following criteria were used in establishing project priorities. The ranking of these criteria is largely based on the best available information and best judgment as many projects are not fully scoped out at this time.

- Does the action reduce damage?
- Does the action contribute to community objectives?
- Does the action meet existing regulations?
- Does the action protect historic structures or structures critical to town operations?
- Can the action be implemented quickly?
- Is the action socially acceptable?
- Is the action technically feasible?

- Is the action administratively possible?
- Is the action politically acceptable?
- Is the action legal?
- Does the action offer reasonable benefits compared to its cost of implementation?
- Is the action environmentally sound?

The following list of mitigation strategies/action items were discussed.

Consider other strategies such as technology for preventing damage to utility lines, construction standards for heavy snow loads and high winds, and historic preservation for vulnerable structures. Consider drainage and erosion mitigation that goes beyond culverts – such as geotextiles??

HAZARD BEING MITIGATED	MITIGATION ACTION	WHO (LEADERSHIP)	WHEN (DEADLINE)	HOW (FUNDING SOURCE)	Project Priority
Flood					
Flood					
Flood					
All Hazards					
Wildfire / Structure Fire					
High Winds					
High Winds					
Winter Storm / Ice Storm					
Winter Storm / Ice Storm					

At the time of applying for FEMA's PDM-C, FMA or HMGP grant programs, each project listed below will undergo the full benefit-cost analysis methodology (BCA version 4.5 and higher) to maximize savings.

Fluvial Erosion Hazard Zones (FEH)

Fluvial Erosion Mapping has not yet been done for the Town of Newfane?? In acknowledgement that existing technical resources and land use guidance or regulatory

authorities, such as the National Flood Insurance Program, do not adequately identify high risk areas for development along riparian corridors with respect to fluvial erosion hazards it is therefore deemed a high priority of this Hazard Mitigation Plan to provide the technical support for, and to develop and implement protection mechanisms at the local level that will serve to avoid land use investments that would be, over time, endangered by, incompatible or in conflict with fluvial adjustment and erosion processes. Fluvial assessments shall be conducted as guided by the VT ANR Fluvial Geomorphic Assessment Protocols, in the Town of Readsboro, as VT ANR deems necessary.

No later than one year after completion of the fluvial geomorphic assessment, the town, under contract with the Regional Planning Commission, or other GIS mapping service provider, shall develop a fluvial erosion map. Such map shall be consistent with mapping standards and protocols developed by VT ANR.

The Windham Regional Commission has recently been awarded grant funding for FY 2013-2014 under the Ecosystem Restoration Grant Program to conduct Phase 1 & Stream Geomorphic Assessments on the Winhall River, Wardsboro Brook and the Green River, all within the Windham Region. The Wardsboro Brook flows through the Town of Wardsboro and flash flooding on that brook during TS Irene caused major destruction in the town.

Other SGA already done in region. – West River? – add information.

PLAN MAINTENANCE PROCESS

Monitoring, Evaluating, and Updating the Plan

The Town of Newfane will continue to work with the Windham Regional Commission to monitor, evaluate, and update the plan throughout the next 5 year cycle. A review of the plan will take place each year by the emergency planner at the Windham Regional Commission along with the Town's emergency planning committee to update the plan after any FEMA disaster declaration as well as any funding received from FEMA, to record any hazard related events, or to determine if the town is interested in applying for grant funding. Normal review of the plan will take active involvement on the part of the Newfane's Selectboard in consultation with Newfane's Road Foreman, Fire Chief, and Emergency Management Director working with Windham Regional Commission staff to identify and plan for ongoing hazard mitigation work and coordination among stakeholders to identify structures and engineering projects that can help mitigate future hazardous events; e.g. bridge and culvert replacements, road replacements and grading, as well as any repetitive loss structures that may be in the Special Flood Hazard Area as identified on FEMA Flood Maps (e.g. FHBM and FIRM maps). Public input would also be included.

Incorporating into Existing Planning Mechanisms

The following policies, programs and activities related to hazard mitigation are currently in place and/or being implemented in the town of Newfane. The Committee analyzed these programs for their effectiveness and noted improvements needed. Newfane uses all of the plans listed below to help plan for current and future activities with the town. For example: the Basic Emergency Operation Plan has a contact list that is used for response purposes in the case of a hazard event, and is updated every year after Town Meeting. The Town Plan directs visions and goals that include Natural Resources and Land-Use decisions. Road Standards are followed by the town and they do an annual culvert and bridge inventory that is mapped by the WRC. The town is compliant with the NFIP.

Type of Existing Protection	Description	Effectiveness/Enforcement/Hazard that is addressed	Gaps in Existing Protection/Improvements Needed
Town Plan	Plan for coordinated town-wide planning for land use, municipal facilities, etc.	Flooding Addressed	Town Plan Adopted in 2006. No Improvements needed at this time
Emergency Operations Plan	Municipal procedures for emergency response	Part of Town Plan ?	Town Plan Adopted in 2006. No Improvements needed at this time
Town of Newfane Rapid-Response Plan (RRP) <i>BEOP</i>	Basic municipal procedures for emergency response	RRP Updated in 2008	NIMS Compliant
School Emergency Response Protocol	School procedures for emergency response	School Crisis Plan	Needs Better Coordination With local First Responders
LEPC 6 Hazardous Materials Plan	Procedures for hazmat emergency response at regional level	LEPC 6 has the plan	Continued involvement with the LEPC
Mutual Aid – Emergency Services	Agreement for regional coordinated emergency services	Keene (NH) Mutual Aid – written agreement/contract for Fire/Ambulance and HazMat	None identified
Mutual Aid – Public Works	Agreement for regional coordinated emergency highway maintenance services	Public Works MAA signed 07/17/03	None identified
Road Standards	Design and construction standards for roads and drainage systems	Generally Vtrans Standards Bridge and Culvert Inventory work	No major gaps identified
Subdivision Regulations	Regulates the division of land, standards for site access and utilities	Adopted Subdivision Regulations, October 2007	None Identified
Sewage Regulations	Regulates on-site sewage systems	State Regulations apply	None Identified
Flood Hazard Area Regulations	Regulates development in FEMA flood hazard areas	FHR Adopted 4/24/07	None Identified
Site Plan Review (SPR)	Site development standards	Town Zoning and Subdivision Regs	None Identified
National Flood Insurance Program (NFIP)	Provides ability for residents to acquire flood insurance	Newfane participates	None Identified
Maintenance Programs	Bridge & Culvert Inventory	Updated in ²⁰¹¹ (2007) Completed annually	None Identified

Lot more detail
trigger levels

VEOP

Pam Thurber

Building Code	Regulates building construction standards	Through Labor and Industry	NA
Wetland protection – VT Wetland Rules	Protected by 1990 Vermont Wetland Rules	Protection of environment, water resources, wildlife, biota	None Identified

As part of the annual bridge and culvert inventory the Town Highway Department will continue to work with the Selectboard to identify infrastructure in need of imminent work and plan accordingly to include these works in the Town's capital needs budget. Some identified troubled spots for future spending include bridges and culverts associated with Smith Brook and Baker Brook.

APPENDICES

- A. Sign-in Sheet for Emergency Planning Committee Meeting
- B. Public Participation Documentation
- C. Planning with Adjacent Towns Documentation

Appendix A: Sign-in Sheet(s) for Town of Newfane Hazard Mitigation Plan meeting.

Need current sheets.

Appendix B: Public Notice advertising availability of Newfane's Hazard Mitigation Plan for review and public comment.

Are you ready to weather the next ice storm? Flood event? Extended power outage?



The Town of Wardsboro is developing a Hazard Mitigation Plan to address potential future hazards in our community.

As the Town is taking action to be prepared for whatever hazard event strikes, won't you join us in preparations? Your input is important! We would like to know your feedback regarding this important document. Let us know if you have suggestions or comments about the plan. Your local knowledge is critical to making the plan effective for Wardsboro.

Hazard Mitigation Goals

- Reduce the loss of life and injury resulting from all hazards.
- Reduce the impact of hazards on the town's water bodies, natural resources, and historic resources.
- Reduce the economic impacts from hazard events.
 - Minimize disruption to the road network and maintain access,
 - Mitigate financial losses incurred by municipal, residential, industrial, agricultural and commercial establishments due to disasters,
 - Ensure that community infrastructure is not significantly damaged by a hazard event.
- Ensure that members of the general public continue to be part of the hazard mitigation planning process.



The Plan is available for review at the following locations:

- Town Office & Library – Hard Copy available



Please review sections of the plan that interest you and return comments to:

- Town Clerk, Gloria Cristelli @ tclerknewfane@svcable.net
- Dinah Reed, Windham Regional Commission @ dreed@windhamregional.org, or (802) 257-4547 ext. 109



Appendix C: Documentation from Jan. 15th Planning with Adjacent Towns Meeting