

## Chelsea Annex

### Introduction

This appendix, when used with the Regional (multi-jurisdictional) PDM Plan, is an All-Hazard Pre-Disaster Mitigation Plan for the Town of Chelsea.

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. Previous FEMA, State and Regional Project Impact efforts demonstrate the fact 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. 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 **avert** the hazard by redirecting its impact by means of a structure or land treatment, **adapt** to the hazard by modifying structures or standards or **avoid** the hazard through improved public education, relocating/removing buildings in the flood zone, or ensuring development is disaster resistant. Measures and strategies 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 accident locations and routes
- Ensuring adequate water supply
- 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 and education

### Purpose

The purpose of this Pre-disaster Mitigation Plan is to assist Chelsea in identifying all hazards facing the town and list strategies to begin reducing risks from known hazards.

## **Two Rivers-Ottauquechee Regional Hazard Mitigation Goals**

- Reduce the loss of life and injury resulting from all hazards.
- To lessen financial losses and property damage incurred by municipalities, businesses and private citizens due to disasters.

These overarching goals can be further refined as follows:

- The impacts of hazards should be first avoided, then reduced where they cannot be reasonably avoided. For flooding and riverine erosion, this can best be achieved by precluding development from hazard areas, and where development exists through property buyouts or flood protection sympathetic to the natural and human resources of the area.
- The connections between land use, development siting, drainage systems, building standards, and road design and maintenance and the effects of disasters on the Region should be recognized and incorporated into policy so that there is no adverse impact (increased hazard) from development.
- Mitigation actions should be part of larger, systematic efforts at disaster reduction based on the highest threats. Flooding should be addressed on a watershed scale. Structural fire and technological hazards should be lessened through statewide safety education and code compliance.

## **Chelsea Town Plan (adopted 5/1/07) – Objectives/Goals that support Hazard Mitigation**

- To protect the historic features of Chelsea, to preserve open space and to provide a sound economic basis for its maintenance, to allow the growth of the Town in a manner that will continue the rural and village environment, to encourage a rational and convenient pattern of settlement, and to encourage and enhance the attractiveness of the Town (page 2).
- To provide adequate and efficient transportation facilities, schools, parks, and other public facilities and to encourage the appropriate and efficient expenditure of public funds (page 2).
- To ensure that the Town can adapt to the growth rate in order to be able to provide facilities and services (page 2).
- To maintain a transportation system that is safe and efficient for motor vehicles and pedestrians alike (page 48).
- To ensure that future development does not unnecessarily or unreasonably endanger the public investment in town and regional transportation systems or facilities, including highways, bikeways, trails, and rail (page 48).

## **Community Background**

Chelsea is located near the center of Orange County and in 1795, it was designated as the seat of county government, thus becoming the "Shire Town" to use an old English term. The courthouse that stands at the head of the South Common was built in 1847, on nearly the same site as the 1801 structure. In 2000, the population of Chelsea was 1,240, well

below their historical high of 1940 in the late 1800's. Between 1990-2000 the population grew by 6.4%.

According to Vermont Housing data, there were 657 housing units in Chelsea in 2000 and 129 for seasonal recreational or occasional use. Based on US Census information nearly 36% of Chelsea residences were built prior to 1939.

The Town lies within the service area of Central Vermont Public Service (CVPS), which supplies electrical power to all sections of town.

Volunteer personnel and the equipment of the Fire District Number One provide fire protection for the Town. The Fire Station is located near the center of Chelsea Village on Rt. 110. All the fire fighting apparatus is housed within this building along with rented space used by First Branch Ambulance

The Fire District has an agreement with the Town of Washington to respond to calls south of the height of land and has a mutual assistance agreement with the Tunbridge Fire District. Further, the District is a member of the Capital Fire Mutual Aid System.

In 1995, the Municipal Water System was completed along with a very adequate fire hydrant system. In 1995, the Department purchased an air compressor for breathable air. This gives the Department the capability to refill the air bottles on the self-contained breathing apparatus used by firefighters. In 2001 the District approved the purchase of a 1,250-gallon tank/1,250 GPM pumper with the ability to accommodate five firefighters in full gear in the cab to replace a worn out 1966 vehicle

The Orange County Sheriff, Chief Deputy Sheriff and an Administrative Manager provide police services for Chelsea and 17 other towns. The Orange County Sheriff's Office and adjacent facility are located in Chelsea Village on Route 113 (Jail Street). The police facility consists of a set of four rooms for the office, a block of six cells to accommodate 12 detainees on the ground floor and six cells on the second floor of which only one is used. Detention is limited to 72 hours or to weekend prisoners. A dispatcher is on duty at this location 24 hours a day to accept calls and dispatch a Deputy if one is available.

Since State Law does not provide for the County to tax residents for law enforcement expenses, including salaries and equipment, the Sheriff's Department operates under contract to towns desiring their patrolling and response services. In addition, the Department contracts for traffic control during road paving, utility construction and other projects at a rate higher than for contracted services. The difference allows the Sheriff to provide law enforcement to towns in addition to the contracted amount.

The Town of Chelsea also elects a Constable who provides such services as requested by the Selectmen. The Constable has the same authority as the State Police.

Chelsea is also served by the First Branch Rescue Squad which provides service to Chelsea and surrounding towns. The closest hospital is Gifford Medical Center, located in Randolph. Medivac services are available by the DHART helicopter.

### **Community Hazards Inventory and Risk Assessment**

In Chelsea, the interviews and hazards analysis indicate that the following hazards are listed as probable (frequent to unusual) – Flash Flood, HAZMAT (Transportation Accidents), Winter Storm/Ice Storm, and Structural Fire. In terms of potential severity of damage, the following hazards are rated as having the potential to produce serious to locally catastrophic damage – Flash Flood, HAZMAT, Hurricane/Tropical Storm, Drought, and Structural Fire. Hazards to which the town is vulnerable (probable and damaging) include Flash Flood, HAZMAT, and Fire. Therefore, the mitigation measures in this Plan focus on these three hazards.

#### **Flash Flood (Risk = Med-High/High)**

Based on the results of overlaying the FIRM flood maps with the location of the E911 points, there are 50 residences and 15 commercial and industrial businesses in the town that are vulnerable to potential flooding. The estimated loss for damage to these properties from the 100 year flood, assuming average residential and commercial values (derived from 2008 Annual Report by the Vermont Department of Taxes, Division of Property Valuation and Review) would be \$9,715,336. This is about 9% of the grand list.

Recent flooding that had led to federal disaster declarations for Orange County occurred from June 17, 1998 to July 13, 1998 (DR 1228 VT), Sept. 16 through Sept. 21, 1999 (DR 1307 VT), July 14, 2000 through July 18, 2000 (DR 1336 VT), July 21, 2003, through August 18, 2003 (DR 1488 VT), April 15-21, 2007 (DR 1698 VT), July 9-11, 2007 (DR 1715 VT) and July 21 through August 12, 2008 (DR 1790 VT). This list does not include flood events that were not federally declared.

No development projects are planned in Chelsea in areas that would be vulnerable to flooding. There are no repetitive loss properties in Chelsea on FEMA's NFIP list.

#### **Hazardous Materials (HAZMAT) - Transportation Accidents (Risk = Med-High/High)**

Based on available VT Tier II data, there are 4 sites in town that have sufficient types and/or quantities of hazardous materials to require reporting. The primary HAZMAT concern in Chelsea comes from Route 110, a north-south route that bisects Chelsea. This road sees a fair amount of truck traffic. There are 222 residential and 35 commercial buildings within 1,000 feet of a potential HAZMAT spill on Route 110. If 5% of these structures were involved in an accident, total property damages would equal \$1,935,894. It should also be noted that the State of Vermont currently has one fully trained HAZMAT response team, with vehicles located in Essex Junction, Brandon, and Windsor. The HAZMAT crew chief is available within minutes of a call for the team but on-scene response would be a matter of hours. In the event of a serious accident in town, there would be little time for evacuation and response would be difficult.

### Fire (Risk = Med-High/High)

Poor access to fires, limited water supply for firefighting outside the Village area, and distances of homes from the Fire Station are a few of the challenges that leave Chelsea vulnerable to the impacts of structure fires.

### **Existing Hazard Mitigation Measures in the Community**

Ongoing efforts to mitigate hazards in the community include:

1. ditch and culvert maintenance.
2. administration of flood hazard regulations

### **National Flood Insurance Program**

Chelsea's initial Flood Hazard Boundary Map was identified on 6/28/74. The Town's initial Flood Insurance Rate Map (FIRM) was dated 8/15/80. The Town's FIRM has not been updated – the current effective map date is 8/15/80.

The Chelsea Zoning Administrator serves as the NFIP Administrator. Chelsea is located in Orange County and has not completed an update of its flood hazard regulations. Aside from the Town's NFIP program, there are no additional erosion control or flood management regulations that apply in Chelsea. There are no plans to enroll the community in the CRS program.

Based on the regional and local hazard assessment and analysis, this Annex identifies actions related to continued compliance with the NFIP. These actions are prioritized, along with the other actions developed in this Annex, using the method described on Page 21 of the Regional PDM Plan. The actions are included in the Implementation Schedule for Prioritized Mitigation Projects, which follows.

### **Areas of Local Concern**

1. Virtually all of Chelsea's Village is in the floodplain. The Town Garage, Town Offices and Fire Department could all be potentially inundated with water in the event of a flood hazard event.
2. Jail Brook has experienced ice jams over the last few winters that have caused flood damage to nearby roads including.

### Implementation Schedule for Prioritized Mitigation Projects

Tasks currently under way or under consideration – in order of priority:

MITIGATION ACTION	WHO (LEADERSHIP)	WHEN (TIMEFRAME)	HOW (FUNDING/ SUPPORT)	IMPLEMENTATION THROUGH EXISTING PROGRAMS
<u>ALL HAZARDS</u> 1. Ensure that RRP is current	Selectboard	Yearly	With TRORC assistance	
2. Use PDM plan for Hazard Identification and Mapping	Emergency Management Coordinator	Ongoing	With TRORC assistance	
3. Re-write and update existing Emergency Operations Plan	Emergency Management Coordinator	Yearly	With TRORC assistance	
4. Improve interoperability of emergency communications equipment	Emergency Management Coordinator	ongoing	Local resources	
<u>FLOOD</u> 5. Continue the planned road maintenance program and update existing culvert inventory. Upgrade culverts and ditching.	Highway Department	Ongoing	Local resources	
6. Revise flood hazard regulations	Planning Commission/ Selectboard	2009	Local resources with TRORC assistance	
7. Study potential well-head protection area improvements	Emergency Management Coordinator	Ongoing	Local resources	
8. Investigate ways to lessen ice jamming on Jail Brook	Emergency Management Coordinator	2008	Vermont Agency of Transportation (VTrans) and Flood Management Assistance funds	
9. Realign Vermont Rte 110 box culvert that crosses Jail Brook (#B10)	Highway Department	2009	VTrans	
10. Replace Maple Avenue bridge (#B45)	Highway Department	2009	HMGP or PDM-c funding	
11. Stabilize stream banks and land slides along Corinth Road (in northeast Chelsea)	Highway Department	2010	HMGP or PDM-c funding	
12. Stabilize bank failures along Edwards Road (between Route 110 and Williamstown Rd)	Highway Department	2010	HMGP or PDM-c funding	
<u>HAZMAT</u> 13. Pursue HAZMAT training for Fire Department	Fire Department	2009	Funded by Fire Service Training Academy	
<u>FIRE</u> 14. Develop additional dry hydrant sites in rural locations.	Fire Department	Ongoing	Local resources, George Aiken RC&D	