

**Annex #10 – Town of Wolcott**  
**Pre-Disaster Hazard Mitigation Plan**  
 Adopted October 19, 2005

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## 1. Introduction and Purpose

### 1.1 Introduction

This appendix, when used with the appropriate sections of the basic plan, is an All-Hazard Mitigation Plan for the Town of Wolcott.

The impact of expected, but unpredictable natural and human-caused events can be reduced through community planning. The goal of this plan is to provide all-hazards local mitigation strategy that makes the communities of Lamoille County more disaster resistant.

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 Mitigations Strategies and Measures **alter** the hazard by eliminating or reducing the frequency of occurrence, **avert** 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 & modifying high traffic incident locations and routes
- Ensuring adequate water supply
- Elevating structures or utilities above flood levels
- Identifying & 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
- Buyout & relocation of structures in harms way
- Establish & enforce appropriate building codes
- Public information

## 1.2 Purpose

The purpose of this Hazard Mitigation Plan is to assist local governments identify all hazards facing the county and their community and identify strategies to begin reducing risks from identified hazards.

## 1.3 Planning Process

The approach followed the Hazard Mitigation protocol established by FEMA for the conduct of this study according to the following plan:

- Gather initial available data & conduct interviews
- Gather additional relevant data
- Analyze interview information and all pertinent data gathered according to FEMA Hazard Analysis Protocol
- Produce Draft report w/recommendations & supporting data
- Obtain feedback from LCPC, Towns, and LEPC #11
- Present Findings and submit Final Report

During the conduct of the study, we followed these steps in the Hazards Inventory/Risk Analysis:

1. Determine past hazards
2. Determine possible future hazards
3. Determine likely hazards
4. Determine community vulnerability (Human & Economic) for each hazard. Each identified hazard was analyzed with respect to the following criteria:
  - a. Probability of occurrence
  - b. Effect of the potential disaster on people and property
  - c. Predictability of the hazard
  - d. Frequency of occurrence
  - e. Speed of onset of the potential disaster
  - f. Duration of the disaster
  - g. Scope and intensity of the potential disaster
  - h. Controllability of the incident
  - i. Protective Action Options
5. Determine any in-place or planned hazard reduction or mitigation efforts.
6. Make recommendations

## 1.4 Public Involvement

During the summer and fall of 2003 LCPC sent out various notices, announcement, and articles to all town and local officials describing the need for PDM planning and participation in the development of the PDM plan. In November of 2003 LCPC sent a letter detailing the PDM plan development process, sample hazard analysis questions and emergency planning maps to the town's emergency management coordinator (EMC). The EMC distributed the information and coordinated a meeting with members of the Planning Commission, Road Crew, Selectboard and other town officials to discuss the various hazards that affect the community and respond to the Hazard Analysis questionnaire. The EMC submitted the completed forms to LCPC in early November 2004. A rough draft of the local hazard mitigation plan for the town of Wolcott was provided to the Town in February 2005 for their review and comment. Once reviewed by the working group of the town, the plan was submitted to the State Hazard Mitigation Officer for review in February of 2005 and submitted to FEMA Region I for conditional approval in May of 2005. The plan received conditional approval from FEMA Region I on September 16, 2005 pending adoption by the Town Selectboard. The Town Selectboard reviewed the final draft and adopted the plan on October 19, 2005.

## 2. Mitigation Goals

### 2.1 Lamoille County Hazard Mitigation Goals

Goal 1: Implement State Hazard Mitigation goals as appropriate at the regional and local level.

Goal 2: Promote an awareness amongst municipalities, residents and business in the county of the linkages between the relative frequency and severity of disaster events and the design, development, use and maintenance of infrastructure such as roads, utilities and stormwater management and the planning and development of various land uses.

Goal 3: Encourage hazard mitigation planning as a part of the Regional and Municipal Planning Processes. Ensure that regionally-initiated mitigation measures and projects are consistent with municipal plans and the capacity of municipalities to implement them. Ensure that mitigation measures are sympathetic to the natural features of rivers, streams and other surface waters; historic resources; and character of neighborhoods.

Goal 4: Encourage municipalities to formally incorporate their individual Local All-Hazard Mitigation Plan into their municipal plan as described in 24 VSA, Section 4403(5), as well as incorporate their proposed mitigation actions into their

various bylaws, regulations and ordinances, including, but not limited to, zoning bylaws and subdivision regulations and building codes.

Goal 5: Encourage municipalities to formally incorporate elements of their Local All-Hazard Mitigation Plan, particularly their recommended mitigation strategies, into their municipal operating and capital plans & programs, especially, but not limited to, as they relate to public facilities and infrastructure, utilities, highways and emergency services.

Goal 6: Plan for and implement hazard mitigation programs and projects that result in a reduced loss of life and injury during hazardous events, and a reduction of financial losses by municipalities, residents, and businesses due to disaster.

Goal 7: Provide the technical support for, and aid in the development of implementation protection mechanisms at the regional 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, and landslides.

## 2.2 Town of Wolcott Hazard Mitigation Goals

- Provide the technical support for, and aid in the development of implementation 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, and landslides
- Encourage hazard mitigation planning as a part of the Local Planning Process
- Endorse and support the implementation of the Lamoille County Hazard Mitigation goals

## 2.3 Town Plan Goals that support Hazard Mitigation

The Wolcott Town Plan was adopted September 5, 2002. Primary Town Plan goals that support hazard mitigation are:

- To protect the health, safety and welfare of the residents of Wolcott by limiting development in flood hazard areas to agriculture, recreation and open space
- To preserve and protect wetlands from pollution, filling and any other uses of activities that will result in their degradation or a reduction in its capacity to provide wildlife habitat, flood control and water storage
- To maintain the quality and quantity of local groundwater supplies
- To maintain and , where degraded, improve the water quality across the town
- For Wolcott to have a well trained and funded fire, police and rescue service to provide a safe environment in which to work, live and play

### 3. Community Background

Wolcott is the eastern most town in Lamoille County covering 40.5 Square miles. The town abuts Hyde Park to the west, Elmore to the south, and the Orleans county towns of Hardwick to the southeast and Craftsbury to the northeast. It is located 52 miles from Burlington and 26 miles from Montpelier.

There are just over 55 miles in the town of which a majority are class 3. The town highway maintenance garage is located on School St. just of Rt.15. The main east-west highway is Rt. 15 which consists of 7.023 miles that is maintained by the Vermont Agency of Transportation District 6 located on 186 Industrial Lane Berlin. There are approximately 4300 cars that travel daily through Wolcott between Morrisville and Hardwick. Currently the only public transportation serving the area is on demand service through federally subsidized programs for the elderly and disabled. Wolcott has numerous bridges and culverts it must maintain on local roads. Because of the high cost of bridge repairs, the Town relies heavily on state aid for such work.

Wolcott village is located directly on Rt. 15 and adjacent to the Lamoille River. There are 545 housing units in the town and 128 vacation homes that are seasonally occupied. According to the 2000 Census the population of Wolcott is 1456; this is more than double the number of residents only 30 years ago.

There are three major bodies of water in the town and numerous private ponds under an acre in size. The most significant body of water is the 68 acre Wolcott Pond, followed by the 21 acre man made Wapanaki Lake. The Lamoille River flows from the southeast to the northwest across the southern part of Wolcott for about 8 miles. There are five major tributaries to the Lamoille in the town.

The governing of the town is conducted by three elected members of the Select board, planning is by a five member a planning commission. The town plan was adopted in 2002. They currently have zoning and subdivision regulations (March 6, 2001).

There are two utilities that provide service to the Town: Hardwick Electric Department (HED) and Morrisville Water and Light Department (MW&LD). HED, provides electricity to a majority of the town, owns and operates a run of the river hydro dam on the Lamoille just up stream from Wolcott Village (Pottersville Dam). MW&LD provide electrical service to residents on the west side of town. There is one 15-30kw privately owned hydroelectric plant on Baldwin Brook a tributary to the North Branch.

The Town has a Volunteer Fire Department, located on School Street. They are a participant in the Lamoille County Mutual Aid Network for dealing with large fires. They have a special arrangement with Elmore whereby both departments respond to each other's calls. According to the 2001 Fire Report, Wolcott firemen responded to 33 calls.

The Town relies on the Hardwick Emergency Rescue Squad Inc. a non-profit volunteer ambulance service that provides response emergency transport and medical care enroute to the hospital. Morristown Rescue took over coverage of Tjader road and Richard Woolcutt Road in 2002 to help improve response times to the southwest corner of town.

Medical care is provided by Copley Hospital in Morrisville. This is a 54-bed full service community hospital for acute, outpatient and long-term care. More specialized services are available in Burlington, Berlin, and Hanover, New Hampshire. The Hardwick Area Health Center is a regional medical center which serves seven communities including Wolcott. Other outpatient care is available at other community clinics available in neighboring towns. All Wolcott residents must travel outside the community for health services.

The Lamoille County Sheriff's Department has a contract with the town to provide 24 hour police protection, response to emergency, fire and rescue calls, and to serve in the legal process. They are located in Hyde Park Village approximately 10 miles away. Vermont State Police, dispatched from Williston, provide emergency and back-up coverage as requested by the Sheriff's Department. There is also an elected constable. Wolcott consistently ranks as one of the lowest crime towns in Lamoille County over the past decade.

### 3.1 Previous FEMA-declared natural disasters and snow emergencies

Since 1990 Wolcott has received public assistance funding from FEMA for the following natural disasters:

August 1995 (DR 1063)	\$1,023,735
July 1997 (DR 1184)	\$415,716
July 1998 (DR1228)	\$47,197
September 1999 (DR 1307)	\$3,542

Funds provided in response to these natural disasters were used as follows:

**August 1995:** Record setting heavy rains caused flooding in six north-central counties of Vermont (FEMA-1063-DR-VT). This was the first time since 1927 that a flood not only affected public infrastructure, but also personally impacted the residents of Vermont. Preliminary damage assessments indicated individual losses greater than damages to public infrastructure. Flood levels exceeded the 500-year event scale in several areas along the Lamoille River.

**July 1997:** Excessive rain in several northern Vermont counties caused flash flooding and destruction of public and private property (FEMA-1184-DR-VT)

**July 1998:** Eleven of the fourteen Vermont counties experienced severe damage from excessive rainfall (FEMA-1228-DR-VT). The torrential rains came in much the same pattern as they had in the summer of 1997, but occurred further south than the 1997 floods. The flash flooding left many homes destroyed, roads and bridges damaged, and communities cut off from the rest of the state.

**September 1999:** The declaration covers damage to public property from the storm that spawned heavy rains, high winds and flooding over the period of September 16-21 (FEMA-1307-DR-VT).

### 3.2 Previous Technological Disasters

Wolcott houses 3 Tier II hazardous Material Sites. Since January of 2001 two (2) incidents involving hazardous materials have occurred and involved mostly heating oil or other petroleum products.

A significant potential for severe pollution impacts to water quality and ecosystems exists from hazardous waste sites. The future likelihood of such an event, however, is unquantifiable. Listed below is the October 2004 update of Active Vermont Hazardous Sites. In 1991, the Hazardous Sites database and the Petroleum Sites database were consolidated. This list includes petroleum as well as non-petroleum sites. Prior to database consolidation, different site numbering systems were used. In order to minimize confusion, the petroleum site numbering system was adopted. This system consists of a two or four digit prefix (year site was identified) and a four digit (site specific) number. All sites identified since January 1, 1991 have been consecutively numbered beginning with 91-1000. Sites identified prior to January 1, 1991, have retained their previously assigned site identification numbers. Due to database requirements for a six digit site number, the non-petroleum sites identified prior to January 1, 1991 have a 77 prefix added to their previously assigned site identification numbers.

This list identifies sites that are listed on the National Priorities List (Superfund) using an asterisk. Also, any active site that is listed on the federal CERCLIS also appears on this list. The Vermont Hazardous Sites List Abbreviation KEY is listed below.

#### **Active Hazardous Waste Sites, Wolcott, October 2004**

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900629 - - - Green Mountain School - - - Rt 15 - - - Wolcott - - Ust Contamination. Landfarmed Soils.

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931452 - - - Camp Wapanacki - - - West Hill Rd - - - Wolcott - - Analytical Samples To Be Collected From Petroleum Contaminated Soil To Determine Closure; Requested Work To Be Performed By 6/12/98.

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931475 - - - Wolcott Store - - - Route 15 - - - Wolcott - - Gasoline and diesel UST contamination at site. Quarterly GW monitoring 2003. MTBE impacted onsite supply well monitored monthly - modifications made to decrease impact. Bottled water being supplied. Annual monitoring of

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982450 - - - Abandoned Tank - - - Route 15 - - - Wolcott - - UST removed. Contamination found. SMS requested further investigation in a December 8, 1998 letter

to Mr. Boise but as of this update there has been no reply and no further activity in this file. (9/13/99)

20012893 - - - Draper and Sons - - - Rt 15 - - - Wolcott - - Auto salvage yard, soil staining and stockpiling of hazardous and solid wastes. Gasoline UST's pulled in 1995. Some impact to GW. Soil excavation & biovent approv

<b>Vermont Hazardous Sites List Abbreviation KEY</b>	
*	* Indicates a National Priorities List (Superfund) Site
ACL	Alternative Concentration Limits
CAP	Corrective Action Plan
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation & Liability Act Information System
DEC	Department of Environmental Conservation
EPA	Environmental Protection Agency
EPI	Environmental Priorities Initiative
ESA	Environmental Site Assessment
ESI	Expanded Site Inspection
EXPRESSWAY	Investigation proceeding without state approved workplan
GW	Groundwater
HRS	Hazardous Ranking System
IP	In Progress
LF	Landfill
LSI	Listing Site Inspection
MW	Monitoring Well
NPL	National Priorities List
NUS	Nuclear Utility Services (EPA Contractor)
PA	Preliminary Assessment
PCB	Polychlorinated Biphenyl
PCS	Petroleum Contaminated Soil
RCRA	Resource Conservation & Recovery Act
RFA	RCRA Facility Assessment
RP	Responsible Party
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
SI	Site Inspection
SIP	Site Inspection Prioritization
SMS	Sites Management Section
SSI	Screening Site Inspection
SVE/SVS	Soil Vapor Extraction/Soil Vapor System

SW	Surface Water
UST	Underground Storage Tank
VSPS	Vermont Sites Priority System

#### 4. Wolcott Hazard Inventory / Vulnerability Assessment

The following is based on the State HI/RA and Section 2 of the Lamoille County PDM Plan. The first column is a list of possible hazards that could affect the community. The hazards were evaluated to have an *Unlikely*, *Possible*, *Likely*, or *Highly Likely* frequency of being a threat to the community.

The **FREQUENCY** of occurrence 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.

The **IMPACT** or severity (percentage of the community affected) 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 combination of the impact of the hazard (severity) and the frequency was used to determine the **COMMUNITY VULNERABILITY** (risk) as *High*, *Moderate* or *Low*.

The **WORST THREATS** to the community are designated with an asterisk \*. The worst threats are those hazards with threats that have **(a) highly likely of occurrence, and/or (b) critical or catastrophic impact to your community.**

#### 4.1 Wolcott HI/RA Matrix

Table I. Wolcott HI/RA

Possible Hazard	Likelihood	Impact	Community Vulnerability	Most vulnerable
Flood*	Highly likely	Catastrophic	High	Roads, culverts, bridges, residences
Flash flood*	Highly likely	Limited	High	Roads, residences, water source contamination
Power Shortage Failure*	Highly Likely	Limited	High	Residences, critical facilities
Winter Storm/Ice Storm*	Highly Likely	Critical	High	Loss of access, loss of power, property damage
Highway and Railroad Accidents	Likely	Limited	Moderate	General population
Structure Fire	Likely	Limited	Moderate	Residences, town center
Wildfire/Forest Fire	Possible	Critical	Moderate	No wildland/urban buffer area
High Wind	Likely	Limited	Moderate	Trees down, loss of power, limited road access
Water Supply Contamination	Possible	Limited	Moderate	Wellhead protection areas, residences, businesses.
Dam Failures	Likely	Critical	Moderate	Roads and Structures and Village
Hurricane	Possible	Limited	Moderate	High winds, floods, power failure
Tornado	Possible	Limited	Moderate	Structures, power lines
Drought	Possible	Limited	Moderate	Private well failures, wildfires
Aircrash	Unlikely	Negligible	Low	
Earthquake	Possible	Limited	Low	See VT Geological Survey HAZUS report (9/03)
School safety issues	Possible	Negligible	Low	Hazmat incidents, children
Hazardous materials	Possible	Limited	Low	Residences
Landslide	Possible	Negligible	Low	Roads, Residences
Chemical and/or Biological Incident	Unlikely	Negligible	Low	General population
Radiological Incident	Unlikely	Limited	Low	UPS trucks: largest carrier of radiological materials
Terrorism	Unlikely	Negligible	Low	Kidnapping

\* Consistent significant hazards to Lamoille County

#### 4.2 Community Vulnerability Analysis

Based on the results of local community interviews and Hazard Questionnaire, the history of disasters in the town, and the Wolcott HI/RA the following hazards were identified consistently as significant threats to the jurisdiction:

In Wolcott, the interviews indicate that the following hazards are listed as Likely or Highly Likely or Medium-High in terms of **Likelihood**: Winter Storm/Ice Storm, Flooding and Flash Floods, Structure Fire, Power Shortage/Failure, High Wind, Dam Failures and Highway/Transport Accidents. In terms of **Vulnerability**, the town rated these hazards as Critical or Catastrophic or Medium-High: Flood, Winter Storm/Ice Storm, Wildfire/Forest Fire. The “Worst Threats” were identified as being:

- Flood and Flash Flooding
- Winter Storm/Ice Storm
- Power Shortage/Failure

The following analysis will focus on those hazards considered as being a significant or consistent threat to the town. Other hazards that have been identified in the HI/RA above and were not considered to be significant hazards are not included in the vulnerability analysis below. For a complete analysis of potential hazards facing the community refer to Section 2.4 of the Regional PDM plan.

Flood and Flash Flooding

The community vulnerability to a Flood is HIGH based on the Highly likely possibility (Near 100% probability in the next year) of an incident with the potential for Catastrophic (>50% of the community) impact.

Based on the results of utilizing GIS to overlay the digital FIRM flood maps with the location of structures in Wolcott, which were GPS located for the development of the Enhanced 911 Emergency services telephone dispatch system, seventy-six (76) vulnerable locations were identified to have potential of flooding based on the 100-year flood zone (the most of any town in the county). The estimated loss for damage to these properties was calculated by using the median housing value from the 2000 U.S. Census.

Table II. Wolcott Potential Flood Loss

Town	Median Housing Value	Structures in Floodplain (% of total)	Potential Flood Loss
Wolcott	\$82,100	76 (11.1)	\$6,239,600

The Floodplain, Bridge and Culvert map (Tab a) identifies the areas of town that are within the 100-year floodplain. The local areas of concern map (Tab c) identifies other areas of potential loss to infrastructure due to erosion and road flooding. High Priority culverts were also identified on the map with information provided by the Wolcott culvert inventory conducted in 2004. High priority culverts are described as culverts that have large spalls, heavy scaling, wide cracks, holes, integral wing walls nearly severed from culvert, severe scour or erosion, extreme distortion/deflection and extensive corrosion. Wolcott historically has recorded numerous floods. Annual flood events are common in some form. Damage covers a wide range from flooded cellars, roads washed

out and bridge and culvert damage. The floods of 1981, 1983, 1995 and 1997 caused significant damage. At one time the entire town had no main roads open for access. Water contamination of private wells and springs is a potential problem during flood events.

The Town of Wolcott participates in the NFIP and currently has 11 policies in force in town.

#### Winter Storm/Ice Storm

The community vulnerability to a Winter Storm/Ice Storm is HIGH based on the Highly Likely (Near 100% probability in the next year) occurrence and the potential for Critical (25% to 50% of the community) impact.

Winter storms and Ice events are common in the community. Wolcott encounters varying levels of snow and ice during the winter months. Due to the rapid change in elevation, it is not uncommon for precipitation to range from rain in the valley area, to ice in the middle elevations, with heavy snows in the higher terrain. This poses interesting events for highway maintenance personnel.

Damage has resulted in structural damage to residences and businesses in the past. Normally damage is result of heavy snow causing roof failures. Ice events and heavy wet snows have caused numerous power outages due to power line damage.

Roadways closed due to heavy snows are opened as quickly as possible. Wolcott maintains snow removal equipment for all town highways, and State of Vermont Agency of Transportation maintains equipment for state highways. Snowfalls that are within normal snowfall limits, are handled effectively, however during heavy snowfall for extended periods of time, removal of snow becomes an issue. Historically, these events are not frequent and are short in duration. During events such as this, radio communications is maintained between highway crews and town emergency responders. Emergency response personnel are assisted by highway equipment, however documented events have occurred where this response has been delayed.

Local construction equipment in the community has been used in the past to augment community resources. Most residents are accessible during severe weather conditions, however access may be delayed.

#### Power Shortage/Failure

The community vulnerability to a Power Shortage/Failure is HIGH based on the Highly Likely (Near 100% probability in the next year) occurrence and the potential for Limited (10% to <25% of the community) impact. Residences and Critical Facilities are most likely to be affected.

One of the most common impacts of major disasters can be the prolonged loss of electrical power, whether from localized damage to distribution systems or from remote

impacts to generation and transmission facilities. Based on the rural character of the town and its concerns with transportation infrastructure in inclement weather, protracted loss of power could significantly, endanger health and safety, have substantial economic consequences, or cause stress and severe inconvenience to the town's residents and businesses.

Morrisville Water and Light along with the VT Department of Health maintains a list of vulnerable populations who may require additional assistance during long term outages.

#### Other Hazards

The community vulnerability to a **highway accident** is Moderate based on the Likely (Near 100% probability in the next year) occurrence and the potential for limited (> 50% of the community) impact. The only intersection identified by the town that has high potential for accidents is the VT Route 15 and North Wolcott Road intersection. Due to the design of the intersection and the high rate of speed vehicles travel in the 50 MPH zone. No High Accident Locations have been identified by VTRANS.

**Hazardous material accidents** are less likely but are of particular concern as Route 15 is a major east west thruway and the proximity of critical facilities, schools and residences to the road creates potential for **mass casualty incidents** (more than 4 injured people) including motor vehicle accidents (particularly tour or school busses) where response agencies may be overburdened.

The risk of large scale **structure fires** is moderate in Wolcott. The most significant risks involve the village areas and schools. Mutual aid agreements with surrounding municipalities are in place, however the water supply does not meet NFPA codes. Travel time from the fire station can be a factor along with long driveways to new homes. **Wildfires** have occurred in the past with minimal damage involved. The potential for wildfires exists although the town has adequate equipment and mutual aid agreements in place to respond appropriately. Some recreational and retirement homes with single access roads are in jeopardy.

The potential for an **air crash** exists due to the proximity of the Morrisville-Stowe airport. While the Morrisville Fire Department has minimal training to deal with large scale accidents, smaller crashes (2-4) people would not overburden the department. The potential for development of the airport creates the possibility of larger aircraft to fly into town. Overall more training on this hazard is needed. One emergency landing strip is located in town on the Taylor property

There is one dam located in the Town that has the potential for **dam failure**. The Pottersville Dam is located just off Route 15 outside the village and is owned and operated by Hardwick electric. The potential for Critical damage exists as the dam is located upstream of the Village on the Lamoille River. The Village including residences, villages and businesses are all at risk for severe flooding. Probable causes of dam failure

emergencies may include earthquakes, extreme storms, equipment malfunctions, structural damage and/or deteriorations, and sabotage.

**Drought** can be a problem in late summer with local springs and well levels reduced to minimal flows. Water table reached an all time low during the nationwide drought of 1988, however recovery was fairly rapid. **Earthquakes** have been felt in Wolcott and remain a geological possibility but are not a frequent event. Some small **landslides** have occurred along the Wild Branch Brook but overall are uncommon. Further along Route 15 in Hardwick considerable landslide activity has occurred on the slopes above the road and has caused road closures and presents a potential threat to vehicle travel.

#### 4.2.1 HAZMAT Sites

Regarding HAZMAT the following data from the inventory maintained by LEPC #11, the following 3 Tier II sites were identified:

Fuel storage sites:     North Wolcott Store  
                                   Town of Wolcott  
                                   Wolcott Store Inc.

The accompanying Areas of Local Concern map (Tab b) outlines the potential impact of a HAZMAT incident in terms of structures affected within a community from a fixed site and in terms of structures affected along a HAZMAT transportation corridor or route where an accident might occur.

When assessing community vulnerability, the impact of both fixed site and transportation were considered. Using the 2000 Emergency Response Guidebook, a 1000 foot buffer was selected. For fixed site facilities, a 1000 foot radius circle was drawn around that site to determine the area of potential impact. For potential transportation incidents, a 500 foot buffer on each side of Class I and II roads was used to determine potential impact. In Wolcott there are 3 Tier II sites. Of the 690 structures within the town 55 structures are within 1000 feet of a Tier II site. Structures include all residential, commercial and public buildings in a town. Structures are only counted once. This means that if a house is within 1000' of three Tier II sites, it is only counted once, not three times. Based on the median housing value for Wolcott, provided by the 2000 U.S. Census, the estimated potential loss for all properties within 1000 feet of a Tier II is \$82,100. The estimated potential loss for all properties within 500 feet of a major roadway is \$4,515,500.

Table III. Wolcott Potential Tier II Hazard Loss (fixed)

<b>Town</b>	<b>Median Housing Value</b>	<b>Structures within 1000' of Tier II site (% of total)</b>	<b>Potential Tier II Hazard Loss</b>
Wolcott	\$82,100	55 (8.0%)	\$4,515,500

Table IV. Wolcott Potential Tier II Hazard Loss (transportation)

<b>Town</b>	<b>Median Housing Value</b>	<b>Structures within 500' of a major road (% of total)</b>	<b>Potential Tier II Hazard Loss</b>
Wolcott	\$82,100	55 (8.0%)	\$4,515,500

#### 4.2.2 Transportation Hazards

No major intersections have been identified by VTRANS as having a history of accidents. However the intersection identified by the town that has high potential for accidents is the VT Route 15 and North Wolcott Road intersection. Due to the design of the intersection and the high rate of speed vehicles travel in the 50 MPH zone. A culvert study conducted in 2004 identified no culverts in the town that are in “CRITICAL” condition based on the Vermont Center for Geographic Information Bridge & Culvert Data Standards (Tab a). Critical culverts are also identified on the Areas of Local Concern Map (Tab b), however, digital data from the study may need to be updated. All bridges located in town are identified on the Floodplain, Bridge and Culvert (Tab a) bridges with a federal sufficiency rating of less than 50 (out of 100) are also identified on the Areas of Local Concern Map. Three (3) of the Bridges in Wolcott have a federal sufficiency rating of less than 50.

#### 4.2.3 Areas of Local Concern

A number of Tier II sites are located within one mile of the center of the Village of Wolcott. This location houses all emergency response equipment, the town offices, the EOC and the local schools. It is also important to note that many hazardous materials that pass through the village are also within 1 mile of the school, EOC and town offices.

There are 10 critical facilities in the town (Tab c.) with 5 of the critical facilities located within 1,000 feet of a Tier II site and two critical facilities that are impacted by 3 known hazards and two critical facilities impacted by one know hazard. Known hazards are being within the 100-year floodplain, being within 500 feet of a major road and being within 1,000 feet of a Tier II site (Tab b.)

Additional Areas of Concern include the 2 EOC’s in order, the town offices on Route 15 and the Wolcott Elementary School on School Hill Drive. The emergency shelters include the Wolcott Elementary School and the Mennonite School on Route 15.

Other vulnerable sites include:

- Wolcott Village

- North Wolcott Village
- High Risk populations include:
- Wolcott Elementary School
  - Mennonite School

## 5. Mitigation Strategies

### 5.1 Existing Hazard Mitigation Programs, Projects and Activities

The following is a list of ongoing or recently completed programs, projects or activities in the Town of Wolcott. Additional Mitigation Strategies are outlined in Section 3 of the Lamoille County PDM plan.

#### Community Preparedness Activities

- Current RRP/EOP is completed
- Emergency Response and Management Staff attending professional training sessions
- Regularly scheduled maintenance programs ongoing (culvert survey & replacement, ditching along roadways, cutting vegetation to allow visibility at intersections)
- Participation at Local Emergency Planning Committee meetings and activities
- Support of mission and maintains members in the Lamoille County Community Emergency Response Team (CERT)

#### Financial and Tax Incentives

- Annual investment of local tax dollars in highway mitigation projects
- Use of State and Federal funding for mitigation projects and activities

#### Hazard Control and Protective Works

- Highway maintenance Programs (culvert survey & replacement, ditching along roadways, cutting vegetation to allow visibility at intersections)

#### Insurance Programs

- Participation in NFIP

#### Land Use Planning/Management

- Flood Hazard Ordinance adopted March 6, 2001
- Municipal Development Plan adopted September 5, 2002

#### Protection/Retrofit of Infrastructure and Critical Facilities

- Mapping of Critical and Essential Facilities

#### Public Awareness, Training & Education

- Hazard Identification and Mapping
- Community NFIP outreach through county planning commission

#### Public Protection

- Survey and designation of shelter(s)
- Emergency communications and information systems (NOAA weather receivers, Emergency Alert System (EAS))

- Auxiliary Power for School (Emergency Operations Center/Shelter)
- Hazard Vulnerability Assessments

Science and Technology

- Stream Geomorphic Assessments, Phase I
- Traffic calming and alternate transportation project

5.2 Identified Hazard Mitigation Programs, Projects and Activities

The following identified programs, projects and activities are new and/or planned for the Town of Wolcott and complement Section 3 of the Lamoille County PDM plan. In Wolcott, the major concern is the impact of a serious Flooding and/or snow or ice storm incident where power may be out and transportation routes to the town would be affected effectively leaving the general public and special needs populations at risk due to delayed response time. Partners involved in completing these projects are identified in parentheses following the description.

Community Preparedness Activities

1. Finalize the Enhanced Emergency Operations Plan with specific emphasis on a method of early warning and notification and coverage of terrorism events (EMD, LEPC, RPC)
2. Ensure procedures are in place for rapid evacuation of essential facilities (EMD, RPC)
3. Review and study the need for additional foam capability by the Fire Department to minimize the impact of a HAZMAT incident (LEPC, RPC, FD)
4. Ensure that all emergency response and management personnel receive HAZMAT Awareness training as a minimum (SB, RPC, PD, FD)
5. Continue to train public officials and local responders in the use of the Incident Command System (SB, RPC, LEPC, PD, FD)
6. Continue to enhance training of the Emergency Management Director (EMD)
7. Integrate additional mitigation measures in local land use planning and ordinance development processes (PC, TA, SB)

Public Awareness, Training, Education

1. Use this plan for Hazard Identification and Mapping, include public partners (All)
2. Institute an Emergency Preparedness Education Program in the school (LEPC, RPC)

3. Enhance public education and outreach regarding the National Flood Insurance Program (RPC)
4. Support Family and Community Disaster Preparedness (LEPC)
5. Conduct HAZMAT Drills involving all elements of the community to practice procedures associated with a simulated HAZMAT incident (LEPC, RPC, EMD, PD, FD)
6. Continue community support of and participation in the Lamoille County CERT and LEPC #11 (LEPC, SB, TA, PD, FD, HWY)
7. Collaborate with American Red Cross chapter to assist with community education programs and shelter agreements (EMD, LEPC, RPC)

#### Public Protection

1. Review and modify evacuation and sheltering plans based on the results of drills and exercises or procedures implemented in an actual incident, share results with community (EMD, RPC, LEPC)
2. Work with local and regional providers to develop informational database on special needs populations and elderly residents (LEPC, RPC)

#### Science, Technology and Structural

1. Fluvial Geomorphic and Landslides Hazard Assessment to evaluate landslide potential in Morristown (RPC, ANR)
2. Review the findings and recommendations of the Morristown Culvert Study to assess validity and progress in implementation (HWY, SB, TA)
3. Added emergency generators to the EOC and emergency shelter (RPC, LEPC)
4. Provide more emergency equipment and early warning systems for population of villages (RPC)
5. Increase quantity of emergency equipment such as pumps, generators and drinking water storage systems to mitigate risk to community from flooding events (EMC, RPC, FD, WD)

#### Key:

EMC- Emergency Management Coordinator  
 SB- Selectboard

TA- Town Administrator  
TC- Town Clerk  
HWY- Highway Department  
PC- Planning Commission  
FD- Fire Department  
PD- Police Department  
WD- Water Department  
ED- Electric Department  
AA- Administrative Assistant  
PW- Public Works  
RPC- Regional Planning Commission  
LEPC- Local Emergency Planning Committee  
ANR- Agency of Natural Resources River Mgmt. Program

Other mitigation measures that should be considered by communities and families/individuals are listed by type of mitigation strategy in section 3.4 and mitigation by hazard type in section 3.5 of the Lamoille County Multi-Jurisdictional All Hazards Mitigation Plan.

Potential funding sources by hazards type are found in section 3.6 of the Lamoille County Multi-Jurisdictional All Hazards Mitigation Plan.

#### Appendix A. Town of Wolcott Supplemental Data and Maps

Floodplain, Bridge and Culvert Map (Tab a)  
Areas of Local Concern Map (Tab b)  
Critical Facilities Map (Tab c)

## Appendix B. Action Evaluation and Prioritization Matrix

### Action Evaluation and Prioritization Matrix      Town: Wolcott

5 = Excellent   4 = Good   3 = Average   2 = below average (or unknown)   1 = poor

Mitigation Action	Responds to significant (likely or high risk) hazard	Likelihood of funding	Protect threatened infra-structure	Implemented quickly	Socially / Politically acceptable	Technically Feasible	Administratively Realistic	Reasonable cost to benefit	Environmentally sound	TOTAL SCORE
Fluvial Geomorphic and Landslides Hazard Assessment to evaluate landslide potential in Wolcott	5	4	5	4	5	5	5	5	5	43
Review the findings and recommendations of the Wolcott Culvert Study to assess validity and progress in implementation	5	4	5	4	5	5	5	5	5	43
Added emergency generators to the EOC and emergency shelter	3	4	4	3	5	4	3	3	3	32
Provide more emergency equipment and early warning systems for population of villages	5	4	5	3	5	4	5	5	3	44
Increase quantity of emergency equipment such as pumps, generators and drinking water storage systems to mitigate risk to community from flooding events	4	3	5	3	4	4	4	4	4	35

Appendix C. Implementation Schedule for Prioritized Mitigation Projects

MITIGATION ACTION	WHO (LEADERSHIP)	WHEN (DEADLINE)	HOW (FUNDING SOURCE)	HAZARD BEING MITIGATED
Fluvial Geomorphic and Landslides Hazard Assessment to evaluate landslide potential in Wolcott	LCPC, VT Agency of Natural Resources	2005	PDM-C Planning, State & Federal Grants	Flood Landslides
Review the findings and recommendations of the Wolcott Culvert Study to assess validity and progress in implementation	Town of Wolcott, LCPC	2006	Town of Wolcott, VT Agency of Transportation	Flood
Added emergency generators to the EOC and emergency shelter	Town of Wolcott, LCPC	2007	Homeland Security, FEMA, State of Vermont, Town of Wolcott	All
Provide more emergency equipment and early warning systems for population of villages	Town of Wolcott, LCPC	2007	Homeland Security, FEMA, State of Vermont, Town of Wolcott	All
Increase quantity of emergency equipment such as pumps, generators and drinking water storage systems to mitigate risk to community from flooding events	Town of Wolcott, LCPC	2007	Homeland Security, FEMA, State of Vermont, Town of Wolcott	All