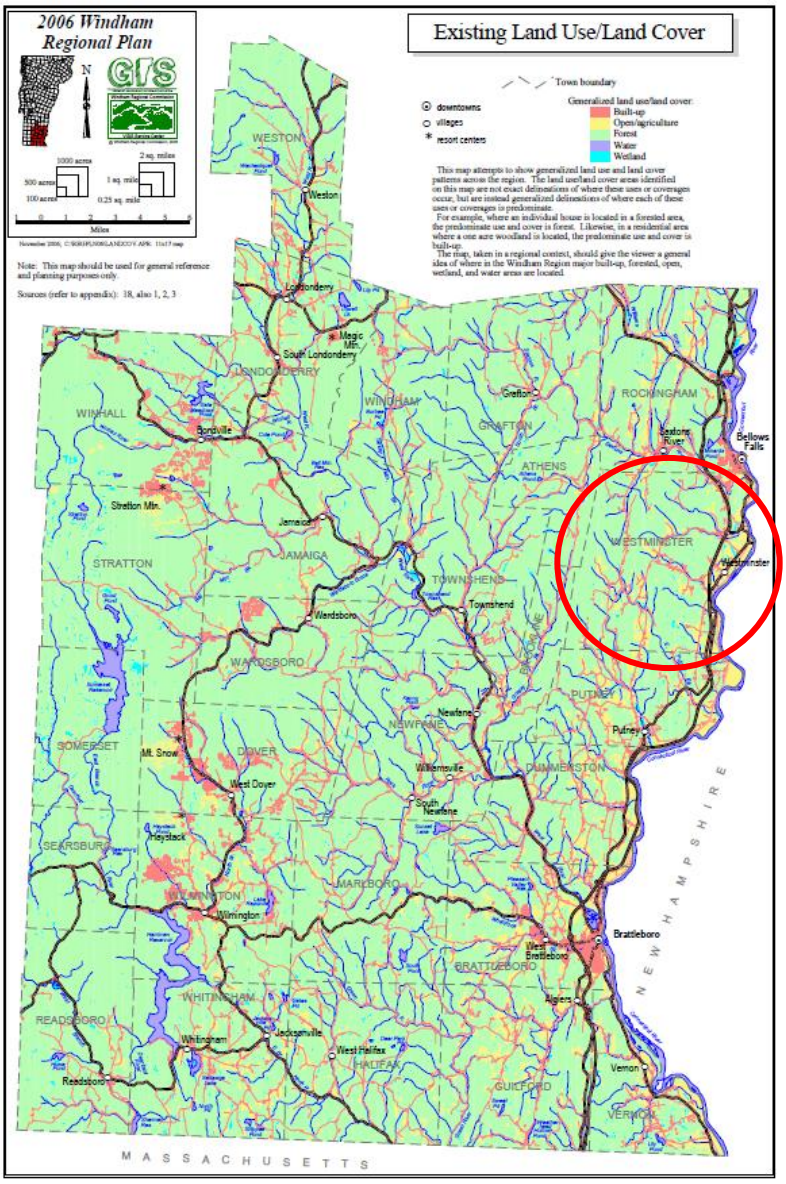
Single Jurisdiction Hazard Mitigation Plan
Town of Westminster, Vermont



Prepared for:
Town of Westminster, VT
3651 US Route 5, Westminster, VT 05158
Windham County

Prepared by:
Windham Regional Commission
139 Main Street, Suite 505, Brattleboro, VT 05301
(802) 257-4547

FINAL: April 15, 2013

Table of Contents

INTRODUCTION AND PURPOSE

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

The purpose of this plan is to assist the Town of Westminster 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

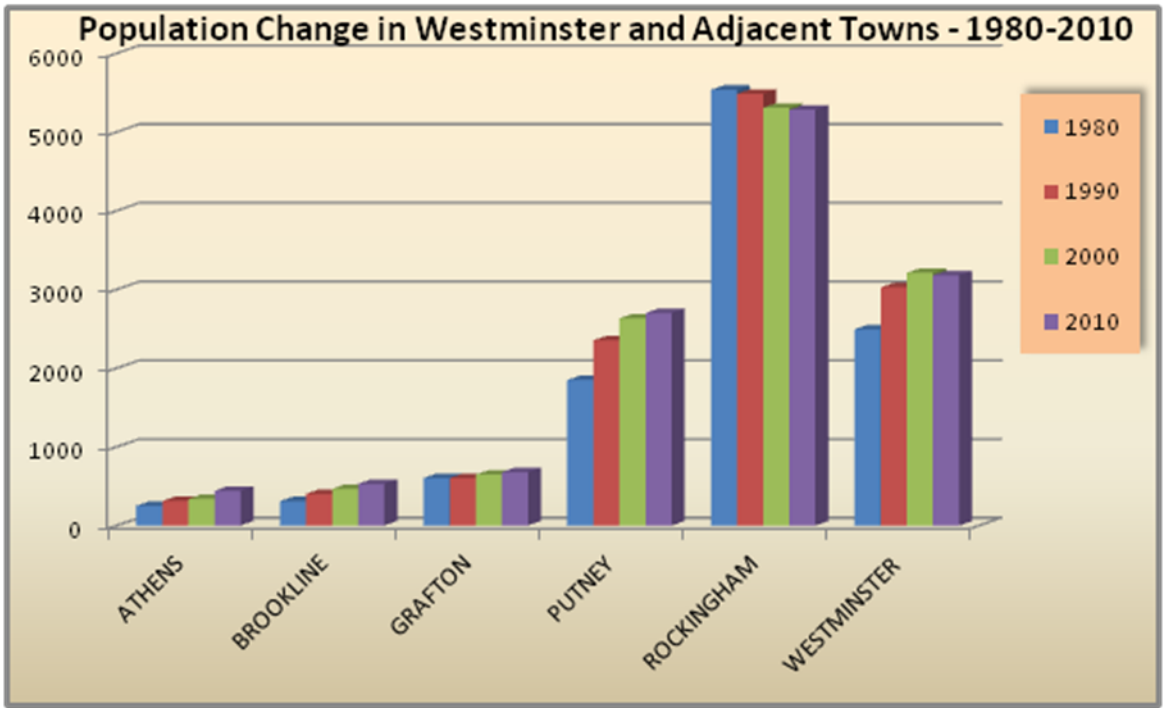
WINDHAM REGION GEOGRAPHY

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.



Town	1980	1990	2000	2010	% Change 1980-1990	% Change 1990-2000	% Change 2000-2010	Ave % Change 1980-2010
ATHENS	250	313	340	442	25.20%	8.63%	30.00%	21.28%
BROOKLINE	310	403	467	530	30.00%	15.88%	13.49%	19.79%
GRAFTON	604	602	649	679	-0.33%	7.81%	4.62%	4.03%
PUTNEY	1850	2352	2634	2,702	27.14%	11.99%	2.58%	13.90%
ROCKINGHAM	5538	5484	5309	5,282	-0.98%	-3.19%	-0.51%	-1.56%
WESTMINSTER	2493	3026	3210	3,178	21.38%	6.08%	-1.00%	8.82%

Source: Windham Regional Plan updates 2013-2014

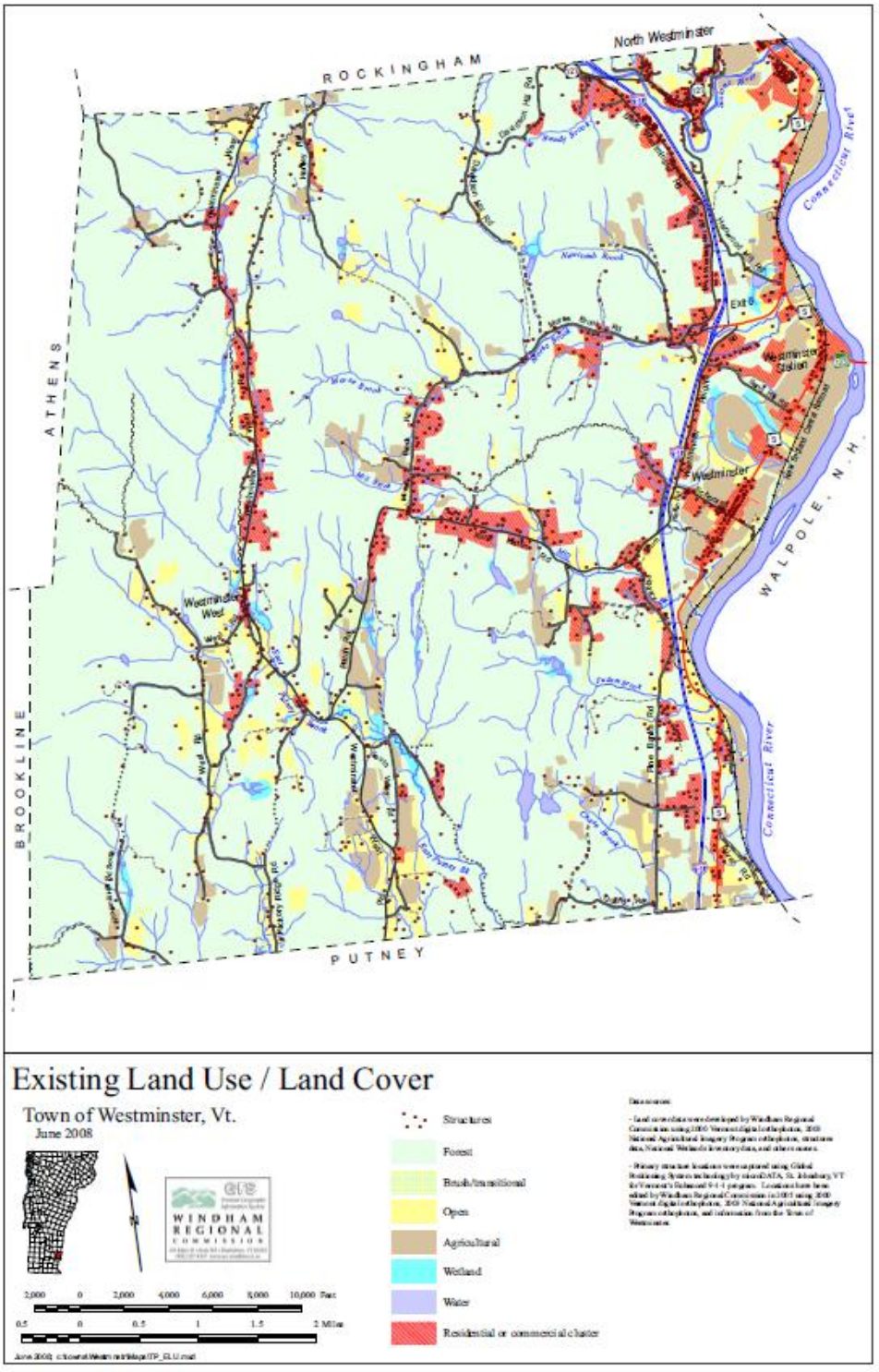
WESTMINSTER GEOGRAPHY & TOWN PROFILE

Westminster has a population of 3,178 people as of the 2010 Census. The town lies on the Connecticut River, north of Putney, South of Rockingham and east of Brookline, it is comprised of three villages, Westminster, Westminster West and North Westminster, yet it is estimated that more than half the population lives in the lower density rural areas outside these villages. The area of Westminster is 45.32 square miles. The soils over much of the Town originate from glacial till derived from granite, gneiss, schist and shale. They are mostly very stony loams low in silt and clay, often acidic and usually well drained but sometimes shallow. Those soils in the major stream valleys are alluvial or outwash origin and are commonly quite deep. There are also a few pockets of organic soils of bog origin. During much of the late 19th century and early to mid 20th century the Connecticut River was a dumpsite for many factories and mills.

Westminster has an average precipitation of forty-four (44) inches per year. There are roughly one hundred twenty (120) days per year of measurable precipitation. The Town receives an average of eighty (80) inches of snow per winter. There are roughly thirty (30) days per year in which one inch or more of snow falls and there are an average of one hundred (100) days per year when the ground is covered with at least one inch of snow. Most winters have several snowstorms dropping five (5) inches or more of snow, and at least one freezing rain can be expected each winter. Westminster lies in the region of the prevailing westerlies, northwest winds in the winter and southwest winds in the summer. Several major storms, including northeasters and tropical can be expected each year, summer or winter.

The Westminster Aqueduct Society (formed in 1787) which is the water supply for the Village, frequently runs dry.

Highway 91 goes North/South through Westminster. The Fire Department must respond to any interstate accidents along the highway, but they are not reimbursed by the State, which is taxing on the Town. A railroad track also runs along the Connecticut through the distance of the Town carrying Amtrak as well as hazardous materials cars.



The 2008 map on this page is the most current for the Town of Westminster.

PREREQUISITES

Adoption by the Local Governing Body

Certificate of Adoption
Town of Westminster, VT
Board of Selectmen

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

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

WHEREAS, the Town of Westminster, 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 Westminster, VT adopts the Hazard Mitigation Plan for the Town of Westminster, VT.

Duly adopted this _____ day of _____.
date *month, year*

Board of Selectmen

_____
Nathan Stoddard, Chair

_____
Paul Banik

_____ _____
Peter Barrett Craig Allen

ATTEST

_____
Toby Young, Town Clerk

PLANNING PROCESS

Town residents who took part in the planning process for updating their plan to a Single Jurisdiction Hazard Mitigation Plan for Westminster 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 hold more than one significant role in town governance. Therefore, although the meeting may not have as many in attendance, as in a more populated community, those present at the meeting are typically affiliated with a few entities.

Documentation of the Planning Process

Initial Planning Process in 2008:

The initial local planning process followed the steps listed in the Regional All-Hazard Mitigation Plan. Work commenced with the Local Emergency Management Organization of Westminster, acting as the local Hazard Mitigation Planning Committee in 2005. A series of meetings between WRC staff and town officials were conducted, several proposed mitigation projects were identified and have been completed. A key priority was to comply with prevailing federal and state requirements following a change in policy by FEMA in the spring of 1999, which required the adoption of codes and standards before a disaster declaration date in order to be eligible for certain FEMA benefits regarding facility upgrades. To this end in 2005 Westminster completed an inventory of bridge and culverts.

At key points public participation was encouraged in mitigation activities such as changes to land use planning (zoning),and flood hazard area regulation (updated NFIP approved regulations) Public hearings were held in the fall of 2004 when the Town made revisions to the Zoning Bylaw. Several residents commented on the Zoning Revisions which helped to shape the eventual final draft that was adopted on September 19, 2005. Revisions to the Zoning Bylaw expanded the existing commercial districts and provided for new commercial districts on the north end of Westminster West Rd., the south end of US Rt. 5 and at the Rt. 121/ Back Westminster Road intersection. A new zone, The Connecticut River Conservation zone, was adopted to protect large parcels along the Connecticut River.

The Town's Flood Hazard Bylaw was updated in 2007 to reflect new Digital Flood Insurance Rate Maps and a Public Hearing was held on August 13, 2007 where no objections were made. The updated regulations were adopted by the Town on September 11, 2007. In the process of preparing the final draft of this plan, meetings were conducted between town officials and WRC staff in early 2008.

In 2008, each section of the plan was reviewed by all participants and changes were made throughout the plan to update community background information and development trends. The community hazard inventory and vulnerability assessments were reviewed and consensus reached on vulnerability impacts and likelihood of events.

Community Involvement was minimal in this process as meeting times were difficult to establish where fire department representatives could sit down at the same time and not be on call. In the future, greater effort will be made to coordinate emergency plan updates to involve public participants where meeting times can be more amenable to the process.

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

- July 16, 2008 Westminster Town Office, Westminster VT
- August 20, 2008 Westminster Town Office, Westminster VT
- There was also email and phone correspondence during drafting between Josh O'Neill and Westminster Town Manager Sonia Alexander from July to September

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

- Glenn Smith, Town Manager, Emergency Management Director, 2005 to 2007
- Sonia Alexander, Interim Town Manager, 2007, Town Manager, 2008, Emergency Management Director 2007, Emergency Management Co-Director 2008.
- Doreen Woodward, Emergency Management Co-Director 2008.
- Mark Lund, Highway Department Foreman,
- Cole Streeter, Fire Chief
- Josh O'Neill, Windham Regional Commission

2013 planning process to update to a Single Jurisdiction Plan includes the following:

- ❖ Meeting on Jan. 15th – see description in the next section "Planning Process with Neighboring Towns"
- ❖ Meeting held on April 10 at the Westminster Institute to have a substantial discussion about; changes in mitigation activities since 2008; changes in vulnerabilities and risks; identifying areas in town that are in constant need of attention by road crews; and thinking more thoroughly about local mitigation goals, particularly in the wake of the Tropical Storm Irene event of August 2011.
- ❖ The Single Jurisdiction Hazard Mitigation Plan was made available to people in the town by providing a hard copy at the Town Offices and Library and posting a flyer in various community places in town. See Appendix B
- ❖ Just after TS Irene, the town received many visits by the Vermont Agency of Natural Resources (ANR), river scientists, and VTrans. When ANR gave authorization for working streams, they also provided notes on the permit explaining best management practices for working in water ways. ANR came to town a few different times – where the town Road Foreman had the opportunity to discuss, with the river scientists, preventative measures that could be taken to prevent future flooding. VTrans made site visits to the town to discuss remediation and measures that should be taken to address issues with Covered Bridge Road and Bridge #35.

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

Stakeholder	Affiliations	Home
Malcolm Sam Streeter	Former Planning Commission Chair	Westminster
Dick Miller	Former Teacher, Bus Driver, School Board, and Rescue Squad	Westminster
Mark Lund	Road Foreman, Fire Department Chief	Westminster
Robert Haas	Trustee Historical Society, Prudential Commission Member	Westminster
James Matteau	Former Water District Chair	Westminster
Bill Jewell	Environmental Consultant Land Use, Zoning Administrator, Environmental Science Instructor SV College, Guilford Conservation Commission	Guilford
Chris Vincent	Planning Commission, Farmer	Westminster
Dinah Reed	Windham Regional Commission Planner	Brattleboro, VT

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, and Westminster resident
Londonderry – Emergency Mgmt. Director (EMD), Selectboard member, Town Administrator
Windham – EMD
Marlboro – EMD
Jamaica – EMD, Selectboard member
Townshend – EMD, Environmental Consultant, CERT/RACES
Guilford – EMD, Selectboard Chair, Road Foreman
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), and to all Town Clerks and Town Managers, and all EMDs in the Windham region. The email asked that they bring anyone from their respective towns that they know to participate.

The first part of the meeting was to look at a series of maps of the region. There were two very large maps displayed of the entire region, showing hydrology, relief, development patterns, 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; such as, environmental firms, contractors, etc.
3) Communication from upstream towns to downstream towns about debris in streams that pose a problem during the next hard rain. A debris pile in their town may cause ponding, and once it releases it could potentially wreak havoc on roads, culverts and/or bridges in downstream towns.
4) Contact list of who to call regarding hazardous debris in streams.

5) Coordinating future road construction projects so there is always a through path from town to town.
6) MOU's regarding emergency shelter space – if one town cannot provide enough, that adjacent towns can take in folks as overflow.
7) Mapping of tanks for *regulated* substances that are on personal property. Many towns do not have a clear understanding of where propane tanks are located in relationship to water ways that could potentially pose a problem during flash flood events.
8) Working with towns in adjacent counties, Regional Planning Commissions and/or bordering states.

There was also discussion about the major intersection in Townshend, VT, of Rt. 30 and Rt. 35. If a major hazard spill shut down that intersection – the area would have to evacuated and it would result in a cut off of access to and from seven surrounding towns.

There were EMDs and Selectboard officials in adjacent towns who met for the first time. As they were departing, several people stated they felt the meeting was very important, and did not really realize the positive impact they would have by having a cross-town discussion about proactive planning for hazard events.

See Appendix C for documentation on the evening forum.

The Town of Westminster also has mutual aid agreements with adjacent towns and in the event when they are warned in advance of an approaching storm, will consult and pre-plan with adjacent towns, such as Grafton, to pull resources together.

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, Landslide, and High Wind events. It should be noted that Earthquake, 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 Westminster.

In the "Assessing Vulnerability: Overview" section on page 16, 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.

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

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 1938, which had an effect 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.

LOCAL FLOODING

Description and Geographic Area of Hazard

Flash floods are a local probable hazard event. Flash floods typically occur during summer when a large thunderstorm or a series of rain storms result in high volumes of rain over a short period of time. Higher-elevation drainage areas and streams are particularly susceptible to flash floods. Flash floods are likely in Westminster, and potential damage to Westminster Road could limit access to Town, as it is the only road into the community.

Extent

The 1938 hurricane flooded the lower village of Westminster with flood waters exceeding five feet in structures. Since that time, dams have been put in place on the Connecticut River alleviating most major flooding in the Village, however there has been water in excess of three feet across the Route 5 corridor in low places recurring every few years.

Probability

Flooding is deemed a Highly Likely event to occur every year in Westminster, according to Town Officials and residents in Westminster.

Past and Potential Occurrences

During spring run-off the power company in Bellows Falls, the Village north of Westminster, opens up the dam on the Connecticut River. This causing inundation flooding in the low lying areas adjacent to the Connecticut River, particularly on Route 5 where the businesses Allen Brothers and Patriot Motors are located. Other sections of Route 5 and the RR tracks along the Connecticut River flood perpetually.

Morris Brook floods Flood Brook Road often.

The headwaters of Putney Brook cause minor flooding in the Village of Westminster West.

The culvert on South Valley road cannot handle normal rainfall, and floods the adjacent lands.

There are recurring flooding issues on all 40 miles of class 4 roads due to plugged culverts. If at the time of flooding, the culvert warrants replacement because it is old, the town up sizes the culvert which requires a H & H study done with VT Agency of Natural Resources.

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 Westminster. This event was Presidential Disaster Declaration DR 4022. There was three feet of inundation flooding across Route 5 in low places as a result of this storm.

In April of 2007 many Town roads throughout Westminster 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.

On July 16, 2000, there was a flood that caused damage. The town got 8 inches of rain in 5 hours.

Historical flood events wreaking havoc happened in the years of 1927, 1936, 1938, 1973, 1974, and 1976 causing major flooding on Route 5, and having adverse affects on culverts and bridges.

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).

- ***Power Failure***
  Power failure is a common event in Westminster 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. Many winters have accumulated snow in the range of 5-6 feet deep.

Probability

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

Past Occurrences

In October of 2011 – the town saw 16-22 inches of snow fall on Halloween Day.

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.

In January 1998, there was a very severe ice storm throughout Northern New England.

In 1969-70 a wicked snow storm dropped so much snow the tunnel under the RR tracks leading from Vermont to NH had be dug out for vehicles to pass through. Winds were very high, causing drifting that covered cars.

Sources used

www.usatoday.com/weather/storms/winter
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 Westminster, 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 Westminster have resulted in minor damage from downed trees and power lines.

- ***Power Failure***
  Power failure is a common event in Westminster 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

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=111-129 mph winds, CAT4=130-156 mph winds, Tropical Storm=39-73 mph winds, Tropical Depression=0-38 mph winds.

Probability

Highly Likely

Past Occurrences

The northwest corner of the Town of Westminster has been recorded as being considered a good location for wind turbines because of good wind speeds, according the State Wind Map.

In late July, 2011, major winds blew down numerous trees into streams. Tropical Storm Irene hit in August 2011. Trees already blocking streams channels added to the flooding problems. 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

REGIONAL LANDSLIDE

Landslides are a serious geologic hazard common to almost every state in the United States. Some landslides move slowly and cause damage gradually, whereas others move so rapidly that they can destroy property and take lives suddenly and unexpectedly. Gravity is the force driving landslide movement. Factors that allow the force of gravity to overcome the resistance of earth material to landslide movement include: saturation by water, steepening of slopes by erosion or construction, alternate freezing or thawing, removal of trees and other vegetation and earthquake shaking. Landslides are typically associated with periods of heavy rainfall or rapid snow melt and tend to worsen the effects of flooding that often accompanies these events. In areas burned by forest and brush fires, a lower threshold of precipitation may initiate landslides. The National Flood Insurance Program does not cover landslides.

LOCAL LANDSLIDE

Description and Geographic Area of Hazard

Since Tropical Storm Irene hit in August 2011, landslides have become a Highly Likely occurrence in the Town of Westminster, particularly along the Connecticut River where the Town has little control of the embankment. The storm tore out vegetation along several large riparian sections of not just the Connecticut but of smaller tributaries in Town.

Extent

Mass wasting from landslide can be as much as 100 feet vertical from the road to the stream, and as much as ¼ mile along the road. For the Connecticut it is almost the entire length of the river in the Town of Westminster that has developed cliff-like river embankments from TS Irene.

Probability

The Road Foreman and other Town Officials deem landslide as a Highly Likely hazard event.

Past Occurrences

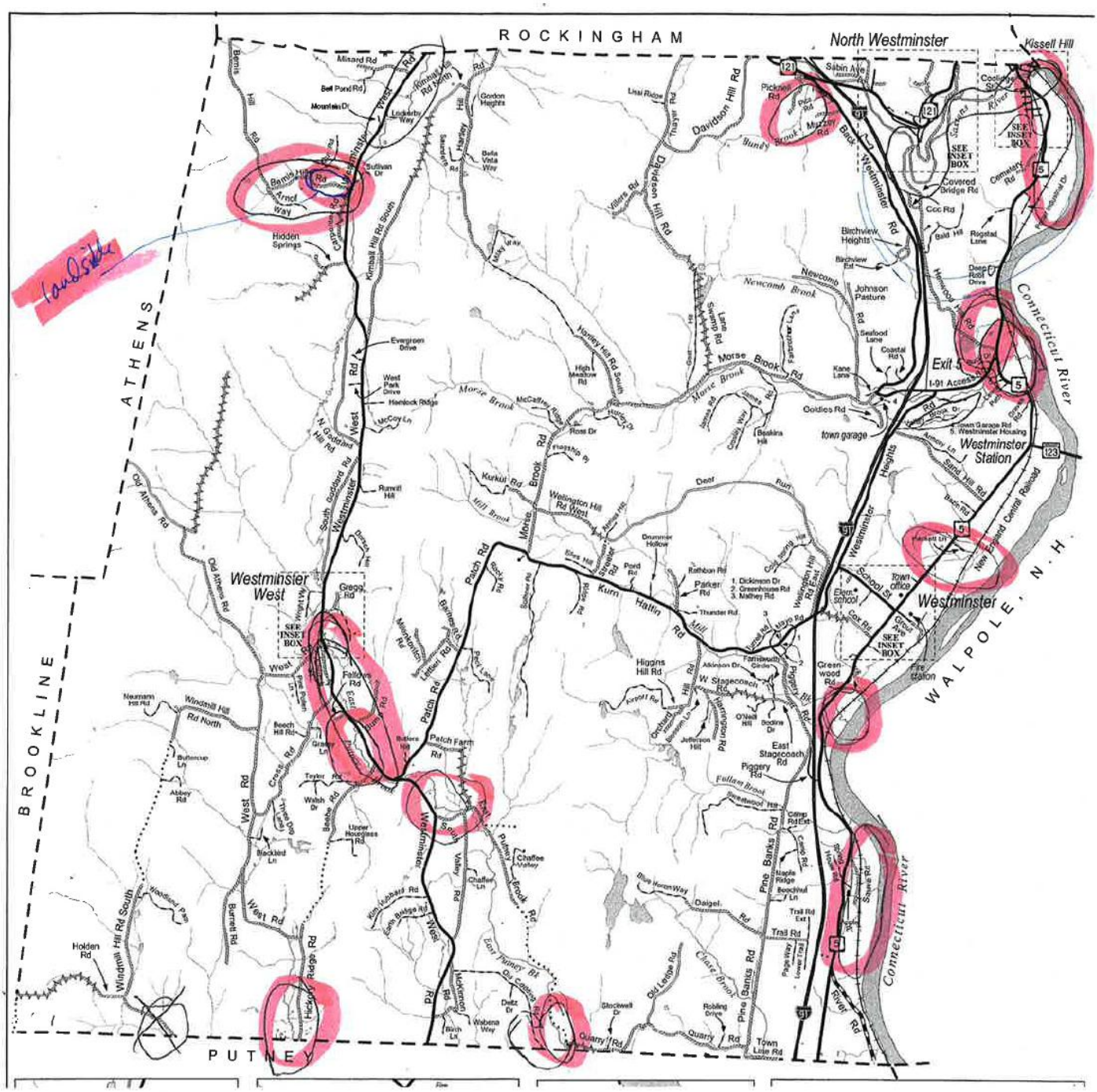
The biggest problem for landslide is along Bemus Hill Road in the northeast corner of the Town.

Other landslide areas include; Hartley Hill, Morris Brook Road, and Davidson Hill. (see attached map.)

Sources used

Highway Department - Local knowledge

Landslide areas marked by stakeholder group at Hazard Mitigation Planning meeting held on April 19, 2013.



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	Likeli hood	Impact	Community Vulnerability	Most vulnerable facilities and populations
Tornado/Microburst	L	L	MOD.	Town wide
Flood, 100 year & Flash Flood	HL	HL	MOD. - CA	Whole Town, Roads, and Bridges
Hazardous materials	L	CR	MOD.	w/in 100' of Rt 5, I91
Radiological Incident	P	CA	HIGH	w/in 100' of Rt 5, I91, Reception Center for VY incident located in town
Structure Fire	L	N	LOW	All Facilities
Power Failure	HL	L	MOD.	All Facilities

Winter & Ice Storm	HL	L	MOD.	All Facilities
High Wind, Tropical Storm, Hurricane	HL	L	MOD.	All Facilities
Air crash	P	N	LOW	Schools, Farms and Fields
Water Supply Contamination	L	CR	MOD.	Village
Earthquake	U	N	LOW	All Facilities
Dam Failures	P	N	LOW	Critical Facilities in the Floodplain
Drought	L	L	LOW	All facilities
Highway Accidents	HL	N	LOW	Traveling Public
Railroad Accidents	P	L – CA	MOD or HIGH	Hazard impact depends on Haz Mat on board – could be town wide.
Wildfire	L	L	MOD	Residences
Landslide	HL	L	LOW	Roads on stream embankments, homes on steep slopes
School Safety Issues	P	CR	MOD	School
Terrorism	U	CR	MOD	Amory, transport infrastructure

Assessing Vulnerability: Addressing Repetitive Loss Properties

According the State Hazard Mitigation Officer, Westminster 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

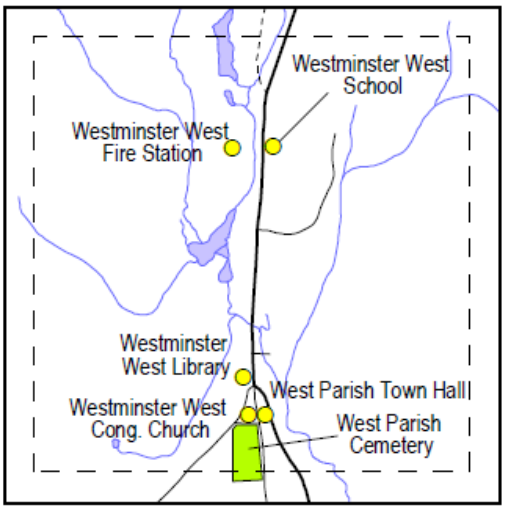
Assessing Vulnerability: Identifying Structures

The Town of Westminster contains numerous buildings of historic and architectural significance. The Village along Route 5 and School Road is listed on the National Historic Register.

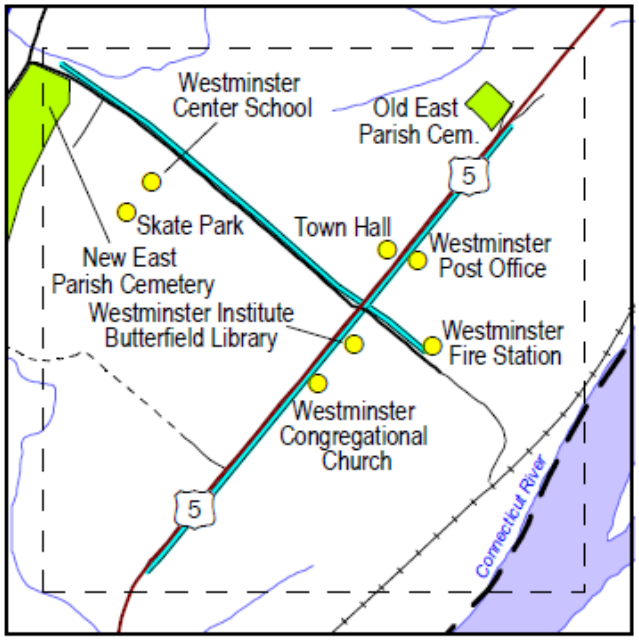
The total Grand List value in Westminster is $254,765,970.

Below is a list of critical structures throughout the Town of Westminster:

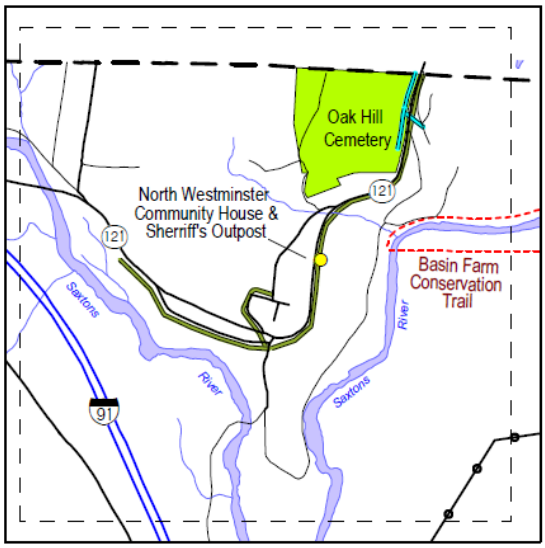
- Allen Brothers – on the floodplain
- Route 5 – on the floodplain
- RR tracks – on the floodplain
- Circle K
- Westminster Institute and Butterfield Library – emergency shelter
- Two Firehouses
- Schools: Center School, Westminster West School, High School, Compass School
- Town Hall on Route 5
- Westminster West Library
- Community Feed Store on Route 5



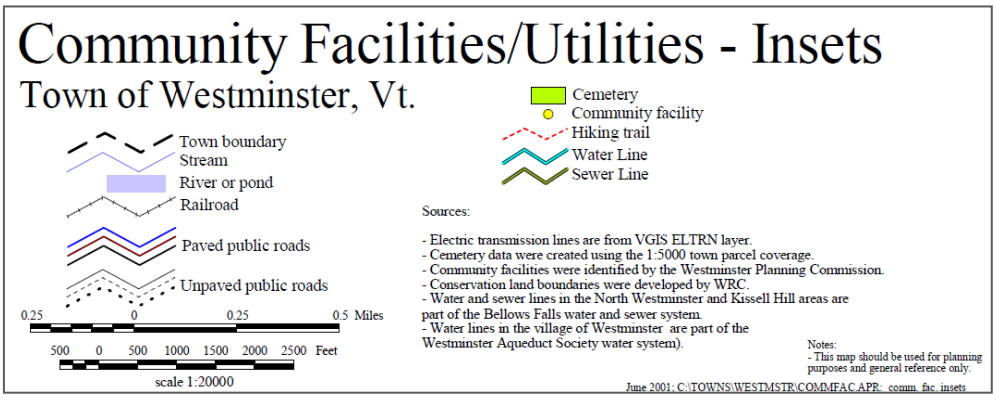
Westminster West

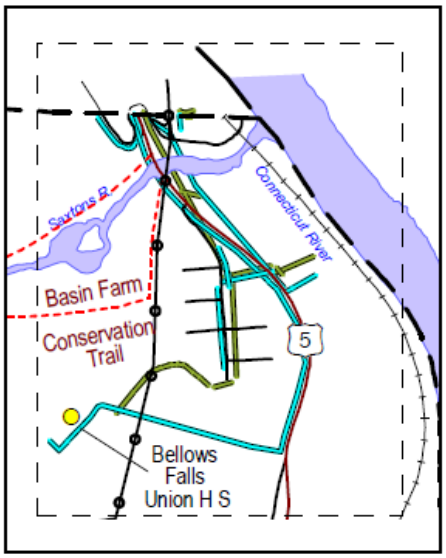


Westminster

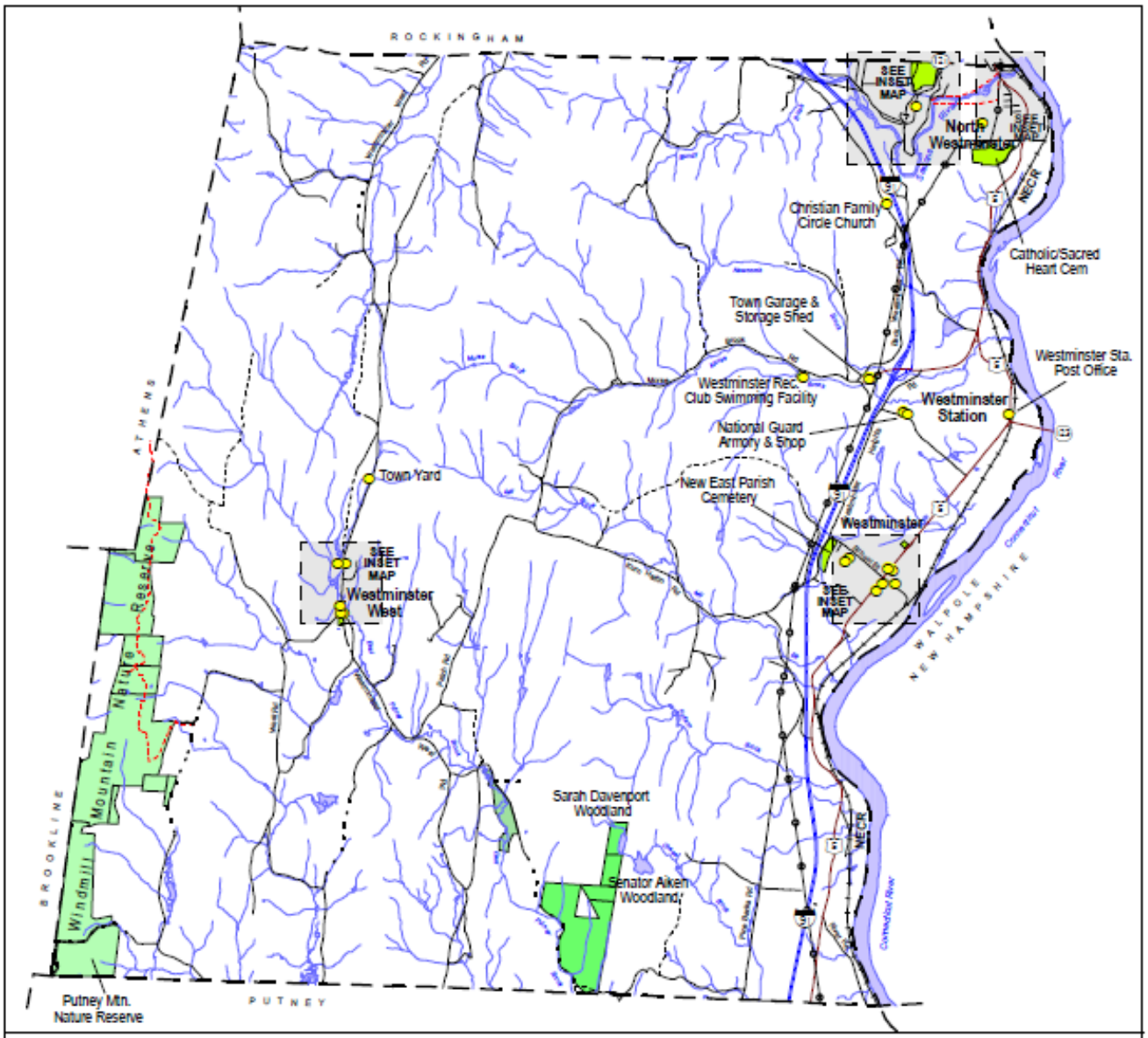


North Westminster





Kissell Hill



Community Facilities/Utilities

Town of Westminster, Vt.

Town boundary
Stream
River or pond
Railroad
Paved public roads
Unpaved public roads

1 0 1 2 Miles
3000 0 3000 6000 9000 Feet
scale 1:72000 1 inch = 6000 feet

Cemetery
State of Vermont Conservation Land
Town of Westminster Conservation Land
Other Conservation Land
Community facility
Hiking trail

Sources:

- Electric transmission lines are from VGIS ELTRN layer.
- Cemetery data were created using the 1:5000 town parcel coverage.
- Community facilities were identified by the Westminster Planning Commission.
- Conservation land boundaries were developed by WRC.
- Water and sewer lines in the North Westminster and Kissell Hill areas are part of the Bellows Falls water and sewer system.
- Water lines in the village of Westminster are part of the Westminster Aqueduct Society water system).

Notes:
- This map should be used for planning purposes and general reference only.

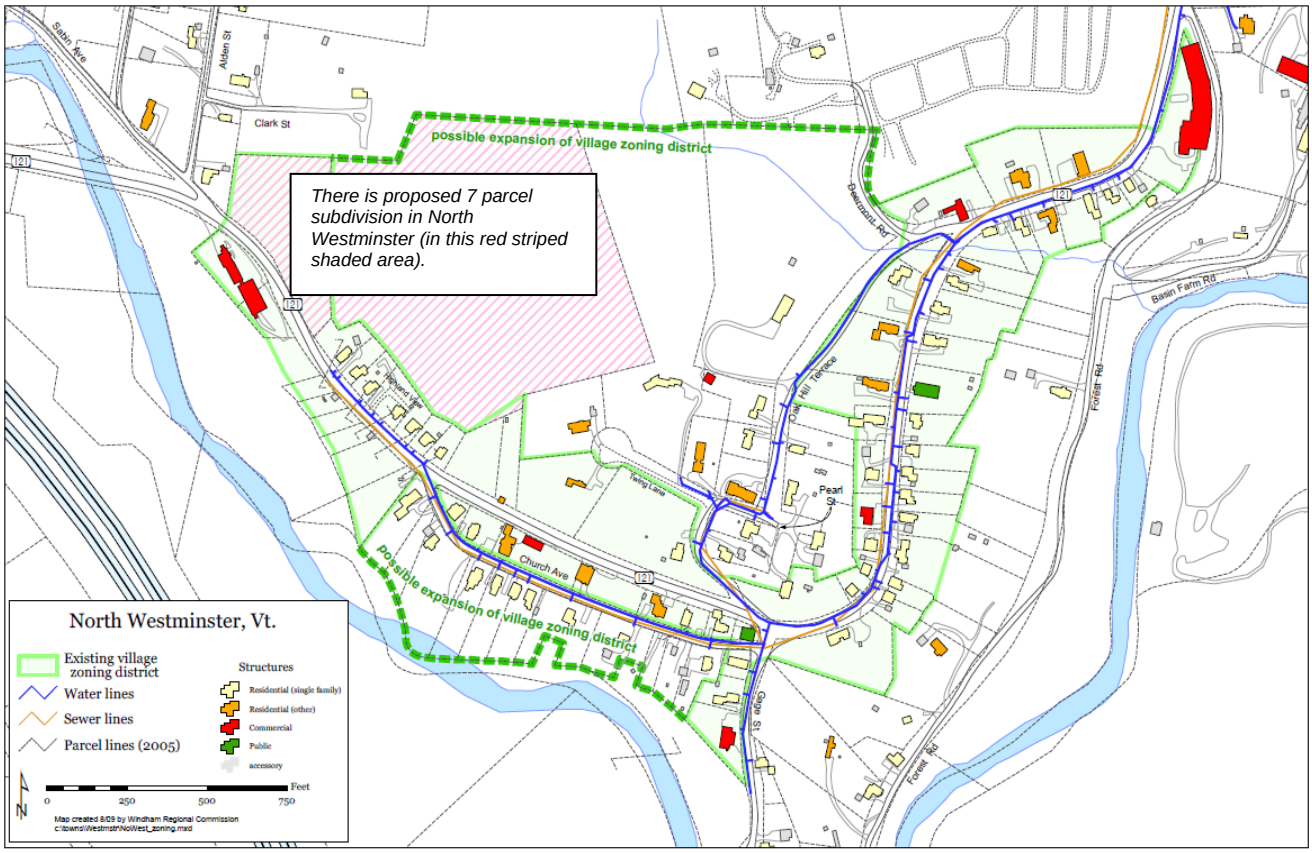
June 2001, C:\TOWNS\WESTMSTR\COMMFAC.APR: comm. fac. 8.5x11 map

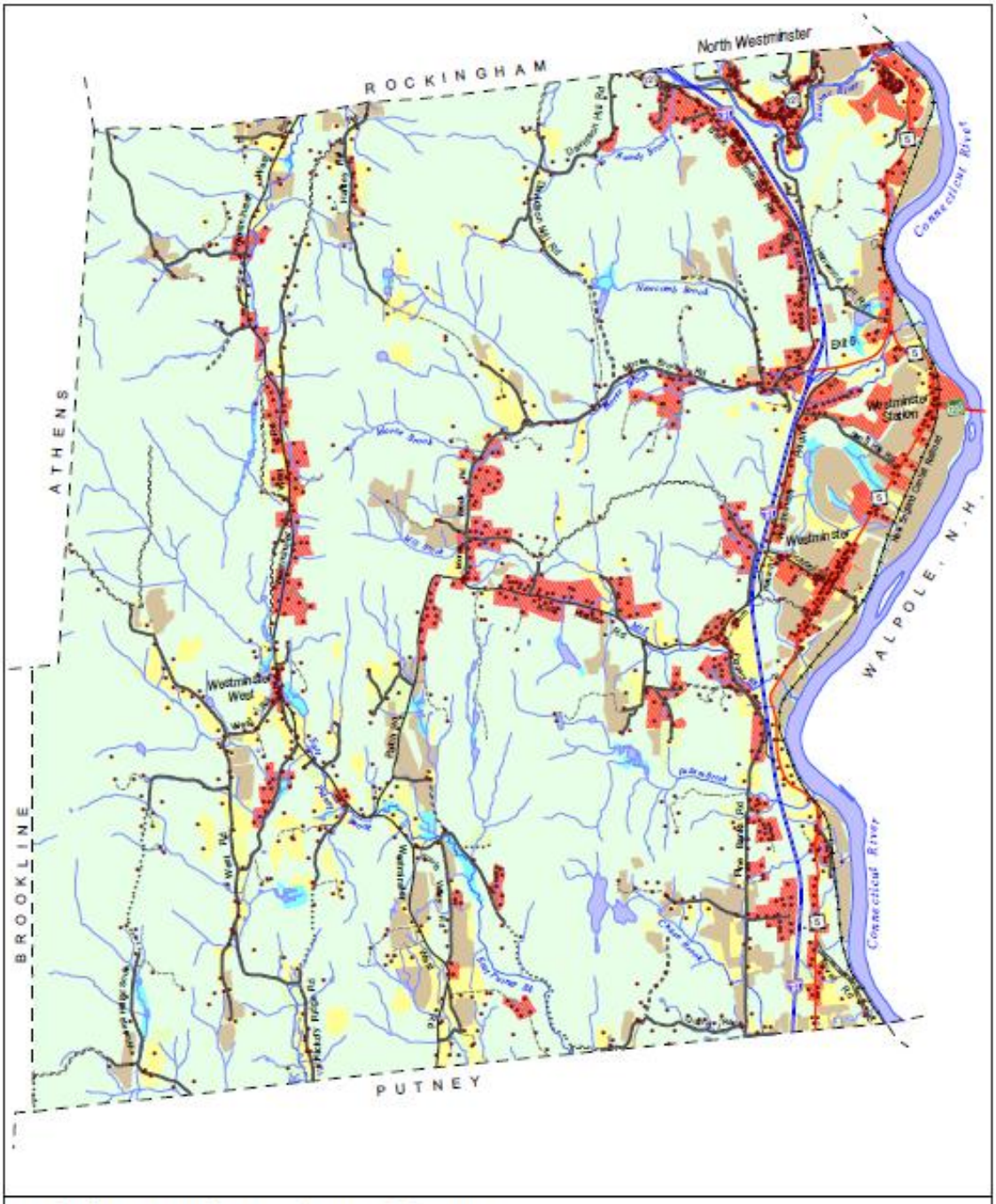
Assessing Vulnerability: Analyzing Development Trends

New residential and commercial building growth has been moderate in recent years. Since 2003, there have been between 10 and 17 permits issued for new residential structures per year. Issuing of permits since 2012 have increased with applications of approximately 38, for all development including; commercial, sheds, porches, etc.

In 2005, a new zone, The Connecticut River Conservation zone, was adopted to protect large parcels along the Connecticut River. New development is proposed in North Westminster (see map below).

The Town of Westminster is currently updating their Town Plan and land use classifications are being closely reviewed with possible changes.

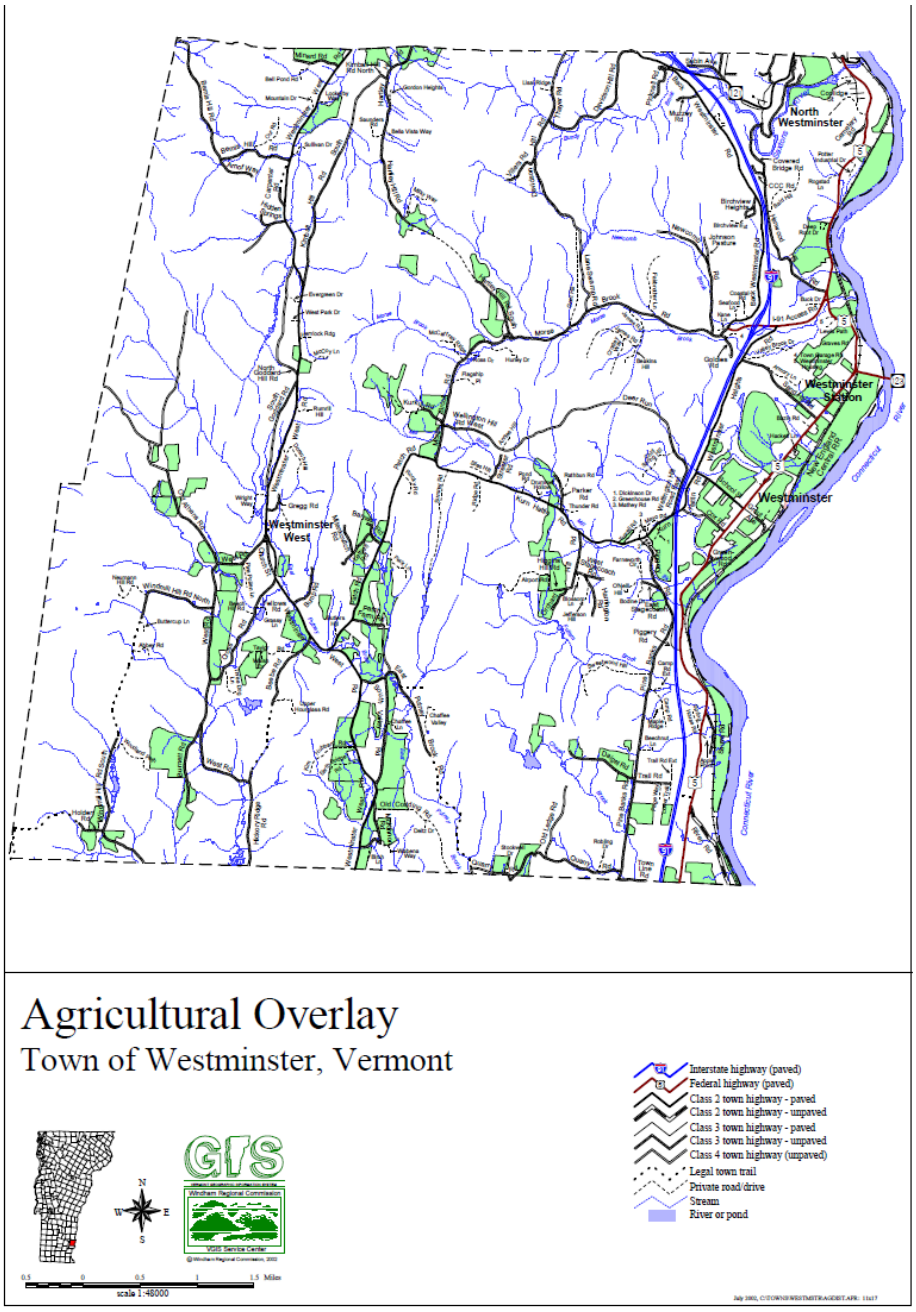



North Westminster
ROCKINGHAM
ATHENS
BROOKLINE
PUTNEY
WALPOLE, N. H.
Connecticut River
Connecticut River
Exit 6
Westminster Station
Westminster
Westminster West
Existing Land Use / Land Cover
Town of Westminster, Vt.
June 2008
WINDHAM REGIONAL COMMISSION
Structures
Forest
Brush/transitional
Open
Agricultural
Wetland
Water
Residential or commercial cluster
2,000 0 2,000 4,000 6,000 8,000 10,000 Feet
0.5 0 0.5 1 1.5 2 Miles

Assessing Vulnerability: Identifying Agricultural Lands

In the 1980s, the Windham Regional Commission conducted a Land Evaluation Site Assessment (LESA) in the region. Only four towns adopted an Agricultural Overlay into their zoning as a result of that assessment. Westminster being one of those four towns.

In August 2011, TS Irene flooded a good portion of the Connecticut River Valley agricultural land in Westminster. Generally it does not get flooded to the extent it did during TS Irene. Only depending on the timing of a flood hazard, does the flood impact crops (loss of) and pose an economic hardship.



MITIGATION STRATEGY

Local Hazard Mitigation Goals

The Hazard Mitigation Goals as outlined below were developed by consensus among the emergency management stakeholder group during meetings for the Town of Westminster Single Jurisdiction Hazard Mitigation Plan.

Problem Statement 1: The Town of Westminster has poorly documented land use records as well as easy access to those records.

Specific Goal 1: Identify a system, including a back-up system, to serve the purpose to document and maintain land use records that also provide easy but secure accessibility to those records.

Action Item 1: Town Officials and Department Heads would research systems and put together a proposal to take before the Selectboard for establishing such a system, then hire a record keeper to manage it.

Problem Statement 2: Communications up and down the chain of command, within Town departments and between the Town, State and Federal Government, with regards to Town business and emergency planning, is weak.

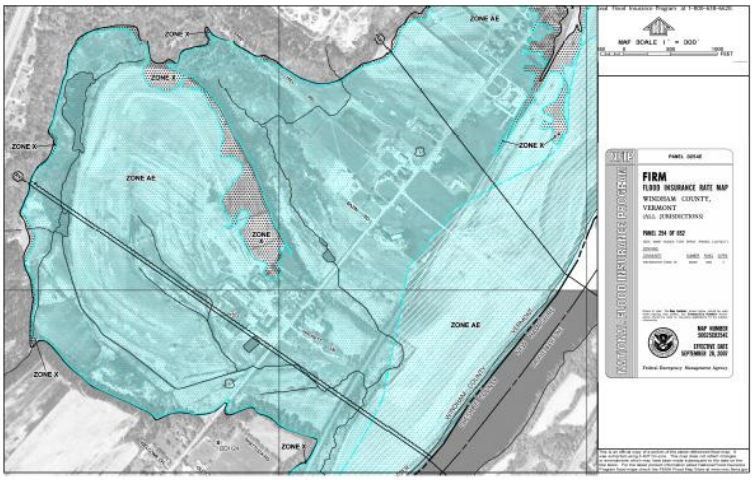
Specific Goal 2: Town needs specific applications and training of town employees on those application systems.

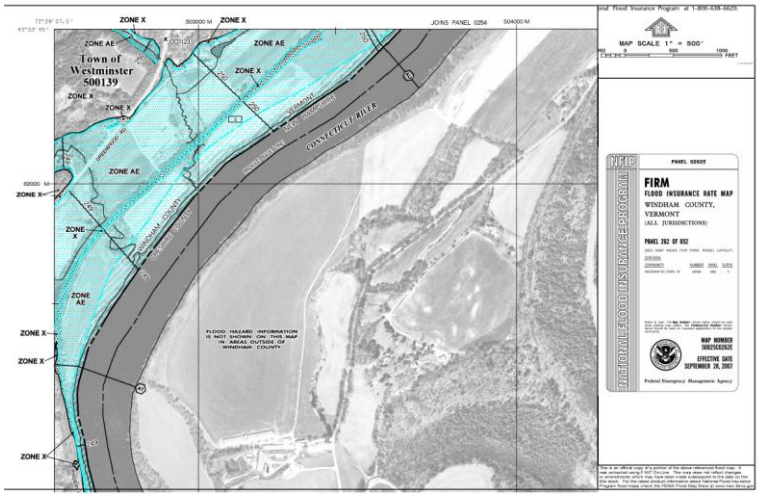
Action Item 2: Town Officials and Department Heads would research systems and put together a proposal to take before the Selectboard for establishing such a system.

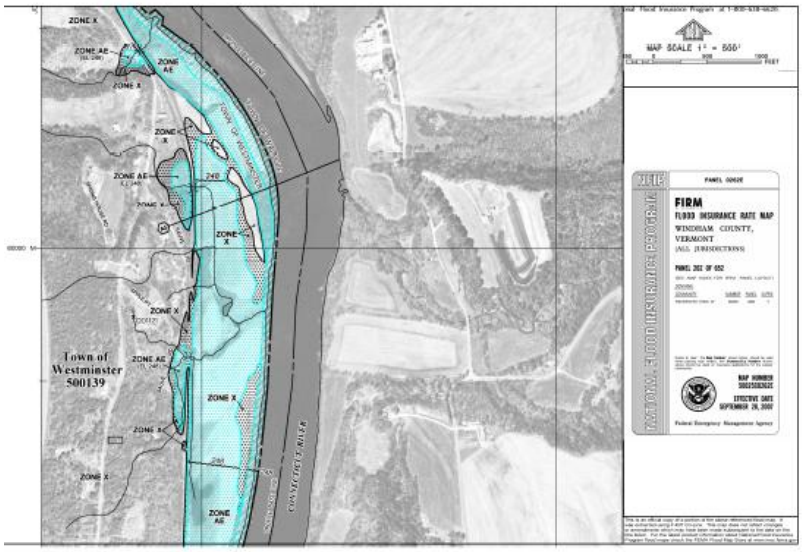
General Ongoing Goals:

- 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.
    - 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: National Flood Insurance Program (NFIP) Compliance







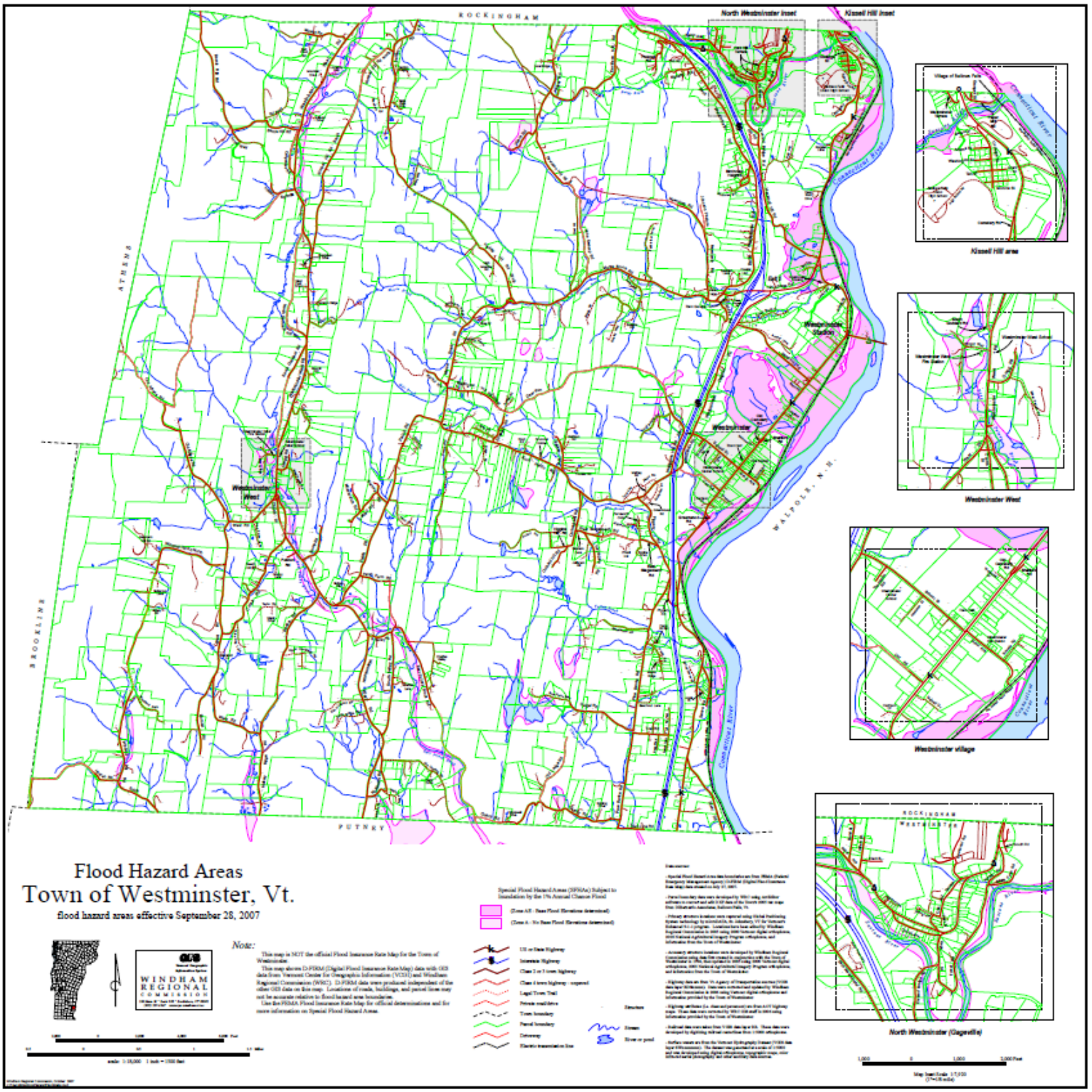
NFIP Description: The Town of Westminster currently participates in the National Flood Insurance Program. The Town adopted amendments to their flood Hazard Overlay Bylaw, which is Article 7 in their current Zoning Bylaw, to include revised Flood Hazard maps, consisting of the most current flood insurance studies and maps published by the Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA), National Flood Insurance Program (NFIP) , as provided by the Secretary of the Agency of Natural Resources pursuant to 10 V.S.A. § 753.

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.

The Town of Westminster's entire Eastern border is along the Connecticut River. These three maps only show a portion of the Town are not necessarily contiguous although they may look that way.

The Zoning Administrator (ZA) in Westminster receives on average about five people requesting LOMA's, per year. This leads the ZA to think the FEMA inundation maps are in need of an update, and are presently not very accurate.

Most current map of Westminster's Flood Hazard Areas.



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.

HAZARD BEING MITIGATED	MITIGATION ACTION	WHO (LEADERSHIP)	WHEN (DEADLINE)	HOW (FUNDING SOURCE)	Project Priority
Flood	Culvert upsized on Morris Brook Road	Highway Dept.	2 years	HMGP or VTrans	High
Flood	Embankment Stabilization on Morris Brook Road	Highway Dept.	2 years	HMGP or VTrans	High
Flood	Back flow value for approximately 6 culverts in the commercial zone on Route 5 near Allen Bros. & Patriot Motors	ANR & VTrans	2 years	VTrans	Med
Flood	Move buildings from commercial area on Route 5 that are in the floodplain	VT Emergency Management WRC and Selectboard	5 years	HMGP	Low
Flood	Upsize culvert on South Valley Road	Highway Dept.	2 years	HMGP or VTrans	Med
Flood	Upsize culverts on 40 miles of Class 3 roads all over town	Highway Dept.	5 years	VTrans or HMGP	Med
Winter Storm / Ice Storm	Education in Schools	Town Emergency Management Director	Annually	Town Budget	High
Winter Storm /	Install back-up power supply for critical facilities	Selectboard	2 years	Town Budget	High

Ice Storm					
High Wind	Community Education about where to find safe shelter and how to prepare for incoming high winds	Emergency Management Director	Annually	Town Budget	Med
High Wind	Education to new homeowners and construction firms regarding construction practices to offset negative effects of high winds	Selectboard	3 years	Town Budget	Low
Landslide	Embankment Stabilization on Morris Brook	Highway Dept.	2 years	Highway Budget or HMGP	High
Landslide	Embankment Stabilization on Bemus Hill	Highway Dept.	2 years	Highway Budget or HMGP	High
Landslide	Riparian plantings along major stretches of the Connecticut River	ANR / Selectboard / Highway Dept. / Conservation Commission	2 years	ANR grants such as Ecosystem Restoration Grants	Med

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 4.8 and higher) to maximize savings.

Vermont Fluvial Erosion Hazard Mitigation Program

Of all types of natural hazards experienced in Vermont, flash flooding represents the most frequent disaster mode and has resulted in by far the greatest magnitude of damage suffered by private property and public infrastructure. There is no reason to expect this to change within the foreseeable future.

While inundation-related flood loss is a significant component of flood disasters, the predominant mode of damage is associated with the dynamic, and oftentimes catastrophic, physical adjustment of stream channel dimensions and location during storm events due to bed and bank erosion, debris and ice jams, structural failures, flow diversion, or flow modification by man made structures. Channel adjustments with devastating consequences have frequently been documented wherein such adjustments are linked to historic channel management activities, flood plain encroachments, adjacent land use practices and/or changes in watershed hydrology associated with conversion of land cover and drainage activities.

Flood hazard mitigation alternative strategies can be categorized under two basic approaches or strategies:

1. *removal, retrofit, restoration or stabilization*; or

2. *avoidance*. Of these two strategies, avoidance is far and away the most cost effective in comparison to the removal, retrofit, or protection of threatened or damaged human investments; and stabilization or restoration of rivers undergoing major adjustments.

In the prioritization, alternatives evaluation, and implementation of any flood hazard mitigation project, whether it falls within category 1) or 2) above, an adequate technical understanding of the fluvial processes governing river behavior that are at work within any given reach is imperative.

This geomorphic information is also essential to support the consideration, development and implementation of any river corridor management project. Ultimately, the recognition and accommodation of fluvial processes, to the extent possible, will be critical to the successful achievement of project objectives; whether they be in avoidance or retrofit mode.

For this reason, State, Regional and Local Hazard Mitigation Plans adopted pursuant to the Disaster Mitigation Act of 2000 (44 CFR, Parts 201 and 206, Interim Final Rule) should emphasize and express a commitment to the implementation of a fluvial geomorphic hazard assessment and mapping program preferably conducted on a regional or watershed level. In the interest of consistency, compatibility, and assurance of technical accuracy, such assessments must be conducted according to assessment protocols and mapping methodologies published by the VT Agency of Natural Resources (ANR), including the Department of Environmental Conservation (DEC), River Management Program and the VT Geological Survey.

Funding of local or regional flood hazard mitigation planning activities, adoption of riparian corridor protection mechanisms and/or management strategies, and project implementation will be preceded by the technical assessments and guided by the data outputs of the fluvial geomorphic assessment and mapping process.

Note: The Windham Regional Commission has recently been awarded grant funding for FY 2013-2014 under the Ecosystem Restoration Grant Program to conduct Phase 1 & 2 Stream Geomorphic Assessments on the Winhall River, Wardsboro Brook and the Green River, all within the Windham Region. None of these rivers/streams flow through Westminster. However, Stream Geomorphic Assessments have been conducted on Saxtons River, a major tributary to the Connecticut River, which flows through the most northeasterly corner of the Town of Westminster.

PLAN MAINTENANCE PROCESS

Monitoring, Evaluating, and Updating the Plan

Given that one of the Town of Westminster's major corridors, Route 5, is in the floodplain of the Connecticut River, while the Planning Commission is reviewing the Town Plan over the next several months, they will look at flood regulations for the purpose of increasing safety in town and potentially becoming part of the Community Rating System (CRS).

The Town of Westminster 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 stakeholder group to update the plan. After any FEMA disaster declaration as well as any funding received from FEMA, the stakeholder group plans to record any hazard related events, and determine if the town is interested in applying for grant funding. During that review process the stakeholders will identify structures and engineering projects that can help mitigate future hazard 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 Westminster. The stakeholder group analyzed these programs for their effectiveness and noted improvements needed. Westminster 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 an annual culvert and bridge inventory takes place every year 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 2007, was re-adopted in 2012. Westminster applied for an Municipal Planning Grant to update the entire plan.
Town of Westminster Basic Emergency Operations Plan (BEOP)	Basic municipal procedures for emergency response	BEOP updated every year after Town Meeting	NIMS Compliant
School Emergency Response Protocol	School procedures for emergency response	School Crisis Plan	Compliant
Mutual Aid – Emergency Services	Agreement for regional coordinated emergency services	Keene (NH) Mutual Aid – written agreement/contract for Fire/Ambulance and HazMat/and Dam Safety	None identified
Road Standards	Design and construction standards for roads and drainage systems	Generally Vtrans Standards Bridge and Culvert Inventory work. Town plans to adopt 2013 standards.	No major gaps identified
Subdivision Regulations	Regulates the division of land, standards for site access and utilities	Adopted Subdivision Regulations, October 2007. Updated May 2013.	None Identified
Flood Hazard Area Regulations	Regulates development in FEMA flood hazard areas	FHR Adopted 4/24/07. Looking to review again in 2013-2014.	None Identified
Site Plan Review (SPR)	Site development standards	Town Zoning and Subdivision Regs. Updating in May 2013.	None Identified
National Flood Insurance Program (NFIP)	Provides ability for residents to acquire flood insurance	Westminster participates	None Identified
Maintenance Programs	Bridge & Culvert Inventory	Updated in 2013. Completed annually	None Identified
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.

APPENDICES

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

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

WESTMINSTER, VT - LOCAL HAZARD MITIGATION PLAN MEETING
April 10, 2013
Location: Westminster Institute

SIGN IN SHEET

Name	Affiliations – Please list all	Town where you live
M. L. Sam Shelton	Former P.C. chair +	Westminster
Dick Mellen	Former Teacher, Bus Driver, School Board, Rescue Squad	
Mark Lunel	Rd Foreman Dep Chief Fire Dept	Westminster
Robert Haas	TRUSTEE HISTORICAL SOC. PRUDENTIAL COMM. MEMBER	WESTMINSTER
James Matteau	FORMER WATER DISTRICT CHAIR	WESTMINSTER
Bill Jewell	Environmental Consultant Cons Ed Zoning Administrator Environmental Science Instructor SVC Conservation Comm. Guilford	Guilford
CHRIS VINCENT	FARMING PLANNING COMMISSION	WESTMINSTER

Appendix B: Public Notice advertising availability of Westminster Single Jurisdiction 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 Westminster 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.** Let us know if you have suggestions or comments about the plan. Your local knowledge is critical to making the plan effective for Westminster.

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, Doreen Woodward westmntc@comcast.net
- Dinah Reed, Windham Regional Commission @ dreed@windhamregional.org , or (802) 257-4547 ext. 109

WINDHAM REGIONAL COMMISSION

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

MONTHLY MEETING

LEPC VI
WINDHAM COUNTY
VERMONT

Tuesday, January 15, 2013 -- 5:30 pm

Location: Marlboro Graduate Center, Vernon Street, Brattleboro
Room – Second Floor East (2E) (parking available in lot south of the bldg.)

AGENDA

1. Introductions – Sign-in
2. Minutes of Previous Meeting
3. No Business meeting except for any important timely reports/announcements

Jan 15th Program:

Resiliency through Communication and Planning

Discussion Topics/Activities:

1) Viewing of Maps, place sticky notes at problem spots
2) Small groups - Roundtable Discussions between Towns
3) Establish notetaker - make notes on large white sheets of paper
4) Reorganize tables – sit with towns you have not yet sat with
5) Take photos
6) Final – Re-cap as large group – reflect on map areas – what did you learn from this?

Things to think about when discussing potential issues with neighboring towns:

1. Rivers/streams that flow through more than one town? How does what one town does upstream affect your town downstream?

2. Major roads in common? What if there is a detour/bridge out – how do you plan together to mitigate traffic impacts?

VOLUNTEER FORM TO DOCUMENT IN-KIND SERVICES - MATCH INFORMATION

PROGRAM: Local Emergency Planning Committee 6
DATE OF MEETING: January 15, 2013
MEETING LOCATION: Marlboro Graduate Center
TOPIC: Local Hazard Mitigation Planning with Neighboring Towns
MEETING TIME: 5:30 PM

VOLUNTEER ATTENDEES - CLAIMED

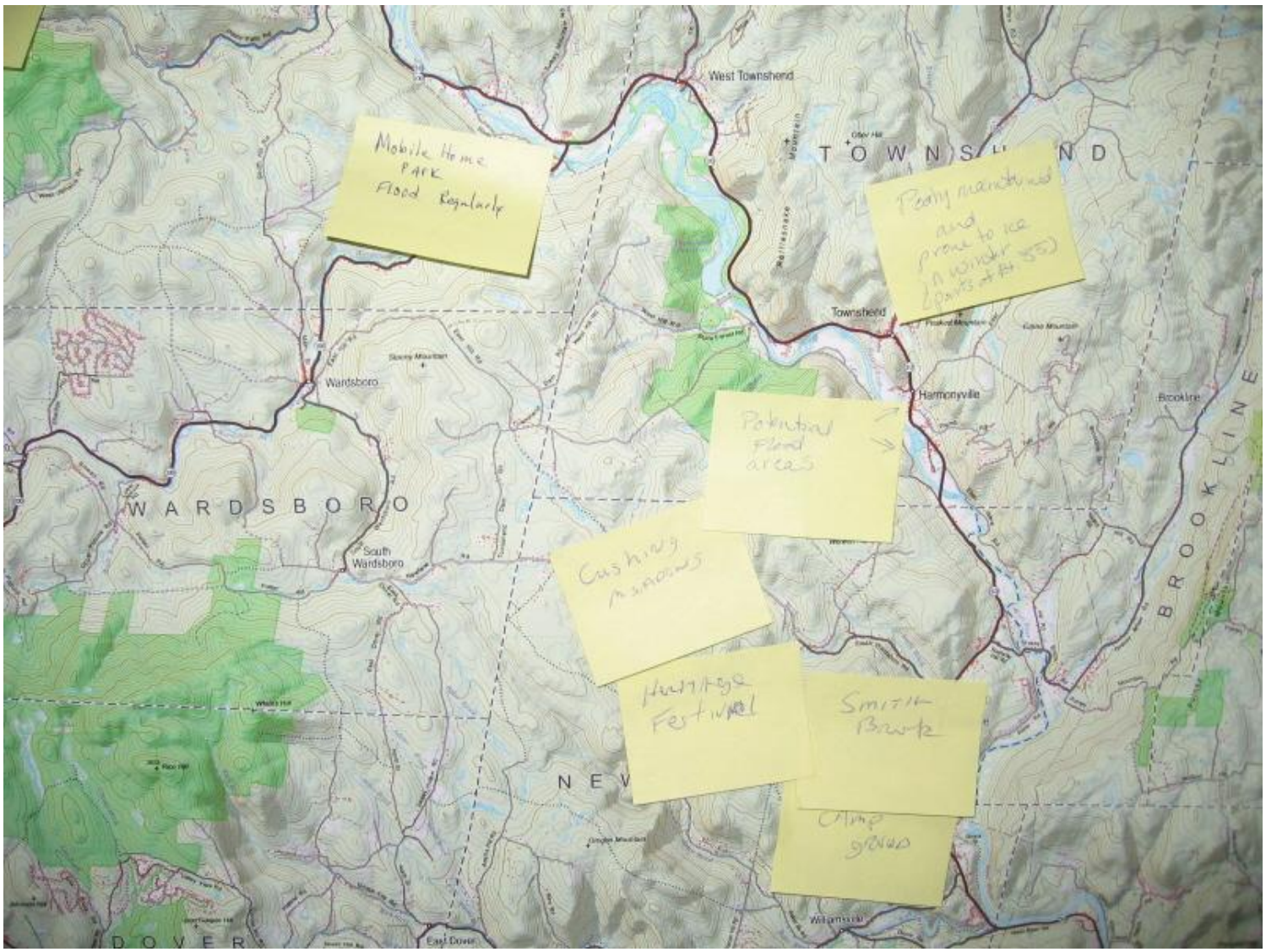
No.	NAME	SIGNATURE	AFFILIATION	MILEAGE ROUND TRIP	MEETING HOURS	TOTAL MILEAGE	TOTAL TIME
						0.585	$20.00
1	CARLA GULACK		Townsend EMD	40		-	-
2	Michelle Bar		MRC	1.5		-	-
3	TOM Barrows		WCFT	15		-	-
4	Sam Epicenio		BRATT. Retreat	3		-	-
5	Herb Mugar		Guilford EMD			-	-
6	[illegible] LABRock		Guilford EM			-	-
7	PAUL FAVREAU		VSP			-	-
8	DAVID DEZENDORF		TOWNSHEND EMD			-	-
9	[illegible]		Townshend			-	-
10	PAUL FRASER		Jamaica EMD			-	-
11	DAVID MOORE		NEWFANE EMD			-	-
12	Pamela Corbett		VDH			-	-
13	HEATH Bacon		WINDHAM EMD			-	-
14	Dick Elwell		Guilford Select-			-	-
15	Glenn Herrin		Marlboro			-	-
16	Eric Stevens		Grafton			-	-
17	Kevin Beattie		Londonderry			-	-
18						-	-
19						-	-
			Sub Total	0.00	0.00	$0.00	$0.00

NON VOLUNTEER ATTENDEES - CAN NOT CLAIM

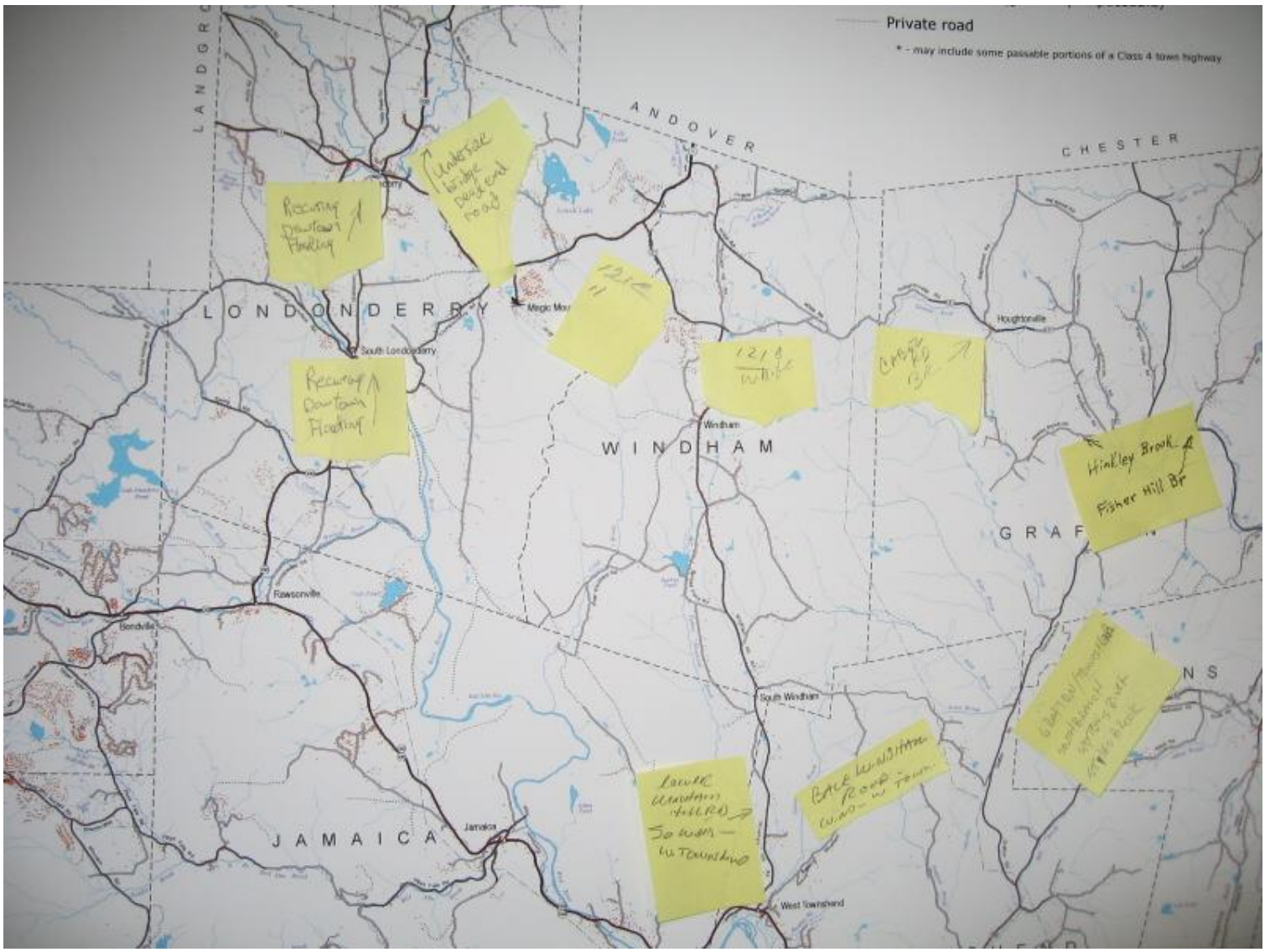
No.	NAME	SIGNATURE	AFFILIATION	MILEAGE ROUND TRIP	MEETING HOURS	TOTAL MILEAGE	TOTAL TIME
						0.375	$20.00
1	JOHN F. ANGIER		VTDEMHS			-	-
2	KEVIN CLARK		WCSD			-	-
3						-	-
4						-	-
5						-	-
6						-	-
7						-	-
8						-	-
9						-	-
10						-	-
			Sub Total	0.00	0.00	$0.00	$0.00

TOTAL MATCH $0.00
TOTAL Non-Volunteer Match -
TOTAL VOLUNTEER MATCH $0.00

Photo Documentation from Jan. 15th Planning with Adjacent Towns Meeting


West Townshend
Mobile Home PARK Flood Regularly
Townshend
Harmonyville
Brookline
Potential Flood areas
Cushing Simmons
Heritage Festival
Smith Brook
WARDSBORO
Wardsboro
South Wardsboro
DOVER
East Dover


802-505-9336
Watersheds


Private road
* - may include some passable portions of a Class 4 town highway
ANDOVER
CHESTER
LONDONDERRY
South Londonderry
Magic Mtn
Houghtonville
WINDHAM
Windham
Rawsonville
Bondville
South Windham
JAMAICA
Jamaica
West Townshend
Recurring Downtown Flooding
Undersize bridge and road
Recurring Downtown Flooding
Hinkley Brook
Fisher Hill Br