

Strafford 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 Strafford.

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 Strafford 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.

Town Plan Objectives/Goals that support Hazard Mitigation

- To identify and protect natural resources unique to Strafford which make it special.
- To provide community facilities and services which meet the needs of the residents of Strafford.
- To cooperate with neighboring communities by addressing shared concerns in a regional context.
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- To perpetuate, so far as is possible, the distinctive rural, agricultural, cultural and scenic appeal of Strafford while allowing facilities, and services.

Strafford Town Plan (adopted 3/26/08) – Objectives/Goals that support Hazard Mitigation

- Careful review of all development projects to minimize the impact on Strafford's natural resources (page 4-1).
- Growth and development should not exceed the capacities of local facilities and services (page 5-1).

Community Background

Strafford, comprising 28,278 acres, is located in the southeasterly portion of Orange County. The west branch of the Ompompanoosuc River is the principal stream and winds its way through the town from its source in Vershire. In the southeast corner of Strafford lies the Elizabeth Mine, which has played a significant role in Strafford's history and, as a hazardous waste site, will continue to be a preoccupation of the Town.

As of 2000, there were 542 housing units (i.e., residences) in Strafford, an increase of 19.9% over the previous census. The age of housing structures in Strafford is divided, roughly, into thirds: 33% built before 1940; 34% built between 1940-79; and 34% built between 1980 and 1999.

Central Vermont Public Service Corporation (CVPS), except for .348 miles of overhead line serving four permanent and one seasonal residence provided by Washington Electric Cooperative, supplies all Strafford's electricity.

Fire protection for the town is provided by the Strafford Firemen's Association. The firehouse in Strafford Village has two bays with an area of approximately 650 square feet

and a hose-drying tower. A second three-bay sub-station completed in 1976 is located on Rte. 132 a half-mile east of South Strafford which contains a 2001 American Eagle E1 Rescue Pumper, 1997 Equipment Truck, 1990 Ford Middlesex 1,000 gpm pump with 1,000 gallon water capacity, and 1980 White Western Star with a 1,500 gallon portable tank. Strafford is a member of the Upper Valley Mutual Aid System, instituted to provide more comprehensive fire protection for member townships.

Strafford's membership in the Upper Valley Ambulance Service, tied into the Dispatch Center in Hanover, provides high-quality emergency ambulance service for Strafford residents. The Strafford First Aid Squad, or FAST Squad is also summoned by the Dispatch Center in Hanover to assist ambulance personnel at accidents and other medical emergencies. The closest hospital is Dartmouth Hitchcock located in Lebanon, NH. Medivac services are available by the DHART helicopter.

A First and Second Constable, appointed annually by the Board of Selectmen, constitute the resident law enforcement in Strafford. The Vermont State Police, Troop "D", headquartered in Bethel, are on call when needed, along with the Orange County Sheriff's Office in Chelsea. Strafford contracts annually with the Orange County Sheriff's office for law enforcement services.

Community Hazards Inventory and Risk Assessment

In Strafford, the interviews with the town Selectboard and municipal Emergency Management officials 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 Wildfire/Forest 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 28 residences 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 \$6,522,187. This is about 4% 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. Flooding and flash flooding are the most likely and most frequently recurring natural disaster events in Vermont.

No development projects are planned in Strafford in areas that would be vulnerable to flooding. There are no repetitive loss properties in Strafford on FEMA's NFIP list. Areas subject to flooding are shown on the NFIP map of Strafford.

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

Based on available VT Tier II data, there are 2 sites in town that have sufficient types and/or quantities of hazardous materials to require reporting. Strafford's village is located on Route 132, which does not see a large amount of truck traffic. There are 88 residential and 7 commercial buildings within 1,000 feet of a potential HAZMAT spill on Route 25. In the event that 5% of these structures were involved in a HAZMAT incident, the estimated damage would be \$1,117,960. 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, and distances of homes from the Fire Stations are a few of the challenges that leave Strafford vulnerable to the impacts of structure fires. Wildfires are possible during late spring, late summer, and early fall. The forests contain potential fuel for a serious conflagration with many wooded acres and difficult terrain. Some recreational and retirement homes with single access roads and no fire-fighting water supply are in jeopardy.

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
3. The Town of Strafford, in partnership with the Town of Thetford, has developed a Reuse Plan for the Elizabeth Mine site.

National Flood Insurance Program

The Town of Strafford is an NFIP participant. Strafford's initial Flood Hazard Boundary Map was identified on 3/28/75. The Town's initial Flood Insurance Rate Map (FIRM) was dated 9/27/85. The Town's FIRM has been updated, and the current effective map date is 2/3/93.

The Strafford Zoning Administrator serves as the NFIP Administrator. Strafford is located in Orange County and has not completed an update of its flood hazard regulations. Beyond the Town's NFIP program, there are no additional erosion control or flood management regulations that apply in Strafford. 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. Between Strafford and South Strafford there is a 1,500 foot section of the Justin Morrill Memorial Highway that is subject to periodic flooding and some erosion. The inundation of this stretch of road would require temporary detours.
2. Alger Brook and Maple Hill Roads do not have adequate drainage and are consistently subject to erosion from rain and snow runoff. Culverts on this road are undersized, and not meeting the needs of the roads. These roads regularly wash out and are a hazard to the residents who live on them.

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. Re-write and update existing Emergency Operations Plan | Emergency Management Coordinator | Yearly | With TRORC assistance | |
| 3. Provide emergency response training/ICS course for municipal officials. | Emergency Management Coordinator, Fire Chief, Road Foreman | Ongoing | Local resources | |
| 4. Educate citizens on emergency preparedness and extended power outages through town newsletter. | Emergency Management Coordinator | Ongoing | Local resources | |
| <u>FLASH FLOOD</u> 4. Continue the planned road maintenance program and update existing culvert inventory. Upgrade culverts and ditching. | Highway Department | Ongoing | Local resources | |
| 5. Raise the base of both Alger Brook and Maple Hill Roads. Add ditching and culverts. | Road Foreman | 2012 | Local resources | |
| 6. Revise flood hazard regulations | Selectboard | 2009 | Local resources and TRORC assistance | |
| 7. Consider adopting Fluvial Erosion Hazard regulations | Planning Commission and Selectboard | 2009 | Local resources, TRORC assistance | |
| <u>HAZMAT</u> 8. Ensure adequate HAZMAT awareness for Fire Department | Fire Department | 2009 | Funded by Fire Service Training Academy | |
| <u>FIRE</u> 9. Develop additional dry hydrant sites in priority rural locations, such as Van Dyke Road, Mine Road, and Turnpike Road. | Fire Department | Ongoing | Local resources, George Aiken RC&D | |