

# **Town of Troy and Village of North Troy Multi-Jurisdiction Local Hazard Mitigation Plan**

Prepared by:

The Town of Troy/Village of North Troy and  
Northeastern Vermont Development Association



**Adopted by the Troy Selectboard and  
Village of North Troy Trustees on  
November 15, 2022**

**CERTIFICATE OF LOCAL ADOPTION**

**A Resolution Adopting the**

**Town of Troy and Village of North Troy Multi-Jurisdiction Local Hazard Mitigation Plan**

WHEREAS, the Town of Troy, inclusive of the Village of North Troy, in Orleans County has worked with its residents and stakeholders to identify its hazards and vulnerabilities, analyze past and potential future losses due to natural and human-caused hazards, and identify strategies for mitigating future losses; and ...

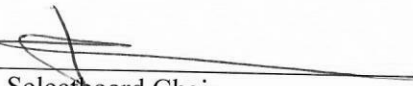
WHEREAS, the Town of Troy and Village of North Troy **Multi-Jurisdiction Local Hazard Mitigation Plan** contains recommendations, potential actions and future projects to mitigate damage from disasters in the community; and


WHEREAS, the Town of Troy and Village of North Troy and the respective officials will pursue implementation of the strategy and follow the maintenance process described in this plan to assure that the plan stays up to date and compliant; and...

WHEREAS, a joint meeting was held on Nov 15 2022 by the Town of Troy Selectboard and Village of North Troy Trustees to formally approve and adopt the **Town of Troy and Village of North Troy Multi-Jurisdiction Local Hazard Mitigation Plan**

NOW, THEREFORE BE IT RESOLVED that the Town of Troy/Village of North Troy in Orleans County adopts this **Town of Troy and Village of North Troy Multi-Jurisdiction Local Hazard Mitigation Plan**

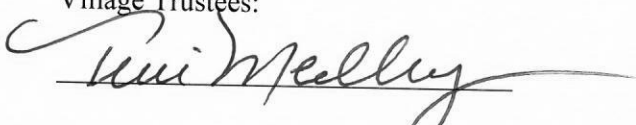
Nov 15 2022  
Date

  
Selectboard Chair

  
Selectboard member

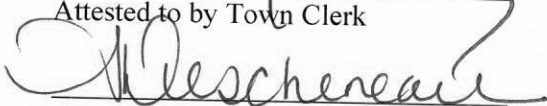
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Selectboard member

Village Trustees:





  
Attested to by Town Clerk

  
Attested to be Village Clerk

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## 1. INTRODUCTION AND PURPOSE

### 1.1 Purpose and Scope of the Plan

The purpose of the 2020 Town of Troy and Village of North Troy Multi-Jurisdiction Local Hazard Mitigation Plan is to identify all hazards facing each jurisdiction and the community as a whole, and to identify policies and actions that can be implemented to reduce risk and future losses from the identified natural hazards. This includes modifying structures, such as culverts, so they can better withstand natural hazards, and avoiding development in identified hazardous areas. The mitigation actions identified in this plan are intended to reduce or eliminate long-term risks to hazards. It is recognized that it is less expensive to prevent damage from disasters than to get caught in a cycle of repetitive repair after a disaster has struck.

In order for the Town of Troy and Village of North Troy to continue to be eligible for grant funding of mitigation projects, the Plan must be reviewed, revised and re-submitted to FEMA for approval every five (5) years.

### 1.2 Hazard Mitigation

The 2018 Vermont State Hazard Mitigation Plan (SHMP) defines hazard mitigation as “any sustained action that reduces or eliminates long-term risk to people and property from natural hazards and their effects.”

The 2018 Vermont SHMP was developed to help the State of Vermont and local governments identify all natural hazards facing communities in the state and establish actions that reduce risk. This plan will reference data and mitigation strategies included in the State Plan where relevant.

### 1.3 Hazard Mitigation Planning Required by the Disaster Mitigation Act of 2000

Hazard mitigation planning is the process that analyzes a community’s risk from natural hazards, coordinates available resources, and implements actions to reduce risks. Per *44 CFR Part 201: Hazard Mitigation Planning*, this planning process establishes criteria for State and local hazard mitigation planning authorized by Section 322 of the Stafford Act as amended by Section 104 of the *Disaster Mitigation Act of 2000*.

FEMA requires state and local governments to develop and adopt hazard mitigation plans as a condition for receiving certain types of non-emergency disaster assistance, including funding for mitigation projects. Jurisdictions must update their hazard mitigation plans and re-submit them for FEMA approval every five years to maintain eligibility.

FEMA’s “Building Resilient Infrastructure and Communities” (BRIC) is a new FEMA pre-disaster hazard mitigation program that replaces the existing Pre-Disaster Mitigation (PDM) program and is a result of amendments made to Section 203 of the Stafford Act by Section 1234 of the Disaster Recovery Reform Act of 2018 (DRRA). The BRIC program supports states and local communities as they undertake hazard mitigation projects reducing the risks they face from disasters and natural hazards.

FEMA recently released a new policy (FP-108-024-02: Ecosystem Service Benefits in Benefit-Cost Analysis for FEMA’s Mitigation Programs Policy) that allows for ecosystem service benefits to be included in a mitigation project’s Benefit-Cost Analysis regardless of the Benefit-Cost Ratio (BCR). Previous policy limited the use of these benefits to projects meeting a .75 BCR.

With this new policy, ecosystem service benefits can be used for all project types eligible under the Hazard Mitigation Assistance (HMA) programs that support the incorporation of ecosystem service benefits and result in the improvement of the natural environment.

## 1.4 Eligibility for State and Federal Funds

Having a locally adopted, FEMA-approved Local Hazard Mitigation Plan makes the Town of Troy and Village of North Troy eligible for Flood Mitigation Assistance Grant Program (FMA) funds, Hazard Mitigation Grant Program (HMGP) project grants, and Pre-Disaster Mitigation program funding, as noted above.

Since October 14th, 2014, a community that lacks a Local Hazard Mitigation Plan gets less matching funds from the State of Vermont under the Emergency Relief Assistance Fund (ERAF) when FEMA Public Assistance grants are awarded after a Presidentially-declared emergency. While 75% of the project cost is covered by federal funds, and the default rate for State contribution towards non-federal match dropped to 7.5% in 2014, requiring municipalities to cover the other 17.5% for Public Assistance projects. However, municipalities that take the following proactive measures are awarded 12.5% State match:

1. Participate in the National Flood Insurance Program (NFIP),
2. Adopt Town Road and Bridge Standards that meet or exceed the VTrans 2013 template,
3. Adopt a Local Emergency Operations Plan annually, and
4. Submit a Local Hazard Mitigation Plan to Vermont Emergency Management (VEM) for review.

Municipalities that wish to further decrease their cost share to 7.5%, with a 17.5% State match, must also meet one of the following criteria:

5. Adoption of ANR’s River Corridor bylaws, or
6. Enrollment in the Community Rating System (CRS).

The 2018 State Mitigation plan notes that a significant advancement in hazard mitigation initiatives has been the revision of Vermont’s Stream Alteration General Permit (SAGP), and FEMA’s subsequent recognition of the new general permit as “codes and standards” for purposes of future Public Assistance (PA) repairs. Beginning with the Vermont Disaster Declaration DR-4330 in the summer of 2017, structure replacements that fall under the jurisdiction of and meet the standards of the SAGP are presumed to be PA-eligible and do not require approval by FEMA prior to construction. This significant improvement allows Vermont to more quickly and appropriately address vulnerable infrastructure in a sustainable way during the immediate response and recovery phase following a disaster.



## 1.5 Local Hazard Mitigation Plan Goals

This Local Hazard Mitigation Plan establishes the following general goals for the town and its residents:

- 1) Reduce at a minimum, and prevent to the maximum extent possible, the loss of life and injury resulting from all hazards.
- 2) Mitigate financial losses and environmental degradation incurred by municipal, educational, residential, commercial, industrial and agricultural establishments due to various hazards.
- 3) Maintain and increase awareness amongst the town's residents and businesses of the damages caused by previous and potential future hazard events as identified specifically in this Local Hazard Mitigation Plan.
- 4) Recognize the relationship between the relative frequency and severity of disaster events and the design, development, use and maintenance of infrastructure such as roads and storm water management.
- 5) Maintain existing municipal plans and programs, adherence to state standards and ordinances that directly or indirectly support hazard mitigation.

## 1.6 Integration into Town Planning

The proposed mitigation actions in this Plan will provide a basis for town budgeting decisions, will help the Town be better prepared for future disasters, and will ease the receipt of post-disaster state and federal funding because the list of mitigation actions is already identified. The Municipal Plan for the Town of Troy and North Troy Village was updated and adopted in early 2020. This Hazard Mitigation Plan makes use of the recent data on the state of public infrastructure and development, and is consistent with the goals and strategies of the Municipal Plan, in particular those articulated in the Flood Resilience and the Utilities and Public Facilities sections.

In the Flood Resilience section, the articulated goal of reducing the risk of flood damage to infrastructure and improved property is proposed to be achieved through the following strategies:

- Partner with DEC and other organizations to facilitate restoration projects in river corridors.
- Encourage best practices to handle stormwater runoff from existing and new development.
- Discourage development on steep slopes and within river corridors.
- Create a capital improvement plan to address the mitigation projects identified in the LHMP, beginning with the highest priority projects.
- Consider regulating river corridors as part of the flood hazard regulations in order to mitigate flood and fluvial erosion hazard risks, protect investments in streambank restoration projects, and receive a higher amount of funding under ERAF
- Hold periodic education events to inform local residents how to mitigate flood and fluvial erosion hazards.

In the Utilities and Public Facilities section, the following strategies are relevant to and consistent with the goals of this hazard mitigation plan:

- Pursue the purchase and installation of generators for the most critical town utilities and facilities.

- Investigate the grant funding potential to meet facility needs.
- Develop a capital improvement plan to guide budgeting and expenditures for future infrastructure needs.

In the Transportation section, the following strategies are relevant to and consistent with the goals of this hazard mitigation plan:

- Maintain gravel roads and utilize local gravel resources.
- Address the safety concern areas in town with local maintenance or encourage state improvements and maintenance, especially along Route 105.
- Practice access management for new drives along major through traffic routes.
- Develop a capital budget plan for road maintenance and equipment acquisition.
- Guide truck related business development along main truck routes.
- Repair bridges in a timely fashion.
- Maintain and replace equipment in a timely fashion.
- Encourage dense development in and around the Village of North Troy and the Hamlet of Troy to support these multi-modal areas.
- Develop a maintenance plan for pedestrian facilities.
- In order to decrease road maintenance, roads with limitations on weight capacities should be posted as such.
- Encourage adequate bicycle facilities (wide-paved shoulders) to be added when substantial roadwork is to be undertaken, especially for Routes 100 and 105.

## 1.7 Community Overview

Troy Town

Orleans County

Area: 23,341 Acres/36.47 Square Miles

Chartered: October 28, 1801 (Vermont Charter)

Coordinates: 44°26' 57"N 72°23' 50"W

Altitude ASL: 764 feet

Troy is located in northern Orleans County, adjacent to the Canadian border. The Green Mountains lay to the west and the Vermont Piedmont lies to the east. It is bound on the north by the province of Quebec, Canada; on the east by the Town of Newport; on the west by the towns of Jay and Westfield; and on the south by Lowell. There is an international border crossing along VT Route 243, a short distance from the center of North Troy Village. The Village of North Troy is located entirely within the geographic boundaries of the Town of Troy (see Troy Base Map in Appendix). The area in southwestern part of the town encompassing the intersection of State Routes 100 and 101 is referred to as the "Troy hamlet." Although there is a Census Designated Place (CDP) delineating the hamlet of Troy, this is not a political boundary. Both the Town of Troy and Village of North Troy share the same Municipal Plan and the Town zoning regulations apply to all land within the geographic boundary of Troy, including the Village of North Troy.

## 1.7.1 Public Lands, Facilities, and Services

### **Public Water**

Public water is available to the residents of the Village of North Troy and the Troy hamlet. The sources of water for the Village of North Troy are from wells located southeast of the Village along River Road that pump up hill to the reservoir. The Village demands approximately 150,000 gallons per day. The Village may have to add another tank, or process water differently in order to meet the demand should additional housing be developed in the future. A lack of back-up power is another major concern for the Village, as blackouts shut down the pumps required to supply the system.

The hamlet of Troy utilizes a well, which is just south of the hamlet along the west side of the Missisquoi River. The well provides 120,000 gallons per day. The water is pumped to a tower north of the hamlet on Route 101 from which it gravity feeds to the hamlet inhabitants. This water system also lacks back up power. When there are large demands on this water supply, it recovers slowly. To address this issue, the town installed a telemetry system that runs the pump only when reservoir levels get low. This has proven to significantly improve the level of the aquifer. In addition, a filtration system has been installed to lower iron and arsenic levels in the water supply. A new well to replace the old well was installed in July of 2016.

The inhabitants of the outlying regions of the town utilize private wells and springs for their water source.

### **Wastewater**

The Village of North Troy is served by its own wastewater treatment plant. It is located on Elkins Drive adjacent to the Missisquoi River south of Route 105 and has a capacity of 110,000 gallons per day. The present committed capacity of the plant is 70,000 – 80,000 gallons per day. Future growth in the Village would easily be accommodated with the current level of capacity.

A wastewater treatment plant located off Route 101 serves the hamlet of Troy, portions of Route 101 and Route 242. The plant is jointly owned with the Town of Jay and has recently undergone an expansion. Currently the plant is operating at 150,000 gallons per day and is designed to accept 800,000 gallons per day. Troy's share is 110,000 gallons per day, although usage is not currently at this level. The added capacity is expected to be adequate for future expansions at Jay Peak, with additional capacity for related growth in Jay and the Hamlet of Troy.

The majority of the residents of Troy outside the hamlet have private sewage disposal systems consisting of septic tanks and leach fields.

### **Medical**

Troy does not have a health clinic. Most residents use the North Country Hospital in Newport City, located approximately 14 miles from the Municipal Offices in North Troy.

### **Electric and Communications**

The Vermont Electric Cooperative (VEC) services the Town of Troy. There is a major transmission line running east-west through the Town, just south of Village of North Troy.



Consolidated Communications provides telephone service in town. Rural customers appear to be discontent with the service due to the high cost, restricted local calling area, and poor service response time. Cellular service has limited coverage and is provided by AT&T Mobility and Verizon Wireless.

DSL is available throughout the town, but high-speed connection is limited at this time. Areas with higher density of residences and commercial buildings are fairly well served, however buildings in the lower density areas of town struggle with hit or miss availability of fast, reliable, affordable service. Residents and businesses in this situation are often required to pay for the infrastructure installation, which is sometimes miles away.

### **Town Garage**

The Town Garage was built in 1984 to serve the needs of the Town of Troy. The garage houses the equipment owned by the town, which includes a grader, three dump trucks and a bucket loader. The Town Garage is located on State Route 105, east of the Mississquoi River.

### **Village Garage**

The North Troy Village Garage serves the Village. It is located in the Village Office Building and houses a plow truck and backhoe.

### **Town Office Building**

The Troy Town Office is located in North Troy at 142 Main Street directly in front of the Troy Elementary School. The town office is also designated to serve as the local Emergency Operations Center (EOC) for the town during local emergencies and natural disaster situations.

### **Village Office Building**

The Village Office Building located at 160 Railroad Street houses the Village Offices, Clerk's Office, Meeting Room, Rand Memorial Library, Community Room, Village Garage, and the Village Fire Department. The building was originally built in the 1950's, was given to the Village in 2000, and was renovated in 2002 to incorporate these facilities.

### **Troy Elementary School**

The Troy Elementary School serving the Village of North Troy and Town of Troy is located on Main Street in the village of North Troy. The building was built in 1978 and has had only one addition, which provided an additional classroom. The Pre-Kindergarten is located in a manufactured building. Over the years, school enrollment has remained consistently between 150 and 170 students. Enrollment in grades Pre-K through 8 as of January 2019 was 179, with 18 students in Pre-K. Enrollment is expected to continue to remain stable over the next several years unless the town receives a major industry or new housing developments.

### **Child Care Facilities**

According to the Bright Futures Child Care Information System on the VT Department for Children and Families website, there are currently nine childcare providers in the Town of Troy.

Six of the childcare providers are "Registered Family Child Care Homes" and three are "Licensed Providers."

The location of and capacity of each are listed in the “Critical Facilities” section of the plan.

### **Emergency Facilities and Disaster Response**

Troy’s emergency response facilities include two fire stations, the Town Office (EOC), and locally designated shelters. The Village of North Troy also includes a Federal Border Crossing Station along Rt. 243. The American Legion, Masonic Hall, and Troy School are the three primary shelters designated and VT Routes 100, 105, 243 and 101 are the designated emergency evacuation routes for the town. Missisquoi Valley Ambulance, located in Jay, provides local EMS service and is dispatched (along with fire and police dispatch services) through the Williston – Public Safety Answering Point. The Town Constables, Orleans County Sheriff Department, and Vermont State Police Troop B (Derby Base) all provide Troy with local policing.

Troy belongs to the State Police Troop B Terrorism District and Local Emergency Planning Committee (LEPC) 10, both of which coordinate emergency response and planning for the towns in Orleans County.

### **Troy Fire Station**

The Troy Fire Station is located in South Troy and services all parts of Troy to the south of Route 105, Veilleux Road (Town Road #12), Bergeron Road (Town Road #16) and Searles Road (Town Road #19). The Troy Volunteer Fire Department owns the facility and is also contracted by the town of Westfield to respond to calls within the entire town of Westfield. In an average year, the fire department covers approximately 45 calls with a dedicated group of 30 volunteers.

The department’s equipment includes a 1998 Spartan Engine, a 2005 International/E-One 1800 gallon Pumper Tank, a 1991 Sutphen 100 Ft. Aerial Platform and a 2007 Chevrolet rescue van.

The Troy Volunteer Fire Department is currently dispatched through the Vermont State Police out of the Williston Barracks. The Department does have a generator and battery backup to maintain emergency communications in the event the town has lost power.

### **North Troy Fire Station**

The North Troy Fire Station services the Village of North Troy and residents within the town living north of Route 105, and along Veilleux Road (Town Road #12), Bergeron Road (Town Road #16) and Searles Road (Town Road #19). In an average year, the fire department handles 18-25 fires including structure fires, brush fires, and automobile fires. The department has operated out of the Village Office Building since 2003. The new station adequately serves the needs of the 23 member department.

The equipment owned and used by the North Troy Fire Station includes a 1,000 gallon pumper, a 750 gallon pumper, one 1,000 gallon tanker and a utility van. The 1,000 gallon pumper and the utility van are the newest vehicles and were purchased by the department in 2003. Funding for the department comes from a combination of municipal funds, village funds, and department fundraisers.

Department volunteers are dispatched through the Williston Dispatch and belong to Orleans County Mutual Aid.

### **Border Station and Transportation Infrastructure**

Troy hosts an important transportation network for Orleans County. The town is a port of entry for permitted trucking and railway shipments, as well as for Canadians visiting the region. The North Troy–

Highwater Border Crossing connects the town of Highwater, Quebec with North Troy. It is located at the meeting point of Vermont Route 243 and Quebec Route 243.

Vermont State Routes 105 and 100 are the two major routes within town and carry the bulk of the town's through traffic. Route 105 runs east-west from Newport Town into the Village of North Troy and then south where it meets Route 101 and turns west into the Town of Jay. Route 100 is the other major east-west route and is located approximately 6 miles south of Route 105. East Hill Road, River Road, and Route 101 act as the north-south connectors between Routes 105 and 100. The remaining state roads include Route 242 and 243. Route 242 accesses Jay Village to the west of Route 101 and Route 243 is the main route across the Canadian Border in the Village of North Troy. The remainder of the road network is comprised of rural local roads. The majority of these roads are gravel with the exception of East Hill Road, a portion of Loop Road, a portion of River Road, and the roads within the Hamlet of Troy and the Village of North Troy. Altogether there are 60.025 miles of roadways in Troy, including Class 4 roads. The Town maintains approximately 40.61 miles and the Village maintains 5.051 miles of these roads. The rest are the responsibility of the State.

In the Town of Troy, the maintenance of the road system is the second largest part of the municipal budget. The Road Commissioner reevaluates the road network every spring for maintenance needs and prioritizes projects for completion during the summer months.

The Northeast Kingdom International Airport is the nearest airport to Troy and is located in Coventry VT, approximately 15 miles south-east of North Troy Village. The facility has expanded the runway in recent years, and additional improvements have been planned.

Troy contains one freight rail line that is an important connection for regional and international rail service. Locally the rail line runs east-west from Newport City to the Village of North Troy and then north into Canada. The line is currently owned by the State of Vermont and operated by Central Maine & Quebec Railway, Inc. Heading north, the line connects to a freight yard in Farnham, Quebec where it can join the Canadian Pacific and Canadian National rail systems. Heading south, the line connects Newport City to White River Junction. This segment of the line is operated by the Washington County Railroad

### 1.7.2 Population and Housing

Based on the American Community Survey estimates, 2015-2019, the current population Town-wide is 1,428. The median age was 35.9, and 15.3% of the population were 65 and older. 17.2% of the population were below the poverty level. Median household income was \$45,833.

The number of houses were estimated at 800, with 612 occupied (households). 467 were owner-occupied and 145 were renter-occupied. Median rent was \$719, and the median value of an owner-occupied housing unit was \$145,300.

### 1.7.3 Income and Employment

The economic base in Troy is primarily one of small businesses, with a handful of establishments which employ a proportionally large number of workers. The Troy Elementary School is the single largest employer, with approximately 46 faculty and staff.

Economic activity in Troy is also driven by its location along major transportation routes between Newport City, Canada and the Jay Peak Resort. There are two trucking companies in town. Small manufacturing is important as well. Agriculture also continues to play part in commerce despite conversion and/or consolidation of farms over the past six decades. Percentage of land in farms has remained relatively steady at about 30% in the last decade. The small businesses that make up the remainder Troy's economy include retail establishments, auto repair shops, fuel oil dealers, child care facilities, some of which are pre-school certified; as well as home- based businesses.

The labor force participation for the population 16 years and older was estimated at 64.9% by the American Community Survey 5-year estimates 2015-2019. The unemployment rate was 4.4%.

#### 1.7.4 Governance and Regulations

The Town of Troy is governed by a three-member Select Board. The Select Board is responsible for adopting the Municipal Plan and zoning bylaws that are prepared by the Troy Planning Commission. There is an active Planning Commission that has recently completed an update to the Town Plan, which was adopted by the Town in March of 2020. The Town Plan is a guidance document, rather than a regulatory document. The Village of North Troy is covered by the Municipal Plan and zoning bylaws adopted by the Town of Troy. The Village of North Troy Trustees are responsible for the water and sewer departments in North Troy. The Town of Troy maintains a water system in the hamlet of Troy, and has a joint wastewater system with the neighboring town of Jay. The water system is overseen by the Troy/Jay Sewer Board. The main purpose of the Sewer Board is to oversee the sewer system and wastewater treatment plant. The board also administers the rate, structures, the billings, environmental impacts, governmental regulations, personnel, building maintenance, and future expansions. The Troy/Jay Sewer Board consists of 3 members each from Jay and Troy.

Land development that exceeds thresholds established in State statute triggers Act 250 development review and/or other State permits such as wetlands, stream encroachment, or stormwater permits. The State Department of Environmental Conservation issues permits for potable water supplies and wastewater systems for all residential development in town.

The Town of Troy has adopted the State Road and Bridge Standards, and has an up-to-date Local Emergency Operations Plan. The Town is served by Vermont Agency of Transportation (VTRANS) Maintenance District #9.

The Town of Troy has locally-adopted zoning bylaws which include flood hazard regulations, and is a member of the National Flood Insurance Program (NFIP). In early 2021, the Planning Commission embarked on an update of the local zoning regulations.

### 1.8 PLANNING PROCESS

#### 1.8.1 Previous Draft Plan

In 2005, the Troy Selectboard adopted the "Troy All-Hazards Mitigation Plan" as an annex to the Northeastern Vermont Development Association's (NVDA) All Hazard Mitigation Plan. The 2005 plan

profiled both natural and man-made hazards affecting the Town of Troy, inclusive of the Village of North Troy, although FEMA's funding is only available to mitigate natural hazards. The natural hazards identified in the 2005 plan as having both a medium or high likelihood and medium or high impact were "Flood" and "Winter Storm/Ice."

There were two proposed mitigation actions in the 2005 Plan, shown below:

<b>Project/Priority</b>	<b>Mitigation Action</b>	<b>Who is Responsible</b>	<b>Time Frame and Potential Funding</b>	<b>Initial Implementation Steps</b>
Generators with hookups HIGH	Backup power for the school and emergency operations center.	Fire Chief, Lee Forbes	2005 – HMGP, FMA	Seek grant sources and cost estimates.
Road and culvert upgrades	Continue to replace undersized culverts with larger culverts to prevent flooding.	Road Foreman, Lee Forbes	2005 – HMGP, Bridge and Culvert Program	Seek engineering solution and cost estimates.

Since 2005, road and culvert upgrades have been ongoing. Details of PA-funded projects to replace culverts are included at the bottom of Table 3.1 in section 3 of this document. The Town has not been successful in acquiring power generators for the school and emergency operations center.

See also pages 37-38 of this document for a discussion of changes in priorities since the adoption of the 2005 Hazard Mitigation Plan.

### 1.8.2 Development of New Plan

In late July of 2015, NVDA was awarded a grant from the State of Vermont Department of Emergency Management and Homeland Security (DEMHS) for the development of Local Hazard Mitigation Plans for a number of municipalities in the Northeast Kingdom, among which was Troy and the Village of North Troy.

After working on a comprehensive update to the Municipal Plan in 2019, the Troy Planning Commission and Selectboard elected to begin work on creating the new multi-jurisdiction hazard mitigation plan. In late November, representatives of the Town and Village signed a Memorandum of Understanding with NVDA, which outlined the respective responsibilities of NVDA and municipal officials in developing the LHMP for the Town.

After the updated Municipal Plan was adopted in the Spring of 2020, and received regional approval by the regional planning commission, Irene Nagle, staff planner at NVDA, began information gathering for the updated Hazard Mitigation Plan for the Town of Troy and Village of North Troy. An online survey was posted on the Town of Troy website, the town's Facebook page, and the Troy page of NVDA's website on June 9, 2020 to gather information from the community on hazards and impacts, and to inform residents of the hazard mitigation planning process. A press release was sent on June 8, 2020 to both the Barton Chronicle and the Newport Daily Express regarding the public survey (see appendix). On June 24, 2020, the survey responses were downloaded. There were a total of ten responses (see appendix). Although the survey remained posted online until October 2021, no additional responses were recorded.

A Local Hazard Mitigation Planning team was assembled, consisting of members of the Troy Planning Commission, and the following individuals:

- Selectboard Chair and Troy Emergency Management Coordinator, Robert Langlands
- Town Clerk and Village Trustee, Terri Medley;
- Town Road Commissioner, Robert “Bobby” Jacobs;
- Health Officer, Gaston Bathalon;
- North Troy public works supervisor, Karson McMahon (water and wastewater); and
- Steve Button, water department plant operator for Troy, and Chief Operator of the Troy/Jay Sewer Plant.

Due to the COVID-19 pandemic, in person meetings were not feasible, so a virtual public kickoff meeting was held via Zoom on June 24, 2020. The meeting was advertised on the Town of Troy website and in the newspaper of record, the Newport Daily Express (see appendix for copy of published notice.) In attendance at the June 24<sup>th</sup> meeting were Irene Nagle from NVDA; Terri Medley, Town Clerk and Village Trustee; Robert Langlands, Selectboard Chair and Troy Emergency Management Coordinator; Irene McDermott, Troy Planning Commission; Bobby Jacobs, Town Road Commissioner; Katherine Langlands, Troy Planning Commission, and John Coburn, local resident. NVDA presented an overview of the hazard mitigation planning process and the benefits of having a local, FEMA-approved hazard mitigation plan. After the presentation, participants reviewed the list of critical facilities in the town and village, and reviewed a list of natural hazards, rating their likelihood of occurring and the impact they would have on the community. Meeting attendees shared stories of past occurrences of damage due to flooding, thunderstorms, and winter storms. The results of that meeting formed the basis for the risk assessment and the vulnerability assessment in sections 4 and 5 of this plan.

A second public meeting was held on July 22, 2020 and members of the Hazard Mitigation Team discussed critical facilities and vulnerable areas. Only members of the Hazard Mitigation Planning Team attended this meeting. After a break of several months, the hazard mitigation team reconvened in a virtual meeting on February 22, 2021 to review potential mitigation actions. A follow-up meeting, again virtual, was held on March 1, 2021 to review potential costs of mitigation actions.

A draft Plan was prepared using data sources that included:

- The results of surveys and public comments provided at public meetings
- Input of the Troy Town Road Foreman regarding problem culverts and vulnerable stretches of road
- 2018 Vermont State Hazard Mitigation Plan (provided key guidance language and definitions throughout the plan).
- Vermont Agency of Natural Resources (ANR) and the Vermont Department of Transportation (VTrans) (Provided key policy recommendations on environmental conservation, climate change and fluvial erosion data, and road and stormwater infrastructure).
- Vermont Department of Environmental Conservation (DEC) (provided river corridor data)
- FEMA Open Source (data.gov) Data for Disaster History and PA funding (provided comprehensive declared disaster by year and type as well as project descriptions and cost per event).

Using the above data sources, the planning team worked with NVDA to create the Plan.



Changes based on initial comments received from the State were incorporated into a revised draft of the LHMP, and the revised draft was posted on the Town of Troy and Village of North Troy websites from April 8<sup>th</sup> until May 9<sup>th</sup> for public review and comment, with instruction to address comments to Irene Nagle, NVDA planner. On April 8<sup>th</sup> the document was also emailed directly to the Town Clerks of the four adjacent Towns: Jay, Newport Town, Westfield and Lowell. Individuals were instructed to address comments on the plan to Irene Nagle, NVDA planner. A copy of the email sent to the Town Clerks of the surrounding towns is included in the appendix to this document. No comments on the draft were received.

## 2. HAZARD IDENTIFICATION

The planning team looked at natural hazards identified in the State hazard mitigation plan, and for each considered prior history, current trends and available data in order to select (profile) hazards that are most likely to impact Troy/Village of North Troy and for which local mitigation actions could be developed.

The 2018 State of Vermont Hazard Mitigation Plan identified the following natural and technological hazards, and ranked them according to vulnerability. The table below is from the State’s Hazard Mitigation Plan

**Table 3: Hazard Assessment**

Hazard Impacts	Probability	Potential Impact					Average:	Score*:
		Infrastructure	Life	Economy	Environment	Average:		
Fluvial Erosion	4	4	3	4	4	3.75	15	
Inundation Flooding	4	4	3	4	2	3.25	13	
Ice	3	3	3	3	2	2	8.25	
Snow	4	1	3	2	1	1.75	7	
Wind	4	2	2	1	1	1.5	6	
Heat	3	1	3	2	2	2	6	
Cold	3	1	3	2	2	2	6	
Drought	3	1	2	2	3	2	6	
Landslides	3	3	2	1	2	2	6	
Wildfire	2	3	3	3	2	2.75	5.5	
Earthquake	2	3	3	3	2	2.75	5.5	
Invasive Species	2	1	1	2	3	1.75	3.5	
Infectious Disease Outbreak	2	1	3	2	1	1.75	3.5	
Hail	3	1	1	1	1	1	3	

\*Score = Probability x Average Potential Impact

While it is understood that FEMA will only reimburse the town for disasters caused by natural hazards, considerations for other the categories can increase resilience to a natural disaster. Technological hazards are distinct from natural hazards primarily in that they originate from human activity. In contrast, while the risks presented by natural hazards may be increased or decreased as a result of human activity, they are not inherently human-caused.

Technological and social hazards often occur as a secondary consequence of a natural disaster, and become vulnerabilities. For example, loss of telecommunications or electrical service can be the result of a natural hazard such as high winds or heavy snowfall.

While recognizing them as potential vulnerabilities, the Town decided not to profile man-made/ technological hazards for the purposes of this plan.

The Town and Village have reviewed information for all natural hazards, and has divided them into “profiled” and “non-profiled” hazards. In order to determine which hazards should be profiled, the planning team reviewed a “Hazards Checklist” (see Table 3.2 in Section 3. Risk Assessment). Based on this exercise, the following hazards were chosen to be profiled because they had both a medium or high probability of occurring and posed a moderate to major impact if they did occur.

- Flooding/Stream Bank Erosion (these were listed separately in the State Hazard Mitigation Plan, but were addressed together in Troy’s Plan)
- High Winds
- Severe Winter Storms (included the hazards of ice and snow identified in the State Hazard Mitigation Plan)
- Extreme cold
- Invasive Species
- Infectious Disease Outbreak

The Hazard Mitigation Planning Team identified Heat, Drought, Landslides, Wildfire, Earthquake and Hail as low probability and low impact in the communities of Troy and North Troy. Accordingly, and due to a lack of resources and capacity in the Town and Village, these hazards will not be discussed in detail in this plan. For a detailed description of these hazards, the reader can consult the Vermont State Hazard Mitigation Plan.

## 2.1 Natural Hazards

### 2.1.1 Climate Change:

From 1962 to 2006, each five-year period resulted in 0-6 Major Disaster Declarations in Vermont. From 2007-2011, there were 11. It is commonly accepted that weather extremes are becoming more commonplace in Vermont. Since 2011, record setting snow, rain and cold have been experienced in the state. In recent years, it has become evident that human activities, mostly associated with the combustion of fuel, have added to the natural concentration of greenhouse gases in the atmosphere and are contributing to rapid climate change on a global scale. While projections of the effects of climate change vary, it is generally predicted that Vermont will have warmer temperatures year-round, with wetter winters and drier summers. An increase in the size and frequency of storms is also predicted. Thus, climate change in the next century will likely increase the chance of weather-related hazards occurring. An increase in precipitation may also result in increased flooding and fluvial erosion. In Orleans County, annual precipitation from 1975 to 2020 has been increasing by .95 inches per decade (see graph below).



Source: NOAA National Centers for Environmental information, Climate at a Glance: County Time Series, published July 2021 <https://www.ncdc.noaa.gov/cag/>

### 2.1.2 Disaster History

There have been 20 disasters and 2 emergencies declared in Orleans County from 1973 through 2019. Incident types in Orleans County have been Severe Storm, Flood, Severe Ice Storm, Hurricane, and Snow. Table 2.1 lists hazard events, with those affecting Troy and/or North Troy shown in bold.

**Table 2.1:  
Summary of Disasters (DR) and Emergency Declarations (EM) in Orleans County**

Disaster Number	Declaration Date	Disaster Type	Incident Type	Title
4474	2019-10-31	DR	Severe Storm(s)	SEVERE STORM AND FLOODING
4380	2018-05-04	DR	Severe Storm(s)	SEVERE STORM AND FLOODING
4356	2017-10-29	DR	Severe Storm(s)	SEVERE STORM AND FLOODING
4207	2014-12-09	DR	Severe Storm(s)	SEVERE WINTER STORM
<b>4178</b>	<b>2014-04-15</b>	<b>DR</b>	<b>Flood</b>	<b>SEVERE STORMS AND FLOODING</b>
4163	2013-12-20	DR	Severe Ice Storm	SEVERE WINTER STORMS
4140	2013-06-25	DR	Flood	SEVERE STORMS AND FLOODING
4066	2012-05-29	DR	Severe Storm(s)	SEVERE STORM, TORNADO, AND FLOODING
<b>4022</b>	<b>2011-08-27</b>	<b>DR</b>	<b>Hurricane</b>	<b>TROPICAL STORM IRENE</b>
3338	2011-08-26	EM	Hurricane	HURRICANE IRENE
1995	2011-04-23	DR	Severe Storm(s)	SEVERE STORMS AND FLOODING
1715	2007-07-09	DR	Severe Storm(s)	SEVERE STORMS AND FLOODING
<b>1559</b>	<b>2004-08-12</b>	<b>DR</b>	<b>Severe Storm(s)</b>	<b>SEVERE STORMS AND FLOODING</b>
<b>1428</b>	<b>2002-06-05</b>	<b>DR</b>	<b>Severe Storm(s)</b>	<b>SEVERE STORMS AND FLOODING</b>
<b>3167</b>	<b>2001-03-05</b>	<b>EM</b>	<b>Snow</b>	<b>SNOW</b>

1307	1999-09-16	DR	Severe Storm(s)	TROPICAL STORM FLOYD
1228	1998-06-17	DR	Severe Storm(s)	SEVERE STORMS AND FLOODING
1184	1997-07-15	DR	Flood	EXCESSIVE RAINFALL, HIGH WINDS, AND FLOODING
1101	1996-01-19	DR	Flood	ICE JAMS AND FLOODING
1063	1995-08-04	DR	Severe Storm(s)	EXCESSIVE RAINFALL, FLOODING
518	1976-08-05	DR	Flood	SEVERE STORMS, HIGH WINDS & FLOODING
397	1973-07-06	DR	Flood	SEVERE STORMS, FLOODING, & LANDSLIDES
Source: Data.gov, FEMA Declarations Data Set				

The following discussion on natural hazards is based upon information from several sources, but specific extent data for Troy was limited. Extent data available for Orleans County and nearby towns can be used to capture the extent of natural hazard events for Troy. General descriptions of hazards are based upon the 2018 Vermont State Hazard Mitigation Plan.

### 2.1.3 Profiled Hazards

#### ***Flooding and Stream Bank Erosion***

##### *Flooding*

Flooding is the most common recurring hazard event in the state of Vermont. According to the State Hazard Mitigation Plan, there are three main types of flooding that occur in Vermont: flooding from rain or snow melt, flash flooding, and urban flooding. Flooding has also been known to occur as a result of ice jams in rivers adjoining developed towns and cities. These events may result in widespread damage in major river floodplains or localized flash flooding caused by unusually large rainstorms over a small area. The effects of all types of events can be worsened by ice or debris dams and the failure of infrastructure (especially culverts), private and/or beaver dams.

As previously noted, precipitation in Orleans County has been increasing by .95 inches per decade.

The National Oceanic and Atmospheric Administration (NOAA) Storm Events Database lists 26 “Flood” events, 17 “Flash Flood” events and six “Heavy Rain” events in Orleans County from January 2000 to February 28, 2021.

The 26 Flood events in Orleans County caused a total of \$501.083 M in property damage and \$250K in crop damage. The Flash Flood events caused a total of 1.21 M in property damage and 25K in crop damage, and the Heavy Rain events caused 10K in property damage. Some, but not all, of these events correspond with declared disasters listed in table 2.1 above.

Specific narrative accounts of Flood events that affected Troy and North Troy are included in the NOAA database as follows:

*June 12, 2002:* *A frontal boundary stalled across portions of New York and New England and helped to focus heavy rainfall across this area. Convective precipitation moved from northwest to southeast across the area from Canada. Rainfall from midday on June 11th through midday June 12th averaged 2 to 4 inches with locally higher amounts in the mountainous areas. Countywide flooding of small streams and*

*fields started during the early morning hours of June 12th and continued into the evening of the 12th. A few minor road washouts and a few minor mudslides were reported. This was followed by continued flooding of main stem rivers through late afternoon and evening of June 13th. These main stem rivers were the Passumpsic, Lamoille and Missisquoi Rivers.*

August 3, 2006: *A warm, very humid and moisture laden airmass was located across Vermont on the night of the 2nd. In addition, a cold front was draped along the Vermont and Canadian border during this time. Showers and thunderstorms developed along this frontal boundary and moved across the headwater region of the Missisquoi river basin in Orleans county during the night of the 2nd and into the early morning hours of the 3rd. Several inches of rain fell in this region with Newport at 2.86 inches and Jay Peak at 3.30 inches. This resulted in some stream flooding as well as the Missisquoi river at North Troy to crest above flood stage (9 feet), during the early morning hours of the 3rd, with a reading of 10.06 feet, that caused some minor flooding of Loop and River roads in North Troy.*

July 24, 2008: *A cold, unstable upper atmospheric low slowly moved across the eastern Great Lakes during the afternoon of July 24th. Meanwhile, a surface low slowly traveled north along a cold front which moved into an moisture laden atmosphere across New York and Vermont. Numerous showers and embedded thunderstorms with localized heavy rainfall moved across portions of Vermont, already saturated by previous rainfall events, during the afternoon and evening hours. Much of central and northern Vermont had saturated antecedent conditions due to very significant severe weather and heavy rainfall events of July 18th and July 21st-22nd. Widespread rainfall of 1 to 2 inches occurred during the afternoon and evening of July 24th with localized amounts that exceeded 3 inches. This heavy rainfall caused flood problems across central and north central Vermont, especially portions of Washington, Lamoille, Orleans and Caledonia counties. Route 100 between Lowell and Westfield flooded and closed as well as several other roads in Lowell.*

March 23, 2010: *Low pressure moved out of the Mid-Atlantic region and across southern New England on March 22nd and 23rd. The storm system produced 1.5 to 2 inches of rain across central and southern Vermont. This heavy rainfall combined with runoff from melting snow in the higher elevations produced scattered flooding. Runoff from heavy rain and snow melt caused flooding of River Road along the Missisquoi River between Troy and North Troy VT. The river gage on the Missisquoi near North Troy went above flood stage of 9 feet at 14:15 EST, crested at 9.31 feet from 19:00 to 20:15 EST, and fell below flood stage at 22:42 EST.*

April 11, 2011: *Light to moderate rain associated with a warm front late on April 10 was preceded by several days of above freezing temperatures and melting snow. On April 11 a cluster of thunderstorms moved west to east across northern Vermont during the morning hours. Flooding resulted from the combination of snowmelt and rainfall totals of 1 to 2 inches. Runoff from heavy rain and snowmelt combined to cause flooding on rivers in Orleans County. The Missisquoi River at North Troy VT exceeded flood stage of 9 feet at 09:11 EST on 4/11/2011, and crested at 11.27 feet at 23:00 on 4/11/2011. The Barton River at Coventry VT exceeded flood stage of 8 feet at 08:12 EST on 4/11/2011, and crested at 9.42 feet at 23:00 EST on 4/11/2011. The Barton River flooded portions of River Road between Orleans and Coventry Station.*

May 26, 2013: *An area of low pressure developed on a stalled surface front in southern New England on May 24, and developed into a coastal storm that lasted through May 26. Widespread steady rainfall of one to two inches produced minor flood problems, especially for areas that flooded on May 23. Heavy wet snow fell at elevations above 1200 to 1500 feet, and the combination of snow load and winds of 25 to 35 mph caused power outages. The low pressure moved out of the area on May 26.*



*Runoff from heavy rainfall caused the Missisquoi River at North Troy VT to flood. The river crested at 9.27 feet at midnight on 26 May 2013, flooding local roads along the river. Flood stage is 9 feet.*

November 1, 2019: *A developing area of low pressure moved from the Gulf of Mexico on during the night of the 30th and moved north into the eastern Great Lakes as it intensified during the evening of October 31st. As the surface low moved across Ontario during the night of October 31st, its associated cold front slowly edged across Vermont during the early morning hours of November 1st. The upper level pattern was very strong and dynamic with a direct moisture feed from the Gulf of Mexico, thus delivering copious amounts of moisture into the northeast and NY. Steady rain developed during the mid to late evening of October 31st and became heavy at times through the early morning hours of November 1st. Rainfall amounts 1.5 to 2 inches were common across much of Vermont with a swath of 2 1/2 to 4 inches across northwest and north central Vermont. Numerous flooded streams, flooded and several washed out roads were reported in northern Vermont beginning just after midnight on November 1st and several larger rivers flooded as well, including the Lamoille, Missisquoi basins and portions of the Winooski and Mad River basins. Urban street flooding occurred in the Burlington area just after 10 pm on October 31st. In addition, strong southwest to west winds, gusting to 40 to 50 mph and locally higher, developed around sunrise and continued through mid-afternoon before quickly diminishing by evening. These persistent strong winds combined with over-saturated soils, led to numerous downed trees, structural damage and escalated power outages to their peak of more than 100,000 outages. Estimated public infrastructure damage in excess of \$5 million. Several roads flooded due to very heavy rainfall across Orleans county. Some of the more intense flooding occurred near the headwaters region of the Missisquoi near Lowell and North Troy.*

As noted above, ice jams can cause or exacerbate flooding when combined with rainfall and snowmelt.

Winter and spring thaws, occasionally exacerbated by ice jams, are another significant source of flooding, especially when coupled with high rain levels. Much of this flooding is flash flooding, occurring within hours of a rainstorm or other event. Flash flooding, as opposed to flooding with a gradual onset, causes the largest amount of damage to property and infrastructure. Floods cause two major types of damage: water damage from inundation and erosion damage to property and infrastructure. The 2018 Vermont Hazard Mitigation Plan discusses flooding extensively. While that plan is concerned with all of Vermont, the information on flooding is all relevant to Troy. The Plan states that “fluvial erosion and inundation flooding continue to be the first and second most significant natural hazards in Vermont, respectively.”

The estimated Capacity-Disruption Levels Given a Measured Rainfall Event can be interpreted as the conditional probability that a particular roadway capacity disruption occurs, given that a rainfall event occurs. For Orleans County, the probability that the intensity of a rain event will result in approximately a 2%, 7.5%, or 13.5% roadway capacity reduction are 7.35%, 23.96%, or 1.3%, respectively (Source: A Risk-Based Flood-Planning Strategy for Vermont’s Roadway Network, 2015).

#### Stream Bank (Fluvial) Erosion

It is noted that extent data for fluvial erosion is unavailable because it is beyond the capacity of the Town or Village to track after flooding events. Erosion occurs on a consistent, but small-scale, basis within the riparian corridor of Troy’s streams. This is a part of normal natural processes and as such is necessary for the proper functioning of the ecosystem of these waterways. However, fluvial erosion on a large scale can damage stream banks and undercut infrastructure such as roads, bridges and culverts

as well as agricultural land and structures, causing severe damage. Fluvial erosion on a large scale can cause stream bank collapses, which are generally classified as landslides.

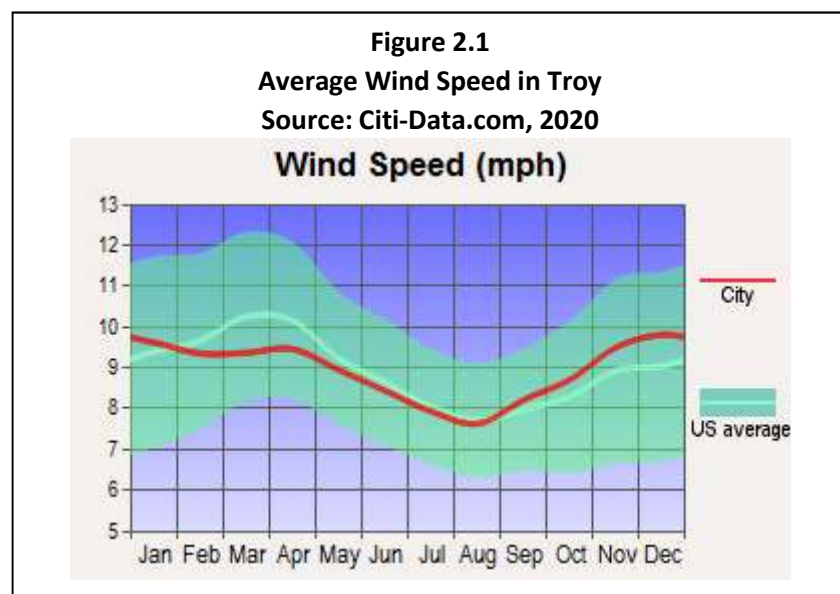
Most flood damage in Vermont is associated with fluvial erosion rather than inundation. The *2018 Vermont State All-Hazards Mitigation Plan* contains the following discussion of fluvial erosion:

“Data indicate that greater than 75% of flood damages in Vermont, measured in dollars, are associated with fluvial erosion,<sup>1</sup> not inundation. These events may result in widespread damage in major rivers’ floodplains or localized flash flooding caused by unusually large rainstorms over a small area. The effects of both inundation flooding and fluvial erosion can be exacerbated by ice or debris dams, the failure of infrastructure (often as a result of undersized culverts), the failure of dams, continued encroachments in floodplains and river corridors, and the stream channelization required to protect those encroachments..”

The State of Vermont Agency of Natural Resources (ANR) has mapped “River Corridors” throughout the State. The River Corridors, as defined by ANR, “encompass the area of land surrounding a river that provides for the meandering, floodplain, and the riparian functions necessary to restore and maintain the naturally stable or least erosive form of a river thereby minimizing erosion hazards over time.” Since lands within and immediately abutting a river corridor are at higher risk to fluvial erosion, the State recommends that development within mapped River Corridors be avoided, and that a 50 foot setback be maintained from smaller streams.

As an incentive to encourage Towns to restrict new development within River Corridors, the State provides an increased State match under ERAF for Towns that adopt local flood regulations incorporating regulation of State River Corridors.

River Corridors have been mapped by the State for Troy. An estimated 1271 acres of land in Troy are within the State-identified River Corridors, indicating the extent of land that may be subject to fluvial erosion hazards. Most of this acreage is within undeveloped areas of Town, although there are a few locations where roads or existing houses are located within the River Corridor (see map in the Appendix).



**High Winds**

Average wind speeds in Troy as indicated on Figure 2.1 are below 10 miles per hour, what is described on the Beaufort

Scale as a “gentle breeze.”

The Beaufort Scale is one of the first scales developed to estimate wind speeds and their effects. It was created by Francis Beaufort in 1805 to help sailors estimate the winds via visual observations, and is still used today to estimate wind strengths.

Transportation route access and electric power supply are at risk during a major wind event. As illustrated by the incidents described below, high winds can result in downed trees, property damage, and loss of life.

The National Oceanic and Atmospheric Administration (NOAA) lists three type of wind events that affect Orleans County: “Strong Wind,” “High Wind,” and “Thunderstorm Wind.”

“Strong Wind” is defined as non-convective winds gusting less than 50 knots (58 mph), or sustained winds less than 35 knots (40 mph).

“High Wind” is defined by NOAA as sustained non-convective winds of 35 knots or greater lasting for 1 hour or longer, or winds (sustained or gusts) of 50 knots for any duration, on a widespread or localized basis.

“Thunderstorm Wind” is defined as winds arising from convection (occurring within 30 minutes of lightning being observed or detected), with speeds of at least 50 knots (58 mph), or winds of any speed (non-severe thunderstorm winds below 50 knots) producing a fatality, injury, or damage.

According to the NOAA *Storm Events Database*, throughout Orleans County from January 1, 1995 through the end of February 2021 there were 21 “Strong Wind” events, causing a total of \$349.5K in property damage; 14 “High Wind” events causing a total of \$695K in property damage; and 99 “Thunderstorm Wind” events causing 934K in property damage and 10K in crop damage.

Events with documented impacts in Troy and/or North Troy included the following:

- A thunderstorm wind event on July 5, 1999 caused 50K in property damage and resulted in 1 fatality. The description was as follows:

*“A mesoscale convective complex consisting of a cluster of thunderstorms moved across northern New York and northern Vermont during the early morning hours of Monday, July 5th. Across Orleans county Vermont, there were numerous reports of trees and power lines blown down with thousands without power.*

*One death occurred on Lake Salem in Derby, Vermont when a person camping in a tent on a raft was blown away by thunderstorm winds. The tent became submerged and entangled in the water and the camper drowned.*

*In the Newport area, damage resulted when trees fell on tents and campers as well as on cars and boats. In North Troy, a tree was blown onto a house. Across the county, some damage resulted when trees fell on cars.”*

- A strong wind event on November 2-3, 1999 caused \$15K in property damage. The description was as follows:

*“A storm system over the Tennessee Valley Tuesday morning, November 2, 1999 moved northeast into the St. Lawrence Valley Wednesday morning, November 3, 1999. Strong winds developed ahead of this system. Trees were uprooted in Newport Center with power outages. Across the county, numerous trees and power lines were blown down. Power outages were*

*reported in Lowell, Westfield, Craftsbury, Coventry, Irasburg, Derby Center, Troy, Jay, Morgan and Holland.”*

- A strong wind event on December 18, 2000 caused \$20K in property damage. The description was as follows:

*A storm system tracked through the eastern Great Lakes region and into Canada on Monday, December 18, 2000. Gusty winds accompanied this system. Trees and power lines were blown down in portions of Orleans county. Specifically, trees were blown down in Irasburg, Troy, North Troy and Newport Center.*

- A thunderstorm wind event on July 8, 2003 had a magnitude of 50 kts and caused \$5K in property damage. The description was as follows:

*“A cold front moving into a warm and humid airmass triggered late afternoon thunderstorms. A few of the storms across northern Vermont were severe. In the town of Troy, thunderstorm winds blew down tree limbs.”*

- A thunderstorm wind event on June 10, 2008 had a magnitude of 50 kts and caused \$10K in property damage. The description was as follows:

*“A very energetic mid-atmospheric disturbance moved across the Great Lakes during the afternoon and evening of June 10th. This developed a surface low along a cold front, which moved across Vermont during the afternoon and evening hours. These features moved into a very warm, humid and unstable airmass draped across Vermont that resulted in two rounds of widespread severe thunderstorms.*

*The first round moved across Vermont during the early to mid afternoon hours and the second round occurred during the evening. In Vermont...hundreds to thousands of trees were damaged, downed or uprooted which caused downed power lines and structural damage to numerous buildings and vehicles. Tens of thousands of customers lost power due to the storms, with some outages that lasted several days. Numerous large branches and few trees down across North Troy.”*

### **Severe Winter Storm**

Winter storms impact the entire planning area. According to the *2018 Vermont State All-Hazards Mitigation Plan*:

*“Severe winter storms develop through the combination of multiple meteorological factors. In Vermont and the northeastern United States, these factors include the moisture content of the air, direction of airflow, collision of warm air masses coming up from the Gulf Coast, and cold air moving southward from the Arctic. Significant accumulations of ice can cause hazardous conditions for travel, weigh down trees and power lines, and cause power outages. Freezing rain can also be combined with snowfall, hiding ice accumulation and further hindering travel, or with mixed precipitation and potentially ice jams or flooding.”*

County-wide, the winter of 2010-2011 was the third-snowiest on record with a total of 124.3 inches. The record of 145.4 inches was set in 1970-1971.

**Figure 2.2 Average snowfall in Troy, VT**  
**Source: City-data.com**

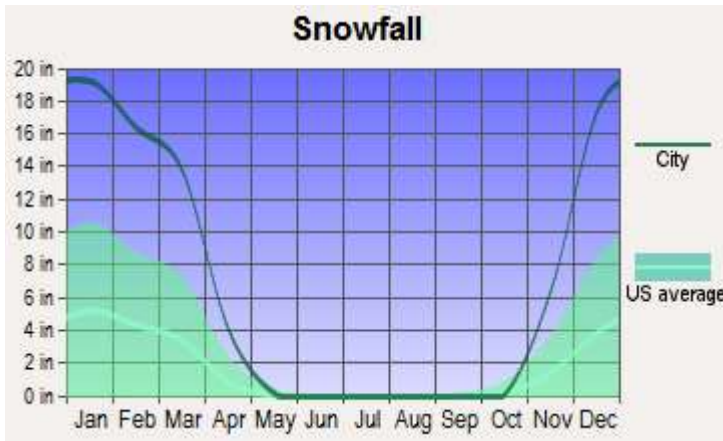


Figure 2.2 depicts average snowfall in Troy, which is well above the U.S. average. According to the NOAA Database, there are four types of events that have occurred in Orleans County that are associated with the locally identified hazard of severe winter storms: “Winter Weather,” “Winter Storm,” “Heavy Snow” and “Ice Storm.”

NOAA defines “Winter Weather” as a “winter precipitation event that causes a death, injury, or a

significant impact to commerce or transportation, but does not meet locally/regionally defined warning criteria. A Winter Weather event could result from one or more winter precipitation types (snow, or blowing/drifting snow, or freezing rain/drizzle).”

By comparison, a “Winter Storm” event is defined as a “winter weather event that has more than one significant hazard (i.e., heavy snow and blowing snow; snow and ice; snow and sleet; sleet and ice; or snow, sleet and ice) and meets or exceeds locally/regionally defined 12 and/or 24 hour warning criteria for at least one of the precipitation elements.”

From January 2000 to the end of February 2021 in Orleans County there were 107 “Winter Weather” events, 103 “Winter Storm” events, 5 “Heavy Snow” events, and 1 “Ice Storm” events.

Winter Weather events in Orleans County during this period accounted for 453.5K in property damage. Winter Storm events accounted for 1.69M in property damage and 10K in crop damage. Heavy Snow events during this period accounted for 227K in property damage. Although there was only one “Ice Storm” event logged during this period affecting Orleans County, this event accounted for 750K in property damage. That Ice Storm event, which occurred on December 21, 2013, is recounted below:

*A stationary boundary was draped across the Adirondacks of New York into portions of central and northern New England from December 20th through 22nd with several disturbances delivering precipitation. An impressive battle between mild to warm moist air, south of the boundary with temperatures in the 50s, overriding a very cold, dense shallow air mass with temperatures in the teens and 20s in northwest Vermont but single digits just north across the border into Canada.*

*First round of wintry precipitation fell across northwest Vermont, especially along the Canadian border during Friday afternoon and evening (December 20th). Most of the precipitation fell as freezing rain, approximately 1/4 to 1/3 of ice accumulation, along with some sleet. The second round began during the early afternoon hours of December 21st and peaked during the evening and overnight hours. An additional 1/2 to 3/4 inch of ice accumulation as well as 1 to 2 inches of*

*sleet occurred in portions of northern Vermont. Very cold temperatures (-10 to teens) followed the event with no melting, thus ice stayed on trees and utility lines through December 28th-29th, thus prolonging recovering efforts.*

*The greatest impact was in northwest Vermont, especially along the Canadian border, with widespread tree and utility line damage as well as numerous vehicle accidents. More than 75,000 customers were without power from hours to days across the region. The areas impacted were similar to the Ice Storm of January 1998, but not the severity as precipitation and ice accumulation were half of the 1998 storm.*

*Ice jams also developed during this time period as runoff from melting snow and rainfall swelled area rivers. River rises were enough to break up and move ice cover, resulting in scattered ice jams.*

*Freezing rain accumulated between 1/2 to 3/4 inch, across portions of Orleans county, especially along the Canadian border, causing numerous vehicle accidents as well as damage to trees and utility lines.*

The one Winter Storm event that caused crop damage occurred on March 6<sup>th</sup> – March 7<sup>th</sup>, 2011 and is recounted below:

*On March 6th, a slow moving north-south oriented cold front, laden with copious amounts of moisture, entered western Vermont by late morning, central Vermont around midday and eastern Vermont by late afternoon...On March 5th into the morning hours of March 6th, temperatures were in the 40s across Vermont which promoted significant snow melt to the region.*

*On March 6th, heavy rainfall preceded the cold front as it moved across Vermont. The cold front crept across western Vermont during the late morning hours, temperatures fell 12-15 degrees within an hour and heavy rain changed to heavy sleet and then wet snow.*

*The cold front slowed across central Vermont during midday resulting in more rainfall (up to an inch) with a gradual changeover to sleet then snow. In eastern Vermont, heavy rainfall (1-2 inches) fell through early to mid-afternoon before colder air eventually filtered into the region...reaching the lower Connecticut River valley toward evening, where icing was the main hazard.*

*At the same time, rapid snow melt and heavy rainfall accounted for ice-covered rivers to swell and cause ice flows. There were several reports of ice jams and flooding related problems in the Passumpsic, Missisquoi and Winooski river valleys.*

*Heavy snow continued from the afternoon of March 6th to midday on March 7th with the heaviest occurring in the early morning hours of the 7th with snowfall rates of 1 to 3 inches per hour. Total snowfall accumulations ranged from 20 to 30 inches across much of the Champlain Valley and northern 1/3 of Vermont, 10 to 15 inches of snow with ice accumulation up to 1/4 inch in central Vermont and 2 to 6 inches of snow with 1/4 to 1/2 inch ice accumulation in the lower Connecticut River valley.*

*NWS Burlington office in South Burlington received 25.8 inches, a new March snowfall record and the 3rd highest snowfall total all-time.*

*Most roads were impassable with numerous accidents and stuck vehicles with portions of Interstate 89 closed multiple times. Burlington Int'l Airport was closed from midday on the 6th to*



*midday on the 7th. Nearly 10,000 customers lost electrical power, nearly all school districts were closed on the 7th along with local/state governments.*

*Slightly more than a dozen dairy farms lost milk production due to trucks unable to reach farms and production facilities.*

*Snowfall amounts of 18 to 30 inches were reported in Orleans county, including 30 inches in Westmore, 29 inches in Newport and 25 inches in Morgan and Barton.”*

### **Extreme cold**

NOAA defines “Extreme Cold/Wind Chill” as “a period of extremely low temperatures or wind chill temperatures reaching or exceeding locally/regionally defined warning criteria (typical value around -35 degrees F or colder).

During the period January 1, 2000 to February 28, 2021, there were five extreme cold events, none of which had documented costs for property or crop damage. An event that occurred from January 14 – 18, 2009 was described as follows:

*An arctic cold front moved across Vermont during the early morning hours of January 14th which delivered some of the coldest temperatures across the region in several years. As the arctic front passed across northern Vermont, temperatures dropped over 20 degrees within several hours.*

*Temperatures averaged 20 to 25 degrees below normal values, which were already at climatological winter minimums. Daytime maximum temperatures ranged from single digits above and below zero during this stretch while nighttime minimums were 10 to 30 below zero with isolated readings colder than 40 below zero at times.*

*Some observed minimum temperatures for January 15th included: 32 degrees below zero at Island Pond (Essex county), 31 degrees below zero in Canaan (Essex county), 24 degrees below zero at North Troy (Orleans county), Granby and Gallup Mills (Essex county) with 22 degrees below zero at Plainfield and Marshfield (Washington county), 21 degrees below zero at Morrisville (Lamoille county) and 20 degrees below zero at Lyndonville (Caledonia county), Newport (Orleans county) and Waltham (Addison county).*

*Some observed minimum temperatures for January 16th included: 42 degrees below zero in Island Pond (Essex county), 37 below zero in Sutton (Caledonia county), 34 degrees below zero in Walden (Caledonia county), 32 degrees below zero in Gallup Mills (Essex county), 31 degrees below zero in East Berkshire (Franklin county), 30 degrees below zero in Granby (Essex county), Enosburg Falls (Franklin county), and St. Johnsbury (Caledonia county) and 29 degrees below zero at Plainfield and Waitsfield (Washington county) and Bethel (Windsor county).*

*Record cold daily temperatures were set on January 16th for the following sites; Morrisville-Stowe Airport with 32 degrees below zero, St. Johnsbury Fairbanks Museum with 30 degrees below zero, Montpelier-Barre Airport at 26 degrees below zero and Burlington International Airport at 21 degrees below zero.*

*These extremely cold temperatures led to numerous cold weather related problems including numerous dead vehicle batteries and broken home/business water pipes.*

## ***Invasive Species***

Invasive species was identified as an issue in the town-wide survey that was distributed to residents at the start of the hazard mitigation planning process in 2019. Invasive species are defined as plants, insects, and other organisms that were either accidentally or intentionally introduced from other places, and that can negatively impact agriculture, recreation, forestry, human health, the environment, and the economy.

According to Vermont Invasives.org, “Non-native, invasive terrestrial plants are one of the greatest threats to the health of Northeastern forests. They negatively impact forest regeneration, forest structure, ecosystem function, recreation and wildlife habitat, are costly to manage, and can be harmful to human health.”

This site also identifies three non-native insects which currently threaten Vermont: the emerald ash borer (EAB), Asian longhorned beetle (ALB) and hemlock wooly adelgid (HWA). These three pests threaten more than 14 different species of trees in Vermont including maple, elm, horsechestnut, willow, ash, poplar, European mountain ash, hackberry, and hemlock.

A forest pest that is native but nonetheless destructive is the forest tent caterpillar (FTC), an insect that feeds on hardwoods. The Department of Forests, Parks and Recreation (VT FPR) monitors forest tent caterpillar and the Vermont Natural Resources Atlas maps the extent of infestations of this insect. An aerial survey in 2016 mapped at least 24,500 acres of FTC defoliation. Heaviest defoliation occurred in Essex, Lamoille, Orleans and Caledonia counties. Forest tent caterpillars are especially of concern to maple syrup producers. Technical advice for land managers, sugar bush owners, arborists and home owners is available from VT FPR through the Orleans County Forester or VT FPR’s Forest Biology Lab at 802-879-5687.

Another pest in the region is the balsam wooly adelgid (BWA). The Vermont Department of Forests, Parks, and Recreation issued an information sheet on this forest pest in 2016 which includes a description of management options.

## ***Infectious Disease Outbreak***

The FEMA 2020 National Preparedness Report notes, “The COVID-19 pandemic resulted in the first ever Stafford Act major disaster declaration of all 50 states, five territories, and the District of Columbia for a naturally occurring infectious disease.”

In March of 2020, by Executive Order No. 01-20, the Governor declared a State of Emergency for Vermont, and restrictions to protect public health were enacted.

While a variety of measures were recommended by the Center for Disease Control and the Vermont Department of Health to help curb the spread of disease, including frequent hand-washing, wearing masks, and keeping a distance of 6 feet from other persons, vaccination was identified as the best way to keep from getting and spreading COVID-19. In Vermont, the vaccine was first made available to residents and staff of long term care facilities in December 2020, and then to those 75 and older in mid-January 2021. Availability of the vaccine continued to expand to successively younger age-groups.

The Vermont State of Emergency was extended for over a year until all restrictions were lifted on June 14 of 2021, at which time the benchmark of an 80% vaccination rate for the eligible population of Vermont was reached.

The Vermont Department of Health has been tracking statistics on COVID-19 within the State and developed a page on its website devoted to COVID-19 information. From March 5, 2020 to July 14, 2021, there were 109 cases of COVID-19 in the Town of Troy, and a total of 24,550 Statewide. As of July 2021, 69.5% of the eligible population in Troy were vaccinated.

<https://www.healthvermont.gov/covid-19/current-activity>

The Centers for Disease Control and Prevention (CDC) provides direction on how to mitigate the impacts of the COVID-19 pandemic and slow the spread. The CDC website includes a page entitled “Implementation of Mitigation Strategies for Communities with Local COVID-19 Transmission”

<https://www.cdc.gov/coronavirus/2019-ncov/community/community-mitigation.html>

While these measures were developed specifically in response to the COVID-19 Pandemic, they can be utilized to reduce the spread of other similar infectious diseases.

### 3. RISK ASSESSMENT

#### 3.1 Natural Hazard Events

The process of risk assessment for Troy began with a review of the 2018 State of Vermont Hazard Mitigation Plan. The State Plan notes:

“Risk assessment measures the potential loss of life, personal injury, economic injury, and property damage resulting from natural hazards by assessing the vulnerability of people, buildings, and infrastructure to natural and technological disasters.”

The Hazard Mitigation Planning team assessed the hazards that were likely to impact Troy, and discussed probability, impact, risk level and history (see Table 3.2).

The Town of Troy and Village of North Troy received Public Assistance grants under five declared disasters, from 2001 through 2014. The incident types and costs are shown in Table 3.1 below.

<b>Table 3.1 FEMA Declarations Public Assistance Details</b>						
Disaster No.	Declaration Date	Incident Type	Application Title	Applicant	Damage Category	Federal Share Obligated
4022	2011-09-01	Hurricane	NCNO catG01 tennis courts	North Troy	Recreational or Other	14773.5
4022	2011-09-01	Hurricane	NCNO catG01 tennis courts	North Troy	Recreational or Other	-3138.3
4022	2011-09-01	Hurricane	NCNO catG01 tennis courts	North Troy	Recreational or Other	73867.5
4022	2011-09-01	Hurricane	NCNO catG01 tennis courts	North Troy	Recreational or Other	-5725.8
4022	2011-09-01	Hurricane	NCNO c02 hill st.	North Troy	Roads and Bridges	243.26
4022	2011-09-01	Hurricane	NCNO c02 hill st.	North Troy	Roads and Bridges	1216.28
1428	2002-07-12	Severe Storm(s)	ROADS AND BRIDGES	Troy	Roads and Bridges	6489.99
1428	2002-07-12	Severe Storm(s)	ROADS AND BRIDGES	Troy	Roads and Bridges	1447.07
1428	2002-07-12	Severe Storm(s)	ROADS AND BRIDGES	Troy	Roads and Bridges	5904.95
1428	2002-07-12	Severe Storm(s)	ROADS AND BRIDGES	Troy	Roads and Bridges	1124.08
1428	2002-07-12	Severe Storm(s)	ROAD REPAIR	Troy	Roads and Bridges	2838.32
1428	2002-07-12	Severe Storm(s)	ROADS AND BRIDGES	Troy	Roads and Bridges	5589.37
1428	2002-07-12	Severe Storm(s)	ROADS AND BRIDGES	Troy	Roads and Bridges	18182.53
1428	2002-07-12	Severe Storm(s)	ROADS AND BRIDGES	Troy	Roads and Bridges	22093.79

1428	2002-07-12	Severe Storm(s)	Not Provided	Troy	Roads and Bridges	3324.46
1428	2002-07-12	Severe Storm(s)	ROAD REPAIR	Troy	Roads and Bridges	3860.95
1428	2002-07-12	Severe Storm(s)	ROADS AND BRIDGES	Troy	Roads and Bridges	14830.48
1428	2002-07-12	Severe Storm(s)	PROTECTIVE MEASURES	Troy	Protective Measures	768.68
1428	2002-07-12	Severe Storm(s)	SLOPE FAILURE	Troy	Roads and Bridges	1338.75
1559	2004-09-23	Severe Storm(s)	ROAD SURFACE AND BASE REPAIR	Troy	Roads and Bridges	5161.59
1559	2004-09-23	Severe Storm(s)	ROAD SURFACE AND CULVERT REPAIR	Troy	Roads and Bridges	7611.51
1559	2004-09-23	Severe Storm(s)	ROAD AND CULVERT REPAIR.	Troy	Roads and Bridges	12246.84
3167	2001-04-10	Snow	EMERGENCY PROTECTIVE MEASURES (SNOW REMOVAL ASSISTANCE)	Troy	Protective Measures	3111.29
4178	2014-06-11	Flood	****TROYC1 River Rd Area	Troy	Roads and Bridges	12312.66

Note: Projects already completed but not noted on this chart include

- In 2018 a Box Culvert on Loop Road was replaced in 2018, with help of State funding.
- In 2019 a squash culvert on River Road was installed with use of emergency assistance funds 90/10 grant to address October/November 2019 flood, "Halloween storm."
- In 2019-2020, grant funding from Missisquoi Wild and Scenic funded work where Jay Brook is eroding the bank near Veilleux Road.

### 3.2 Local Risk Assessment

A “Hazards Checklist and History” was completed as a group by attendees at the June 24, 2020 meeting, and the results of this preliminary assessment are shown in Table 3.2.

<b>Table 3.2</b> <b>Troy Hazards Checklist and History (Completed as a group at June 24, 2020 public meeting)</b>				
<b>Natural Hazards</b>	<b>Probability</b> Likelihood of it happening in any given year <b>HIGH:</b> 75%+ <b>MED:</b> 10-75%(at least once in next ten years) <b>LOW:</b> 1-9% (less than every 10 years)	<b>Impact</b> Damage, injuries, disruption <b>MINOR</b> <b>MODERATE</b> <b>MAJOR:</b> severe damage town-wide, multiple injuries/fatalities, critical facilities shutdown	<b>Risk Level</b> Based on probability, impact, and warning time <b>LOW</b> <b>MODERATE</b> <b>HIGH</b>	<b>History: When, where, extent and impact</b> Extent: wind speed, snow depth, earthquake magnitude Impact : the effect that the hazard event had on people, property and infrastructure. Dollar amount value of damage, if known.
<b>Flooding/Stream Bank Erosion</b>	High	Major	High	September 2019. Damage to residential properties. Culverts failed, roads washed out. Halloween Flood, 2019 – about half of roads flooded. Pump station flooded for Troy/Jay wastewater system and house next to pump station. Repaired. House on Routhier Road also flooded. Repaired. April 2019, River Road near Covered Bridge. Added stone and fill to riverbank, under State guidance.
<b>Earthquake</b>	Low	Minor	Low	
<b>Hurricane/Tropical Storm</b>	Low	Minor	Low	
<b>High Winds</b>	Medium	Moderate	Moderate	Winter 2020 – Trees came down.
<b>Severe Winter Storm (ice storms, snowstorms)</b>	High	Moderate	High	2013 ice storm -- Jay Peak shut down. 2018/2019 several events.
<b>Extreme Cold (25 below)</b>	Medium	Major	High	Events caused pipes to freeze – water mains in North Troy and Troy froze.



<b>Extreme Heat (87+)</b>	High	Minor	<b>Low</b>	Summer 2019 and Summer 2020. Residents in neighboring towns hospitalized due to lack of cooling equipment.
<b>Hail</b>	Low	Low	<b>Low</b>	Spring 2020, brief occurrence.
<b>Drought</b>	Low	Moderate	<b>Low</b>	----
<b>Invasive Species (animals, insects or vegetation)</b>	High	Minor	<b>Moderate</b>	Respondent to online survey indicated a mold spore has killed a local Colorado Blue Spruce plantation
<b>Wildfire</b>	Low	Moderate	<b>Low</b>	---
<b>Infectious Disease Outbreak</b>	Low	Moderate	<b>Moderate</b>	----

Based on this exercise, the planning team decided to profile in detail the hazards that posed the greatest risk to Troy (rated moderate to high risk), and to develop mitigation measures for those hazards. These included:

- Flooding/Stream Bank Erosion
- High Winds
- Severe Winter Storms
- Extreme cold
- Invasive Species
- Infectious Disease Outbreak

The Hazard Mitigation Planning Committee did not profile man-made, or “technological” hazards.

## 4. ASSESSING VULNERABILITY

### 4.1 Populations at Risk

Vulnerability refers to the potential impact of a specific loss related to an identified risk.

Areas of repetitive flooding and ongoing streambank erosion was discussed by the planning team, with the Town Road foreman providing information on the problem areas (see page 34).

There are an estimated 19 structures in the town of Troy in the FEMA-mapped Special Flood Hazard Area (SFHA), six of which are in the Village of North Troy. It is noted that since the Flood Insurance Rate Maps (FIRM) for Troy and North Troy are not digitized, it cannot be accurately geo-referenced on the map, and numbers of structures within the SFHA are rough estimates. In addition, the FIRM dates to 1980, which also affects its accuracy. The VT “Flood Ready” site does not have information on the percentage of structures within the SFHA that have flood insurance in Troy or North Troy Village. The Town of Troy has one NFIP severe repetitive loss residential property. The Village of North Troy has two repetitive loss properties, one residential and one non-residential. The severe repetitive loss property is insured.

The State River Corridors, depicted on the map included in the appendix, provide an indication of areas that are vulnerable to fluvial erosion. Much of the mapped River Corridor coincides with the mapped SFHA. Approximately 10 residences in or directly adjacent to the mapped River Corridors, indicating that these properties may be at risk of damage. There are also portions of the town’s road infrastructure that are within the mapped River Corridors.

Vulnerable, or “at-risk” populations would include the Troy School, child care facilities and nursery schools, and senior residences on South Street in North Troy. (See Table 4.1)

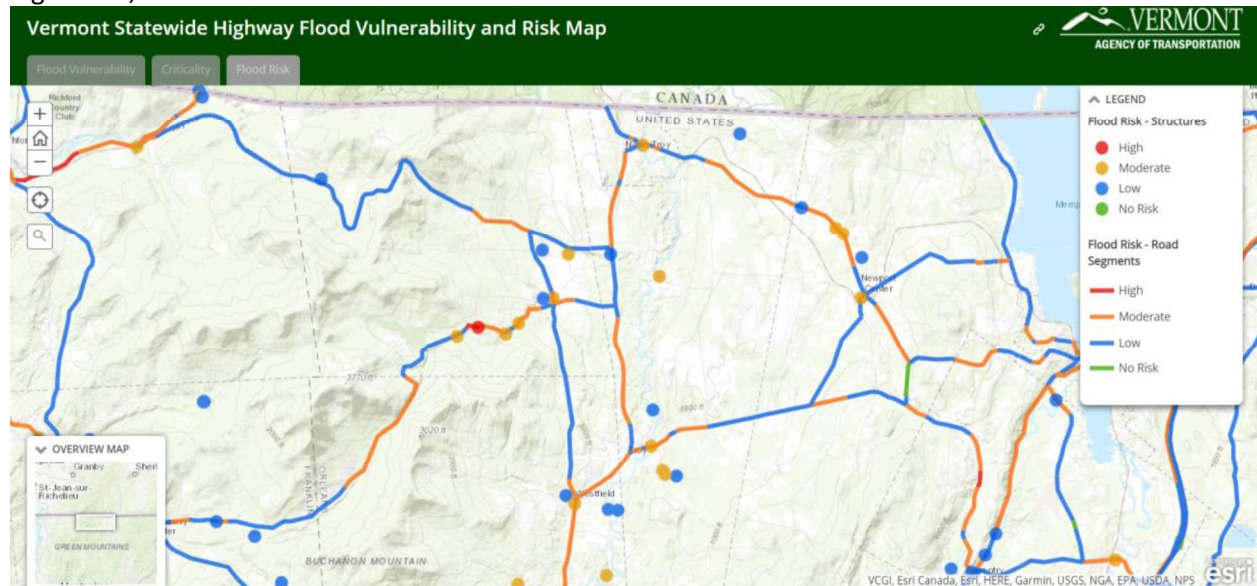
### 4.2 Critical Assets and Infrastructure

Critical facilities are structures critical to the operation of the community and the local economy, which may include historic structures.

The Vermont Statewide Highway Flood Vulnerability and Risk Map is a useful tool for assessing vulnerability and risk to road infrastructure in Troy. The Vermont Agency of Transportation has developed a vulnerable and risk map for state highways, that is intended to provide a reliable estimate that can support emergency preparedness, capital programming and hazard mitigation planning. The statewide assessment also provides a metric for use in the project selection and prioritization process. The limitation is that small bridges and culverts on town highways are not included in this assessment -- data on those structure are inventoried at the town level and entered on [www.vtculverts.org](http://www.vtculverts.org).

Transportation *criticality* metrics quantify the importance of a road segment in the network related to general travel and emergency services accessibility. The *flood vulnerability* and *transportation criticality* metrics are combined to develop a *risk score*, which can help prioritize the need for mitigation. The map showing flood risk for critical transportation routes and associated infrastructure in Troy is shown below in Figure 4.1.

Figure 4.1, Flood Risk



A Road Erosion Inventory was undertaken for the Town of Troy in the fall of 2019, and the report was completed in 2020. This inventory is one of the requirements of the Municipal Road General Permit, which is intended to mitigate water quality impacts, particularly as it affects the waters that drain to Lake Champlain. Town-wide, 295 road segments that are hydrologically connected to waterways were inventoried, with 120 found to not meet the State standards. 140 segments partially met the standard, and 35 fully met the standard. 235 of the road segments inventoried were on gravel roads.

In the Village of North Troy, 27 road segments were inventoried. Of those, 13 did not meet the standard, 12 partially met the standard, and 2 fully met the standard.

The Road Erosion Inventory Report is meant to inform the Road Stormwater Management Plan (implementation table that was produced by the inventory work). Work that is undertaken to ameliorate erosion problems on hydrologically-connected roads not only has a water quality benefit, but can mitigate flood hazards to roadways as well.

Previous and continuing problem areas with the road infrastructure in town include but are not limited to the following:

- Ice dams below the Town Garage before it gets to dam on Route 105. This causes flooding on River Road.
- In the past, Ice jams caused flooding on River Road and Loop Road at Rt. 100.
- Fallen trees in the river cause jams leading to flooding on River Road.
- Flooding on Bear Mt. Road, caused by problems near Maurice Titus Road. The culverts are undersized, the road is low, and beaver dams exacerbate flooding problem.

In addition to the critical road infrastructure, critical facilities/assets within the Town of Troy and Village of North Troy that are important to protect during hazard events are listed in Table 4.1., along with the estimated replacement cost, if relevant. These include both publicly and privately-owned properties.

**Table 4.1  
Critical Facilities in Troy Town**

<b>Asset / Critical Infrastructure</b>	<b>Location</b>	<b>Ownership</b>	<b>Assessed Value (\$)*</b>	<b>Notes</b>
Troy Town Office	Main Street, North Troy	Town of Troy	\$76,400	
Troy Town School	126 Main St, North Troy	Town of Troy	\$1,301,900	Enrollment in 2021 was 199, including PreK
Troy Town Garage	562 East Main Street, North Troy	Town of Troy	\$86,200	North Troy Village contracts with Town for road work
Troy Volunteer Fire Dept.	6850 VT RT 100, Troy	Troy Fire Dept.	\$226,600	
Village of North Troy Municipal Offices, Fire Department, and Rand Memorial Library	160 Railroad St. North Troy	Village of North Troy	\$706,700	
North Troy Public Water Supply -Well house -reservoir	Well at 1200 River Rd; reservoir at 247 N. Jay Rd.	Village of North Troy	\$44,400	A value for the reservoir was not available
North Troy Public Wastewater Treatment System	122 Elkins Drive, North Troy	Village of North Troy	NA	
Troy/Jay Public Wastewater Treatment System	355 Starrs Drive, Troy	Town of Troy and Jay	\$234,500	
Troy Town Public Water Supply -	Well/water treatment house: 6957 VT RT 100 Water tower: 3364 VT RT 101	Town of Troy	\$20,800	A value was not available for the water tower
North Troy Dam/ Missisquoi River Hydroelectric	9 East Main, North Troy	Private	\$411,200	net metered, with a capacity of 370 kW
Troy Mills Hydroelectric	164 Citizens Utilities Rd. Troy	Private	\$1,659,700	developed under the Sustainably Priced Energy Enterprise Development (SPEED) program, with a capacity of 850 kW

North Troy–Highwater Border Crossing	VT Route 243	Federal Government	NA	Important to local/ regional commerce and tourism
<b>Asset / Critical Infrastructure</b>	<b>Location</b>	<b>Ownership</b>	<b>Assessed Value (\$)*</b>	<b>Notes</b>
Telecommunications equipment building	4132 VT RT 101, Troy	Telephone Operating Co. of Vermont	\$102,500	
Telecommunications equipment building	606 East Main St., North Troy	Telephone Operating Co. of Vermont	\$161,400	
Missisquoi Valley Historical Society	155 Main Street, North Troy	Village of North Troy	\$114,400	
<b>Senior Housing and Child Care Facilities**:</b>				
Multi-family housing for seniors and disabled	South Street, North Troy	Private	NA	
North Troy Child and Family Development Program (licensed provider)	North Pleasant Street, North Troy	Northeast Kingdom Community Action	\$145,000	Capacity for 19 pre-school aged children
Troy School Early Education Program (Licensed Provider)	Main Street Troy, North Troy	Troy School District	NA	Capacity for 14 pre-school aged children
Nanny's Early Learning Center (Licensed Provider)	Pine Street, North Troy	Private	NA	Licensed to care for 12 children at any one time (infant to school age)
*Based on 2020 Grand List values				
** In addition to the listed licensed providers, there are six private homes registered for child care with a combined capacity of 50+ children. Four are in North Troy Village and two are in the town of Troy.				

### Development Trends: Population and Housing

While the population in the Town of Troy has been in decline over the last 20 years, the Town is currently working on an update to the Town Zoning Ordinance, which will align with the goals for development articulated in the latest Town Plan, adopted in 2020. The Town would like to see increased development, particularly housing, in the areas served by water and sewer in the Village of North Troy and the Hamlet of Troy. If this is successful, the Town is likely to see an increase in population. The Town is a member of the National Flood Insurance Program, so new construction would be done in locations and in such a way as will comply with the Town’s flood hazard regulations. The Town is also considering regulating areas within the State-mapped River Corridors.

### Changes in Priorities

The last “All-Hazards Mitigation Plan” adopted in 2005 (included in the appendix to this document) identified in Section 2.3 seven hazards, some of which were technological or man-made, to which the

Town and Village had a medium to high vulnerability. These were flooding, hazardous materials, water supply contamination, dam failures, chemical or biological incident, school safety, and terrorism.

Flooding continues to be a risk for the communities and is profiled in this plan. Hazardous materials incidents, chemical/biological incidents, and terrorism continue to be concerns, but have not been addressed in this plan since the Local Emergency Management Plan, which is updated annually, is an appropriate document in which to address preparedness for such incidents.

The concern about water supply contamination has been partially addressed by improvements to the water supply system in the hamlet of Troy, as discussed in section 1.7.1 of this plan. There continues to be a need for upgrades to the North Troy Village public water system and the need for a generator in the case of power outages. Obtaining back-up generators for critical facilities is included as a mitigation action for several identified hazards in the current plan.

The concern for dam failure has been reduced, since the dam located adjacent to the North Troy business district has changed hands since 2005 and repairs were undertaken by the new owner.

The Troy Town School has been remodeled since 2005 to address safety during an emergency situation. An emergency generator is still needed, and is identified as a mitigation action as noted above.

Infectious disease outbreaks have become a concern to community members in the wake of the COVID-19 pandemic, and invasive species have emerged as a priority concern as well. Neither of these hazards were addressed in the 2005 plan.

## 5. MITIGATION STRATEGY

### 5.1 Evaluation of Mitigation Actions

At the public meetings on February 22 and March 1, 2021 several mitigation strategies were evaluated using an evaluation matrix. This evaluation helped to prioritize actions. The hazard type which was addressed by each action appears in the first column, followed by the proposed mitigation action. The following criteria were considered in the matrix:

- What is the likelihood of securing funding for the action?
- Does the action protect threatened infrastructure and is it environmentally sound?
- Can the action be implemented quickly?
- Is the action socially and politically acceptable?
- Is the action technically feasible?
- Is the action administratively realistic given the capabilities of responsible parties?
- Does the action offer reasonable benefit compared to its cost of implementation?

Each criteria was rated on a scale of 1 to 5, 1 being “poor” and 5 being “excellent.” The results are shown on Table 5.1. Some of the mitigation actions that were identified as having the highest benefit, were also the most costly or were deemed to have low social/political acceptance, resulting in a lower overall rating. The team identified at least two mitigation actions for each hazard.

The last hazard mitigation plan adopted by Troy in 2005 identified two mitigation projects: obtaining generators for backup power and ongoing replacement of undersized culverts throughout the town. Both these mitigation actions remain on the current list, although a number of other actions are also proposed. Flooding continues to be a major concern. Although the last hazard mitigation plan identified hazardous materials incidents and a main threat, this hazard is not identified in this updated plan, as it is not a natural hazard. Preparedness for hazardous materials incidents is addressed in the Town’s Local Emergency Management Plan, which is updated on a yearly basis.

**Table 5.1  
Evaluation of Mitigation Actions**

1= Poor 2= Below Average or unknown 3= Average 4= Above Average 5= Excellent

Hazard Type	Mitigation Action	Funding potential	Protection value/ Environmental Advantage	Time to implement	Social and Political acceptance	Technical Feasibility	Admin. Feasibility	Benefit to cost	Total Score
<b>All Hazards</b>	Create a capital improvement plan to address the mitigation projects identified in the LHMP, beginning with the highest priority projects.	5	5	3	4	5	3	5	<b>4.3</b>
<b>Flooding/Stream Bank Erosion</b>	Partner with DEC and other organizations to facilitate restoration projects in river corridors.	5	5	4	4	5	5	5	<b>4.7</b>
	Partner with environmental organizations, (MRBA, etc) to hold periodic education events to inform local residents how to mitigate flood and fluvial erosion hazards.	5	5	4	5	5	5	5	<b>4.9</b>
	Discourage development on steep slopes and within river corridors; consider regulating river corridors as part of the flood hazard regulations	5	5	3	2	5	5	5	<b>4.3</b>
	Undertake repair projects to correct road erosion problems and/or replace undersized culverts to avoid washouts.	5	5	4	4	5	5	5	<b>4.7</b>



Hazard Type	Mitigation Action	Funding potential	Protection Value/ Environmental Advantage	Time to implement	Social and Political acceptance	Technical Feasibility	Admin. Feasibility	Benefit to cost	Total Score
	Continue to update culverts and bridges on vtculverts.org	5	5	3	5	5	5	5	4.7
	Work with VTrans to identify work based on a hydraulic study that will alleviate flooding on Bear Mt. Road, near intersection with Maurice Titus Road. The culverts are undersized, the road is low and beaver dams exacerbate flooding problem.	4	3	2	5	4	5	2	3.6
<b>High Winds</b>	Obtain back-up generators for critical facilities to mitigate impacts of a power-outage, including the Town Office, School, Village sewer system, Village Office/Fire House.	5	5	3	5	5	5	5	4.7
	Protect public buildings, and town roads from wind damage through regular tree pruning, maintenance and upkeep.	5	5	5	3	5	5	5	4.7
<b>Severe Winter Storms</b>	Develop a local warning notification system such as automated text/email.	5	4	3	5	5	3	5	4.3
	Obtain back-up generators for critical facilities. (see above for High Winds)	5	5	3	5	5	5	5	4.7

<b>Hazard Type</b>	<b>Mitigation Action</b>	<b>Funding potential</b>	<b>Protection value/ Environmental Advantage</b>	<b>Time to implement</b>	<b>Social and Political acceptance</b>	<b>Technical Feasibility</b>	<b>Admin. Feasibility</b>	<b>Benefit to cost</b>	<b>Total Score</b>
<b>Extreme Cold</b>	Increase public awareness of available weatherization and heating assistance programs, how to protect pipes from freezing, and how to guard against carbon monoxide poisoning.	5	5	4	5	5	4	5	<b>4.7</b>
	Set up Front Porch Forum account for Village/Town water systems, to alert residents of extreme freezes and how to protect water pipes.	5	5	5	5	5	4	5	<b>4.9</b>
<b>Invasive Species</b>	Identify organizations that can provide information/education regarding invasive plants and insects and ways to curb spread.	5	5	3	5	5	5	5	<b>4.7</b>
	Partner with DEC, Orleans County NRCD, and Missisquoi River Basin Association (Basin 6) on riparian buffer restoration programs, and other projects identified in the Basin Plan.	5	5	3	5	5	5	5	<b>4.7</b>
<b>Infectious Disease Outbreaks</b>	Partner with the VT Dept. of Health and the Orleans/Essex Visiting Nurse Association to disseminate information regarding treatments, testing, and vaccines to the community, particularly the elderly and homebound. Provide public	5	5	4	4	5	5	5	<b>4.7</b>

	education via town mailings or internet postings (e.g. Front Porch Forum) regarding safety measures to curb the spread								
	Provide personal protective equipment at town properties to help curb the spread	5	5	4	4	5	5	5	<b>4.7</b>

## 5.2 Capabilities

The Town of Troy has a relatively low year-round population, and limited paid staff. The Town has a three-member Selectboard and a seven-member Planning Commission. The Town’s paid staff includes a Zoning Administrator, Town Clerk, a water system operator, and a road foreman, a.k.a Road Commissioner (the job description for the Road Commissioner is included in the appendix to this document). The Town of Troy and Jay have a joint Troy/Jay Sewer Board that consists of 3 members each from Jay and Troy Selectboards. The Sewer Board employs chief engineer/operator.

The Village of North Troy has a three-member Board of Trustees and employs a Village Clerk, who also holds the roles of Treasurer and Delinquent Tax Collector, a public works supervisor who operates the wastewater and water system, and a Librarian/Assistant Treasurer.

Emergency services are currently provided by the Missisquoi Valley Ambulance, and the organization is currently working with communities in the service area to develop a budget.

The Village and Town each has taxing authority, and develops a yearly budget. Each entity holds an annual meeting for the choice of officers and the transaction of any business specified in the warning for the meeting.

The Village of North Troy has a Traffic Ordinance and All Terrain Vehicle (ATV) ordinance, both adopted March 8, 2022.

The Town of Troy has zoning regulations, including flood hazard regulations, that apply to the entirety of the Town, including the Village of North Troy. The effective date of the Flood Insurance Rate Map (FIRM) is December 2, 1980. The Zoning Administrator for the Town reviews applications for zoning permits in both the Town of Troy and the Village of North Troy. The Troy Planning Commission has been working on an update to the zoning regulations in 2021 and 2022, with amendments expected to be adopted in 2022. A copy of the Town zoning regulations, with proposed revisions indicated, is included in the appendix to this document. If adopted, the Town will regulate development within the State-designated River Corridors, and will move to a Development Review Board (DRB) model, where the DRB will take on the regulatory review responsibilities (e.g., site plans, special permits) currently undertaken by the

Planning Commission and Zoning Board of Adjustment. Proposed amendments also include changes that will facilitate infill development in the existing center of North Troy, and protect forest blocks and other natural features by incentivizing the use of planned unit developments.

Steve Button operates the water system for Troy and the joint Troy/Jay wastewater system. Karson McMahon is the public works supervisor for North Troy and handles both water and wastewater for North Troy Village. Robert (Bobby) Jacobs is the road foreman for the Town of Troy, and the Village of North Troy contracts with the Town of Troy for road work in the Village.

It is noted that the Troy School District owns property in the northern part of the Town, off River Road that could provide an opportunity for education on invasive species. The Missisquoi River Basin Association (MRBA) serves as an existing education outlet and could be enlisted to assist with such education.

In addition to the proposed zoning amendments mentioned above, potential for expansion of the communities' existing capabilities include:

- ongoing training of the Town road crew
- development of new health protocols currently by the Town health officer and assistant health officer
- desktop emergency training exercise coordinated by the Town Emergency Management Director (EMD) and the Emergency Management Specialist at NVDA
- the update and digitization (at the federal level) of the FIRM, which will provide more accurate information as the basis for the Town's flood hazard regulations
- Creation of capital improvement plans for both the Town of Troy and Village of North Troy.

Table 5.2 lists each mitigation action, along with the party or parties that would have the capability of implementing the action, and time-frame. The lead for each mitigation action is shown in **bold**, with supporting entities also indicated. Since this plan serves both the Village of North Troy and Town of Troy, some proposed actions will have two leads. Source of funding, if relevant, is also noted. The estimated cost is noted as a 1 if low (under \$5,000); 2 if medium (\$5,000 to \$10,000); or 3 if high (over \$10,000).

For time frame, 1 would be within the next 12 months, 2 would be 1 to 2 years, 3 would be 2+ years, or ongoing.

**Table 5.2  
Capabilities, Costs and Timeframes**

<b>Hazard Type</b>	<b>Mitigation Action</b>	<b>Responsible Party</b>	<b>Estimated Cost</b>	<b>Funding Source</b>	<b>Time Frame</b>
<b>All Hazards</b>	Create a capital improvement plan to address the mitigation projects identified in the LHMP, beginning with the highest priority projects.	Planning Commission, <b>Selectboard</b> and <b>Village Trustees</b>	1	General Fund from Town and Village	2
<b>Flooding/Stream Bank Erosion</b>	Partner with DEC and other organizations to facilitate restoration projects in river corridors.	Planning Commission and <b>Missisquoi River Basin Association (MRBA)</b>	2	Grant funds	ongoing
	Partner with environmental organizations, including the Missisquoi River Basin Association (MRBA) to hold periodic education events to inform local residents how to mitigate flood and fluvial erosion hazards, ideally at Town/Village Meeting.	Planning Commission and <b>MRBA.</b>	1	General Fund and MRBA's budget (grant funds).	1
	Discourage development on steep slopes and within river corridors, and consider regulating river corridors as part of the town flood hazard regulations.	<b>Planning Commission</b> and Selectboard	1	Municipal Planning Grant Grant and general fund	1
	Undertake repair projects to correct road erosion problems and/or replace undersized culverts to avoid washouts.	<b>Town of Troy/Village Trustees</b> , in each respective jurisdiction	3	Grants from Vtrans, and the Highway budget.	ongoing
	Continue to update culverts and bridges on vtculverts.org	Town Road Foreman	1	Town Highway budget	ongoing
	Work with VTrans to identify work that will alleviate flooding on Bear Mt. Road, near intersection with Maurice Titus Road. The culverts are undersized, the road is low and beaver dams exacerbate flooding problem.	Town Selectboard	3	Grant Funds, VTrans	3
<b>High Winds</b>	Obtain back-up generators for critical facilities	<b>Town Selectboard,</b>	3	Grants from	1

	to mitigate impacts of a power-outage, including the Town Office, School, Village sewer system, Village Office/Fire House.	<b>Village Trustees</b> and Emergency Management Director (Town)		VEM,DHS, and General Fund	
	Protect public buildings, and town roads from wind damage through regular tree pruning, maintenance and upkeep.	<b>Town Selectboard and Village Trustees</b> , for each respective jurisdiction	1	Town Highway Budget and Village Highway Budget	ongoing
	Prepare a feasibility for the implementation of a mini-grid to supply electrical power to critical Town and Village facilities in the event of an emergency	Private consultant commissioned by <b>Town Selectboard</b> with input by Planning Commission	3	Grants, such as a mitigation planning grant, or MPG.	3
<b>Severe Winter Storms</b>	Develop a local warning notification system such as automated text/email.	Town and Village Clerks working w/ <b>EMD</b>	1	General funds for Town and Village	1
	Obtain back-up generators for critical facilities. (see above for High Winds)				1
<b>Extreme Cold</b>	Increase public awareness of available weatherization and heating assistance programs, how to protect pipes from freezing, and how to guard against carbon monoxide poisoning.	<b>EMD</b> , in conjunction with Heat Squad and Efficiency Vermont for weatherization/heating assistance. Water operators for Town and Village for information on protecting water pipes from freezing	1	NA	1
	Set up Front Porch Forum account for Village/Town water systems, to alert residents of extreme freezes and how to protect water pipes.	<b>Town and Village Clerks</b> in coordination Water System Operators	1	NA	1
<b>Invasive Species</b>	Identify organizations that can provide information and education regarding invasive	Planning Commission working with <b>MRBA</b> ,	1	NA	ongoing

	plants and insects and ways to curb their spread.	Vermont Invasives, ECHO, Troy Town School			
	Partner with DEC, Orleans County NRCD on riparian buffer restoration programs, and other projects identified in the Basin Plan.	MRBA Planning Commission	1	Grants through various environmental organizations	ongoing
<b>Infectious Disease Outbreaks</b>	Partner with the VT Dept. of Health and the Orleans/Essex Visiting Nurse Association to disseminate information regarding treatments, testing, and vaccines to the community, particularly the elderly and homebound. Provide public education via town mailings or internet postings (e.g. Front Porch Forum) regarding safety measures to curb the spread	EMD/Town Health Officer	1	NA	As needed/ongoing
	Provide personal protective equipment at town properties to help curb the spread	EMD/Town Health Officer	1	FEMA assistance grants	As needed/ongoing

### 5.3 Implementation and Monitoring of Mitigation Strategies

#### 5.3.1 Public Involvement Following Plan Approval

After the Plan has received approval from FEMA and has been adopted by the Town, the Town Selectboard will provide a summary in the Annual Town Report regarding any progress to date on mitigation actions in the Plan, any changed conditions, and an evaluation of the plan to assess whether it is still effectively promoting Troy's hazard mitigation goals. At Town Meeting every March, the public will have the opportunity to ask questions and provide comments on the mitigation strategy. The Village and Town hold separate annual meetings, everything is passed by floor vote, including the Town and Village budgets.

#### 5.3.2 Project Lead and Monitoring Process

Once the Plan is approved by FEMA, the calendar will begin for annual review of the mitigation plan.

The Troy Selectboard Chair is the project lead and will work in conjunction with the Troy Emergency Management Director, the Road Foreman, the Town Clerk, and the Planning Commission to complete the yearly progress report included in the Annual Town Report. The Town Clerk will assure that all road improvement projects are tracked in collaboration with the Road Foreman.

### 5.3.3 Plan Update Process

The Plan update will be led by the Planning Commission. The Planning Commission may elect to acquire the assistance of the Northeastern Vermont Development Association or a consultant to update the plan following a declared disaster and/or the next five-year planning cycle. The process of updating the Hazard Mitigation Plan will begin one year prior to its expiration. The update process will begin with a review of the annual progress reports, and will include an update of data on population and development. Any changes in vulnerability will also be documented. The Planning Commission will seek public involvement through methods similar to those used in the development of this Plan: online resident survey, direct emails to adjacent Town officials, announcements in the local newspaper, and public meetings.



## **APPENDIX**

1. Troy 2005 All Hazard Mitigation Plan
2. June 9, 2020 press release announcing survey
3. June 18, 2020 Newport Daily Express advertising June 24, 2020 public meeting
4. Presentation delivered at June 24, 2020 public meeting
5. Troy Hazard Mitigation Survey
6. July 22, 2020 public meeting notice
7. Road Commissioner job description
8. Troy Local Emergency Operations Plan (LEMP)
9. Troy Zoning Bylaw with proposed amendments
10. Troy River Corridors and Flood Hazard Areas
11. Email sent on April 8, 2022 to Town Clerks of surrounding towns.

# Town of Troy, Vermont

## All-Hazards Mitigation Plan



**Selectboard  
Town of Troy  
P.O. Box 80  
Troy, Vermont 05859  
(802) 988-2663**

April 25, 2005

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**Prerequisites**  
**Certificate of Local Adoption**

**Town of Troy**

**A Resolution Adopting the All-Hazards Mitigation Plan**

WHEREAS, the Town of Troy has worked with the Northeastern Vermont Development Association to identify hazards, analyze past and potential future losses due to natural and human-caused disasters, and identify strategies for mitigating future losses; and

WHEREAS, the Troy All-Hazards Mitigation Plan contains recommendations, potential actions and future projects to mitigate damage from disasters in the Town of Troy; and

WHEREAS, a meeting was held by the Troy Selectboard to formally approve and adopt the Troy All-Hazards Mitigation Plan as an annex to the Northeastern Vermont Development Association's (NVDA) All-Hazards Mitigation Plan.

NOW, THEREFORE BE IT RESOLVED that the Troy Selectboard adopts The Troy All-Hazards Mitigation Plan Annex as well as the associated NVDA All-Hazards Mitigation Plan.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Selectboard Chair

\_\_\_\_\_  
Selectboard Member

\_\_\_\_\_  
Selectboard Member

\_\_\_\_\_  
Selectboard Member

\_\_\_\_\_  
Selectboard Member

\_\_\_\_\_  
Attested to by Town Clerk

## Section One - Planning Process

### 1.1 Introduction and Purpose

This Annex, when used with the appropriate sections of the basic NVDA All-Hazards Plan, is an All-Hazards Mitigation Plan for the Town of Troy. The purpose of this plan is to assist the Town of Troy to identify all hazards facing the community and identify strategies to begin reducing risks from identified hazards. A Pre-Disaster Mitigation Planning Grant to the Northeastern Vermont Development Association (NVDA) assisted the Town of Troy in preparing this plan.

The impact of expected, but unpredictable natural and human-causes events can be reduced through community planning. The goal of this plan is to provide all-hazards local mitigation strategies that make the communities in northeastern Vermont 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 efforts, FEMA and state agencies have come to recognize that it is less expensive to prevent disasters than to get caught in a repetitive repair cycle after disaster have 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 they are, where they might be most severe and identify local actions that can be taken to reduce the severity of the hazards.

Hazard mitigation 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 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 structures
- Identifying high accident locations
- Monitor and protect drinking water supplies
- Enlarge or upgrade culverts and road standards
- Proactive local planning
- Ensuring that critical facilities are safely located
- Providing public information

### 1.2 About Troy

Meeting Date: 12/17/03

Meeting Attendees: Lucille Cadieux, Town Clerk

Population: 1,638

Median Housing Value: \$62,934

Orleans County

Chartered: October 28, 1801 (Vermont Charter)

Area: 23,341 Acres / 36.47 Square Miles  
Coordinates (Geographic Center): 72°24'W 44°54'N  
Altitude ASL: 764 feet  
Population Density (persons per square mile): 42.9  
Tax Rate: \$2.057 ('03)  
Equalized Value: \$75,850,928 ('03)

### **1.3 Community History and Background**

Troy is located in the extreme northern part of Orleans County at 44 degrees, 55 minutes north latitude and 74 degrees, 36 minutes west longitude. The Green Mountains lay to the west and the Vermont Piedmont lies to the east. It is bound on the north by the Province of Quebec, Canada, on the east by the Town of Newport Center, on the west by the Towns of Jay and Westfield, and to the south by Lowell. There is one international border crossing along Vermont Route 243, just a short distance from the village area of North Troy. This is the main center of commerce for the Town of Troy. The Montreal, Maine and Atlantic Railroad crosses between US and Canada. The Portland Pipeline goes through Troy and crosses into Canada less than ½ mile to the west of the Route 243 and railroad border crossing. The center of the Town of Troy is located about 3 ½ miles south of the Canadian border at the intersection of Routes 100 and 101.

The Troy fire department is entirely volunteer and also serves the Town of Westfield. The village of North Troy has a separate fire department that is well equipped and trained. Jay and Newport Center have their own fire departments, as does Mansonville, P.Q., just over the border into Canada. Mutual Aid with surrounding communities is very good. A grant has been written for a new fire truck through Homeland Security funds. Troy has three identified shelters: the American Legion, the Masonic Hall and the Troy School. The American Legion has a generator but others are needed at the other facilities for back-up power. Troy has a Shelter Pre-Agreement with the Vermont Red Cross. Troy does not have a health clinic. Most residents use the North Country Hospital in Newport City, approximately 10 miles away. There are many day care centers in Troy that may have special evacuation needs.

There are two sewer treatment plants (one in North Troy and one in Troy in a flood area). The village areas of Troy and North Troy each have their own municipal water systems. The Troy well produces a little low, but the North Troy well can pump 650 gallons/minute. Electrical power is supplied by the Vermont Electric Coop where power is fairly reliable. During the ice storm of 1998, power was out for five to six days.

Troy, including both village areas, has zoning and flood hazard zoning. They are members of the National Flood Insurance Program. The existing town plan is outdated, but the Planning Commission is working on a new one with assistance from the Northeastern Vermont Development Association.

## **Section Two - Risk Assessment**

### **2.1 Identify Hazards**

Troy local officials have identified several hazards that are addressed in this Annex. These were identified through interviewing the Town Clerk. This individual has a thorough knowledge of the community through many years of direct involvement in local issues.

**Table 2-A Hazard Inventory and Risk Assessment**

Possible Hazard	Likelihood	Impact	Community Vulnerability	Most Vulnerable
Tornado	Low	Medium	Low	Structures
Flood	High	High	High	Infrastructure/ homes, farms
Flash Flood	Low	Low	Low	Not really susceptible
Hazardous Materials (Canadian initiated)	Low/Med	High	High	Roads, water supply, downtown.
Radiological Incident	Low	High	Low	Residents
Structure Fire	Low/Med	Low/Med	Low/Med	Downtown, residences
Power Failure	Medium	Medium	Medium	Residences, businesses
Winter Storm/Ice	High	Medium	Medium	Residences, businesses
High Wind	Low	Low	Low	Trees down, loss of power
Aircrash	Low	Low	Low	Site specific
Water Supply Contamination	Low/Med	Medium	Medium	Public water supply, rivers
Hurricane	Low	Low	Low	Power lines, residences
Earthquake	Low	Low	Low	Site specific
Dam Failures	Low/Med	Low	Low	Low to Troy, High risk to Canada
Drought	Low	Low	Low	Water supply
Chemical or Biological Incident	Med/High	Medium	Medium	Site specific. Railroad/border. North Troy
Highway Incidents	Low	Low	Low	Site specific
Wildfire/Forest Fire	Low	Low	Low	Not big risk
Landslide	Low	Low	Low	Site specific, no high elevators
School Safety Issues	Low/Med	High	High	Students, teachers, hostage issues/Hazmat
Terrorism	Low	High	High	Residents, businesses, local officials

The threats to Troy causing medium to high community vulnerability are: flooding, hazardous materials (including chemical incident), severe weather, water supply contamination, school safety issues and terrorism.

## 2.2 Profiling Hazards

Only those hazards that are considered a MEDIUM or HIGH vulnerability in Troy will be profiled below. While those not being profiled are still important, they are considered a lower threat to the community where damage would be minimal.

### 2.2.1 Flood History

The Town of Troy has a history of flooding, especially during the last several years. The summer of 1997, 2002 and 2004 saw heavy road damage throughout the town and in the village areas. There were no FEMA declarations between 1989 through 1996. River Road and Cook Brook are problematic areas. Many sections of road were town highways and were repaired through the Vermont Agency of Transportation. Ice

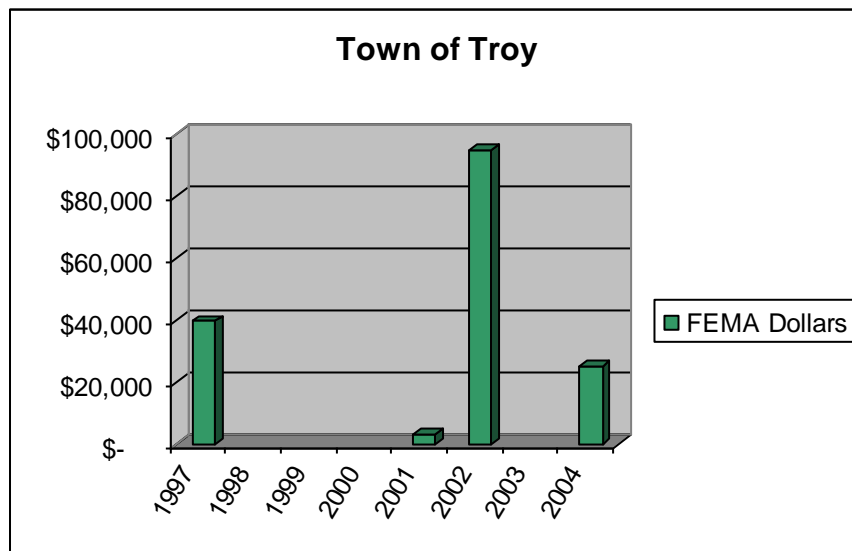
jams are frequent along the branches of the Missisquoi River at the covered Bridge and Big Falls areas. The southern end of the town has frequent washouts due to nearby clear cutting.

The Town of Troy has diligently replaced undersized culverts with larger culverts in the past several years. One property has received repetitive flood damage. This and an adjoining property were bought-out through a FEMA HMGP grant in 2003/4.

The ski area of nearby Jay Peak drains to Missisquoi. Jay Brook flows into Missisquoi on River Road. The dam in North Troy was built after flood of 1927 and controls the flow of the Missisquoi River into Canada and causes flooding upstream. The dam is privately owned and not regularly operated or maintained. A dam breach would impact Canada, not North Troy. Elimination of the dam would improve existing flooding along River Road. Cook Brook also flows into the Missisquoi at River Road.

**FEMA Declarations and Funding**

Town	Repetitive Damage	# of Properties	NFIP	1184 Jul-97	1428 Jul-02	3167 Mar-01	1559 Sep-04	Total DR Funds
Troy	\$ 24,108.00	1	YES	\$ 39,719	\$ 94,821	\$ 3,300	\$ 25,020	\$ 162,860



**2.2.2 Hazardous Materials**

The most hazardous materials are located on the roads, railroads and the Portland Pipeline. A high accident location is the intersection of Routes 242 & 105. Should an incident occur near the North Troy Village area, an evacuation would take affect. North Troy would be most vulnerable because the school, town offices flood area, historic buildings, customs, and railroad are all within a short distance. A factory across border with foam insulation may have chemicals or explosive materials. The fire department maintains a list of hazardous materials but those in nearby Canada are unknown. The worst-case scenario would involve a train incident with hazardous materials derailing on the trestle over the river.

**2.2.3 Structure Fire**

Structure fires in Troy are not common, maybe one to two per year. See Hazardous Materials and Chemical Incidents as the higher but associated threats.



### **2.2.4 Water Supply Contamination**

Both North Troy and the Village of Troy have municipal water systems. The wells are in the flood plain and could become contaminated. The well for the Village of Troy is near the intersection of Routes 100 and 101. They are secured and checked daily for possible contamination.

### **2.2.5 Dam Failures**

The Village of North Troy has a dam located very close to the historic commerce section of the community. This is also a frequent flood area. If the dam were to breach, it would flow northward into Canada, causing problems for the northern community. See flood discussion.

### **2.2.6 Chemical or Biological Incident - Border Crossings**

Troy has one highway border crossing into Canada, a railroad crossing and the Portland Pipeline going through town and the border. Border security is low and traffic volumes are low. Many farmers own contiguous fields on both sides of the border and go back and forth regularly to maintain their crops. A barn fire had occurred several years ago that ended up as an international HAZMAT incident. The barn was being used as a small business that had chemicals and nutrients on site. These chemicals and nutrients flowed into the Missisquoi River that flows into north into Canada, causing pollution and many fish to die.

### **2.2.7 School Safety Issues**

School safety issues are related to the school being in close proximity to the railroad, the dam, and the border crossing, and because it is located close to the flood area. Evacuation will be difficult in high flood situations. The close proximity to the border crossing is a potential problem if terrorists are involved. This is a K-6 school. The school has prepared an emergency plan for a variety of potential incidents ranging from bomb scares to drugs to guns. A generator is needed at the school for backup power.

### **2.2.8 Terrorism**

Troy is not a high threat target area for terrorists, but given the close proximity to the border, an incident is always a possibility. Should an incident occur, it would be devastating to the community. See related School Safety Issues.

## **2.3 Vulnerability: Overview**

In terms of vulnerability, Troy rated these potential hazards below as High or Medium-High threat: flooding, hazardous materials, water supply contamination, dam failures, chemical or biological incident, school safety and terrorism issues. Mitigation strategies are identified for the highest priority projects in Section Three. Only those hazards that were identified as a high risk to the town were profiled. While other types of hazards may cause smaller problems for the community, they are a lower risk.

## **2.4 Identifying Structures**

It is difficult to estimate the total number of structures in the 100-year limit of the FIRM identified floodplain as those maps do not accurately match up to the E911 maps that are based on the structures' geographical location (latitude and longitude). However, it can be estimated that there are approximately 50 to 100 structures in or near the flood areas depicted on the NFIP maps. The most vulnerable area is the historic village area of North Troy. The center of commerce is here along with its school, higher density historic homes and an international border crossing into Canada.

## **2.5 Estimating Potential Losses**

Future losses should be lessened through mitigation of the repetitively flooded properties, most of which are roads, bridges and culverts. The FIRM maps are not compatible with the GIS maps containing contour, rivers, roads and structures and it is not possible to estimate the amount of potential loss at this time. It is recommended that the NFIP maps be redone using the Vermont Geographic Information System standards based on orthophoto mapping. The Median Housing Value (MHV) for Troy in 2003 was \$62,934. The Equalized Value for all properties in Troy in 2003 was \$75,850,928. If one percent (1%) of all properties in Troy were damaged, the value would be assessed at \$75,850. The past FEMA damages amounted to \$162,860 over 16 years, so while future damage could be significant, it would not be totally devastating.

## 2.6 Analyzing Development Trends

The growth rate of Troy is 4.7% or a total population increase of 74 persons between 2000 and 2003. The Town of Troy has adopted a local plan and zoning regulations to guard against future development in inappropriate locations such as floodprone areas. Troy is a member of the National Flood Insurance Program (NFIP). Troy is not a rapidly developing community and is not expected to have a rapid influx of new development in the near future. All development strategies are carefully reviewed by the Zoning Board of Adjustment. All buildings being improved in or near frequently flooded areas are required to elevate or provide additional mitigation measures.

## Section Three - Mitigation Strategy

Hazard Mitigation Strategies and Measures **avoid** the hazard by stopping or limiting new exposures in known hazard areas, **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 and could include tools or projects such as:

- **Town Plan** - this document contains goals and objectives for community growth, health, safety and welfare for public and private interests.
- **Zoning Status** – This is a snapshot of the current zoning tools in effect. Note the progress listed above for some communities.
- **NFIP** – National Flood Hazard Insurance Program – Troy is in the program.
- **Flood Regulations** – Some communities have adopted Flood Regulations but may not be a member of the NFIP program.
- **C & S = Highway Codes and Standards** – Most all Vermont communities have adopted the Vermont Transportation Agencies recommended Highway Codes and Standards. This is perhaps the one most beneficial mitigation program in Vermont and the NVDA region. By adopting these codes, all maintenance and new construction on roads, highways, bridges and culverts must be enhanced to meet the new standards to withstand large flood events.
- **VTRC** – Troy does have a Vermont Red Cross Shelter Pre-Agreement. When a Pre-Agreement is in effect, local representatives are trained to open a shelter if needed. This will allow for a more efficient use of the VT Red Cross if and when needed.

- **Emergency Operation Plan (EOP)** – Troy is in the process of having its EOP updated to include all-hazards through a Homeland Security Grant to the NVDA. This plan will be substantially completed by July 2005 and will include this Plan as its risk assessment to all-hazards.
- **Rapid Response Plan (RRP)** – Troy has updated its RRP as of November 3, 2004.
- **Emergency Training** - Fire and rescue personnel continue to participate in training offered for its volunteers, particularly with the equipment upgrades through the Dept. of Homeland Security.

**Table 3-A Development Tools**

Town	Town Plan	Zoning	NFIP	Rapid Response Plan	Subdivision	Highway Codes & Standards	Culvert Inventory	Vermont Red Cross
Troy	N	YES	YES	YES	N	YES	N	Yes

### 3.1 Regional Hazard Mitigation Goals

- Reduce the loss of life and injury resulting from all hazards.
- Mitigate financial losses incurred by municipal, residential, industrial, agricultural and commercial establishments due to disasters.
- Reduce the damage to public infrastructure resulting from all hazards.
- Recognize the connections between land use, storm-water road design and maintenance and the effects from disasters.
- Ensure that mitigation measures are compatible with the natural features of community rivers, streams and other surface waters; historic resources; character of neighborhoods; and the capacity of the community to implement them.
- Encourage all-hazard mitigation planning as a part of the municipal planning process.

### 3.2 Community Preparedness Goals

Overall, Troy is working to decrease its risk to flooding, water supply contamination and hazardous material incidents through proactive planning, policies and mitigation actions. Other lesser risks are being addresses through the same procedures and policies.

- Review this plan with essential town government.
- Review and study the need for additional capacity and capability in the Fire Department to minimize the impact of a HAZMAT incident.
- Ensure that all emergency response and management personnel receive HAZMAT Awareness training as a minimum.

### 3.3 Existing Hazard Mitigation Programs

Troy has been proactive in planning its future as well as protecting its citizens from potential disasters. Troy is in the NFIP program and has recently participated in the HMGP program to buy-out two flood prone homes.

### **3.3.1 Emergency Management Planning**

Troy has recently updated their Rapid Response Plan. They have representatives that regularly attend the Local Emergency Planning Committee (LEPC) 10 meetings each month in Derby. Troy is participating in a joint exercise through LEPC 10. The exercise will be completed in May 2005. The fire department has upgraded its equipment through Homeland Security funds. The fire department is well trained. Troy has an Emergency Operations Plan with a new one in the development stages to meet All-Hazards response.

### **3.3.2 Codes and Standards**

Troy has adopted the recommended Highway Codes and Standards that require regular upgrades on bridges, highways, ditching and culverts to avoid flood damage. A number of culverts have already been upgraded.

### **3.3.3 Local Planning and Zoning, NFIP**

Troy has adopted a Town Plan and Zoning. They are a member of the National Flood Insurance Program. All new development must be reviewed by the Zoning Board of Adjustment. Most new development is for subdivisions, renovations and existing building modifications. All development in or near the identified flood areas must conform to zoning standards.

### **3.3.4 Protection of Municipal Water System**

Troy checks its water system daily as required by State regulations. They system is locked to protect against vandalism or unwanted substances.

### **3.3.5 Protection of Town Records**

The Town office has a vault to protect public records from damage or theft/vandalism.

### **3.3.6 School Drills**

The K-6 Troy School practices regular evacuation drills.

## **3.4 Preparedness Tools**

### **Public Awareness, Training, Education**

- Conduct Emergency Drills involving all elements of the community to practice procedures associated with a simulated varies incidents.
- Use this plan for Hazard Identification and Mapping.

### **Public Protection**

- Designate shelters.
- Emergency communications and information systems (NOAA weather receivers, Emergency Alert System (EAS)) are at the Command Center.
- Update Hazard Vulnerability Assessments as needed.
- Review and modify evacuation and sheltering plans based on the results of drills and exercises or procedures implemented in an actual incident.
- American Red Cross chapter may be contacted to assist with community education programs.
- Maintain current Rapid Response Plans and the Emergency Management Operations Plans.

- Regularly scheduled maintenance programs are ongoing (culvert survey & replacement, ditching along roadways, cutting vegetation to allow visibility at intersections).
- The town is proactive in preparing for potential disasters.
- One shelter facility has a generator.

**Financial and Tax Incentives.**

- Use State and Federal funding for mitigation projects and activities.

**Hazard Control and Protective Works.**

- Utilize regular maintenance programs (culvert survey & replacement, ditching along roadways, cutting vegetation to allow visibility at intersections).

**Insurance Programs.**

- Participate in NFIP.

**Land Use Planning/Management: Flood.**

- Troy has a municipal plan and local zoning. They have established Flood Hazard Areas through the NFIP.

**Protection/Retrofit of Infrastructure and Critical Facilities.**

- A map of Critical Facilities is attached.
- Auxiliary power for the critical facilities is needed.

**3.5 Analysis of Mitigation Actions**

**Priority Actions:**

Local officials in Troy have identified several mitigation actions to be included in the Hazard Mitigation Plan. Table 3-B, Implementation Strategy contains these actions, along with the responsible agency, the funding source, and implementation timeframe.

The Troy local officials have prioritized the actions using the STAPLE+E criteria, a planning tool used to evaluate alternative actions. The following table explains the STAPLE+E criteria.

S – Social	Mitigation actions are acceptable to the community if they do not adversely affect a particular segment of the population, do not cause relocation of lower income people, and if they are compatible with the community’s social and cultural views.
T – Technical	Mitigation actions are technically most effective if they provide long-term reduction of losses and have minimal secondary adverse impacts.
A – Administrative	Mitigation actions are easier to implement if the jurisdiction has the necessary staffing and funding.
P – Political	Mitigation actions can truly be successful if all stakeholders have been offered an opportunity to participate in the planning process and if there is public support for the action.
L – Legal	It is critical that the jurisdiction or implementing agency have the

	legal authority to implement and enforce a mitigation action.
E – Economic	Budget constraints can significantly deter the implementation of mitigation actions. Hence, it is important to evaluate whether an action is cost-effective, as determined by a cost benefit review, and possible to fund.
E – Environmental	Sustainable mitigation actions that do not have an adverse effect on the environment, that comply with Federal, State, and local environmental regulations, and that are consistent with the community’s environmental goals, have mitigation benefits while being environmentally sound.

### 3.6 Implementation of Mitigation Actions

Flooding and the potential for hazardous material incidents are the two main threats to Troy. Local officials are proactive in preparing for the hazards for which they are most vulnerable. Their highest priority concern is the health safety and welfare of the local citizens and businesses. The mitigation action determined to have the highest priority was the most cost effective alternative to the potential loss of life. Readiness and timeliness of project was also important.

Potential hazardous material incidents are caused mainly by highway features combined with areas that typically flood. These areas are Vermont State highways, which are the responsibility of the Vermont Agency of Transportation and are being evaluated by their engineers in conjunction with local officials.

The evaluating of these criteria is largely based on best available information and best judgment, as many of the projects are not fully scoped out at this time. The actions are listed in the Table 3-B in order of importance, cost effectiveness and feasibility to the community.

**Table 3-B Mitigation Projects by Priority**

Project/Priority	Mitigation Action	Who is Responsible	Time Frame and Potential Funding	Initial Implementation Steps
Generators with hookups HIGH	Backup power for the school and emergency operations center.	Fire Chief, Lee Forbes	2005 – HMGP, FMA	Seek grant sources and cost estimates.
Road and culvert upgrades	Continue to replace undersized culverts with larger culverts to prevent flooding.	Road Foreman, Lee Forbes	2005 – HMGP, Bridge and Culvert Program	Seek engineering solution and cost estimates.

## Section Four - Plan Maintenance Process

### 4.1 Initial Approval Process

In addition to public involvement in the initial development of the plan, opportunities for public comment will include a warned adoption to review the plan prior to final adoption. The fire chief has been instrumental in participating in the review of the document with the local officials.

After local review and comment, the draft local annex is presented to the State Hazard Mitigation Committee through the State Hazard Mitigation Officer (SHMO) for review and comment. The SHMO will issue a recommendation for forwarding the plan to the FEMA Region I. After receipt of comments from

FEMA Region I staff, final changes will be made and the resulting document adopted by the Troy Selectboard. The final plan will be returned to FEMA Region I for formal approval.

#### **4.2 Routine Plan Maintenance**

The Hazard Mitigation Plan is dynamic and changing. To ensure that the plan remains current it is important that it be updated periodically. The plan shall be updated every five years, pending ongoing financial resources, in accordance with the following procedure:

- 4.2.1 The Troy Selectboard will either act as the review committee or appoint a review committee.
- 4.2.2 The committee will discuss the process to determine if the evaluation criteria is still appropriate or modifications or additions are needed to the mitigation strategies based on changing conditions since the last update occurred. Data needs will be reviewed, data sources identified and responsibility for collecting information will be assigned to members.
- 4.2.3 A draft report will be prepared based on the evaluation criteria and in conformance with the FEMA Region I Local Hazard Mitigation Plan Crosswalk document.
- 4.2.4 The Selectboard will have the opportunity to review the draft report. Consensus will be reached on changes to the draft.
- 4.2.5 Changes will be incorporated into the document.
- 4.2.6 The plan will be reviewed by Vermont Emergency Management (SHMO) staff and then FEMA Region I staff.
- 4.2.7 VEM and FEMA comments will be incorporated into the plan.
- 4.2.8 The Selectboard will warn the plan for approval at its regular meeting.
- 4.2.9 The Selectboard will incorporate any community comments into the plan.
- 4.2.10 The Selectboard will finalize and adopt the plan and distribute to interested persons.

#### **4.3 Programs, Initiatives and Project Review**

Although the plan will be reviewed, pending ongoing financial resources, in its entirety every five years the town may review and update its programs, initiatives and projects more often based on the above procedure as changing needs and priorities arise.

#### **4.4 Post-Disaster Review Procedures**

Should a declared disaster occur, a special review will occur in accordance with the following procedures:

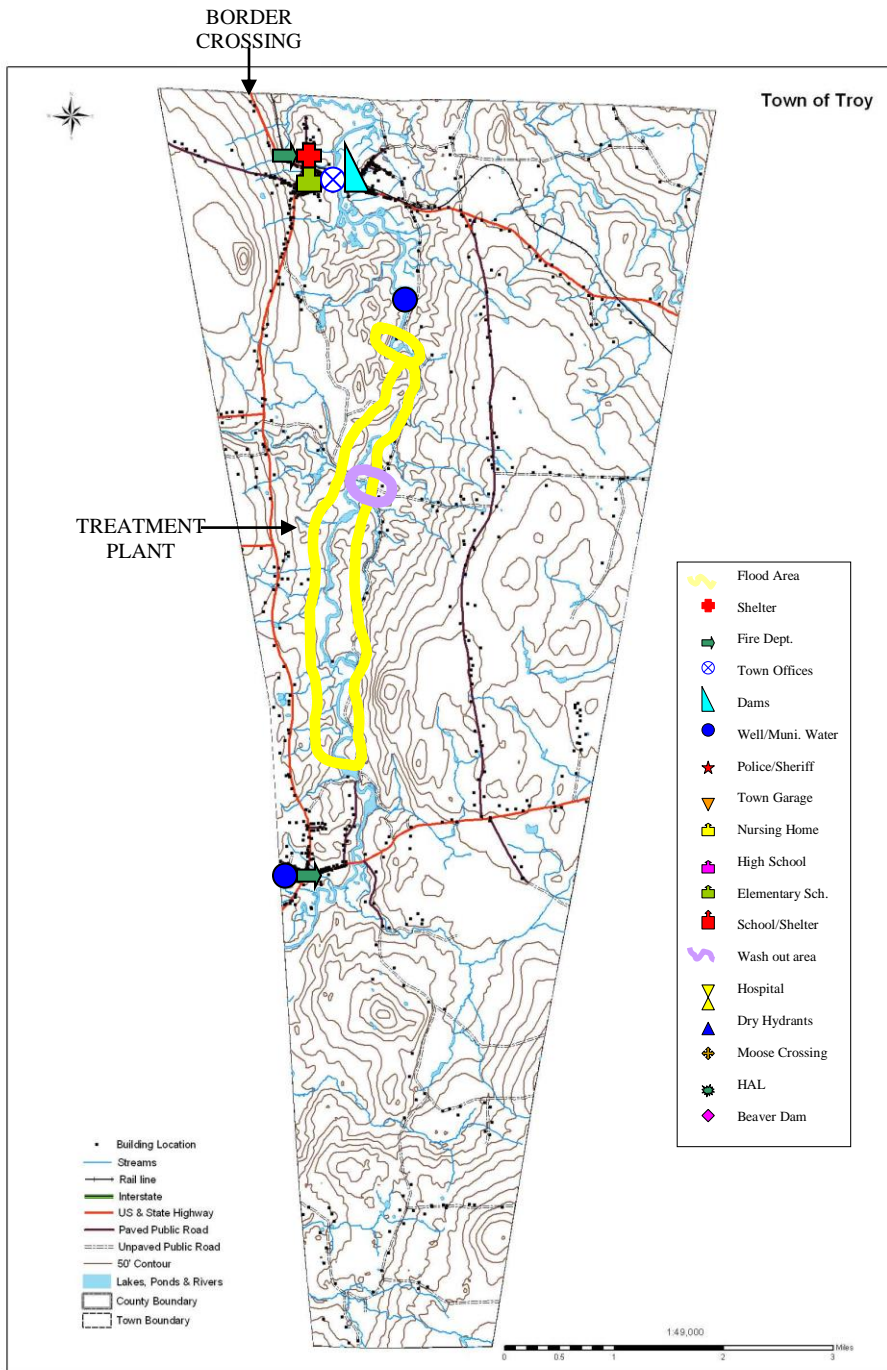
1. Within six (6) months of a declared emergency event, the town will initiate a post-disaster review and assessment.
2. This post-disaster review and assessment will document the facts of the event and assess whether existing Hazard Modification Plans effectively addressed the hazard.
3. A draft report After Action Report of the assessment will be distributed to the Review/Update Committee.
4. A meeting of the committee will be convened by the Selectboard to make a determination whether the plan needs to be amended. If the committee determines that NO modification of the plan is needed. Then the report is distributed to interested parties.

5. If the committee determines that modification of the plan IS needed, then the committee drafts an amended plan based on the recommendations and forwards it to the Selectboard for public input.
6. The Selectboard adopts the amended plan.

### **Section Five - Maps**

Tab a - Critical Facilities and Local Areas of Concern Map





**June 9, 2020**

**For Immediate Release**

**Contact: Irene Nagle, NVDA, (802) 424-1423, [inagle@nvda.net](mailto:inagle@nvda.net)**

### **Troy Hazard Mitigation Plan**

The Town of Troy and the Village of North Troy are embarking on a planning process to become less vulnerable to disasters caused by natural hazards, and public participation is essential.

In order to kick off this process, a survey has been prepared to solicit public input on the natural hazards that residents are concerned about or have experienced first-hand. Members of the community are invited to complete the Troy Hazard Mitigation Community Survey online, which can be accessed on the Town of Troy website at <https://trovyt.org/>. The information provided will help the hazard mitigation planning team better understand local hazard concerns and can lead to mitigation activities that should help lessen the impacts of future disasters.

The Troy hazard mitigation planning team will be holding a public meeting in the coming weeks, via Zoom, in order to discuss the process of preparing an updated Local Hazard Mitigation Plan, and to discuss vulnerable areas and the hazards that pose the greatest risk. The last hazard mitigation plan for Troy was prepared in 2005 and has since expired.

Upon completion, the updated Hazard Mitigation Plan will be presented to the Town of Troy for adoption and submitted to the Vermont Division of Emergency Management and Homeland Security (DEMHS) for review and approval. An approved plan makes the Town eligible for federal and state mitigation grant funding.

If you have any questions regarding the survey, or would like to learn about more ways you can participate in the development of the Hazard Mitigation Plan, please contact Irene Nagle, Senior Planner, Northeastern Vermont Development Association at 802-424-1423 or [inagle@nvda.net](mailto:inagle@nvda.net).

**###**

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et us know if u are  
ging a dish to share  
ve can plan accord-  
y. Thank You. Call  
y@ 802-595-7518 or  
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Physical work involved requiring standing during most of the workday, and lifting of pots, boxes, bags weighing up to 50 pounds. Fast pace setting during preparation and service hours.

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E.O.E.

Position open until filled.  
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Submit Letter of Interest and  
3 Letters of Recommendation  
and Copy of

Andre Messier  
Lake Region Union  
317 Lake Region Road  
Orleans, VT

E.O.E./Background Check

## Troy Hazard Mitigation Plan Public Meeting

Wednesday, June 24, 2020  
at 7:00 pm Via Zoom

Join the Troy hazard mitigation team via Zoom on the above date and time to get an overview of the hazard mitigation planning process and discuss natural hazards that are of particular concern in Troy. You can also participate

## Coventry Senior Housing Immediate 1st Floor ~ 1 Bedroom Vacancy



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**Orleans VT 05860**

Position open until filled.  
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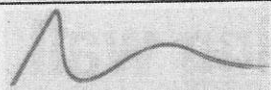
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**APPALACHIAN  
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Appalachian Engineered Flooring is a local hardwood engineered flooring manufacturer that has been producing high quality engineered flooring in North Troy for eight years.

We are looking to fill several full time positions. These positions are 40 hours a week with occasional overtime and located at our North Troy facility.

Applicants should be able to lift 50 lbs, able to be on their feet all day in a fast paced manufacturing environment.

We are seeking committed employees who are willing to learn and grow with our company. Experience not required.

Benefits include competitive wages starting at \$13.13 per hour, a production based weekly bonus, health/dental/vision insurance, retirement plan, along with paid vacation and sick time.

Town of Troy  
Hazard Mitigation Plan  
Public Meeting  
June 24 2020



**NVDA**  
*Northeastern Vermont  
Development Association*

# What is a “Local Hazard Mitigation Plan” and what are the benefits?

- Involves all community stakeholders in identifying hazards facing the community, and prioritizes best strategies to reduce the risks.
- If prepared in accordance with federal guidelines and approved by FEMA, the plan makes communities eligible for FEMA grants for hazard mitigation projects.
- Less expensive to prevent disasters than to repeatedly repair damage
- A Local Hazard Mitigation Plan is **NOT** a regulatory document, and the Town is not required to carry out the mitigation actions identified in the Plan



# Categories of FEMA Public Assistance

- **Emergency Work**
  - Debris Removal
  - Emergency Protective Measures
- **Permanent Work – Requires Mitigation Plan**
  - Road Systems and Bridges
  - Water Control Facilities
  - Buildings, Contents, and Equipment
  - Utilities
  - Parks, Recreation, and Other

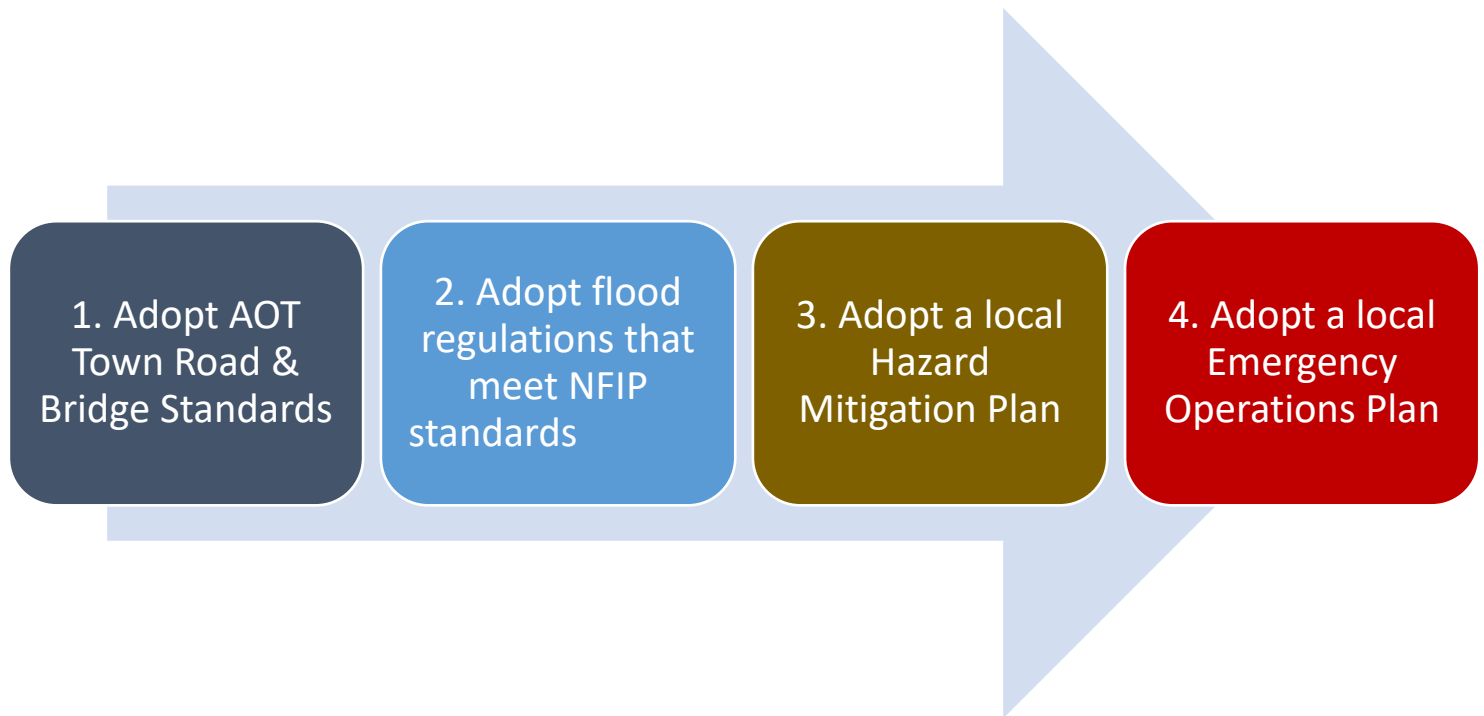
FEMA reimburses 75% of costs

# Emergency Relief and Assistance Fund (ERAF)

- Public assistance grants through FEMA covers 75% of project cost
- Helps municipalities repair damaged infrastructure after a presidentially declared disaster
- Requires 25% non-federal match for approved projects
- State covers a portion of the non-federal match, depending on the measures that a town has taken...



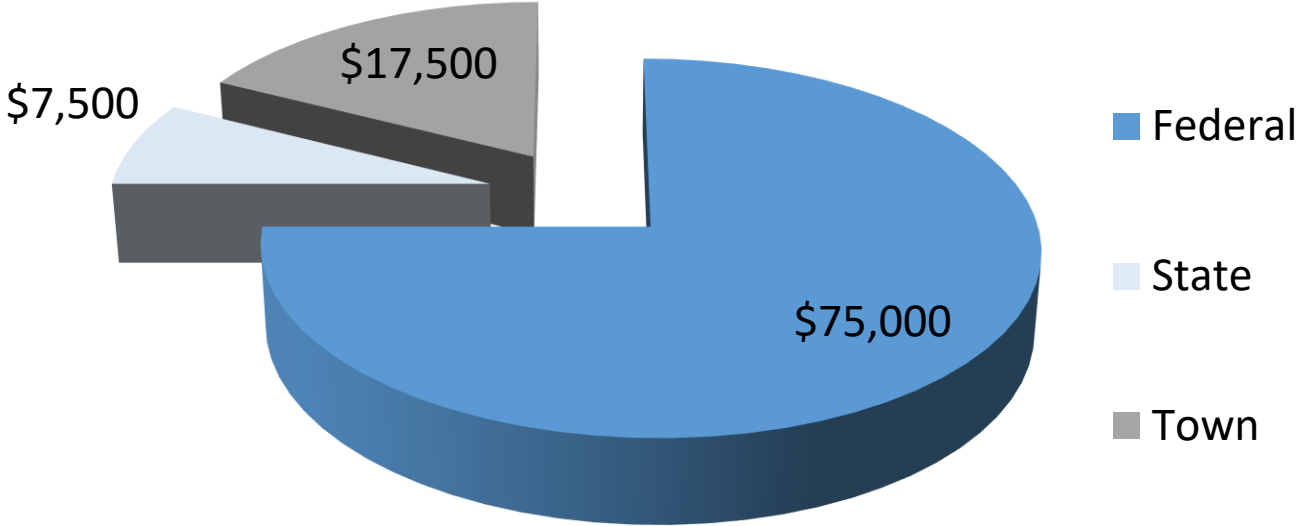
A Hazard Mitigation Plan is one of **four** measures needed to receive the highest amount of funding under the State's Emergency Relief Assistance Fund (ERAF)



# ERAF Rule

(If all 4 measures are NOT in place)

Example: \$100,000 loss



The State's share of funding under ERAF is increased to **12.5%** if Town adopts first **4 measures**. State's share increases to **17.5%** if the town adopts flood hazard regulations that include **river corridor protection** guidelines that meet or exceed the state model.

### Current ERAF Status for Troy:

- |                                     |               |
|-------------------------------------|---------------|
| 1. VT Road and Bridge Standards     | YES           |
| 2. Local Emergency Operations Plan  | YES           |
| 3. National Flood Insurance Program | YES           |
| 4. Local Hazard Mitigation Plan     | NO (underway) |
| 5. River Corridor Protection        | NO            |

Current State Share	<b>7.5%</b>
---------------------	-------------

# River Corridor:

- “Wiggle room” needed for rivers
- Statewide River Corridors – areas with a watershed of 2 square miles or more



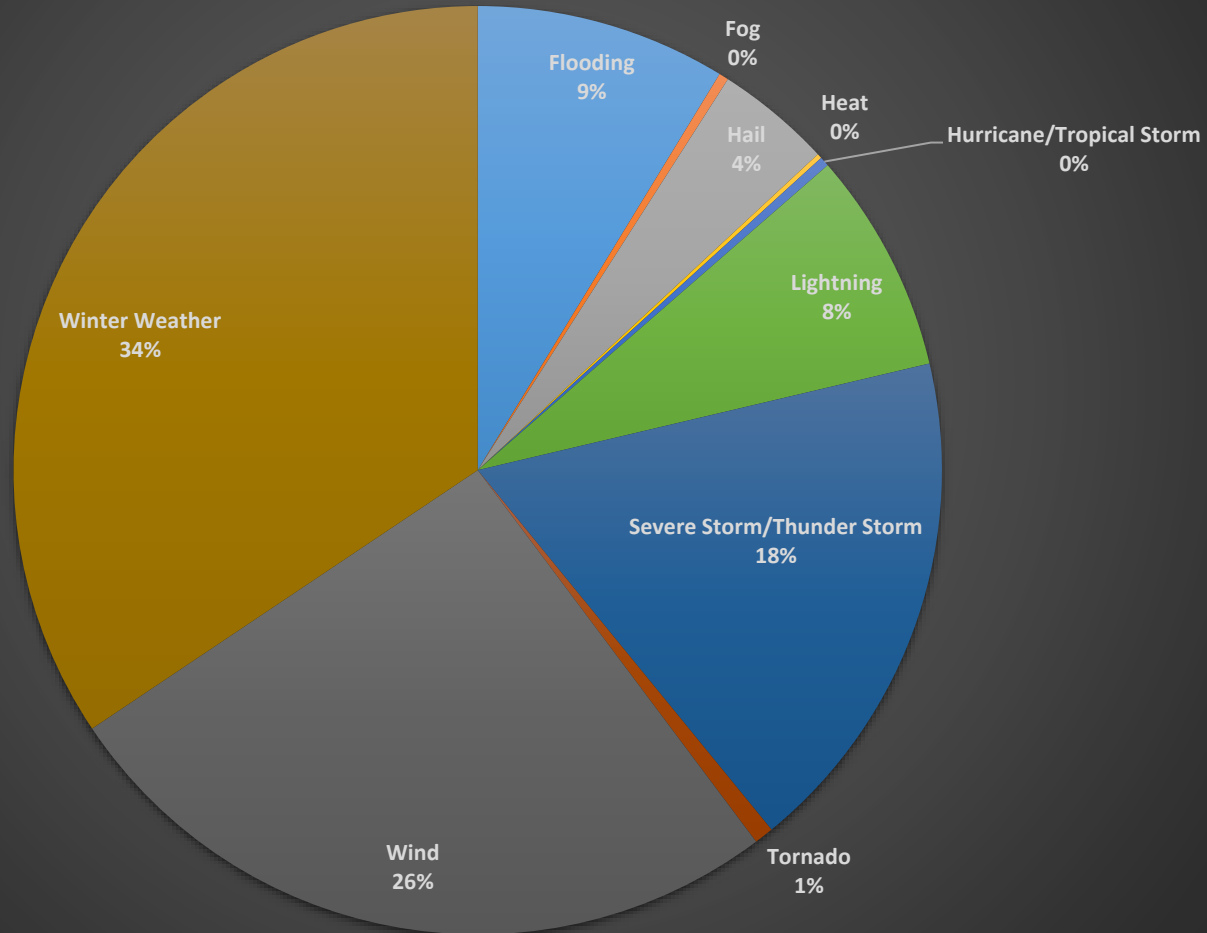
# Hazard Mitigation Examples

A FEMA Approved Plan is required for FEMA-funded projects:

- Flood-proofing structures
- Buyouts for repetitive loss structures
- Securing propane/fuel tanks in flood-prone areas
- Elevating furnaces and water heaters in flood-prone areas
- Ensuring adequate water supply
- Elevating structures or utilities above flood levels
- Local Planning and Regulations
- Supplies of Personal Protective Equipment
- Protective barriers in Town and Village Offices
- Education and Awareness

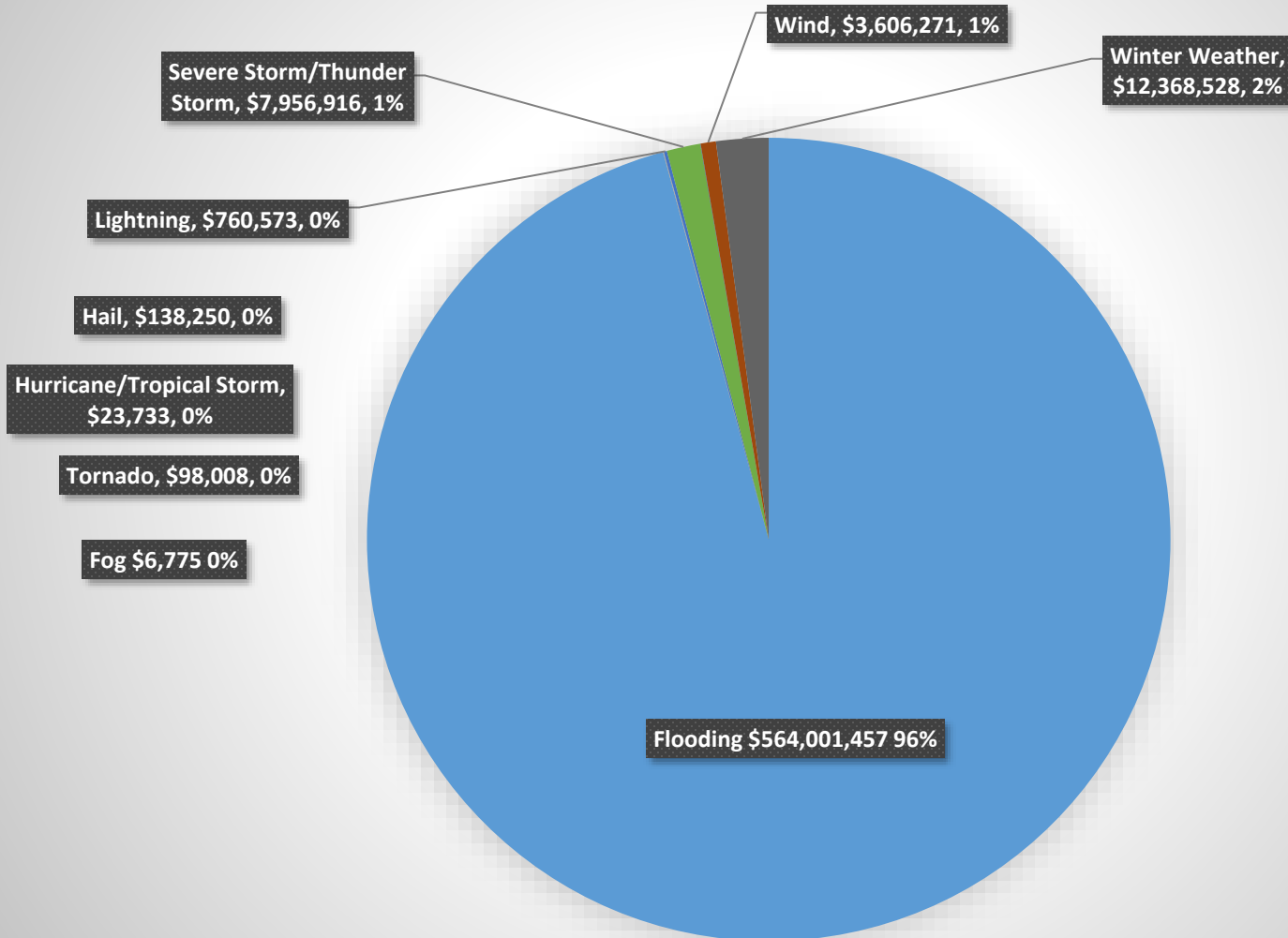
# History of Hazard Events in Orleans County

Distribution of Hazard Events in Orleans County 1960-2014  
(Frequency of Events)



# Cost of Damage from Hazard Events in Orleans County

Distribution of Losses in Orleans County 1960 - 2014



## Critical Facilities

- Troy Town Office
- Troy Town School
- Troy Volunteer Fire Dept.
- Village of North Troy Offices
- Village of North Troy Fire Dept.
- Public Water Supply
- Public Wastewater Systems
- Main routes

Others?

## Vulnerable Areas

- Flood and Fluvial Erosion Hazard Areas
- Other Areas?

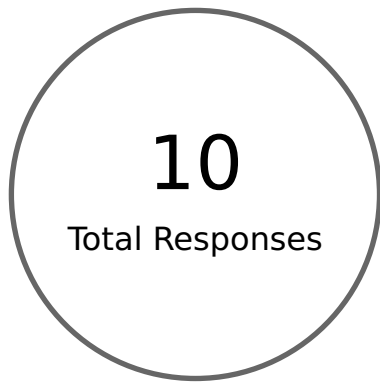


# NEXT STEPS

Identifying and Evaluating Mitigation Actions

# Troy Hazard Mitigation Survey

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7 Completed Responses

3 Partial Responses



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Page 1

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The Town of Troy and Village of North Troy are developing a Local Hazard Mitigation Plan with the help of the Northeastern Vermont Development Association (NVDA) with funding from the Federal Emergency Management Agency (FEMA) and the Vermont Division of Emergency Management and Homeland Security.

The purpose of the plan is to identify and assess natural hazard risks (e.g., flooding, winter storms, high winds, etc.), identify vulnerable community assets, and identify action steps that will lessen the potential damage than can result from these natural hazards. The completed plan will be submitted to the Vermont Division of Emergency Management and Homeland Security for approval.

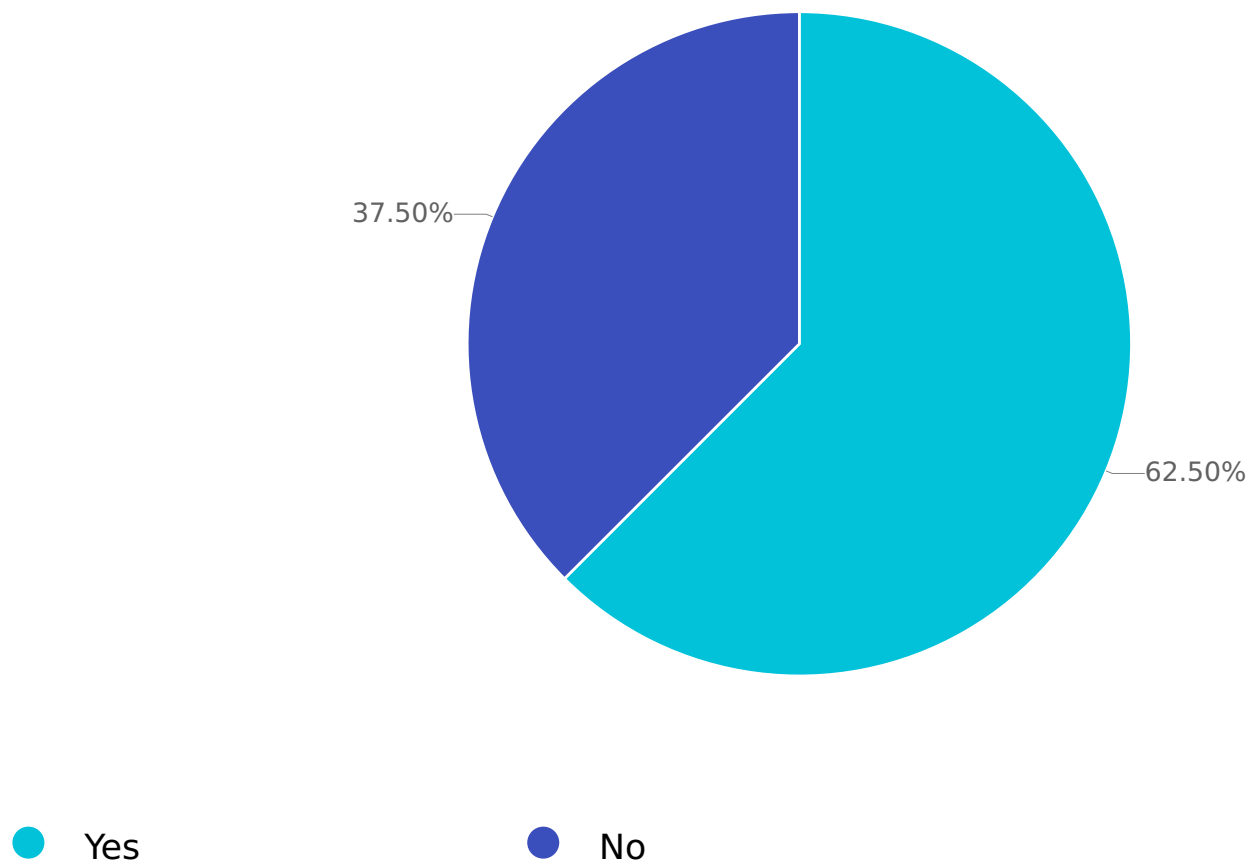
Thank you for assisting with this process by completing the survey!

---

Q1

Have you ever been impacted, physically or financially, by a natural disaster in Troy?

Answered: 8 Skipped: 2



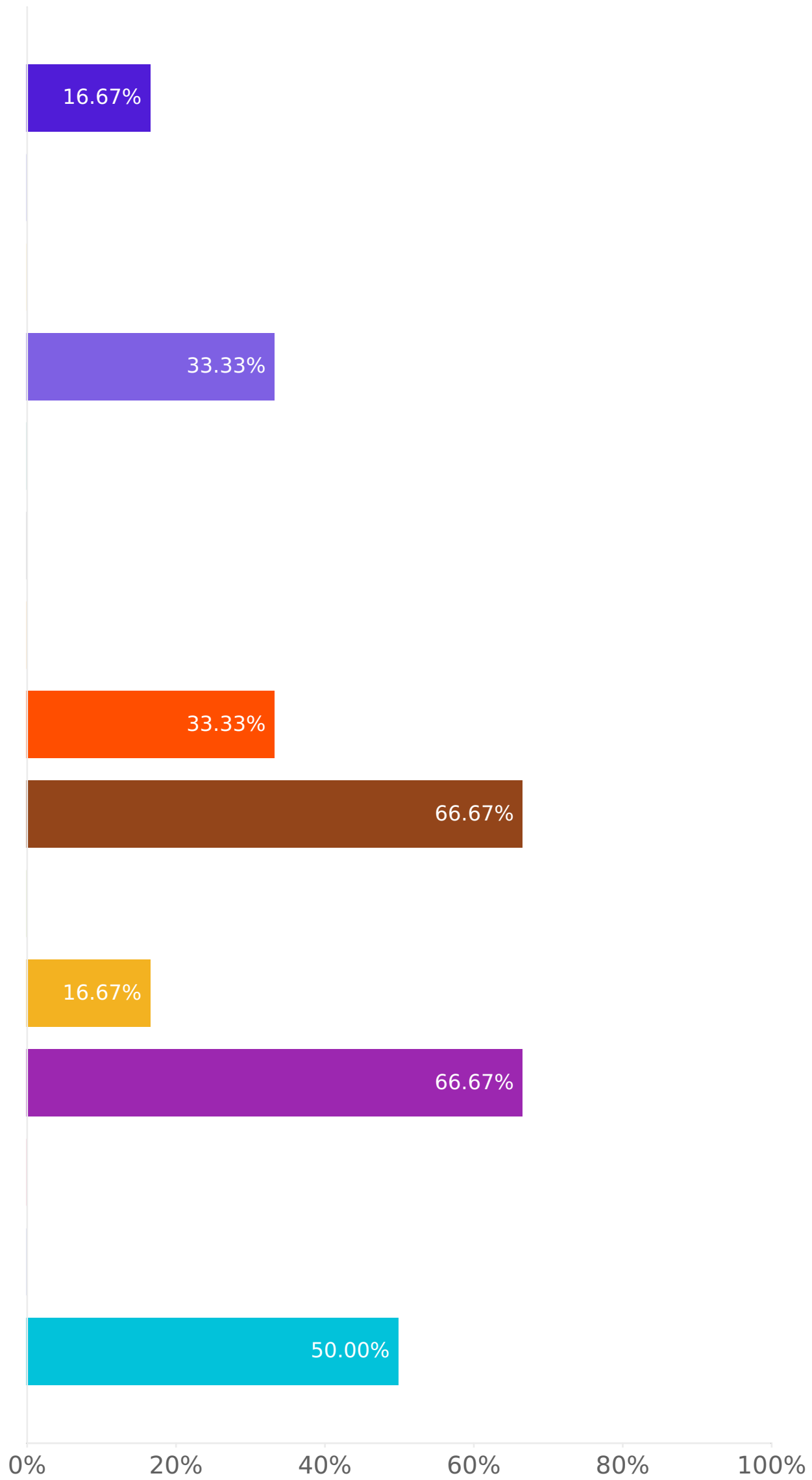
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Choices	Response percent	Response count
Yes	62.50%	5
No	37.50%	3

Q2

What hazards have negatively impacted you in Troy? (check all that apply)

Answered: 6 Skipped: 4



● Flooding or  
streambank erosion

● High winds

● Severe Winter Storm  
(ice storm/snow  
storm)

● Hail

● Wildfire

● Earthquake

● Microburst/Severe  
Thunderstorm

● Extreme cold

● Drought

● Infectious Disease  
Outbreak

● Hurricane/Tropical  
Storm

● Landslide/Rockslide

● Extreme Heat

● Invasive Species  
(animals, insects or  
vegetation)

● Other (Please  
specify)

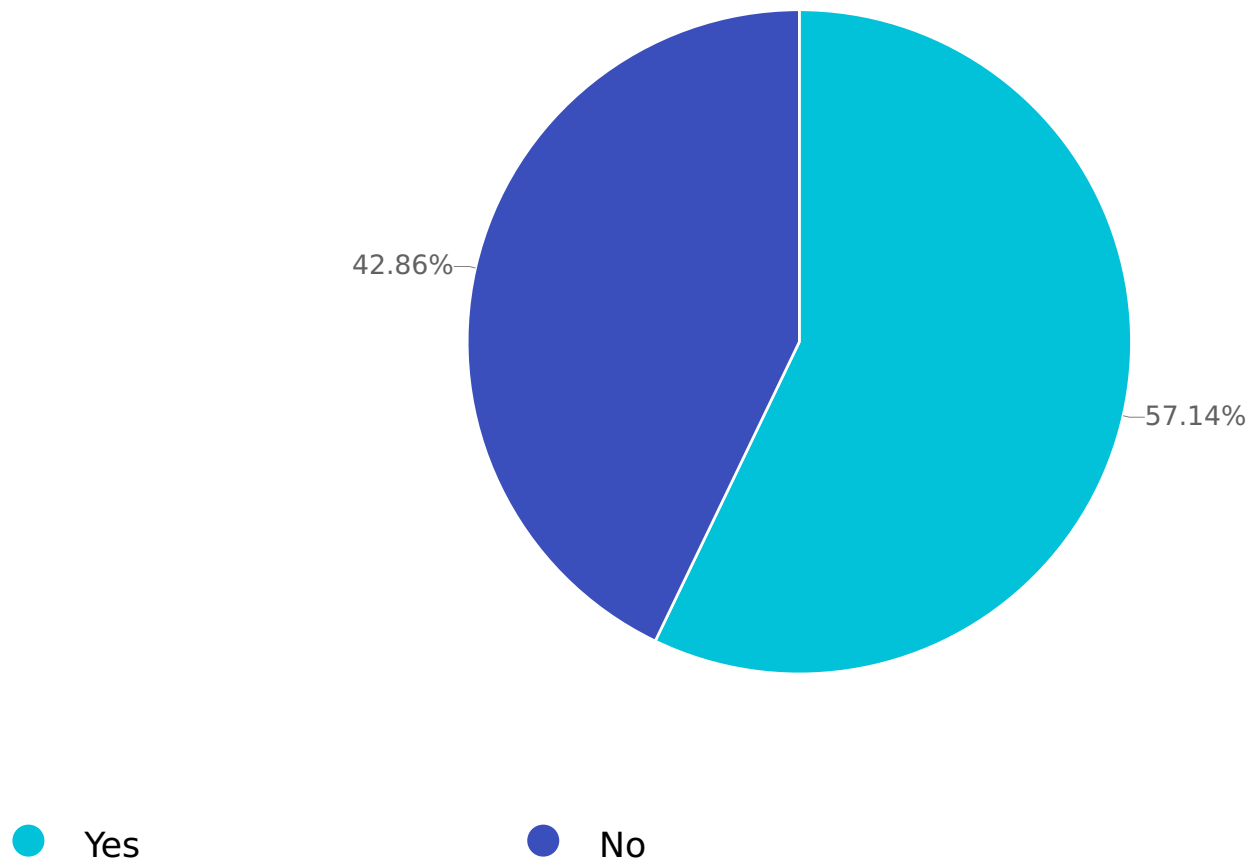
Choices	Response percent	Response count
Flooding or streambank erosion	50.00%	3
Earthquake	0.00%	0
Hurricane/Tropical Storm	0.00%	0
High winds	66.67%	4
Microburst/Severe Thunderstorm	16.67%	1
Landslide/Rockslide	0.00%	0
Severe Winter Storm (ice storm/snow storm)	66.67%	4
Extreme cold	33.33%	2
Extreme Heat	0.00%	0
Hail	0.00%	0
Drought	0.00%	0
Invasive Species (animals, insects or vegetation)	33.33%	2
Wildfire	0.00%	0
Infectious Disease Outbreak	0.00%	0
Other (Please specify)	16.67%	1
If you checked invasive species, please specify type:		2

---

Q3

Have you ever been unable to travel due to impassable roads in severe weather?

Answered: 7 Skipped: 3



Choices	Response percent	Response count
Yes	57.14%	4
No	42.86%	3

---

Q4

If so, which roads, and what caused them to be impassable (flooding, wash out, snow, ice)?

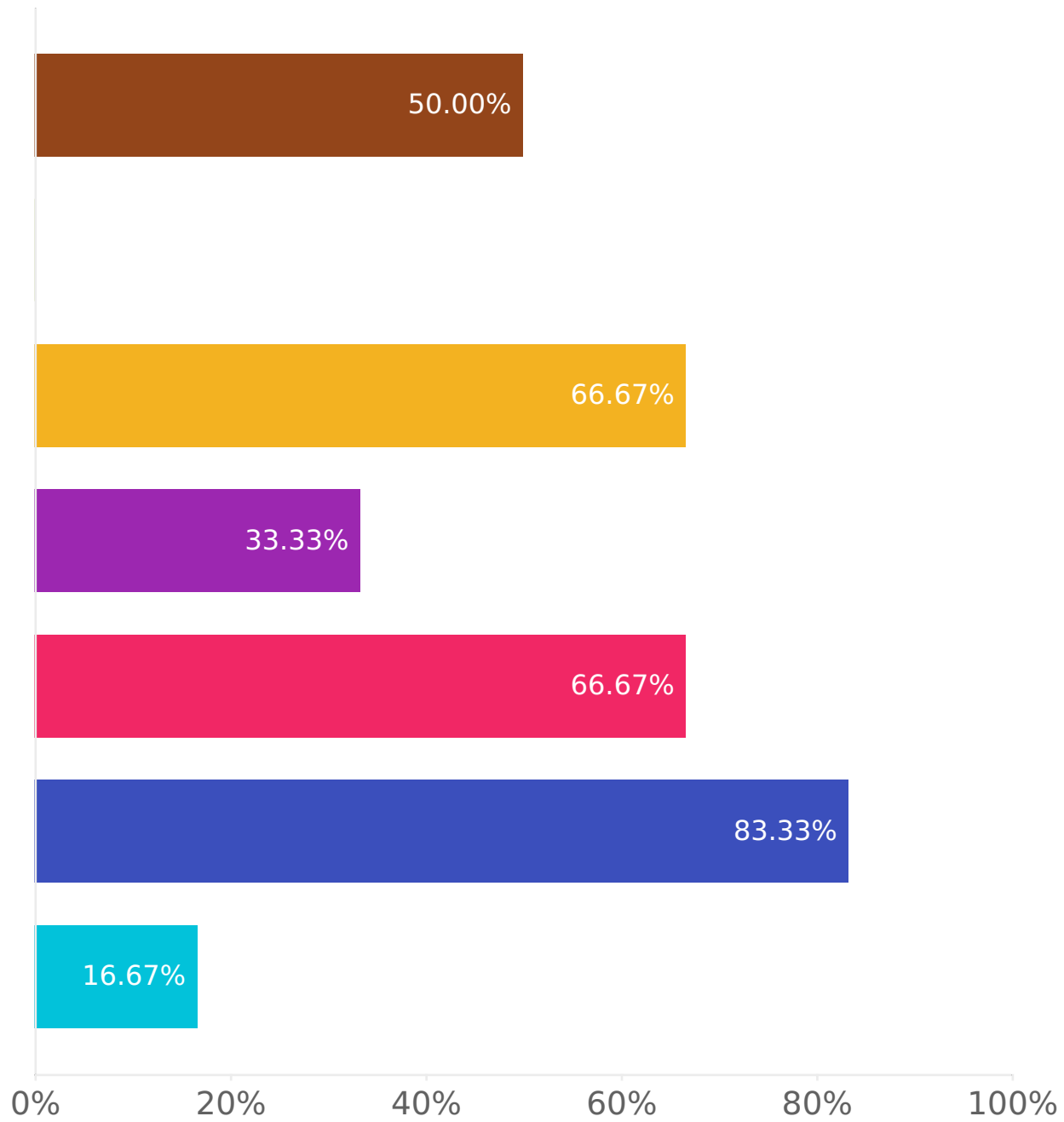
Answered: 4 Skipped: 6

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Q5

Regarding previous extreme weather events or natural disasters in Troy, which of the following statements are true for you? (check all that apply)

Answered: 6 Skipped: 4



● I could not stay in my home for a while

● I went without power for a day or longer

● I went without heat in my home for a day or longer

● I lost perishable food

● I went without running water for a day or longer

● I suffered significant financial losses

● Other (Please specify)



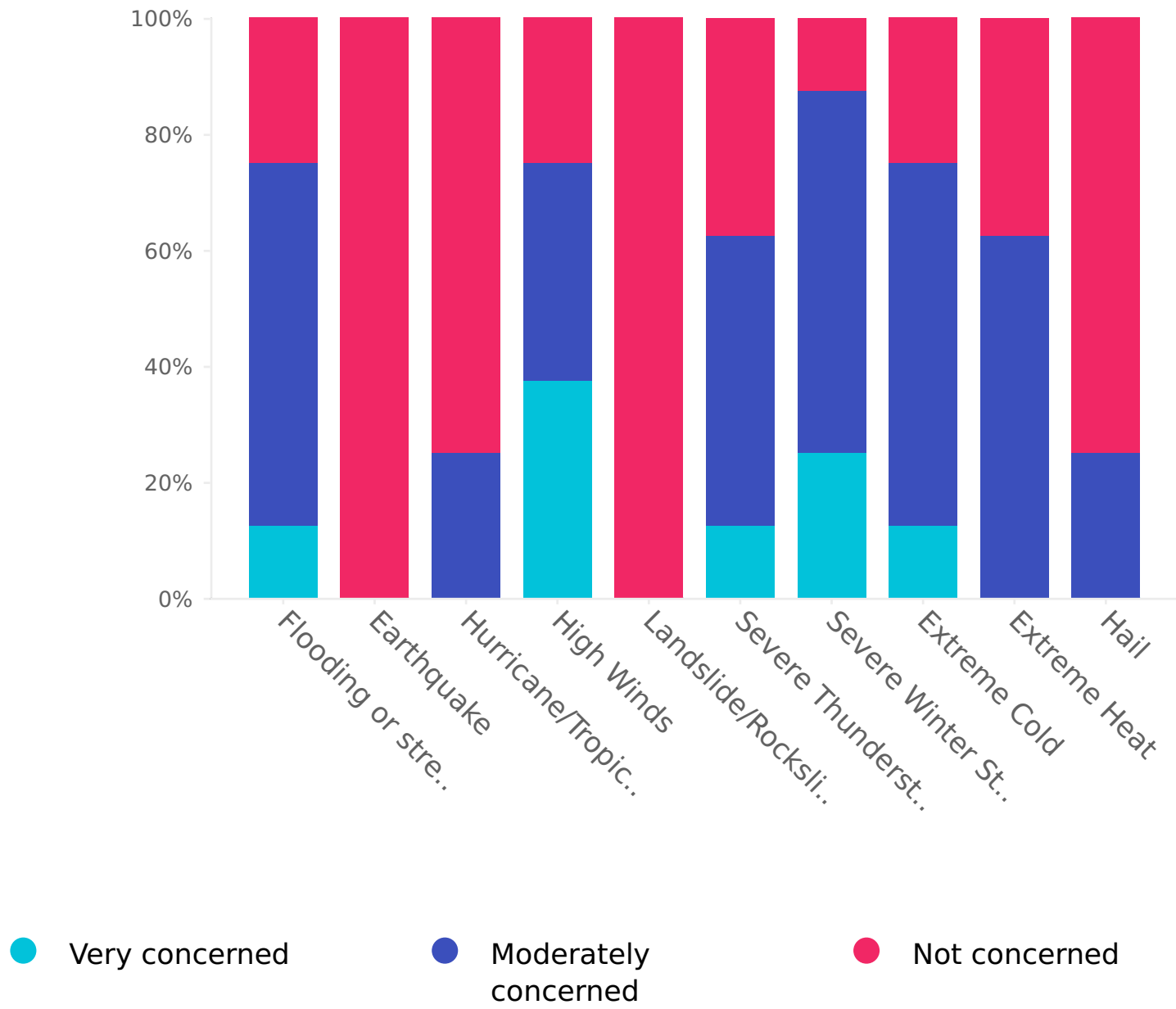
Choices	Response percent	Response count
I could not stay in my home for a while	16.67%	1
I went without power for a day or longer	83.33%	5
I went without heat in my home for a day or longer	66.67%	4
I lost perishable food	33.33%	2
I went without running water for a day or longer	66.67%	4
I suffered significant financial losses	0.00%	0
Other (Please specify)	50.00%	3

---

Q6

How concerned are you about the following natural hazards in Troy?

Answered: 8 Skipped: 2

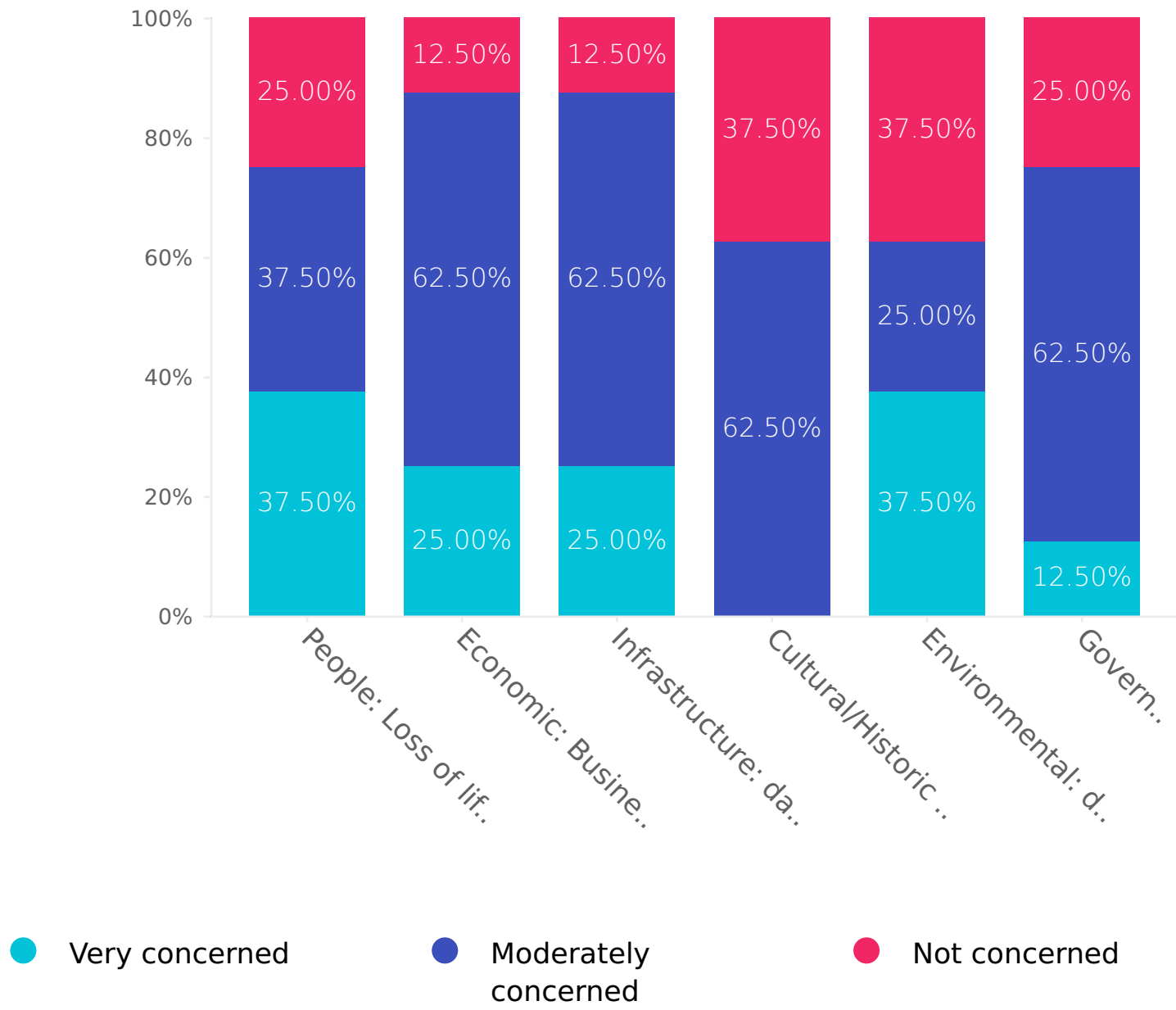


Row	Very concerned	Moderately concerned	Not concerned	Response count
Flooding or streambank erosion	12.50% (1)	62.50% (5)	25.00% (2)	8
Earthquake	0.00% (0)	0.00% (0)	100.00% (8)	8
Hurricane/Tropical Storm	0.00% (0)	25.00% (2)	75.00% (6)	8
High Winds	37.50% (3)	37.50% (3)	25.00% (2)	8
Landslide/Rockslide	0.00% (0)	0.00% (0)	100.00% (8)	8
Severe Thunderstorm/Microburst	12.50% (1)	50.00% (4)	37.50% (3)	8
Severe Winter Storm (ice storm/snow storm)	25.00% (2)	62.50% (5)	12.50% (1)	8
Extreme Cold	12.50% (1)	62.50% (5)	25.00% (2)	8
Extreme Heat	0.00% (0)	62.50% (5)	37.50% (3)	8
Hail	0.00% (0)	25.00% (2)	75.00% (6)	8
Drought	0.00% (0)	12.50% (1)	87.50% (7)	8
Wildfire	0.00% (0)	14.29% (1)	85.71% (6)	7
Invasive Species	25.00% (2)	25.00% (2)	50.00% (4)	8
Infectious Disease Outbreak	25.00% (2)	37.50% (3)	37.50% (3)	8
Any additional comments?				1

Q7

### How concerned are you about the potential damage from natural hazards in Troy?

Answered: 8 Skipped: 2



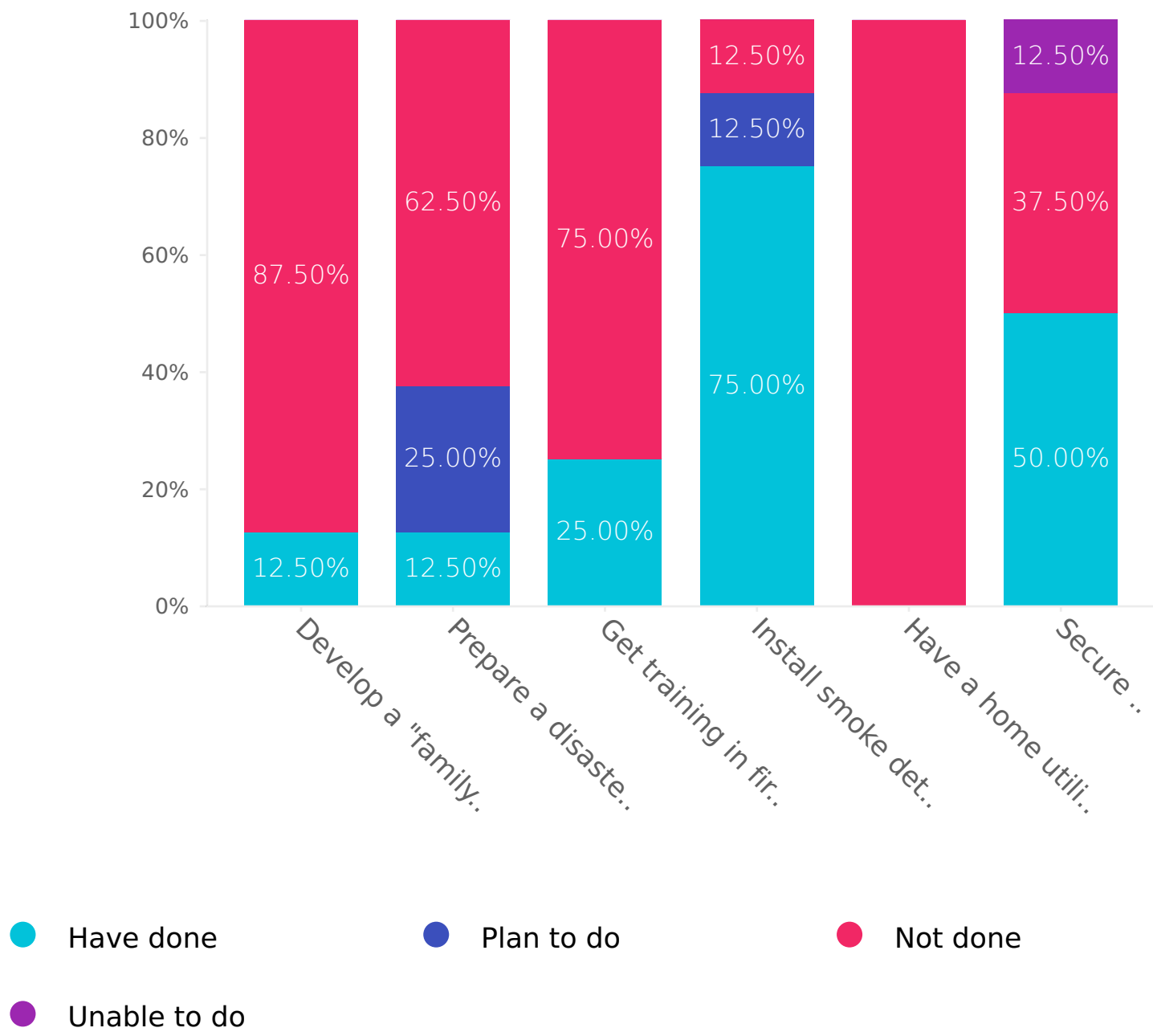
Row	Very concerned	Moderately concerned	Not concerned	Response count
People: Loss of life or injury	37.50% (3)	37.50% (3)	25.00% (2)	8
Economic: Business interruption, crop damage, equipment damage	25.00% (2)	62.50% (5)	12.50% (1)	8
Infrastructure: damage to roads, bridges, utilities	25.00% (2)	62.50% (5)	12.50% (1)	8
Cultural/Historic Resources	0.00% (0)	62.50% (5)	37.50% (3)	8
Environmental: damage to trees, contamination of surface waters	37.50% (3)	25.00% (2)	37.50% (3)	8
Governance: impeded ability to provide municipal services	12.50% (1)	62.50% (5)	25.00% (2)	8
Any additional comments?				0
No Responses				

---

Q8

### What you have done to prepare for a disaster?

Answered: 8 Skipped: 2



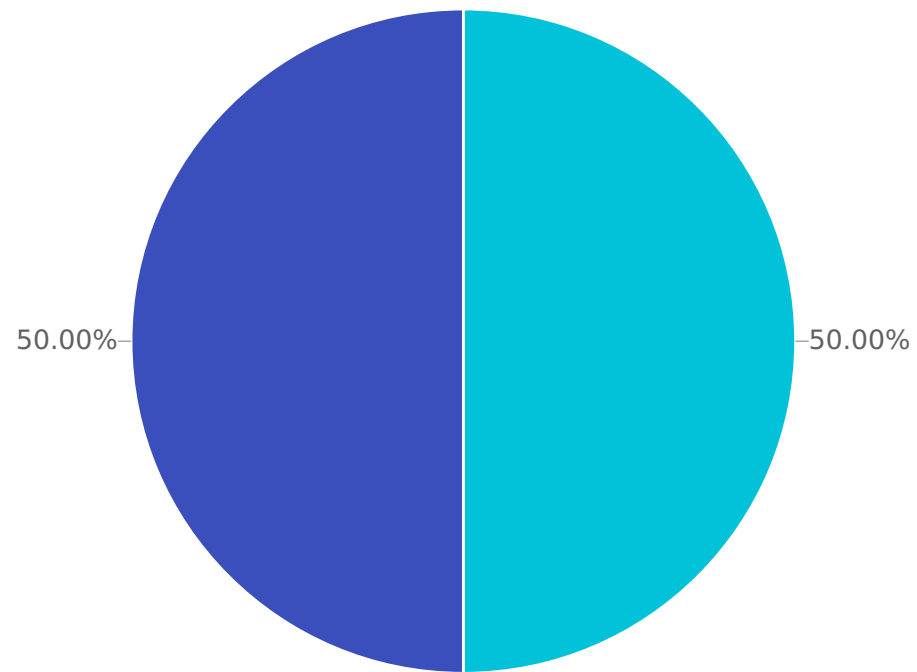
Row	Have done	Plan to do	Not done	Unable to do	Response count
Develop a "family emergency plan" (where to go, what to do in the event of an emergency)	12.50% (1)	0.00% (0)	87.50% (7)	0.00% (0)	8
Prepare a disaster supply kit	12.50% (1)	25.00% (2)	62.50% (5)	0.00% (0)	8
Get training in first aid or CPR	25.00% (2)	0.00% (0)	75.00% (6)	0.00% (0)	8
Install smoke detectors and carbon monoxide detectors in each level of home	75.00% (6)	12.50% (1)	12.50% (1)	0.00% (0)	8
Have a home utility shutoff procedure in the event of a disaster	0.00% (0)	0.00% (0)	100.00% (8)	0.00% (0)	8
Secure access to a backup generator for temporary power	50.00% (4)	0.00% (0)	37.50% (3)	12.50% (1)	8
Any additional comments?					0
No Responses					

---

Q9

Do you know where your nearest emergency shelter is?

Answered: 8 Skipped: 2



● Yes

● No

Choices	Response percent	Response count
Yes	50.00%	4
No	50.00%	4

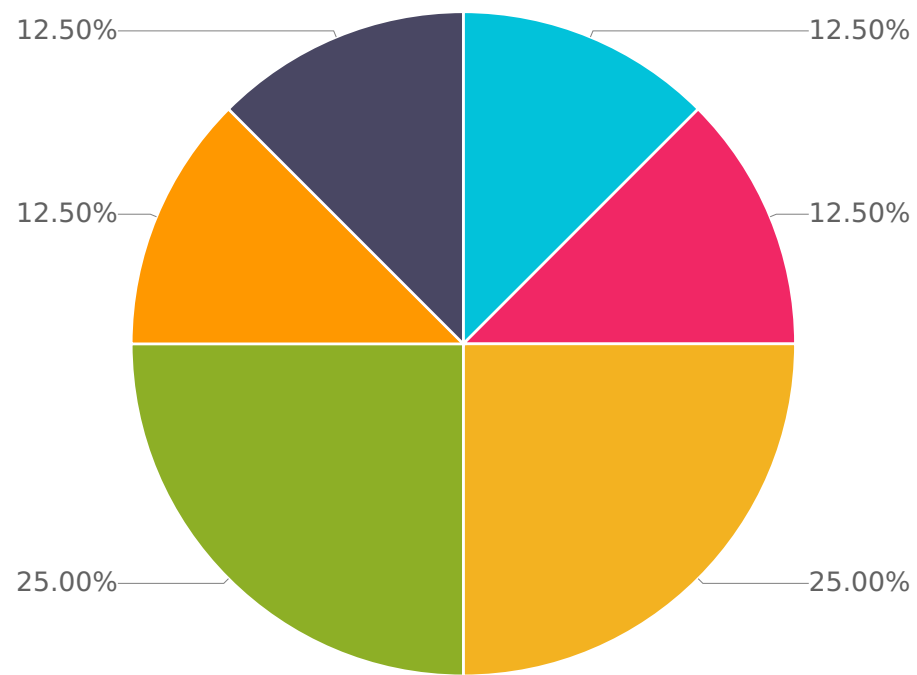
---



Q10

What is the BEST way for you to get information about making your home and community more resistant to natural hazards? (choose one)

Answered: 8 Skipped: 2



- Phone call
- Newspaper
- Television
- Radio
- Mail
- Email
- Text message
- Public workshop
- Social media
- Municipal website
- Other (Please specify)

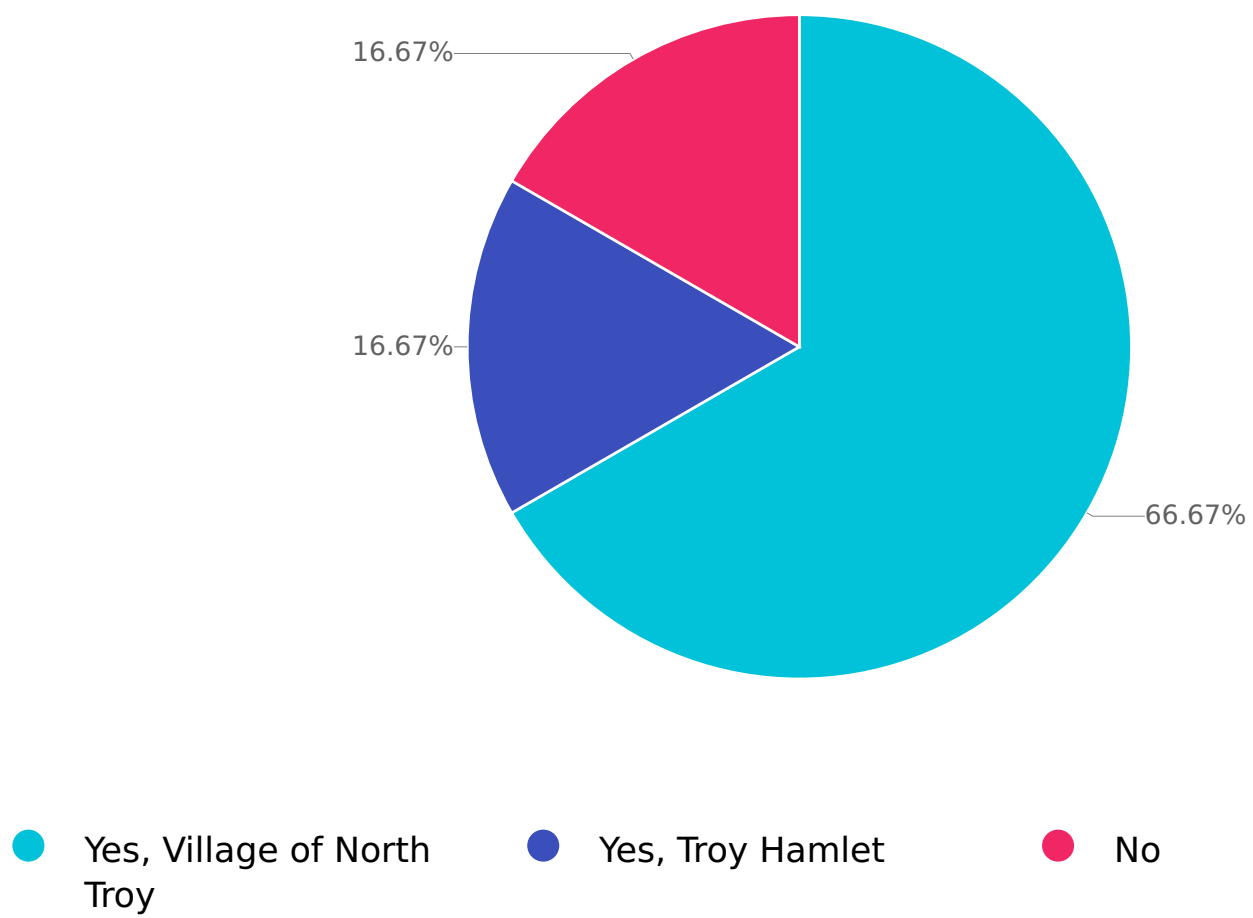
Choices	Response percent	Response count
Phone call	12.50%	1
Newspaper	0.00%	0
Television	12.50%	1
Radio	0.00%	0
Mail	25.00%	2
Email	25.00%	2
Text message	0.00%	0
Public workshop	0.00%	0
Social media	12.50%	1
Municipal website	12.50%	1
Other (Please specify) No Responses	0.00%	0

---

Q11

### Are you served by a public water system?

Answered: 6 Skipped: 4



Choices	Response percent	Response count
Yes, Village of North Troy	66.67%	4
Yes, Troy Hamlet	16.67%	1
No	16.67%	1

---

## Contact

Thank you for completing the survey. If you would like to receive updates on the hazard mitigation planning process in Troy, please provide the contact information below.

Q12

First Name, Last Name, Phone, Email

Answered: 5 Skipped: 5

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**Troy Hazard Mitigation Plan Public Meeting**  
**Wednesday, July 22, 2020 at 7:00 pm**  
**Via Zoom**

Join the Troy hazard mitigation team via Zoom at the above date and time to discuss the draft Hazard Mitigation Plan, how it relates to the recently updated Troy Municipal Plan, and mitigation strategies that may be a good fit for the community. Sections of the draft 2020 Hazard Mitigation Plan are available for review on the Town of Troy website at [troyvt.org](http://troyvt.org).

**Here is the information on how to participate in this electronic meeting:**

**Join Zoom Meeting**

**<https://us02web.zoom.us/j/86135019982?pwd=Y2pwRXJQdmNlaGJsOVdtOGlGbjJodz09>**

**Meeting ID: 861 3501 9982**

**Password: 195704**

**Or join by phone: 1 929 205 6099**

**Meeting ID: 861 3501 9982**

**Password: 195704**

**Questions about the Hazard Mitigation Plan can be directed to Irene Nagle at [inagle@nvda.net](mailto:inagle@nvda.net) or (802)424-1423**

TOWN OF TROY  
ROAD COMMISSIONER  
JOB DESCRIPTION

Job Summary

This position is to serve as the working supervisor of the Town of Troy Highway Crew, carrying out a variety of highway and town maintenance related tasks. This person is responsible for the day-to-day operations of the Highway Department. This position requires experience with personnel management, all aspects of highway and bridge construction and maintenance, employee and contractor oversight, equipment operation and maintenance, job safety, mechanical ability, record keeping and communicative skills, assistance with budget development, any other tasks assigned by the Selectboard. The position is full-time, requiring a flexible schedule which may include nights, weekends and holidays.

Level of Responsibility

The Road Commissioner works under the broad supervision of the Selectboard. The Road Commissioner will report directly to the Selectboard, and shall be required to attend all Selectboard meetings and present a written report.

Major Duties

The Road Commissioner's duties shall include, but not be limited to, the following:

- Plan, supervise and coordinate daily highway department operations and projects. This is a "working foreman" position and requires ability to operate all town equipment and perform the same jobs as other department employees when necessary;
- Monitor department operations and respond to problems on a daily basis, including complaints by the public. Relate to Town citizens in a professional, courteous and respectful manner, appropriately responding to their complaints. Where unsure how to handle a complaint, communicate with the Selectboard;
- Reviews and approves administrative requirements of Road Crew, including daily timesheets, daily work logs, vehicle logs, etc.;
- Supervise highway personnel to obtain top quality workmanship, efficiency, employee satisfaction and morale. Ensure proper safety procedures are followed; bring unusual personnel problems to the attention of the Selectboard. Oversee employee training requirements;
- Maintain accurate records of all purchases and submit invoices to the Town Clerk weekly;
- Carry out a regular maintenance schedule for routine and preventative maintenance of equipment and keep records on all major pieces of equipment;
- Recognize and communicate to the Selectboard any priority projects or problems;
- Recommend, communicate and cooperate with the Selectboard as appropriate in all areas and specifically in:
  - a) Bidding for purchase of supplies, equipment and contracted services as per approved budgets;

- b)Development of department budget;
  - c)Make recommendations for hiring/firing of highway employees;
  - d)Develop (and modify as needed) job descriptions for highway employees and provide an annual written performance review of each employee based on job descriptions;
  - e)Assist with review of plans, cost estimates and specifications for highway projects;
- Follow weather conditions affecting highways and make provisions for any extra maintenance required. Ensure 24 hour coverage for emergency situations. High priority to winter maintenance: plowing sanding and salting operations. Requires night and weekend work;
  - Maintain a working knowledge of federal, state and local statutes and regulations affecting department operations. Ensure that all employees maintain all required licenses and certifications required to perform their jobs;
  - Comply with crew drug testing requirements;
  - Perform any such other work as deemed necessary by the Selectboard;
  - Maintain roads to Vermont Agency of Transportation Standards.

#### Qualifications

The Road Commissioner will have the following qualifications:

- Possess at least a high school diploma or GED;
- Commercial Driver's License, with proper endorsements and medical card;
- Significant construction or public works experience;
- Considerable knowledge of road construction and maintenance, culvert installation, etc.;
- Experience driving trucks, plowing snow and operating heavy equipment;
- Knowledge of highway maintenance practices and road repair techniques in all weather conditions;
- Experience or working knowledge of paving and paving materials and practices, drainage and culvert construction;
- Knowledge of safe gravel pit practices;
- Ability to perform routine service and maintenance of Town Highway Department equipment;
- Ability to communicate well, and guide and direct others;
- Ability to withstand exposure to varying weather conditions and exertion of significant physical effort.

#### Term of Employment

The Road Commissioner will be hired by the Selectboard after interview(s) and reference checks. Terms of employment, compensation and benefits will be set by the Selectboard. Six month probationary period will be a condition of employment. The Road Commissioner

will pass a mandated drug test prior to start of work in compliance with requirements of the Vermont League of Cities and Towns, and will be subject to random drug testing during his/her employment.

Evaluations

Annual evaluations detailing the performance of the Road Commissioner will be performed, during which the Foreman will be afforded an opportunity to respond to the evaluation.

Compensation and Benefits

Salary and benefit package will be negotiated with the Selectboard annually and will be based on satisfactory job performance.

ADOPTED: July 17, 2018

The image shows two handwritten signatures in blue ink over horizontal lines. The top signature is a stylized cursive name, possibly "Hayden". The bottom signature is also in cursive and appears to be "Mark Hill".

Selectboard Members





ADOPTED: APRIL 20, 2021

LOCAL EMERGENCY  
MANAGEMENT PLAN  
TOWN OF TROY

TROY SELECT BOARD  
142 MAIN STREET  
North Troy, VT 05869

Town of TROY Local Emergency Management Plan

April 20, 2021

Municipal Adoption		
<input checked="" type="checkbox"/>	<b>Municipal Adoption Form</b>	
	Municipal adoption of National Incident Management System (NIMS) – 01/19/2015	<input checked="" type="checkbox"/>
	Contact information for local authorities during an emergency	<input checked="" type="checkbox"/>
	Certification that LEMP meets Vermont NIMS / Implementation Guidance	<input type="checkbox"/>
	LEMP adoption by local Selectboard (annually – March or April) – 05/20/2021	<input checked="" type="checkbox"/>
LEMP Required Elements		Page
<input checked="" type="checkbox"/>	<b>Planners</b>	
	List of people who wrote / maintain the LEMP	1
<input checked="" type="checkbox"/>	<b>Municipal Emergency Operations Center (EOC)</b>	
	Activation authority	2
	EOC staff positions and duties (minimum 1)	2-2
	List of potential EOC staff members (minimum 1)	1-1 2-2
	Facility information for potential EOC locations (minimum 1)	2 2-3 - 2-4
<input checked="" type="checkbox"/>	<b>Resources</b>	
	Emergency purchasing agent and spending limits	3 3-1
	List of municipal contracts that can be used during an emergency	3-1 – 3-2
	List of other local resources that could be used during an emergency	1-5 – 1-8 3-2
	National Incident Management System (NIMS) Typed Resource List	3-3
<input checked="" type="checkbox"/>	<b>Public Information and Warning</b>	
	VT-Alert contact information	1-3 4-2
	Local website / social media information	4-1
	List of local media outlets	1-8 – 1-9 4-1
	Public notice sites for non-phone/Internet information	4 4-1
	Vermont 2-1-1 contact information	1-3 4-2
<input checked="" type="checkbox"/>	<b>Vulnerable Populations</b>	
	List of organizations/facilities that serve local vulnerable populations	1-5 – 1-6 5-1 – 5-3
	Identification and monitoring process	4 5-1
<input checked="" type="checkbox"/>	<b>Shelters</b>	
	Spontaneous and regional shelter information	4 6-1
	Opening information for local shelters (if any)	6-1
	Service information for local shelters (if any)	6-1
<input checked="" type="checkbox"/>	<b>Contact Information</b>	
	Emergency Management personnel	1-1
	Response organizations	1-1
	Municipal officials / public works	1-1 – 1-2
	State, region, and adjacent municipality contacts	1-2 – 1-4

# Town of TROY Local Emergency Management Plan

April 20, 2021

## 1. Overview.

1.1. **Purpose.** This is the Local Emergency Management Plan (LEMP) for the Town of Troy (includes the unincorporated village of Troy and the incorporated village of North Troy). It outlines how the municipal government will coordinate support from an Emergency Operations Center (EOC) and, if necessary, direct actions from an Incident Command Post (ICP). This is not a tactical plan for first response fire, emergency medical service, or law enforcement issues. This base document details general municipal Emergency Management activities, while the enclosures and (optional) annexes provide quick reference materials for specific tasks and incidents.

1.2. **Planners.** The following people are the Emergency Management (EM) stakeholders who wrote and maintain this plan.

- Robert Langlands, Board of Selectmen, Emergency Management Director (EMD and EOC Director).
- Mark Sanville, Board of Selectmen, EOC Assistant Director.
- Gary Taylor, Board of Selectmen, EOC Assistant Director.
- Robert Jacobs, Road Commissioner and Fire Chief, Troy Volunteer Fire Department.
- Terri Medley, Town Clerk, EOC Staff, and Village of North Troy Trustee's representative.
- Gaston Bathalon, EOC Staff Volunteer, Town Health Officer, and Troy School Board representative.
- Bruce Melendy, Northeastern Vermont Development Association (NVDA), Regional Planning Commission Emergency Planner.

1.3. **Review and Update.** In accordance with 20 V.S.A § 6 and State Emergency Management Plan, "all municipal jurisdictions are expected to review and update their Local Emergency Management Plan annually and to formally readopt them between Town Meeting Day — on the first Tuesday in March — and May 1<sup>st</sup>." This review may include:

- Confirming compliance with current LEMP guidance and templates – LEMP Template Long Form, Full Sample 2021 (<https://vem.vermont.gov/plans/lemp>), accessed 19 April 2021,
- Updating the continuity of operations plan (<https://www.vlct.org/vemcoop>),
- Connecting with district partners (<https://vem.vermont.gov/programs/lepc>),
- Contacting the Regional Planning Commission (RPC) for coordination assistance (<https://www.vapda.org>).

1.4. **Annual Adoption.** The Selectboard will review and adopt the Town's LEMP annually BEFORE May 1 (i.e., at its March or April meeting).

## 2. Normal Operations.

### 2.1. Information Sharing.

2.1.1. **Gathering Information.** Troy Selectpersons, Town Clerk, Road Commissioner, and Fire Chief are the primary information collectors. Town officials get and receive information from many sources, including TV, radio, news websites, email, emergency dispatch, and/or personal interactions and observations. Residents and visitors also provide information by contacting Town municipal offices and/or officials with observations and reports about emergency situations; Town officials forward reports to appropriate officials for action and/or follow up, as needed.

2.1.2. **Information Processing.** Responding Town official(s), departments, or emergency service organization (i.e., police, fire, or emergency medical services (EMS)) will not normally alert others when an incident does not exceed their capabilities. For example, the Fire Chief will not notify

# Town of TROY Local Emergency Management Plan

April 20, 2021

the Town about every fire or emergency called to and/or whether mutual aid was requested, nor will the Road Commissioner alert the Town for every snow or ice storm.

**2.2. Incident Size-Up.** As an incident develops, the Incident Commander (IC) and/or Select persons must validate the accuracy of reports and the severity of the situation to assess the risk to the Town and the need for broader coordination. For example, the Fire Chief may need to notify neighboring fire and rescue squads for mutual aid assistance.

**2.3. Early Notification.** As an incident develops that might affect the whole town, reports should go to the EMD. The EMD, in turn, will keep the Selectboard, Village Trustees, and others, e.g., Road Commissioner and/or Fire Chief, informed, as appropriate.

## 3. Municipal Emergency Operations Center Activation.

**3.1. General.** The EOC should be activated when there is an incident that requires significant coordination between responders, municipal officials, and/or residents. This plan routinely uses the term EOC, but in some cases the municipal EOC may also serve as the municipal Incident Command Post (ICP). See Enclosure 2 for facility, organization, and staffing details and specific incident annexes for action plans and municipal command and coordination relationships.

**3.2. Decision to Activate.** The EMD may activate the EOC when:

- Directed by the Selectboard,
- Requested by an IC,
- Requested by the Road Commissioner,
- Severe weather is forecasted that may lead to widespread damage, and/or
- Incidents may significantly affect the health and welfare of the community.

**3.3. Location.** On activation, the EMD will identify the EOC location as being either:

- Primary: Town Municipal Office, 142 Main St., No. Troy
- Alternate: North. Troy Village Office, 160 Railroad Street, No. Troy
- Alternate: Troy Volunteer Fire Department/Station, 6850 VT Route 100, Troy

**3.4. Staffing and Operational Hours.** The EMD will determine EOC staffing and hours of operations based on initial and evolving need. Staffing needs and operational hours may be based on 12-hour work shifts with a day shift (7:00 AM – 7:00 PM) and evening/night shift (7:00 PM – 7:00 AM).

**4. Emergency Operations (*Enclosure 2 | Annexes*).** This plan provides the general operating framework for municipal Emergency Management for events that require some form of municipal Emergency Operations Center (EOC) or Incident Command Post (ICP), not for emergencies that the on-scene Incident Command structure can handle internally. Guidance related to specific events are provided at applicable annex(s).

**4.1. Incident Command and the Emergency Operations Center (EOC).** Each incident must have an Incident Commander (IC) in charge of the response. In some cases, the EOC will support the IC(s), but in some cases the EOC may also be the municipal ICP.

**4.2. Maintaining Situational Awareness.** The EOC tracks events and response actions for municipal leaders. In adopting the National Incident Management System (NIMS) as the standard for incident management – January 19, 2015 – the Town’s emergency management activities follow NIMS standardized procedures. As such, EOC operations should be sufficiently documented using standardized forms (<https://www.fema.gov/incident-command-system-resources>,

# Town of TROY Local Emergency Management Plan

April 20, 2021

<https://vem.vermont.gov/plans/local>). While the state does not require copies, it is considered a best practice to fill them out and retain them on file. Locating EOC documentation in a binder (hard copy) and/or file (electronically) facilitates easy access and reference.

4.2.1. **Operations Log.** Details of significant activities, decisions, and communications may be documented on ICS Form 214, Activity Log. These logs serve as an important reference and documentation when filing local, regional, state, and/or federal reports and forms after the event.

4.2.2 **Map.** Tracks events graphically on a large situation map in the EOC (or on a projected PowerPoint slide map, etc). The location of the event(s), critical facility(ies), area(s) of concern, shelter(s), and/or evacuation route(s), as applicable, may be identified on a large Town and/or Village situation map in the EOC. Use of symbols help to simplify and reduce ‘clutter’ on the map.

- **Circle** ○ – command level (e.g., EOC).
- **Oval** □ – unit level (first responder(s) or responder(s) on scene, e.g., police, fire, or EMS).
- **Rectangle** □ – task group level (group or individual with specific task, e.g., Public Information Officer (PIO), Selectperson).
- **Diamond** ◇ – hazards such as hazardous material (fixed or mobile) or hazardous natural event.

4.2.3. **Information Request Tracker.** List of information requests and their status/answers ensures all available information is available to guide EOC decisions and actions.

4.2.4. **Damage Report.** List of public infrastructure damage (including roads, bridges, and culverts as well as town owned electric departments, public water supplies, water supply and wastewater-treatment plants, historic structures, public libraries, etc.) to facilitate funding requests during recovery. The State Emergency Operations Center (SEOC) will contact the individuals listed in the Town’s LEMP to request damage information from the Local Situation Report, A-2. If the Troy EOC has not been contacted by the SEOC, the completed Local Situation Report may be submitted directly to: [dps.dlan@vermont.govLists](mailto:dps.dlan@vermont.govLists)

4.3. **Coordinate Resource Requests (Enclosure 3).** As ICs identify resource needs, the EOC will record them, try to fulfill them locally, and, if necessary, request them through the State EOC (if local sources are not available). The SEOC will confirm with the EOC that there are no local sources prior to processing requests.

4.3.1. **Purchasing.** When the EOC is active, the EOC Director may authorize the purchase of supplies, equipment, and services as required in support of ongoing incidents, up to a total of \$2,500. Purchases over \$2,500 requires approval of the Selectboard. If the Selectboard cannot reasonably meet because of the emergency, any available Selectboard member may approve these requests. However, the Selectboard must then ratify the purchase(s) when able to hold a meeting at its earliest convenience).

4.3.2. **Resource Request Tracker.** List of requested resource (identifying business or organization the request was made) and their status. A whiteboard may be helpful for real-time tracking.

4.3.3. **Financial Expenses.** Documentation for expenses including materials, personnel, and equipment to facilitate funding requests during recovery.

4.4. **Provide and Monitor Public Information (Enclosure 4).** Incident Commanders may have Vermont Emergency Management (VEM) send out an alert notification through the VT-Alert system. The Public Information Officer (PIO) in the EOC monitors news reports and social media for

# Town of TROY Local Emergency Management Plan

April 20, 2021

information and requests from the public. In coordination with IC(s), he or she creates news updates and/or press releases to publish on the town web page and local social media and makes paper copies for distribution in areas that may not have normal communications.

- **Newspaper** – Newport Daily,
- **Radio** – WMOO FM 92.1 and WIKE 1490 AM,
- **TV** – WCAX-TV,
- **Social Media** – Town website and Village Facebook page,
- **Posting Locations (Town)** –Municipal Office and Troy Post Office,
- **Posting locations (Village)** – Village Office and North Troy Post Office.

**4.5. Vulnerable Populations (Enclosure 5).** If necessary, the EOC may contact organizations and facilities that serve vulnerable populations to identify residents who are at risk based on the emergency. If there are residents at risk, the EOC will monitor their status and if required coordinate support for them until their situation stabilizes.

**4.6. Sheltering and Care (Enclosure 6).** After a natural or manmade disaster, the American Red Cross (ARC) and Vermont Economic Services Division (ESD) can shelter small numbers of people in hotels/motels. The EMD may approve the short-term sheltering of small numbers of affected individuals at local lodging facilities - up to the \$2,500.00 emergency purchase limit - (after making every effort to contact the Selectboard). If necessary, the EOC may direct the opening of a daytime warming shelter or ask the local shelter manager to open an overnight shelter (Troy School), and during major emergencies residents may go to the regional shelter (North Country Union High School, Newport).

**4.7. Plan Future Operations.** The EOC supports ICs in planning and coordinating future response and recovery operations. As soon as possible, responders should begin collecting supporting documentation that will facilitate reimbursement. At the municipal level, demobilization from response normally means a return to normal workdays with additional recovery tasks.

**4.8. Update Briefings.** Every day the EOC will conduct full update briefings for the staff, Selectboard, Village Trustees, and other key leaders. Depending on the emergency this may occur several times a day to set goals for the day, synchronize activities, review the day's events, or as needed. The briefing may follow the following format:

- Overview (EOC Director)
- Current situation (Situational Awareness)
- Resource issues (Logistics Support)
- Incident / Operations updates and issues
- Priorities and general comments (Selectboard)

**4.9. Night Shifts.** The EOC Director will determine the need for staffing at night and the missions for those on duty.

**5. Demobilization.** EOC demobilization is a planned process to return the Town to normal working hours and conditions. CS Form 221, Demobilization Check-Out, is a helpful tool for ensuring that resources checking out of the incident have completed all appropriate incident business, and provides the EMD with resources released from the incident.

**5.1. Decision to Demobilize.** The EOC Director will demobilize the EOC based on the situation and operational objectives. Typical conditions for demobilization include:

- All first responders are demobilized or returned to normal work schedules.
- All emergency issues for people within the Town are resolved or completely transitioned to an appropriate service agency.

## Town of TROY Local Emergency Management Plan

April 20, 2021

- There are less than 10 customers without power in the town, and none of them have unresolved support issues because of the outage.
- There are less than 5 homes that are inaccessible by road, and none of the occupants have unresolved support issues.

**5.2. Demobilization Process.** The EMD will complete the following actions when the decision to close the EOC is made.

- Notify the Selectboard, Village Trustees, Fire Chief, Road Foreman, and SEOC that the local EOC is closing and post notification of its closure at designated locations (see section 4.6),
- Collect and file relevant documentation (e.g., logs and receipts),
- Clean and store EOC equipment and supplies,
- Schedule an after-action review with the Selectboard and Village Trustees to review EOC action and event timeline and to identify resources that would improve future EOC activation and operation,
- Release EOC staff.

**5.3. Transition to Recovery.** If necessary, the Selectboard appoints a Recovery Officer as the IC for recovery. The EOC Director makes all incident related documentation available to the Recovery Officer. The Recovery Officer establishes a Recovery Committee as his/her staff and sets operational objectives and meetings and tasks as required to achieve the objectives.

# Town of TROY Local Emergency Management Plan

April 20, 2021

## ACRONYMS

**ANR:** [Vermont] Agency of Natural Resources  
**ARC:** American Red Cross  
**CARE:** Citizen Assistance Registration for Emergencies  
**CERT:** Community Emergency Response Teams  
**DPS:** [Vermont] Department of Public Service  
**EMAC:** Emergency Management Assistance Compact  
**EMD:** Emergency Management Director  
**EMS:** Emergency Medical Services  
**EOC:** Emergency Operations Center  
**ERAF:** [Vermont] Emergency Relief and Assistance Fund  
**FEMA:** Federal Emergency Management Agency  
**HAZMAT:** Hazardous Material  
**IC:** Incident Commander  
**ICP:** Incident Command Post  
**ICS:** Incident Command System  
**ISM:** Incident Support Model  
**LEMP:** Local Emergency Management Plan  
**LEPC:** Local Emergency Planning Committees  
**MVAS:** Missisquoi Valley Ambulance Service  
**NEIM:** North East International Mutual Aid  
**NEKCA:** Northeast Kingdom Community Action  
**NEMRC:** New England Municipal Resource Center  
**NIMS:** National Incident Management System  
**NKHS:** Northeast Kingdom Human Services  
**NVDA:** Northeastern Vermont Development Association  
**PIO:** Public Information Officer  
**RCT:** Rural Communities Transportation  
**RFS:** Requests for Support  
**RPC:** Regional Planning Commission  
**RTLT:** [FEMA] Resource Typing Library Tool  
**SEOC:** [Vermont Emergency Management] State Emergency Operations Center  
**USAR:** [Vermont] Urban Search and Rescue  
**VASA:** Vermont ATV Sportsman 's Association, Inc.  
**VAST:** Vermont Association of Snow Travelers  
**VEM:** Vermont Emergency Management  
**VHMRT:** Vermont Hazardous Materials Response Team [Department of Public Safety, Division of Fire Safety]  
**VNA:** Visiting Nurse Association  
**VSP:** Vermont State Police  
**VT DPS:** Vermont Department of Public Safety  
**VT-TF1:** Vermont Task Force One  
**VTrans:** Vermont Agency of Transportation

## ENCLOSURES (Required)

- 1** – Contact Information
- 2** – Emergency Operations Center
- 3** – Resources
- 4** – Public Information and Warning
- 5** – Vulnerable Populations
- 6** – Sheltering and Care

## ANNEXES (Optional)



# Town of TROY Local Emergency Management Plan

April 20, 2021

- A** – Primary Shelter (Troy School) Memorandum of Agreement - PENDING
- B** – Alternate Shelter (Village Office, Poulin Building) Memorandum of Agreement - PENDING
- C** – Alternate Shelter (Fire Station, Troy) Memorandum of Agreement - PENDING
- D** – Water Treatment Plant
- F** – Troy School Emergency Operations Plan
- E** – NMIS Resource Typing Definitions (Town and Village Resources)
- F** – River Flood Plan
- G** – Ice storm Synch Matrix
- H** – Heat Wave Checklist
- I** – Municipal Emergency Management Ordinance
- J** – Municipal Delegation of Authority
- K** – Tier II Report Summaries

## **FORMS** (Optional)

- [VEM] A-1 Local Jurisdiction Request for Emergency Declaration,
- [VEM] A-2 Local Situation Report,
- ICS Form 201, Incident Briefing
- ICS Form 214, Activity Log
- ICS Form 221, Demobilization Check-Out

Enclosure 1 - Contact Information  
 Town of TROY Local Emergency Management Plan

April 20, 2021

POSITION   AGENCY	NAME	CONTACT INFORMATION		
		Cell (C), Pager (P), Home (H), Work (W)		
		Primary	Alternate	E-mail
<b>Local Emergency Management Team</b>				
EMD (Chair, Selectboard)	Robert Langlands	C:802-673-9048		mudlane@comcast.net
EOC Assistant Director (Selectboard)	Gary Taylor	C: 802-673-8748	H: 802-744-2060	taylormade54@comcast.net
EOC Assistant Director (Selectboard)	Mark Sanville	C:802-238-5668	H: 802-744-6818	msanville@aeengineers.com
Road Commissioner   Fire Chief	Bobby Jacobs	C:802-673-4144		firefighterjacobs@yahoo.com
Logistics   Finance (Town Clerk)	Terri Medley	C:802-274-6368	H:802-988-9687	medleys1@comcast.net
Liaison (Village Trustee)	Terri Medley	C:802-274-6368	H:802-988-9687	medleys1@comcast.net
Public Information Officer	Gaston Bathalon	C:802-323-9794	H:802-744-2373	bathalon12@myfairpoint.net
<b>Local Emergency Response</b>				
Fire Chief - Troy	Bobby Jacobs	C:802-673-4144	W: 802-744-2231	911 (emergency)
Assistant Fire Chief - Troy	Jermy Rondeau		W: 802-744-2231	911 (emergency)
Fire Chief – No. Troy	Dave Allen	H: 802-988-4067		
Assistant Fire Chief – No. Troy	Richard Wells, Jr.			
EMS Missisquoi Valley Ambulance Service, INC.	Jennifer Piette, President	C:802-309-0455	W:802-988-1098	
Vermont State Police, Lieutenant Walter Smith Derby Barracks	Derby Station Commander		W: 802-334-8881	
Border Patrol, US Customs and Border Protection, Newport Station			W: 802-334-7903	
Orleans County Sheriff's Department	Sheriff Jennifer Harlow		W: 802-334-3333	
North Country Hospital			W: 802-334-7331	IC debriefs with EMS
<b>Troy Town</b>				
Selectboard, Chair	Robert Langlands	C: 802-673-9048		mudlane@comcast.net
Selectperson Alternate	Gary Taylor	C: 802-673-8748	H: 802-744-2060	taylormade54@comcast.net
Selectperson Alternate	Mark Sanville	C:802-238-5668	H: 802-744-6818	msanville@aeengineers.com

Enclosure 1 - Contact Information  
Town of TROY Local Emergency Management Plan

April 20, 2021

POSITION   AGENCY	NAME	CONTACT INFORMATION		
		Cell (C), Pager (P), Home (H), Work (W)		
		Primary	Alternate	E-mail
Town Clerk   Treasurer	Terri Medley	C:802-274-6368	W: 802-988-2663	townoftroy@comcast.net
Assistant Town Clerk	Diane Forbes			Seasonal – winter months
Assistant Town Clerk	Sharon Patten			Seasonal – summer months
<b>Forest Fire Warden</b>				
Forest Fire Warden	Paul Meunier	H: 802-744-2476		
Highway Department   Town Garage	Robert Jacobs		W: 802-988-2556	Road Commissioner
Town Health Officer	Gaston Bathalon	C: 802-323-9794	H: 802-744-2373	bathalon12@myfairpoint.net
Troy Volunteer Fire Department		911 (emergency)	W: 802-744-2231	
Troy School	Eric Erwin, Principal		W: 802-988-2565	eric.erwin@ncsuvt.org
School Director, Chair Troy School District	Gaston Bathalon	C: 802-323-9794	H: 802-744-2373	bathalon12@myfairpoint.net
Head Start   North Troy Child and Family Development Program			W: 802-988-2262	Capacity:19 Eligibility: 0-3 yo   3-5 yo
Town Animal Control Officer   First Constable	John Coburn	C: 802-673-5049		
Water Department   Troy / Jay Sewer Department	R. Steve Button	P: 802-749-6336	W:802-988-2636	Troy/Jay Wastewater Treatment Facility
<b><i>Village of North Troy</i></b>				
Village Trustee, Chair	Richard Wells, Jr.			
Village Trustee, Alternate	Terri Medley	C:802-274-6368	W: 802-988-2663	
Village Trustee, Alternate	Helene Croteau			
Village Clerk   Treasurer	April Descheneau		W: 802-988-4700	villagenorthtroy1@comcast.net
Fire Chief	Dave Allen	H: 802-988-4067		
Water / Sewer				
Village Animal Control Officer	Gaeten Verge	H: 802-988-2340		
<b><i>Neighboring Municipalities</i></b>				
Newport Town, Town Clerk	Denise Daigle		W: 802-334-6442	nctownclerk@comcast.net
Newport Center Volunteer Fire Department			W: 802-334-5627	

Enclosure 1 - Contact Information  
Town of TROY Local Emergency Management Plan

April 20, 2021

POSITION   AGENCY	NAME	CONTACT INFORMATION		
		Cell (C), Pager (P), Home (H), Work (W)		
		Primary	Alternate	E-mail
Jay Town Clerk			W: 802-988-2996	townofjay@comcast.net
Jay Volunteer Fire Department	Fire Chief: Jeff Morse		W: 802-988-1084	jay6fireman@comcast.net
Lowell Town Clerk			W: 802-744-6559	
Lowell Volunteer Fire Department	Fire Chief: Calvin Allen		W: 802-744 2450	Rescue sled
Westfield Town Clerk	LaDonna Dunn		W: 802-744-2484	townofwestfield@comcast.net
<i>State   Federal Partners</i>				
State Emergency Operations Center   Waterbury		W: 800-347-0488	W: 802-244-8721	
Vermont 2-1-1	<b>In VT:</b> <b>Outside VT:</b>	211 W: 866-652-4636 W: 802-652-4636		Contact Center available 24/7
VT-Alert [VEM]	Mark Bosma, PIO		W: 800-347-0488 W: 802-244-8721	
VTrans District 9 Technician   Derby	Jason Sevigny	C: 802-535-7767	W: 802-334-4342 W: 802-334-7934	jason.sevigny@state.vt.us
Vermont Department of Health		W: 800-464-4343	W: 802-863-7200	
American Red Cross		W: 800-660-9130		
Vermont Hazardous Materials Response Team (VHMRT)   Barre	<b>Emergency:</b> HAZMAT Hotline <b>Non-emergency:</b> Team Chief	800-641-5005 802-479-7586		State," I am requesting the State HAZMAT Team" Todd.Cosgrove@vermont.gov
Fire Safety   Barre		W: 888-870-7888	W: 802-479-4434	VT DPS:
ANR: Emergency HAZMAT Spill Reporting	<b>7:45am-4:30pm M-F:</b> <b>After hours:</b>	W: 802-828-1138 W: 800-641-5005		
ANR River Engineer	Staci Pomeroy	W: 802-751-0120	W: 800-250-8427	
ANR Floodplain Manager	Chris Brunelle		W: 802-777-5328	chris.brunelle@vermont.gov
ANR Dam Safety Engineer	Ben Green, PE,Section Chief		W: 802-622-4093	Benjamin.Green@vermont.gov
NVDA   EM Specialist	Bruce Melendy	W: 802-424-1420		bmelendy@nvda.net
Orleans County Forester	Jared Nunery	W: 802-586-7711 x169		jared.nunery@vermont.gov

Enclosure 1 - Contact Information  
 Town of TROY Local Emergency Management Plan

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POSITION   AGENCY	NAME	CONTACT INFORMATION Cell (C), Pager (P), Home (H), Work (W)		
		Primary	Alternate	E-mail
LEPC District 10   Newport	Phil Marquette, Chair		W: 802-777-7851	VT Department of Health

MUNICIPALITY   RESOURCE CATEGORY	NAME	CONTACT INFORMATION Cell (C), Home (H), Work (W)		
		Primary	Alternate	E-mail   POC
<b>Utilities</b>				
Electrical	Vermont Electric Co-Op		W: 802-635-2331	
#2 Heating Oil	Oil Supply Corporation		W: 802-744-2555	oilsupplycorp@yahoo.com
Natural Gas   Propane	Fred's Energy		W: 802-766-4949	
Telecommunications (fixed, wireless, mobile)	Consolidated Communications		W: 866-984-2001	
Utility Locating Service	Dig Safe	811	W: 888-344-7233	www.digsafe.com
<b>Lodging</b>				
Jay	Jay Peak Resort		Main: 802-988-2611 Customer Service: 802-327-2215 Lodging: 800-451-4449	
Jay	The Jay Village Inn & Restaurant		W:802-988-2306	
<b>Social Services</b>				
Elder Care	Northeast Kingdom Council on Aging, Meals on Wheels		W: 802-334-2190	
Mental Health	Northeast Kingdom Human Services		W:802-334-6744	Carol Boucher
Home Health	Orleans Essex Visiting Nurse Association / HOSPICE		W: 802-334-5213	Lynn Limoges
Community Food Shelf	Jay Area Food Shelf		W: 802.988.2996	Kim Arel Lucier, Food Shelf Coordinator
Senior Congregate Meals ONLY   North Troy	North Troy Senior Meal Site – Village Offices		W: 802-988-4741	Nancy Allen, Manager (Wednesday)
Senior Home Delivered Meals ONLY   Derby	Meals on Wheels - Cornucopia Senior Meal Site		W: 802-766-3642	Vaunne Masse, Director (Wednesday and Friday)
Senior Services   St. Johnsbury	Area Agency on Aging for Northeastern Vermont		W: 800-642-5119	
Senior Services   Newport	Northeast Kingdom Council on Aging		W: 802-334-2190	
Transportation   Lyndonville (Headquarters)	Rural Communities Transportation (RCT)		W: 855-811-6360	To schedule a ride:

Enclosure 1 - Contact Information  
Town of TROY Local Emergency Management Plan

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MUNICIPALITY   RESOURCE CATEGORY	NAME	CONTACT INFORMATION Cell (C), Home (H), Work (W)		
		Primary	Alternate	E-mail   POC
				sthorpe@RideRCT.org or (802) 748-8170 (M-F, 8:00 AM – 4:30 PM)
Transportation   Newport (Branch Office)	Rural Communities Transportation (RCT)		W: 802-334-0243	Rides available M-F, 7:30 AM to 4:30 PM
Nursing Home   Newport	Bel-Aire Center		W: 855-240-2530	
Nursing Home   Newport	Newport Health Care Center		W: 855-224-5130	
Nursing Home   Derby	Derby Green Nursing Home		W: 855-229-7494	
Nursing Home   Barton	Maple Lane Nursing Home		W: 855-241-4685	Northern Kare Facility
Nursing Home   Glover	Union House Nursing Home		W: 855-229-7494	Northern Kare Facility
Nursing Home   Greensboro	Greensboro Nursing Home		W: 855-221-7955	
Child Care   Troy	Carmen Bouchard		W: 802-744-6588	
Child Care   Troy	Christina Blais	C: 802-238-3962		
Child Care   North Troy	Donna Dillon		W: 802-988-4723	
Child Care   North Troy	Gloria Provencher	C: 802-673-6063		
Child Care   Troy	Barbara Constantine	C: 802-338-6310		Acebobarb@outlook.com
Child Care   North Troy	Cathryn Ste Marie		W: 802-988-4754	
Child Care   Troy	Christina Blay	C: 802-323-2902		
Child Care   North Troy	Nanny's Early Learning Center		W: 802-988-1164	
<b>Information Technology   Computer (software and hardware)</b>				
Fund Accounting   Morristown	New England Municipal Resource Center (NEMRC)		W: 800-387-1110	
Web Development   Bradford	KeVaCo		W: 802-222-4401 802-363-0895	
Service   Jay	Beloin Computing	C: 802-673-2010		
<b>Community Service Organizations</b>				
No. Troy	American Legion		W: 802-988-2861	
Snowmobile Club ATV Club	Roger Gosselin, VAST John Hamelin, VASA	C:802-274-4502 C:802-272-8545		

MUNICIPALITY   RESOURCE CATEGORY	NAME	CONTACT INFORMATION Cell (C), Home (H), Work (W)		
		Primary	Alternate	E-mail   POC
<b>Financial Institutions</b>				
Bank (Derby)	Community National Bank		W: 802-334-7915	Main office
Bank (Troy)	Community National Bank		W: 802-744-2287	
Credit Union (Newport)	North Country Federal Credit Union		W: 800-660-3258	
<b>24-Hour Fuel</b>				
Newport	Cumberland Farms		W: 802-334-3091	
Derby	Derby Jolley		W: 802-334-6835	
Newport	Maplefields		W: 802-487-9926	
Derby	Sunoco Gas Station		W: 802-766-8143	
<b>Predesignated Contractors</b>				
North Troy	D&D Electrical,		W: 802-744-6621	Jason Delabruere Gregory Dunn.
Troy	Rondeaus Plumbing & Heating		W: 802-744-6161	Jeremy Rondeau
Troy	Dan Pepin Excavating & Trucking		W: 802-744-8227	pepinexc@comcast.net
<b>Building Supply</b>				
Westfield	Hometown Hardware & Supply		W: 802-744-6300	
Derby	Poulin Lumber		W: 802-766-4971	
Newport	Sticks n' Stuff		W: 802-624-2220	
Newport	Pick & Shovel		W: 802-334-8370	
<b>Equipment Rental</b>				
Newport	Newport Rental Center		W: 802-334-8011	
Derby	The Farmyard Store		W: 802-766-2714	sales@thefarmyardstore.com
<b>Excavation</b>				
Troy	Dan Pepin Excavating and Trucking		W: 802-744-8227	pepinexc@comcast.net
Westfield	Kennison & Son Excavating		W: 802-744-6457	



MUNICIPALITY   RESOURCE CATEGORY	NAME	CONTACT INFORMATION Cell (C), Home (H), Work (W)		
		Primary	Alternate	E-mail   POC
<b><i>Restaurant   Take Out</i></b>				
Lowell	Cajun's Snack Bar		W: 802-744-2002	
Jay	Jay Village Inn and Restaurant		W: 802-988-2306	thejayvillageinn.com
Troy	Junction Restaurant		W: 802-744-2700	
<b><i>Grocery   Sandwiches   Fuel</i></b>				
North Troy	Boutin's Market		W: 802-988-1170	boutinsminimarket.com
Jay	Jay Country Store		W: 802-988-4040	
Westfield	Westfield General Store		W: 802-744-2223	
Troy	Troy Country Store		W: 802-744-4048	
<b><i>Grocery   Sandwiches</i></b>				
Troy	Troy General Store		W: 802-744-2200	
<b><i>Grocery (larger quantities)</i></b>				
North Troy	Dollar General Dollar General # 13411		W: 802-327-4928	
Newport	Price Chopper		W: 802-334-1475	
Newport	Shaw's Supermarket		W: 802-334-8466	
Newport	Vista Foods		W: 802-525-3444	
<b><i>Solid Waste   Debris Removal</i></b>				
North Troy	Diamond Rubbish Removal		W: 802-988-4067	Dave Allen
West Charleston	Austin's Rubbish & Roll-Off Services, Inc.		W: 802-895-4889	
Lyndonville	Northeast Kingdom Waste Management District		W: 802-626-3532	
Newport	Casella Waste Systems Inc.		W: 800-227-3552	
<b><i>News Outlets</i></b>				
Barton	The Chronicle		W: 802-525-3531	
Newport	Newport Daily Express		W: 802-334-6568	Designated Official Troy School District Newspaper
St. Johnsbury	Caledonian Record		W: 802-748-8121	

Enclosure 1 - Contact Information  
 Town of TROY Local Emergency Management Plan

April 20, 2021

MUNICIPALITY   RESOURCE CATEGORY	NAME	CONTACT INFORMATION Cell (C), Home (H), Work (W)		
		Primary	Alternate	E-mail   POC
South Burlington	WCAX-TV		W: 802-652-6397	
Derby	MOO92-FM		W: 802-334-9200 W: 802-766-9236	
Derby	WIKE-AM		W: 802-766-4485	
Newport	NEK-TV		W: 802-334-0264	
<b><i>Veterinary   Boarding</i></b>				
Newport Town	The Animal Doctor		W: 802-334-1503	Selina Hunter, DVM
Newport	Nelson Veterinary Associates, Inc.		W: 802-334-3345	
Lyndonville	Kingdom Canine Center		W: 802-274-6033	
Orleans	Pope Memorial Frontier Animal Shelter		W:802-754-2228	

1. **Concept.** The Emergency Operations Center (EOC) is an organization that coordinates information, support, and response across the municipality for Incident Commanders (IC) and government officials. Its main functions are to maintain situational awareness for municipal leaders, coordinate resource and information requests, and provide public information.

1.1. **Multiple IC Coordination.** The EOC may need to coordinate support for one or more ICs (e.g., during an ice storm, the Road Commissioner is focused on keeping roadways safe and passable while the Fire Chief may be dispatched to a chimney fire resulting). In this case, the EOC may request information and provide or prioritize resources, but the EOC should never direct tactical operations – ICs direct tactical operations.

1.2. **Town-Wide Coordination** In some cases, typically during recovery or long-running, low threat incidents like pandemics or extended power outages, the EOC Director may be the Incident Commander for town-wide efforts. In that case, the EOC acts as the municipal Incident Command Post (ICP) and may direct tactical operations..

1.3. **Assessment Checklist.** An EOC assessment checklist, developed by the Federal Emergency Management Agency (FEMA, <https://www.fema.gov/emergency-operations-center-assessment-checklist>), may be used to match the Town's EOC operational requirements with EOC capability.

2. **EOC Organizational Structure.** The Town's EOC organizational and operating structure follows the National Incident Management System (NIMS) Incident Support Model (ISM). Specifically, the EMD is in direct contact with IC(s) or with responsible individuals having real-time situational awareness and streamlines tracking, sourcing, and allocation of emergency response resources.

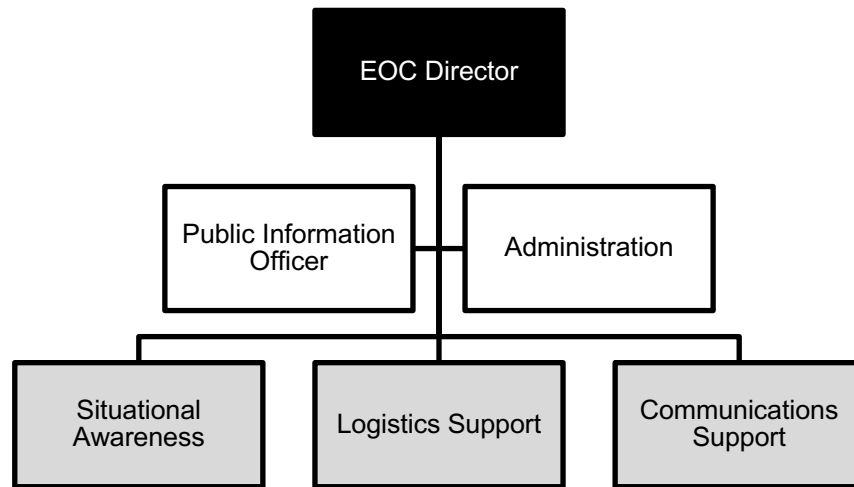
2.1. **Town EOC Operating Structure.** The Town EOC is primarily focused on support functions, i.e., supporting IC(s) or professionals who manage response/recovery efforts. Therefore, the EMD is supported by EOC administrative support staff, PIO, and situation awareness, logistics, and communications support staff. As an emergency management team, the EOC staff identify emergency response tasks, coordinate incident support, and ensure the dissemination of timely, accurate, and accessible information to regional, state, or federal agencies/officials and local community.

2.1.1. **Situational Awareness Section.** Processes requests for information; develops reports, briefings, and presentations; integrates geospatial and technical information; and develops public messages.

2.1.2. **Logistics Support Section.** Ensures on-scene IC(s) have the resources and operational support needed for the planned emergency response. Staff source, request/order, and track resources (e.g., borrowed, purchased or leased supplies, equipment, and/or personnel) thru mutual aid/Emergency Management Assistance Compact (EMAC) sources, or nongovernmental partners.

2.1.3. **Communications Support Section.** Ensures the EOC and associated facility(ies) have needed communication and information technology.

2.2. **Positions and Functions.** The functions of the EOC positions are listed below. Depending on the specific emergency and staff availability, positions and functions may be combined or subdivided.



Position	Job Description
EOC Director	<ul style="list-style-type: none"> <li>• Supervise and direct EOC activities coordinating the Town’s support and response</li> </ul>
Public Information Officer	<ul style="list-style-type: none"> <li>• Coordinate messaging with IC(s)</li> <li>• Produce and post public information and press releases</li> <li>• Monitor public media for accuracy and correct inaccurate reports</li> </ul>
Administration	<ul style="list-style-type: none"> <li>• Maintain operations log</li> <li>• Support IC(s) document expenses for reimbursement</li> </ul>
Situational Awareness	<ul style="list-style-type: none"> <li>• Update status board and map</li> <li>• Track and respond to Requests for Information (RFI) from IC(s) and Town officials</li> </ul>
Logistics Support	<ul style="list-style-type: none"> <li>• Track and coordinate fulfillment of any Requests for Support (RFS) from IC(s),</li> <li>• Provides resources for the EOC (e.g., water, food, sleeping area, batteries, fuel for generator, etc.)</li> </ul>
Communications Support	<ul style="list-style-type: none"> <li>• Staff phone(s) and radio(s)</li> <li>• Ensure EOC and associated facility(ies) have needed communications equipment</li> <li>• Gather requirements for related supplies and equipment</li> <li>• Assist with hardware and software trouble shooting</li> </ul>

**3. EOC Staff.** Refer to contact information at Enclosure 1.

**3.1. Town Officials / Employees.**

- Robert Langlands, Selectboard – EMD
- Gary Taylor, Selectboard – EOC Assistant Director
- Mark Sanville, Selectboard – EOC Assistant Director
- Terri Medley, Town Clerk/ Treasurer – Logistics, Communications
- Robert Jacobs, Road Commissioner | Fire Chief – Awareness, Logistics
- Gaston Bathalon, Town Health Officer – PIO, Communications

**4. Primary EOC Facility.**

- |  |  |
|--|--|
| <b>4.1. Title and E911 Address:</b>              | Troy Town Clerk's Office<br>142 Main Street, North Troy  |
| <b>4.2. Phone Number(s):</b>                     | 802-988-2663 (public)  |
| <b>4.3. Mobile service available / provider:</b> | Comcast (good)   |
| <b>4.4. EOC Risk Factors:</b>                    |  |
| <b>4.5. Facility Contact:</b>                    | Terri Medley, Town Clerk   |
| <b>4.6. Access:</b>                              | Entrance instructions from Town Clerk  |
| <b>4.7. Internet:</b>                            | DSL and WiFi   |
| <b>4.8. Available Equipment:</b>                 | <ul style="list-style-type: none"><li>• Computers</li><li>• Copy Machine</li><li>• Fax</li></ul> |
| <b>4.9. Equipment Needed</b>                     | Generator  |
| <b>4.10. Backup Power / Instructions:</b>        | EMD  |
| <b>4.11. Layout:</b>                             |  |

**5. Alternate EOC Facility ('South' Troy).**

- 5.1. **Title and E911 Address:** Troy Fire Station: 6850 VT Route 100, Troy
- 5.2. **Phone Number(s):** 802-744-2231 (public)
- 5.3. **Mobile service available / provider:** Consolidated Communications (good)
- 5.4. **EOC Risk Factors:**
- 5.5. **Facility Contact:** Robert Jacobs, Fire Chief
- 5.6. **Access:**
- 5.7. **Internet:** DSL and WiFi
- 5.8. **Available Equipment:**
- Base radio
- 5.9. **Equipment Needed**
- Computer and projector from primary EOC
  - Printer
- 5.10. **Backup Power / Instructions:**
- Generator connection 75W (Fire Chief)
- 5.11. **Layout:**

**6. Alternate EOC Facility (Village of North Troy).**

- 6.1. **Title and E911 Address:** North Troy Village Office, Poulin Building, North Troy
- 6.2. **Phone Number(s):** 802-988-4700 (public)
- 6.3. **Mobile service available / provider:** Comcast (good)
- 6.4. **EOC Risk Factors:**
- 6.5. **Facility Contact:** April Descheneau
- 6.6. **Access:**
- 6.7. **Internet:** DSL and WiFi
- 6.8. **Available Equipment:**
- Computer
  - Multifunction printer/scanner/copier
- 6.9. **Equipment Needed**
- Computer and projector from primary EOC
- 6.10. **Backup Power / Instructions:**
- generator connection
- 6.11. **Layout:**

1. **Concept.** The Emergency Operations Center (EOC) can coordinate resource support for Incident Commander(s). The Town should use municipal resources, mutual aid agreements, and local purchases first to get resources for response as needed and available. The State Emergency Operations Center (SEOC, 800-347-0488) will help coordinate any state support teams or other external resources that local responders may need.

1.1. **State Resources (no cost).** Resources that may be requested/provided at no cost (typically but not guaranteed) include:

- Vermont Hazardous Material (HAZMAT) Response Team (VHMRT)
- Vermont Urban Search and Rescue (USAR) Vermont Task Force One (VT-TF1)
- Vermont State Police (VSP) and Special Teams
- Community Emergency Response Teams (CERTs)
- Swiftwater Rescue Teams
- Regional Shelter Support
- State government agency expertise / services
- Federal response agency expertise

1.2. **State Resources (at cost):**

- Supplies and equipment (including sandbags)
- VTrans Equipment and Personnel
- Vermont National Guard Support

1.3. **Emergency Response Expenses.** The state may be able to provide resources at no expense, and in major disasters there may be state and federal funds available to help defray expenses, but ***normally municipalities are responsible for paying for emergency response costs.*** Assistance from the SEOC is available in the event the Town has exhausted all available local resources. The SEOC can identify sources for services and/or resources that the Town will need to buy or contract for and can coordinate delivery if the timing and cost is approved by the EOC. ***Only individuals authorized by the Selectboard can obligate the Town to pay for services or resources.***

## 2. Emergency Purchasing.

2.1. **Authority.** The Emergency Management Director (EMD) may authorize the emergency purchase of supplies, equipment, and services to support emergency response, up to \$2,500.00 without prior Selectboard authorization. Purchases over \$2,500.00 require approval of the Selectboard or, if the Selectboard cannot reasonably meet because of the emergency, any available Selectboard member (such action must be approved by the Selectboard as soon as possible after the purchase is made/required).

2.2. **Processes.** Emergency purchases, up to \$2,500.00, may be authorized by the EMD without prior approval by the Selectboard. The Town Clerk / Treasurer maintains the Town's credit card for authorized emergency purchases. Emergency purchases exceeding \$2500.00 requires Selectboard approval. In most cases, the Selectboard will be present at the EOC and, thereby, approval can be had in real time. If unable to convene because of the emergency, any Selectperson may authorize the emergency purchase(s) but must notify and obtain Selectboard approval as soon thereafter as practicable.

3. **Businesses with Standing Municipal Contracts.** The following have standing contracts for services that may be required in an emergency. Contact information is at Enclosure 1.

- Law enforcement – Orleans County Sheriff's Department (Sheriff Harlow, 802-334-3333).

- Oil Supply Corporation – Town garage heating oil (Robert Pion, 802-744-2555).
- Diamond Rubbish Removal – dumpster at the Town garage (David Allen, 802-988-4067).

4. **The North East International Mutual Aid (NEIMA).** Eighteen NEIMA member departments of Orleans County and south east region of the Eastern Townships of Quebec work together by providing additional help and resources when requested by the Troy and North Troy Volunteer Fire Department Incident Commander (IC). This mutual aid is a resource available at no cost to the requesting department.

5. **Other Local Resources.** The following have resources or expertise that may be required during an emergency.

- **ATV Club: Borderline Ridge Riders**  
[Vermont ATV Sportsman 's Association, Inc. (VASA)] – volunteers, ATVs, trail expertise and access for Newport region/Orleans County. Club contact: Scott Jenness, President, 802-274-387
- **Snowmobile Club: Country Riders Snowmobile Club, Inc.**  
[Vermont Association of Snow Travelers (VAST)] – volunteers, snowmobiles, trail expertise and access for Newport Center area. Club Contact: Jim Sugden, President, jsugdenjr@gmail.com countryridersnek@gmail.com, 203-948 4573
- **Resources** with contact information listed at Enclosure 1 for:
  - Building Supplies
  - Contractors
  - Equipment Rental
  - Excavation
  - Fuel
  - Groceries
  - Information Technology
  - Restaurant / Take Out
  - Solid Waste / Debris Removal

6. **National Incident Management System (NIMS) Typed Resources.** NIMS is the State's standard for incident management (<https://vem.vermont.gov/sites/demhs/files/pdfs/programs/nims/Vermonts-NIMS-Implementation-Plan-FY2014.pdf>). The Town and Village adopted NIMS as the incident management system to be used in times of crisis on January 19, 2015 and December 11, 2007, respectively. Adoption of NIMS is a requirement when applying for and receiving Federal preparedness funds.

FEMA resource typing is the process of “defining and categorizing incident resources, including personnel, teams, facilities, equipment, and supplies, by capability.” Understanding the Town's capabilities is key to plan for and request needed resources supporting emergency operations. FEMA compiled a list of 483 widely used resources that may be used for incident management, support, and/or coordination. The resources are identifiable as either a:

- **capability** – most useful core capability,
- **category** – most useful function (firefighting, enforcement, health and medical),
- **kind** – personnel, team, facility, equipment and supplies,
- **type** – level of minimum capability (Type 1 is a higher capability than Type 4 based on size, power, and capacity (of equipment) or experience and qualifications (of personnel));



7. **Town Typed Resources.** The Town's (including North Troy Village) typed resources are listed in the following tables. Typing follows FEMA Resource Typing Library Tool (RTL) definitions (<https://rilt.preptoolkit.fema.gov/Public>). Specific RTL definitions for Town resources are provided at Annex F.

Town Resource	Type				Other	Description (model, specifications, size or experience)
	I	II	III	IV		
Trailer, Small Equipment			N/A	N/A		
Truck, On-Road Dump		1	1	1		
Truck, Plow 3 with 1 spare						
Fire Engine (Pumper)						Engine 3 1989 Spartan/E-One 2000 /2000
Firefighting Rescue Transport				N/A		Rescue 5 2007 Chevy/Local light rescue
Aerial Fire Truck			N/A	N/A		Tower 6 1991 Sutphen 1500/300/95' MM tower
Water Pumper Tanker				N/A		Tank 2 2004 International 4400/E-One 500/1800
Wheel Loader, Medium		1				
Wheel Loader Backhoe (village)	1					
Floodlights trucks				N/A		
Generator						
Grader	1			N/A		

<https://www.firenews.org/vt/tu/troy/troyvt.html>

Village Resource (Mutual Aid)	Type				Other	Notes
	I	II	III	IV		
Truck, On-Road Dump		1				
Wheel Loader Backhoe	1					
Fire Engine (Pumper)						Engine 1 2003 International/E-One
Water Pumper Tanker						Tanker 1 2013 International

No. Troy (<https://www.firenews.org/vt/n/northtroy/northtroyvt.html>)

1. **Concept.** During any significant emergency, the Emergency Operations Center (EOC) and Incident Command Posts (ICPs) will coordinate and manage public information, both by producing accurate, timely reports and by tracking what is publicly reported to minimize confusion and help ensure a positive public response.

## 2. Public Information Officer (PIO) Coordination.

2.1. **Appointment.** The Emergency Management Director (EMD) may appoint a Town / EOC PIO, or they may choose to keep these responsibilities. Similarly, an IC may appoint an incident PIO or they may choose to act as the PIO for the incident. The Town / EOC PIO may provide support for one or more IC(s), as requested. The Selectboard representative at the EOC usually serves as the municipal PIO.

2.2. **Multiple PIOs.** If there is more than one PIO, *each PIO must only release information that is limited to their scope of responsibility*, approved by the IC or EMD (as applicable), and coordinated to ensure messages are free of conflicting information. Coordinating information is a key function of the PIO and the EOC. For example, if there is an ice storm and major fire, there may be a Town / EOC PIO and a fire PIO. The Town / EOC PIO releases information about general Town issues or travel / road status on behalf of the Road Commissioner but not about the fire. The fire PIO releases information about the fire, but not general town issues or travel / road status (unless affected by the fire). Both PIOs should coordinate information releases and share any information they receive.

## 3. Releasing Public Information.

3.1. **Emergency Notifications.** The VT-Alert notification system (Vermont Emergency Management, VEM, 800-347-0488 or 802-244-8721) can send phone messages to all landlines in an area, and phone calls, text messages, and emails to people who have registered for them. Notifications may be issued for evacuation information; chemical spills; shelter-in-place alerts; severe weather advisories; boil water advisories; and, roadway interruptions. POC: Mark Bosma, PIO (fields information requests from the public and municipal officials, and manages all media relations).

3.2. **Current Information.** The PIO will post approved Town emergency news/updates to the Town web site, Facebook page, and email list as soon as possible. Notifications and updates to the Town web site and/or Facebook page must be current and accurate - the PIO will remove or archive old or erroneous information.

3.3. **Press Releases.** The PIO will publish and provide timely press releases, as required, to designated news outlets and posted at designated locations:

- **Newspaper** – Newport Daily,
- **Radio** – WMOO FM 92.1 and WIKE 1490 AM,
- **TV** – WCAX-TV,
- **Social Media** – Town website and Village Facebook page,
- **Posting Locations** – Municipal Offices (Town and Village) and Post Offices (Troy and North Troy)

3.4. **Media Inquiries and Interviews.** The PIO will respond to media inquiries and coordinate, if not give, media interviews, when requested.

3.5. **Media Corrections.** When possible, the PIO will correct inaccurate information in the news and on social media by ensuring the Town and or Village web sites and Facebook pages have current

and correct information, and then as soon as possible notifying the inaccurate source (e.g. by posting a comment, calling, sending an e-mail, etc. along with a link to the town website).

#### 4. Monitoring Public Information.

4.1. **Public Media.** The PIO will monitor regular news broadcasts from WCAX TV and WIKE and MOO-FM radio stations and will review the daily print and on-line issues of the Newport Daily Express, and Chronicle.

4.2. **Social Media.** The PIO will monitor the Vermont Emergency Management (VEM) Facebook page for state emergency news, and will also monitor locally active social media sites (i.e., Facebook page):

- **Town** – <https://www.facebook.com/pages/Troy-Town-Clerk/997920563613177>
- **Village** – <https://www.facebook.com/pages/North-TroyVT-243Canada/1584269098503950>
- **Troy Volunteer Fire Department** – Local <https://www.facebook.com/Troy-Vol-Fire-Department-753730958074705>
- **North Troy Fire Department** – <https://www.facebook.com/North-Troy-Fire-Department-1234645486563545>
- **Missisquoi Valley Ambulance Service (MVAS)** – <https://mobile.facebook.com/mvasjayvt>

5. **Vermont 2-1-1.** To coordinate for Vermont 2-1-1 to give out information during a local or regional emergency, call 2-1-1 directly and pass on the critical information. 2-1-1 will pass that information on to any residents who call. During an emergency, Vermont 2-1-1 will be manned 24 hours/day and can be contacted by dialing 2-1-1 (anywhere in Vermont); 1-866-652-4636 (toll free in Vermont), or 802- 652-4636 (outside of Vermont), and/or by texting zip code to 898211. Residents can tailor the alerts to specific location(s), types of alerts, and on the type of device(s) to receive notification (e.g., smart phone, e-mail, or home phone). Residents must sign up for an account (<http://vtalert.gov> Vermont Emergency Management).

5.1. **United Ways of Vermont.** Vermont 2-1-1. is a program of the United Ways of Vermont. The system provides information and referral services to Vermonters in cooperation with state, local governments, and community-based organizations – not just during an emergency event. Vermont 2-1-1 collects and maintains a database of local resources and will provide information and instructions to those calling or interested. Community resources (emergency food and shelter, disability services, counseling, senior services, health care, child care, drug and alcohol programs, legal assistance, transportation agencies, educational and volunteer opportunities, etc.) are listed in a searchable State-wide database at <https://www.vermont211.org/home> (accessed April 21, 2020). Individuals can contact Vermont 2-1-1 by calling 211 (within Vermont), 1-866-652-4636 (toll free within Vermont) or (802) 652-4636 (outside of Vermont). While dialing 211 is preferred, in the event of phone outages or if cellphone users “ping” cell towers outside of Vermont (i.e., cellphone use in the vicinity of the Village of North Troy commonly “ping” a Canadian cell tower) other contact numbers may prove helpful.

5.2. **Major State emergency.** The State Emergency Operations Center (SEOC) will coordinate with 2-1-1 to provide and collect general information and will also coordinate directly with affected governments to pass along key local information, both to and from 2-1-1, depending on the emergency.

1. **Concept.** During a long duration emergency, the Emergency Operations Center (EOC) may need to monitor the needs of and coordinate support for vulnerable populations. The EOC will determine whether vulnerable populations may be at risk, identify individual needs, and monitor their status until normal services are restored. In many cases support for vulnerable populations may be reason to open or continue an EOC, even after initial response operations have ended.

2. **Risk Determination.** An Incident Commander (IC) determines whether vulnerable populations may be at risk based on the emergency and its potential impact on local residents. For example, closed and damaged roads may prevent people from getting food and medicines, and home medical equipment may not work during power outages, but even major flooding that only affects a limited area may not present any significant problems to vulnerable residents.

3. **Identification.** The EOC will identify vulnerable residents.

3.1. **At-Risk List.** The EOC will create an At-Risk List of people (or entire facilities) who may have special issues based on the emergency. The EOC will contact the organizations listed below and request that they contact their clients and, if necessary, notify the EOC of anyone needing assistance. Any residents the EOC staff or other responders personally know who may need a welfare check (e.g., typically conducted by Vermont State Police (VSP), but could also be EOC directed individuals) should also be listed.

3.2. **Welfare Checks.** Due to confidentiality restrictions, social service and medical organizations cannot provide the Town with lists of people they serve. However, they can contact their clients to get permission to share information during an emergency, and request a welfare check for clients that they are unable to contact.

4. **Contact and Monitoring.** The EOC will monitor potentially vulnerable residents.

4.1. **Status.** The EOC will contact those on the At-Risk List to determine if they need help immediately, if the emergency event continues for an extended period (e.g., 48-72 hours), or if they are unaffected and do not require help.

4.1.1. **Contact.** If phone service is available, phone calls are the best means of contacting people.

4.1.2. **Welfare Checks.** VSP typically conduct welfare checks. Should the need arise, the EOC may assist with welfare checks by designating a person, team, or group.

4.1.3. **Continued Monitoring.** During a long duration emergency, the EOC may need to contact residents on the At-Risk List daily, or at predesignated and appropriate intervals.

4.2. **Support Coordination.** The EOC will coordinate support for residents on the At-Risk List who need help and as resources allow. The EOC should continue to monitor those on the At-Risk List until everyone on the list is in a stable situation and after resumption of normal services.

5. **Organizations and Facilities that Serve Vulnerable Populations.** The following organizations and medical facilities, etc. provide essential or social services, short- or long-term, that may be interrupted during a disaster, along with a brief description of services provided. Contact information can also be found at Enclosure 1.

***Citizen Assistance Registration for Emergencies (CARE)*** – self-registered database of elderly and those with limited mobility or who require specialized medical equipment during a

significant emergency event; linked to Vermont 911 system; confidential and only shared with local responders and officials involved in emergency response.

**POC | Town 911 Coordinator:** Terri Medley –802-988-9687

**Office:** 802-828-4911

**Website:** <https://e911.vermont.gov/care>

**Head Start and Early Head Start Child Care** – provides services, including resources and referrals, for parents and children in the areas of health, mental health, special needs, parent education, nutrition, community resources and family support, etc. A Northeast Kingdom Community Action (NEKCA) program.

Main Office: Barton (802-525-3362)

North Troy EARLY HEAD START 0-3 years old and HEAD START 3-5 years old Program

**Office:** 802-988-2262)

**Meals on Wheels** – delivers food to seniors:

Cornucopia Senior Meal Site | Derby

**POC:** Vaunne Masse, Director Wednesday and Friday

**Phone:** 802-766-3642

**Missisquoi Valley Ambulance Service (MVAS)** – serves and transports those requiring immediate medical attention and with short and long term medical problems.

**POC:** Jennifer Piette, President

**Phone:** (802) 988-1098

**Facebook Page:** <https://www.facebook.com/mvasjayvt/>

**North Country Hospital**- 25 beds, Emergency Department, pharmacy

Newport

**Office:** 802-334-7331

**North Country Primary Care** – care for common injuries and illnesses, as well as preventive care services, people of all ages

Newport

**Office:** (802) 334-3520

**Northeast Kingdom Council on Aging** – coordinates food (Meals on Wheels), nursing, and other services for elderly residents.

Newport

**Office:** 802-334-2190

**Northeast Kingdom Human Services (NKHS)** – mental health services (including emergency after hours) and programs for those with developmental disabilities, community rehabilitation treatment, addictions, and children's and adult services. Emergency services teams and specialty teams are on call 24/7 to assist individual or community wide crises.

Headquarters: Newport

**Office:** 802-334-6744

**North Troy Senior Meals** – provides congregate meals for seniors (open Wednesdays).

Community Building | Village Offices | North Troy

**POC:** Nancy Allen, Manager 802-988-4741

**Orleans Essex VNA** - provides home health and hospice services

Newport

**Office:** 802-334-5213

**Vermont 2-1-1** –maintains statewide database of community resources (emergency food and shelter, disability services, counseling, senior services, health care, child care, drug and alcohol programs, legal assistance, and transportation agencies, etc.). Service is free, confidential, and available 24/7. United Ways of Vermont sponsored program.

Office | Essex JCT

**Office:** 2-1-1 (24/7) or text zip code to 898211 (8:00 AM – 8:00 PM, M-F)

1. **Concept.** During some emergencies, the Emergency Operations Center (EOC) will monitor or coordinate support for residents who are displaced due to property or infrastructure damage.

2. **Spontaneous Sheltering.** If there is no local shelter available:

- Determine the approximate number of people who need sheltering.
- Call the State EOC / Watch Officer at 800-347-0488 and request support.
- Track the status of residents who need shelter until their situation stabilizes.

2.1. **Temporary Lodging.** When small numbers of residents are displaced by a disaster, the American Red Cross (ARC) and Vermont Agency of Human Services, Economic Services Division (ESD), can provide temporary lodging in hotels or motels.

2.2. **Regional Shelters.** In major emergencies, the State will work with the American Red Cross to open regional overnight shelters for large numbers of displaced people. The nearest regional shelter is the North Country Union High School.

3. **Shelter Inspections.** When a shelter is established due to a flood or other disaster, the Division of Fire Safety shall make a site visit before sleeping occurs in that shelter. The Division of Fire Safety will notify the Troy and North Troy Volunteer Fire Departments and the Missisquoi Valley Ambulance Service that a shelter is in operation in their jurisdiction. The inspection will confirm:

- Smoke detection operability,
- Carbon monoxide detection operability,
- Means of egress, free and clear of obstructions,
- Fire extinguishers present,
- All fire protection systems are functional, if present.

4. **Daytime Shelter.** While daytime shelters are not currently available, the Town is working on identifying daytime shelter locations.

5. **Overnight Shelter – Troy School.**

<b>Address:</b>	126 Main Street, North Troy
<b>Facility Contact:</b>	Principal, Eric Erwin (eric.erwin@ncsuvt.org)
<b>Phone (school):</b>	802-988-2565
<b>Activation:</b>	Principal, Eric Erwin
<b>Shelter Manager:</b>	Gaston Bathalon, School Board   Principal, Eric Erwin
<b>Staff Required:</b>	5 (approximate)
<b>Capacity:</b>	50 (approximate)
<b>Generator:</b>	NO
<b>Pets:</b>	NO
<b>Services:</b>	Food preparation (MaryLou.Bonneau@ncsuvt.org).
<b>Agreement Summary:</b>	MOU Pending
<b>Notes:</b>	

# TOWN OF TROY, VERMONT

## ZONING BYLAW

Adopted March 5, 1985

Amended June 25, 1987

Amended October 18, 2010

Amended \_\_\_\_\_2022

*The ~~2010~~ 2022 update of the Town of Troy Zoning Bylaw was made possible by a Municipal Planning Grant from the Vermont Department of Housing and Community ~~Affairs~~ Development*



## **TOWN OF TROY ZONING BYLAW**

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## **ART 1: ENACTMENT & INTENT**

### **Section 101: Enactment**

In accordance with the Vermont Municipal and Regional Planning and Development Act [24 V.S.A., Chapter 117] hereinafter referred to as the "Act", there is hereby established a zoning bylaw for the Town of Troy which is set forth in the text and map that constitute this bylaw. This bylaw shall be known and cited as the "Town of Troy Zoning Bylaw".

### **Section 102: Intent**

It is the intent of this zoning bylaw to implement the goals of the town plan and to provide for orderly community growth and to further the purposes established in §4302 of the Act.

## **ART 2: ESTABLISHMENT OF DISTRICTS & DISTRICT REGULATIONS**

### **Section 201: Zoning Map & Districts**

The zoning map officially entitled "Town of Troy Zoning Map" is hereby adopted as part of this bylaw. The zoning map shows a division of the town into the following districts:

Rural District

Village Center District

Village District

Central Business District

Commercial-Residential District

River Corridor Overlay District

Industrial District

### **Section 202: Copies of Zoning Maps**

Regardless of the existence of other printed copies of the zoning map which, from time to time may be made or published, the official zoning map, shall be located in the Troy Town Clerk's office. The official zoning map shall be the final authority as to the current status of the land, and water areas, buildings, and other structures in the town.

### **Section 203: Interpretation of District Boundaries**

District boundaries shown within the lines of roads, streams and transportation rights-of-way shall be deemed to follow the center lines. The abandonment of roads shall not affect the location of district boundaries.

When the Zoning Administrator (ZA) cannot definitely determine the location of a district boundary by such center lines, by the scale or dimensions stated on the zoning map, or by the fact that it clearly coincides with a property line, he shall refer action, and the Development Review Board ~~Board of Adjustment~~ shall interpret the location of the district boundary with reference to the scale of the zoning map and the purposes set forth in all relevant provisions of this bylaw.

## **Section 204: District Objectives & Land Use Control**

Tables 204.1 to 204.4 set forth the objectives and provisions that apply respectively in each district established in this bylaw. Any use designated as a "Permitted Use" or "Conditional Use" may be commenced pursuant to Sec 205 of this bylaw. ~~Any use designated as a "Conditional Use" may be commenced pursuant to Sec 206 of this bylaw. Unless otherwise indicated, only one principal use is permitted per lot.~~ Any use not designated by this bylaw as a "Permitted Use" or a "Conditional Use" shall be deemed to be prohibited.

Except as hereinafter provided, no division of a parcel into two or more parcels, nor any construction, reconstruction, conversion, structural alteration, relocation or enlargement of any building or other structure, of any mining, excavation or landfill, nor any change in the use of land shall commence unless in conformity with the regulations herein specified for the district in which such land or structure is located.

The application of this bylaw is subject to 24 V.S.A Subchapter 7.

**Table 204.1: Rural District**

Objective: To provide for low-density development of various types while maintaining the natural qualities and rural character of the Town.

***Permitted Uses***

Accessory Use or Structure	Dwelling, Single-family
Agriculture <sup>1</sup>	Dwelling, Two-family
Cemetery	Forestry <sup>1</sup>
Dwelling, Accessory	Home Occupation <sup>2</sup>

***Conditional Uses***

Airport	Personal Services
Animal Hospital	Private Club
Dwelling, Multi-family	School <sup>3</sup>
Auto Sales & Service	Health Care Facility <sup>3</sup>
Mobile Home Park	Retail Fuel Oil
Contractor’s Yard	Light Industry
Religious Institution <sup>3</sup>	Auto Repair
Essential Service	Public Facility <sup>3</sup>
Lodging Facility	Sand and Gravel Pit
Restaurant	Recreational Facility
Office	Warehouse
Bed & Breakfast	Mortuary

**Minimum Lot Area and Dimensions**

Lot area (acres):	<del>4</del> <u>5</u>
Frontage (ft):	125
Front yard (ft):	40
Side yard (ft):	25
Rear yard (ft):	25

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1 See Section 302: Uses Exempt from Zoning  
2 See Section 304: Protection of Home Occupations  
3 See Section 301: Limitations on Municipal Bylaws  
Troy Zoning Bylaw **DRAFT 2022**

**Table 204.2: Village District**

Objective: To maintain the villages of Troy as the high-density, mixed-use, pedestrian friendly centers for commercial and social activities.

***Permitted Uses***

Accessory Use or Structure	Dwelling, Two-family
Dwelling, Accessory	Home Occupation <sup>1</sup>
Dwelling, Single-family	

***Conditional Uses***

Animal Hospital	Religious Institution <sup>2</sup>
Auto Repair	Personal Service
Bank	Public Facility <sup>2</sup>
Dwelling, Multi-family	Mixed Use**
Contractor’s Yard	Restaurant
Essential Service	Retail Sales & Service**
Health Care Facility <sup>2</sup>	School <sup>2</sup>
Lodging Facility	Light Industry**
Commercial Day Care	Wholesale Sales**
Bed & Breakfast	Auto Service Station
Office**	Cemetery

**Minimum Lot Area and Dimensions**

<b>Lot classification*:</b>	<b>1</b>	<b>2</b>	<b>3</b>
Lot area (sqft):	12,500	20,000	40,000
Frontage (ft):	100	100	100
Front yard (ft):	30	30	30
Side yard (ft):	20	20	20
Rear yard (ft):	20	20	20

**\*Lot Classification**

Lot classification is based upon the proposed supply of water and method of sewage disposal on the property and is hereby established as follows:

Class 1	Municipal water and sewer
Class 2	Municipal water or sewer
Class 3	On lot water and sewer

<sup>1</sup>See Section 304: Protection of Home Occupations

<sup>2</sup>See Section 301: Limitations on Municipal Bylaws

\*\*District Standards

- (1) Mixed use development in this district may include more than one principle use, as allowed within the district, in one or more buildings on a single lot, subject to conditional use review. All other applicable standards of these regulations, including district dimensional standards and parking requirements for each use shall apply.
- (2) Maximum square footage requirements shall apply to the following uses, and refer to maximum gross floor area:

Office	2,500 sq. ft.
Retail Sales & Service	12,000 sq. ft.
Light Industry	15,000 sq. ft.
Wholesale Sales	15,000 sq. ft.

**Table 204.3: Village Center District**

Objective: To maintain the existing pattern of higher-density residential and mixed-use development, and facilitate the development of new compact housing in the village center areas which are served by public water and sewer.

**Permitted Uses**

<u>Accessory Use or Structure</u>	<u>Dwelling, Two-family</u>
<u>Dwelling, Accessory</u>	<u>Home Occupation<sup>1</sup></u>
<u>Dwelling, Single-family</u>	

**Conditional Uses**

<u>Animal Hospital</u>	<u>Religious Institution<sup>2</sup></u>
<u>Bank</u>	<u>Personal Service</u>
<u>Dwelling, Multi-family</u>	<u>Public Facility<sup>2</sup></u>
<u>Essential Service</u>	<u>Mixed Use**</u>
<u>Health Care Facility<sup>2</sup></u>	<u>Restaurant</u>
<u>Lodging Facility</u>	<u>Retail Sales &amp; Service**</u>
<u>Commercial Day Care</u>	<u>School<sup>2</sup></u>
<u>Bed &amp; Breakfast</u>	<u>Light Industry**</u>
<u>Office**</u>	

**Minimum Lot Area and Dimensions**

<u>Lot area (sqft):</u>	<u>10,000</u>
<u>Frontage (ft):</u>	<u>80</u>
<u>Front yard (ft):</u>	<u>15</u>
<u>Side yard (ft):</u>	<u>10</u>
<u>Rear yard (ft):</u>	<u>15</u>

**\*\*District Standards**

(1) Mixed use development in this district may include more than one principle use, as allowed within the district, in one or more buildings on a single lot, subject to conditional use review. All other applicable standards of these regulations, including district dimensional standards and parking requirements for each use shall apply.

(2) Maximum square footage shall apply to the following uses, and refer to maximum gross floor area:

<u>Office</u>	<u>2,500 sq. ft.</u>
<u>Retail Sales &amp; Service</u>	<u>12,000 sq. ft.</u>
<u>Light Industry</u>	<u>15,000 sq. ft.</u>

<sup>1</sup>See Section 304: Protection of Home Occupations

<sup>2</sup>See Section 301: Limitations on Municipal Bylaws



**Table 204.4: Central Business District**

Objective: To encourage the revitalization of the historic commercial core of the village center with new commercial and mixed uses. The provision of parking areas to the rear of the building on larger sites will help maintain a pedestrian-friendly pattern of development.

**Permitted Uses (all non-residential uses and multi-family dwellings require site plan approval by the DRB)**

<u>Accessory Use or Structure</u>	<u>Light Industry**</u>
<u>Animal Hospital</u>	<u>Lodging Facility</u>
<u>Bank</u>	<u>Mixed Use**</u>
<u>Bed &amp; Breakfast</u>	<u>Office**</u>
<u>Commercial Day Care</u>	<u>Personal Service</u>
<u>Dwelling, Multi-family</u>	<u>Public Facility</u>
<u>Dwelling, Single-family</u>	<u>Religious Institution</u>
<u>Dwelling, Two-family</u>	<u>Restaurant</u>
<u>Essential Service</u>	<u>Retail Sales &amp; Service**</u>
<u>Health Care Facility</u>	<u>School</u>
<u>Home Occupation</u>	

**Conditional Uses:**

Auto Service Station

**Minimum Lot Area and Dimensions**

<u>Lot area (sqft):</u>	<u>5,000</u>
<u>Frontage (ft):</u>	<u>60</u>
<u>Front yard (ft):</u>	<u>TBD †</u>
<u>Side yard (ft):</u>	<u>5 ††</u>
<u>Rear yard (ft):</u>	<u>15</u>

**\*\*District Standards**

(1) Mixed use development in this district may include more than one principle use, as allowed within the district, in one or more buildings on a single lot, subject to conditional use review. All other applicable standards of these regulations, including district dimensional standards and parking requirements for each use shall apply.

(2) Maximum square footage shall apply to the following uses, and refer to maximum gross floor area:

Office	2,500 sq. ft.
Retail Sales & Service	12,000 sq. ft.
Light Industry	15,000 sq. ft.

‡ Front setback of building shall be aligned with adjacent properties, but not farther than 15 feet from the front property line.

‡‡ The DRB may grant a waiver from the side setback requirement if the proposed building is designed to abut the adjacent building built to the property line.

**Table 204.35: Commercial - Residential District**

Objective: To provide, in limited areas, for residential and complementary rural-commercial development outside of or adjacent to present village areas.

***Permitted Uses***

Accessory Use or Structure	Dwelling, Two-family
Dwelling, Accessory	Home Occupation <sup>1</sup>
Dwelling, Single-family	

***Conditional Uses***

Animal Hospital	Private Club
Office	Public Facility <sup>2</sup>
Bank	Religious Institution <sup>2</sup>
Dwelling, Multi-family	Recreation Facility
Essential Service	Retail Sales & Service
Health Care Facility <sup>2</sup>	Restaurant
Lodging Facility	School <sup>2</sup>
Personal Service	Bed & Breakfast

**Minimum Lot Area and Dimensions**

Lot area (acres):	1
Frontage (ft.):	150
Front yard (ft.):	50
Side yard (ft.):	25
Rear yard (ft.):	25

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<sup>1</sup>See Section 304: Protection of Home Occupations

<sup>2</sup>See Section 301: Limitations on Municipal Bylaws

**Table 204.46: Industrial District**

Objective: To increase the Town's tax and employment base by providing areas for the development of industrial uses.

***Permitted Uses***

Accessory Use or Structure	Auto Sales and Service
Animal Hospital	Essential Service
Auto Service Station	Auto Repair

***Conditional Uses***

Contractor's Yard	Wholesale Sales
Light Industry	Trucking Terminal
Heavy Industry	Retail Fuel Oil
Public Facility <sup>1</sup>	Warehouse
Religious Institution <sup>1</sup>	School <sup>1</sup>
Health Care Facility <sup>1</sup>	

**Minimum Lot Area and Dimensions**

Lot area (acres):	5
Frontage (ft.):	150
Front yard (ft.):	50
Side yard (ft.):	25
Rear yard (ft.):	25

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<sup>1</sup> See Section 301: Limitations on Municipal Bylaws

## **Section 204.7: River Corridor Overlay (RCO) District**

**I. Objective:** Protection of the river corridor provides rivers and streams with the lateral space necessary to maintain or reestablish floodplain access and minimize erosion hazards through natural, physical processes. It is the intent of these regulations to allow for wise use of property within river corridors that minimizes potential damage to existing structures and development from flood-related erosion, to discourage encroachments in undeveloped river corridors and to reasonably promote and encourage infill and redevelopment of designated centers that are within river corridors.

The boundaries of the RCO District are the Statewide River Corridors as published by the Agency of Natural Resources (ANR), including refinements to that data based on field-based assessments which are hereby adopted by reference. This includes the river corridor small streams setback measured as 50 feet from top of the stream bank or slope for streams draining watersheds between 0.5 and 2 square miles.

The RCO is an overlay district. All other requirements of the underlying district shall apply in addition to the provisions herein, unless it is otherwise so indicated. Some areas of this overlay district coincide with areas of Special Flood Hazard as depicted on the Flood Insurance Rate Maps created by FEMA, which are subject to the provisions of Section 320 of this bylaw. If there is a conflict with the provisions of another district, the stricter provision shall apply.

### **II. Jurisdictional Determination and Interpretation**

The information presented on any maps, or contained in any studies, adopted by reference, is presumed accurate. If uncertainty exists with respect to the boundaries of the RCO, the location of the boundary on the property shall be determined by the Zoning Administrator (ZA). If the applicant disagrees with the determination made by the ZA or the river corridor as mapped, the applicant has the option to either:

1. Hire a licensed land surveyor or registered professional engineer to stake out the RCO/River Corridor boundary on the property; or
2. Request a letter of determination from ANR which shall constitute proof of the location of the river corridor boundary.<sup>1</sup> When ANR receives a request for a letter of determination, ANR evaluates the site and existing data to see if a change to the river corridor delineation is justified, necessitating a river corridor map update. An ANR letter of determination will either confirm the existing river corridor delineation or will result in an update to the river corridor delineation for the area in question. If a map update is justified, an updated map will be provided with the letter of determination.

<sup>1</sup> In support of a letter of determination request, applicants must provide a description of the physical characteristics that bring the river corridor delineation into question (e.g. the presence of bedrock or other features that may confine lateral river channel adjustment.)

### **III. Development Review in River Corridors**

#### **A. Exempted Activities**

The following activities do not require a permit under this section of the bylaw:

1. The removal of a building or other improvement in whole or in part, so long as the ground elevations under and adjacent to the removed structure remain unchanged.
2. Any changes, maintenance, repairs, or renovations to a structure that will not result in a change to the footprint of the structure or a change in use.
3. Maintenance of existing sidewalks, roads, parking areas, or stormwater drainage; this does not include expansions.
4. Maintenance of existing bridges, culverts, and channel stabilization activities; this does not include expansions.
5. Construction or repair of stream crossing structures (bridges and culverts), associated transportation and utility networks<sup>2</sup>, dams, dry hydrants, and other functionally dependent uses that must be placed in or over rivers and streams that are not located in a flood hazard area and that have coverage under a Stream Alteration Permit, if required, under 10 V.S.A. Chapter 41 and the rules adopted thereunder.
6. Activities exempt from municipal regulation and requiring a permit under the State's "Vermont Flood Hazard Area and River Corridor Rule" (Environmental Protection Rule, Chapter 29):
  - a. State-owned and operated institutions and facilities.
  - b. Forestry operations or silvicultural (forestry) activities conducted in accordance with the Vermont Department of Forests and Parks Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont or other accepted silvicultural practices, as defined by the Commissioner of Forests, Parks and Recreation.
  - c. Agricultural activities conducted in accordance with the Vermont Agency of Agriculture, Food and Market's Required Agricultural Practices (RAPs). Prior to the construction of farm structures, the farmer shall notify the ZA in writing of the proposed activity. The notice shall contain a sketch of the proposed structure including setbacks.
  - d. Public utility power generating plants and transmission facilities regulated under 30 V.S.A. § 248.
  - e. Telecommunications facilities regulated under 30 V.S.A. § 248a.
7. Planting projects which do not include any construction or grading activities in accordance with 24 V.S.A. § 4424(c).
8. Subdivision of land that does not involve or authorize development.

## **B. Permits**

Except as provided in Section III.A above [Exempted Activities], a permit is required from the ZA for all development that is located within the River Corridor. Development that requires conditional use approval or a variance from the Development Review Board (DRB) under this bylaw must have such approvals prior to the issuance of a permit by the ZA. Any development that is also subject to municipal jurisdiction in the designated flood hazard areas shall meet the criteria in Section 320.

1. All permits shall require that a permittee have all other necessary permits from state and federal agencies before work may begin.

## **C. Prohibited Development in the RCO District**

The following are prohibited in the RCO District:

1. New structures, fill, development, and accessory dwellings that do not meet the standards in Section IV below [Development Standards];

2. Any other development that is not exempt, permitted, or listed as a conditional use which would cause or contribute to fluvial erosion hazards.

## **D. Administrative Review; Permitted Development**

The following development activities in the RCO District meeting the Development Standards in Section V, require an administrative review from the ZA and may receive a permit from the ZA without review by the DRB:

1. Small accessory structures not larger than 500 square feet.

2. Improvements to existing utilities that are along an existing right of way and serve a building.

3. Replacement on-site septic systems.

4. An attached deck or patio to an existing structure that is 200 square feet or less

and is located no less than 100 feet from the top of bank.

5. River or floodplain restoration projects that do not involve fill, structures, utilities, or other improvements, and which have written confirmation from the ANR Regional Floodplain Manager that the project is designed to meet or exceed the applicable standards in this bylaw.

## **E. Conditional Use Review**

In accordance with 24 V.S.A. § 4414, conditional use review and approval by the DRB is required prior to the issuance of a permit by the ZA for any activity in the RCO District that is not exempt or eligible for administrative review.

## **IV. Development Standards**

The criteria below are the minimum standards for development in the (RCO District Corridor). Where more than one district is involved, the most restrictive standard shall take precedence.

A. Development within designated centers shall be allowed within the river corridor if the applicant can demonstrate that the proposed development will not be any closer to the river than pre-existing adjacent development.

B. Development outside of designated centers shall meet the following criteria:

1. In-Fill Between Existing Development: Development must be located no closer to the channel than the adjacent existing primary structures, within a gap that is no more than 300 feet, or

2. Down River Shadow: An addition to an existing habitable structure, or an accessory structure that is adjacent to an existing structure, shall be located in the shadow area directly behind and further from the channel than the existing structure, or within 50 feet to the downstream side and no closer to the top of bank. Below-ground utilities may also be placed within the same shadow dimensions of an existing below-ground system.

C. River Corridor Performance Standard

1. Proposals that do not meet the infill or shadowing criteria in section IV [Development Standards] A or B must demonstrate and the DRB must find that the proposed development will:

a. not be placed on land with a history of fluvial erosion damage or be imminently threatened by fluvial erosion;

b. not cause the river reach to depart from or further depart from the channel width, depth, meander pattern, and slope associated with natural stream processes and equilibrium conditions; and

c. not result in an immediate need or anticipated future need for stream channelization solely as a result of the proposed development, that would increase flood elevations and velocities or alter the sediment regime triggering channel adjustments and erosion in adjacent and downstream locations.

2. Proposals that meet the infill or shadowing criteria in section IV.[Development Standards] A or B, are presumed to meet the River Corridor Performance Standard. However, The DRB has the option to require an applicant to demonstrate that a proposal meets the River Corridor Performance Standard if there is a concern that the proposed development is at particular risk from fluvial erosion or may increase fluvial erosion, based on location or past flood damage.

3. The DRB may request or consider additional information to determine if the proposal meets the River Corridor Performance Standard, including:

a. a description of why the shadowing and infill criteria in IV.A or B cannot be met;

b. data and analysis from a consultant qualified in the evaluation of river dynamics and erosion hazards;

c. Comments provided by the DEC Regional Floodplain Manager on whether the proposal meets the River Corridor Performance Standard.



## **V. Permit Conditions**

Permits for public water accesses and unimproved paths that provide access to the water for the general public and promote the public trust uses of the water shall include a condition prohibiting the permittee from actively managing the section of river to solely protect the public water access from lateral river channel adjustment.

### **Section 205: Permitted & Conditional Uses**

[See Article 5: Administration and Enforcement for a complete explanation of the permitting process.]

- (1) Permitted uses are uses that require, at a minimum, Administrative Review by the Zoning Administrator. All permitted uses other than one-family and two-family dwellings, accessory uses or structures, and agricultural uses, shall also be subject to Site Plan Review by the ~~Planning Commission~~ Development Review Board after public notice and hearing.
- (2) Conditionally approved uses are uses that require, following Administrative Review by the Zoning Administrator, referral to the ~~Board of Adjustment~~ Development Review Board for Conditional Use Review after public notice and hearing, pursuant to Section 507 of this bylaw.

### **Section 206: Other Land Use and Relevant Regulations**

State and federal government may regulate certain aspects of land use; compliance with this zoning bylaw in no way implies compliance with such state or federal regulations.

## **ART 3: GENERAL PROVISIONS**

### **Section 301: Limitations on Municipal Bylaws**

The following uses may be regulated only with respect to location, size, height, building bulk, yards, courts, setbacks, density of buildings, off-street parking, loading facilities, traffic, noise, lighting, landscaping, and screening requirements, and only to the extent that regulations do not have the effect of interfering with the intended functional use. Except for State-owned and operated institutions and facilities, the uses listed below may be regulated for compliance with Section 320, Flood Hazard Area:

- (1) State-or community-owned and operated institutions and facilities.
- (2) Public and private schools and other educational institutions certified by the state Department of Education.
- (3) Churches and other places of worship, convents, and parish houses.
- (4) Public and private hospitals.
- (5) Regional solid waste management facilities certified under 10 V.S.A. Chapter 159.
- (6) Hazardous waste management facilities for which a notice of intent to construct has been received under 10 V.S.A. §6606a.

### **Section 302: Uses Exempt from Zoning**

- (1) This zoning bylaw shall not regulate public power generating plants and transmission facilities regulated under 30 V.S.A. §248.

In accordance with 24 V.S.A. §4413(d) this zoning bylaw shall not regulate ~~accepted~~ required agricultural and accepted silvicultural practices, or forestry operations including the construction of farm structures, as defined by the Secretary of Agriculture, Food and Markets or the Commissioner of Forests, Parks and Recreation respectively. In addition, any person intending to build a farm structure shall notify the Town Zoning Administrator and shall abide by setbacks approved by the Secretary of Agriculture, Food and Markets.

In accordance with 24 V.S.A. §4413 (g) (1), this bylaw shall not regulate the installation, operation, and maintenance, on a flat roof (i.e., having a slope less than or equal to five degrees) of an otherwise complying structure, of a solar energy device that heats water or space or generates electricity.

In accordance with 24 V.S.A. §4413 (h) (1)(A), this bylaw shall not regulate an ancillary improvement to a telecommunications facility that does not exceed a footprint of 300 square feet and a height of 10 feet, except as necessary to ensure compliance with the National Flood Insurance Program.

### **Section 303: Accessory Dwelling Units**

An accessory dwelling unit that is located within or appurtenant to an owner occupied single-family dwelling shall be a permitted use. An accessory dwelling unit shall be defined as efficiency or one-bedroom apartment, located within or appurtenant to an owner-occupied single-family dwelling, that is clearly subordinate to a single-family dwelling, and has facilities and provisions for independent living, including sleeping, food preparation, and sanitation, provided there is compliance with all the following:

- (1) The property has sufficient wastewater capacity.
- (2) The unit does not exceed 50 percent of the total habitable floor area of the single-family dwelling, up to 1,500 sq. ft.
- (3) Applicable setback, coverage, and parking requirements specified in the bylaws are met.

### **Section 304: Protection of Home Occupations**

No regulation herein is intended to infringe upon the right of any resident to use a minor portion of a dwelling for an occupation which is customary in residential areas, which does not have an adverse effect upon the character of the residential area in which the dwelling is located. Home occupations are permitted as an accessory use in all districts where residential uses are permitted subject to the following provisions:

- (1) The home occupation shall be clearly incidental and secondary to the residential use of the property, and shall be conducted wholly within the principal or accessory structures;

- (2) The home occupation shall be carried on by members of the family residing in the dwelling unit. Two additional employees who are not members of the family are permitted;
- (3) No traffic shall be generated which would be uncharacteristic of the neighborhood;
- (4) Exterior displays or signs (limited to 4 sq. ft.) other than those normally permitted in the district.

### **Section 305: Home Child Care**

A home child care facility serving six or fewer children shall be considered to constitute a permitted single family residential use of property. A family child care facility serving no more than six full-time and four part-time children, as defined by 33 V.S.A. §4902(3)(A), shall be considered to constitute a permitted use of property but requires site plan approval from the Planning Commission. A home child care facility serving more than six full-time and four part-time children shall be treated as a conditional use.

### **Section 306: Residential Care and Group Homes**

- ~~(1) A residential care home or group home, to be operated under state licensing or registration, serving not more than eight persons who have a handicap or disability as defined in 9 V.S.A. §4501, shall be considered to constitute a permitted single family residential use of property. ~~except that no such home shall be so considered if it locates within 1,000 feet of another existing or permitted residential care or group home.~~~~
- (2) A residential care home or group home, to be operated under state licensing or registration, serving nine or more persons who have a handicap or disability as defined in 9 V.S.A. §4501, shall be reviewed as a multi-family dwelling and shall be subject to conditional use review.

### **Section 307: Existing Small Lots**

If a lot not conforming to the minimum lot size requirements in the district in which it is located subsequently comes under common ownership with one or more contiguous lots, the nonconforming lot(s) shall be deemed merged with the contiguous lot. However, a nonconforming lot shall not be deemed merged and may be separately conveyed if all of the following apply:

- (1) The lots are conveyed in their preexisting, nonconforming configuration.
- (2) On the effective date of any bylaw, each lot was developed with a water supply and wastewater disposal system.
- (3) At the time of transfer, each water supply and wastewater system is functioning in an acceptable manner.
- (4) The deeds of conveyance create appropriate easements on both lots for replacement of one or more wastewater systems, potable water systems, or both, in case there is a failed system or failed supply as defined in 10 V.S.A. Chapter 64.

### **Section 308: Calculation of Required Lot Area**

When calculating the required lot area, lot width, and yards, existing rights-of-way or proposed rights-of-way shown on the official map shall not be considered.

### **Section 309: Lots in Two Zoning Districts**

Where a zoning district boundary line divides a lot of record at the time such line is adopted, the regulations for the less restricted district of such lot shall extend no more than thirty feet into the more restricted portion of the lot, provided the lot has frontage on, or approved access to a public road in the less restricted district.

### **Section 310: Reduction of Lot Area**

No lot shall be so reduced in area such that the area, yards, lot width, frontage, coverage or other requirements of this bylaw shall be smaller than herein prescribed for each district. The provisions of this section shall not apply when part of a lot is condemned or conveyed for a public purpose.

### **Section 311: Required Area or Yards**

- (1) Space required under this bylaw to satisfy yard, area or other open space requirements in relation to one building shall not be used to satisfy the same requirements for any other structure or use.
- (2) All structures, whether attached to the principal structure or not, and, whether open or enclosed, including porches, carports, balconies, or platforms above normal grade level, shall not project into any minimum front, side, or rear yard.

### **Section 312: Lots Abutting More Than One Public Road**

Lots which abut on more than one public road shall provide the required frontage along each public road and any yard abutting a public road shall be considered a front yard for the purposes of this bylaw.

### **Section 313: Frontage on, or Access to Public Roads or Waters**

No land development may be permitted on lots which do not either have frontage on a public road or public waters or access to such a road or waters by a permanent easement or right-of-way. Access easements or rights-of-way shall not be less than fifty feet in width, excepting when a pre-existing access easement or right of way of at least 20 feet in width provides access to the property. Access to non-frontage lots shall be submitted to the Planning Commission for Site Plan Review.

### **Section 314: Location of Driveways**

- ~~(1) All driveways are to be located at least twenty five feet from a road line intersection in the village districts and at least fifty feet from a road line intersection in all other districts.~~
- ~~(2) Temporary permits may be issued by the Zoning Administrator for a period not exceeding one year, for non-conforming uses incidental to construction projects and for temporary roadside~~

~~stands for the sale of agricultural products raised on the property, provided such permits are conditioned upon agreement by the owner to remove the structure or use upon expiration of the permit. Such permits may be renewed upon application for an additional period not exceeding one year.~~

### **Section 315: Collapsed or Burned Buildings & Structures**

No owner or occupant of land in any district shall permit a demolished, collapsed, ~~or~~ burned, or **condemned** building to remain as such, but within one year shall remove the building or structure and clear the site to ground level, or shall repair, rebuild or replace the building or structure. The **Development Review Board Board of Adjustment** may grant an extension of one year to meet this requirement.

### **Section 316: Off Street Parking**

Off street parking shall be provided as follows: 2 spaces per **detached** single-family dwelling unit; 1 space per accessory dwelling unit; and 1.5 spaces per unit of a multi-unit dwelling. Off street parking for all other permitted uses must be approved under Site Plan Review; off street parking for all other conditionally permitted uses under Conditional Use Review. **Each parking space shall be 10' by 22'**. **Spaces must be provided on the lot with the use requiring parking, or may be provided on an adjacent lot.**

### **Section 317: Signs**

No signs shall be permitted except as follows:

- (1) Signs in the Village District, **Village Center District, Central Business District,** Commercial-Residential District, and Rural District for purposes of home occupation or professional offices shall not exceed four (4) square feet; for purposes of non-residential uses, signs shall not exceed a total of twenty (20) square feet.
- (2) Signs in the Industrial District shall not exceed a total of twenty (20) square feet.
- (3) **Signs in the commercial or industrial district may be larger if affixed to or painted on the building, subject to conditional use review.**
- (4) **Lighting for signs shall meet the performance standards in Section 327 and shall be directed downwards.**
- (5) The following signs shall not to be permitted in any district:
  - A. Advertising billboards.
  - B. Flashing, oscillating, or revolving signs (unless necessary for public safety or welfare).
  - C. Free standing signs in excess of twenty feet in height.
- (6) Sign dimension and placement requirements:

- A. Wall signs and roof signs shall not exceed the highest point of the building's roof.
  - B. Projecting signs shall not extend into the street line, interfere with public walkways, nor exceed twenty square feet in area.
  - C. Free standing signs shall abide by district setbacks, not exceed twenty feet in height, nor exceed the square footage allowable by district and use.
- (7) When computing the total permissible sign area for any use existing signs shall be included; signs consisting of free standing letters, numerals or other devices shall include any intervening space between them; and back to back signs may be counted as one sign.
  - (8) Every sign shall be designed and located in such a manner as not to impair public safety, restrict clear vision between a sidewalk and street, interfere with snow removal, be confused with any traffic sign or signal, or prevent free access to any door, window or fire escape.
  - (9) Signs may be illuminated by a steady light provided that such lighting will not illuminate or reflect onto other properties or into traffic.
  - (10) Small directional signs, such as entrance and exit signs, or other secondary identifying signs shall not to exceed four (4) square feet in total area. Entrance or exit signs will only be permitted when the driveway is not obvious or otherwise identifiable with a particular business activity.
  - (11) Temporary signs are exempt from these regulations and include sandwich boards, real estate signs, construction signs, event signs, signs necessary for public welfare, and signs for yard sales.

**Section 318: Auto Service Stations**

In addition to the district regulations, all auto service stations and repair facilities shall comply with the following requirements:

- (1) Pumps, lubricating and other service devices shall be located at least 50 feet from the front lot line and 35 feet from side and rear lot lines.
- (2) There, shall be no more than two access driveways from the road. The maximum width of each access driveway shall be 40 feet.
- (3) All fuel and oil shall be stored at least thirty-five feet from any property line.
- (4) All automobile parts and dismantled vehicles are to be stored within a building, and no repair work is to be performed outside a building.

**Section 319: Extraction of Soil, Sand, or Gravel**

The removal of soil, sand, or gravel for sale, except when incidental to construction of a building on the same premises, shall be considered a conditional use and permitted only upon approval by the ~~Board of Adjustment~~ Development Review Board after a public hearing. The following provisions shall apply:

- (1) Before approval of any new sand or gravel operation, the applicant shall agree to leave the site in a safe, attractive and useful condition upon completion of the extraction operations. The ~~Board of Adjustment~~ Development Review Board may require a performance bond to ensure rehabilitation of the site.
- (2) Cut slopes, soil banks, and deep pits created by extraction operations shall not be allowed to remain but shall be graded smooth and left in a neat condition.
- (3) No excavation, blasting, or stock piling of materials shall be located within two hundred (200) feet of any public road or neighboring property line.
- (4) No power-activated sorting machinery or equipment shall be located within three hundred (300) feet of any public road or neighboring property line.
- (5) Steep slopes created by excavating which constitutes a safety hazard shall be fenced and appropriately screened as determined by the ~~Board of Adjustment~~ Development Review Board.
- (6) The ~~Board of Adjustment~~ Development Review Board may attach any additional conditions as it may find necessary for the safety and general welfare of the public.

### **Section 320: Flood Hazard Area Regulations**

Any development within areas at risk of flood damage in the Town of Troy and Village of North Troy, Vermont shall be regulated to provide for the protection of health, safety, and welfare of town residents, in accordance with these provisions set forth in 10 V.S.A. Chapter 32 and 24 V.S.A. Chapter 117 §4424, §4411 and §4414, and shall not in any way impair or remove the necessity of compliance with any other local, state, federal laws or regulations.

- (1) These regulations shall apply in all areas identified as Special Flood Hazard Areas on the most current Flood Insurance Studies and Flood Insurance Rate Maps published by the Federal Emergency Management Agency (FEMA), National Flood Insurance Program, which are hereby adopted by reference and declared to be part of these regulations. These hazard areas overlay any other existing zoning districts and the regulations herein are the minimum standards that must be met before meeting the additional standards applicable in the underlying district.
- (2) Base flood elevations and floodway limits provided by the National Flood Insurance Program (NFIP) and in the Flood Insurance Study and accompanying maps shall be used to administer and enforce these regulations. In Special Flood Hazard Areas where base flood elevations and/or floodway limits have not been provided by the National Flood Insurance Program in the Flood Insurance Study and accompanying maps, it is the applicant's responsibility to develop the necessary data. Where applicable, the applicant shall use data provided by FEMA, or State, or Federal Agencies.
- (3) The information presented on any maps, or contained in studies, adopted by reference to this bylaw is presumed accurate. If uncertainty exists with respect to boundaries of the Special Flood Hazard Area or the floodway, the location of the boundary shall be determined by the



Zoning Administrator. If the applicant disagrees with the determination made by the Zoning Administrator, a Letter of Map Amendment from FEMA shall constitute proof.

(4) Prohibited Development:

- a. Development prohibited from the floodway includes new residential or non-residential structures (including the placement of mobile homes); and accessory structures.
- b. Development prohibited from the Special Flood Hazard Area includes new residential or non-residential structures (including the placement of mobile homes); storage or junk yards; new fill except as necessary to elevate structures above the base flood elevation; critical facilities; and, all development not exempted, permitted, or conditionally permitted under Section 320 of this bylaw.

(5) Permitted Development:

- a. Permitted development within the Special Flood Hazard Area requires, at a minimum, Administrative Review by the Zoning Administrator and must meet the Development Standards outlined in Subsection 9.
- b. Permitted development includes non-substantial improvements; development related to on-site septic or water supply systems; building utilities; at-grade parking for existing buildings; and, recreational vehicles.

(6) Conditional Development:

- A. Conditional development within the Special Flood Hazard Area is subject to Conditional Use Review and approval by the ~~Board of Adjustment~~ Development Review Board, prior to the issuance of a permit by the Zoning Administrator.
- B. Conditional development must meet the Development Standards outlined in Subsection 9.
- C. Conditional development includes accessory structures in the Special Flood Hazard Area outside of the floodway; substantial improvement, elevation, relocation, or flood proofing of existing structures; new or replacement storage tanks for existing structures; improvements to existing structures in the floodway; grading, excavation, or the creation of a pond; improvements to existing roads; bridges, culverts, channel management activities, or public projects which are functionally dependent on stream access or stream crossing; and, public utilities.

(7) Exempted Activities:

- A. Activities considered exempt from these regulations include the removal of a building or other structure in whole or in part; maintenance of existing roads and storm water drainage; and accepted silvicultural or agricultural activities as defined under Section 504 (2)(A-B) of this bylaw.

(8) Nonconforming Structures & Uses:



- A. The ~~Board of Adjustment~~ Development Review Board may after public notice and hearing, approve the repair, relocation, replacement, or enlargement of a nonconforming structure within a flood hazard area provided that:
1. The proposed development is in compliance with all the Development Standards in Subsection 9 of this bylaw;
  2. A nonconforming structure that is substantially damaged or destroyed may be reconstructed only in circumstances when the structure cannot be relocated to a less hazardous location on the parcel. The lowest floor of the reconstructed structure must be rebuilt to at least one foot above the base flood elevation, and the structure must otherwise comply with all requirements of the NFIP.

(9) Development Standards:

- A. The following standards are considered the minimum standards allowed for development in the Special Flood Hazard Areas:
1. All development shall be designed to be (a) reasonably safe from flooding, (b) minimize flood damage to the proposed development and to other public/private facilities and utilities, and (c) to provide adequate drainage to reduce exposure to flood hazards.
  2. Structures shall be (a) designed (or modified) and adequately anchored to prevent flotation, collapse or lateral movement of the structure during the occurrence of a base flood, (b) be constructed with materials resistant to flood damage, (c) be constructed by methods and practices that minimize flood damage, and (d) be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
  3. Development must maintain flood carrying capacity and be located so as to minimize conflict with changes in the channel location over time.
  4. Fuel storage tanks (as needed to serve an existing building in the Special Flood Hazard Area) shall be required to locate a minimum of one foot above the base flood elevation and be securely anchored to prevent flotation; or storage tanks for existing non-residential purposes may be placed underground, if securely anchored as by a qualified engineer.
  5. New and replacement water supply and sanitary sewer systems shall be designed to minimize or eliminate the infiltration of flood waters into the systems and discharges from the systems into flood waters.
  6. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

7. Replacement mobile homes shall be elevated such that the top of the fill (the pad) under the entire mobile home is at least one (1) foot above the base flood elevation.
8. In Zones AE, AH, and A1-A30 (where base flood elevations and/or floodway limits have not been determined), development shall not be permitted unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated encroachment, will not increase the base flood elevation more than one (1) foot at any point within the community. The demonstration must be supported by technical data that conforms to standard hydraulic engineering principles and certified by a registered professional engineer.
9. Existing structures (including mobile homes) to be substantially improved for residential purposes in Zones A, A1-30, AE, and AH shall be located such that the lowest floor is at least one (1) foot above base flood elevation; this must be documented, in as-built condition with a FEMA Elevation Certificate.
10. Structures to be substantially improved for non-residential purposes shall either meet the requirements of Subsection 9, or have the lowest floor, including basement, together with attendant utility and sanitary facilities, be designed to be watertight up to two (2) feet above base flood elevation with walls substantially impermeable and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. A permit for a building proposed to be flood proofed shall not be issued until a registered professional engineer or architect has reviewed the structural design, specifications, and plans, and has certified that the design and proposed methods of construction are in accordance with accepted standards of practice for meeting the provisions of this subsection.
11. Fully enclosed areas below grade on all sides (including below grade crawlspaces and basements) are prohibited.
12. Fully enclosed areas that are above grade, below the lowest floor, below BFE and subject to flooding shall (a) be solely used for parking of vehicles, storage, or building access, and such a condition shall clearly be stated on any permits; and (b) be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Such designs must be certified by a registered professional engineer or architect, or meet or exceed the following minimum criteria: A minimum of two openings on two walls having a total net area of not less than one square inch for every foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

13. Bridges and culverts, which by their nature must be placed in or over the stream, must have a stream alteration permit from the Agency of Natural Resources.
14. Subdivisions and planned unit developments must be accessible by dry land access outside of the Special Flood Hazard Area.
15. Recreational vehicles placed on sites within the Special Flood Hazard Area shall either be on the site for fewer than 180 consecutive days and must be fully licensed and ready for highway use; or, meet all the standards of Section 60.3(b)(1) of the National Flood Insurance Program Regulations and the elevation and anchoring requirements for “manufactured homes” of Section 60.3(c)(6).

B. The following standards are considered the minimum standards allowed for encroachments or development in the floodway:

1. Encroachments or development in the floodway that is above grade and less than one foot above the base flood elevation, are prohibited unless hydrologic and hydraulic analyses are performed in accordance with standard engineering practice, by a registered professional engineer, certifying that the proposed development will not result in any increase in flood levels (0.00 feet) during the occurrence of the base flood; and, not increase any risk to surrounding properties, facilities, or structures from erosion or flooding.
2. Public utilities may be placed underground and the analyses be waived, where a registered professional engineer certifies that there will be no change in grade and the utilities will be adequately protected from scour.

(10) Administration:

A. In addition to the application materials required under Section 504 of this bylaw, applications for development within the Special Flood Hazard Area shall include:

1. Where applicable, a site plan (drawn to scale) depicting existing and proposed development, all water bodies, Special Flood Hazard Areas, floodways, the shortest horizontal distance from the proposed development to the top of the bank of any stream, any existing and proposed drainage, any proposed fill, pre and post development grades, and the elevations of the proposed lowest floor and flood proofing (if applicable), as referenced to the same vertical datum as the elevation on the current Flood Insurance Rate Maps; and
2. A Vermont Agency of Natural Resources Project Review Sheet for the proposal. The Project Review Sheet shall identify all State and Federal agencies from which permit approval is required for the proposal, and shall be filed as a required attachment to the municipal permit application. The identified permits, or letters indicating that such permits are not required, shall be submitted to the Zoning Administrator and attached to the permit before work can begin.

- B. Prior to issuing a permit for substantial improvement or new construction in the Special Flood Hazard Area, a copy of the application shall be submitted by the Zoning Administrator to the State National Flood Insurance Program Coordinator at the Vermont Agency of Natural Resources, in accordance with 24 V.S.A. § 4424. A permit may be issued only following receipt of comments from the Agency, or the expiration of 30 days from the date the application was mailed to the Agency, whichever is sooner.
- C. If the applicant is seeking a permit for the alteration or relocation of a watercourse, copies of the application shall be submitted by the Zoning Administrator to the adjacent communities, the Stream Alteration Engineer at the Vermont Agency of Natural Resources, and the Army Corps of Engineers. Copies of such notice shall also be provided to the State National Flood Insurance Program Coordinator. A permit may be issued only following receipt of comments from the Agency, or the expiration of 30 days from the date the application was mailed to the Agency, whichever is sooner.
- D. The Zoning Administrator shall properly file and maintain a record of all permits issued for development in areas covered by these regulations; an Elevation Certificate with the as-built elevation (consistent with the datum elevation on the current Flood Insurance Rate Map) of the lowest floor, including basement, of all new, substantially improved, or flood proofed buildings in the Special Flood Hazard Area; all flood proofing and other certifications required under this regulation; and, all decisions of the ~~Zoning Board of Adjustment~~ Development Review Board (including variances and violations) and all supporting findings of fact, conclusions and conditions.

(11) Conditional Use Review:

- A. In addition to the provisions outlined under Section 507 of this bylaw, the ~~Board of Adjustment~~ Development Review Board shall consider the evaluation of the State National Flood Insurance Program Coordinator at the Vermont Agency of Natural Resources.
- B. The ~~Board of Adjustment~~ Development Review Board may also consider the availability of alternative locations not subject to flooding for the proposed use; the susceptibility of the proposed improvement to flood damages; the safety of access to the property in times of flood of ordinary and emergency vehicles; the potential for damage to the property caused by erosion; the danger that materials may be swept onto other lands and cause damage to others; and such other factors as are relevant to the purposes of this ordinance.

(12) Variances:

- A. A variance may be granted in writing by the ~~Board of Adjustment~~ Development Review Board only in accordance with the provisions of Section 512 of this bylaw and the Code of Federal Regulations (44 CFR Section 60.6); and upon a

determination that the structure or other development is protected by methods that minimize flood damages during the base flood; create no additional threats to public safety; nor result in increased flood levels during the base flood discharge.

- B. Any variance issued in the Special Flood Hazard Area will inform the applicant in writing over the signature of a community official that the issuance of a variance to construct a structure below the base flood elevation increases risk to life and property and will result in increased flood insurance premiums up to amounts as high as \$25 for \$100 of coverage. Such notification shall be maintained with a record of all variance actions.

(13) Enforcement & Penalties:

- A. If a violation exists, a copy of any notice of violation will be mailed by the Zoning Administrator to the State National Flood Insurance Program Coordinator.
- B. If the violation remains after all appeals have been resolved, the Zoning Administrator shall submit a declaration to the Administrator of the National Flood Insurance Program requesting a denial of flood insurance for the property pursuant to Section 1316 of the National Flood Insurance Act of 1968, as amended.
- C. Violations of the ~~Accepted~~ **Required** Agricultural Practices shall be enforced under this Section as violations of this bylaw. Such violations shall also be immediately reported to the Secretary of Agriculture for enforcement under 6 V.S.A. Section 4812.

(14) Warning of Disclaimer of Liability.

This bylaw does not imply that land outside of the areas covered by this bylaw will be free from flood or erosion damages. This regulation shall not create liability on the part of the Town of Troy and Village of North Troy, or any municipal official or employee thereof, for any flood or erosion damage that result from reliance on this regulation, or an administrative decision lawfully made hereunder.

**Section 321: Planned Unit Development**

In accordance with the provisions set forth in §4417 of the Act, the modification of district regulations is permitted subject to the requirements of this section. No zoning permit shall be issued by the Zoning Administrator for a planned unit development until the ~~Planning Commission~~ **Development Review Board** grants such approval, in accordance with the following procedures:

- (1) The purpose of a planned unit development is to encourage:
  - A. Innovation in design and layout, resulting in more choice in the types of environment and living units available to the public, and quality in residential land uses.
  - B. A more efficient use of land, roads and infrastructure; to preserve open space, natural resources and recreational areas.

- (2) Proposals for planned unit developments will be reviewed by the ~~Planning Commission~~ Development Review Board under the Site Plan Review process as described in Section 505 of this bylaw, but in accordance with 24 V.S.A. §4464(a)(1), the warning period for the hearing shall not be less than 15 days.
- (3) Supporting Data Required. The following data is required and must be submitted in a written text:
  - A. Name and address of the owner of record of the land in question.
  - B. Names and addresses of the owners of all abutting properties.
  - C. Name and address of the person or firm preparing the site plan map.
  - D. Construction sequence and time schedule for completion of each phase for buildings, parking spaces, and landscaped areas of the entire development.
  - E. Any land use and/or deed restrictions.
- (4) Site Plan Map Required. Proposals presented to the Development Review Board ~~Planning Commission~~ shall consist of a site plan map showing all of the following features:
  - A. Existing features, including contours, structures, large trees, streets, utility easements, and rights-of-way. Any adjacent outstanding features within 200 feet of the development.
  - B. Proposed structure locations and land use areas, streets, driveways, traffic circulation, parking and loading spaces, pedestrian walks, landscaping plans, including site grading, landscape design and screening. All proposed utilities, on-site water and wastewater facilities or municipal water and sewer connections. Typical elevations and floor plans of all buildings may also be required.
- (5) Uses shall be limited to those permitted and conditional uses within the district in which the planned unit development is proposed.
- (6) Density may vary within the development but the total number of dwelling units shall not be more than twice exceed 25% more than the number which would be permitted in the Development Review Board's ~~Planning Commission's~~ judgment, if the land were subdivided into lots in conformance with the zoning regulations for the district in which it is located.
- (7) Lot size, width, and depth and front, rear and side yard requirements may be waived; however these will be evaluated by the Development Review Board ~~Planning Commission~~ on their individual merit.
- (8) A planned unit development shall comply with the following standards:
  - A. It shall be at least five contiguous acres.
  - B. Off-lot water and sewer may be required if for over six residential units.

- C. At least 25% of the development shall be open space for public and/or common usage. The regulations for control and maintenance of this open space shall be approved by the Development Review Board Planning Commission.
- (9) The Development Review Board Planning Commission may prescribe, from time to time, rules and regulations to supplement the standards and conditions set forth in these zoning regulations for planned unit development provided the rules and regulations are consistent with the zoning regulations.
- (10) The Development Review Board Planning Commission shall hold a public hearing after public notice, as required by §4464 of the Act, prior to the establishment of any supplementary rules and regulations for planned unit development.

**Section 322: Travel Trailers & Travel Trailer Camps**

- (1) It shall be unlawful for any person to park a camping trailer, travel trailer, pick-up coach and/or motor home on any public or private property, except in accordance with the regulations as follows:
  - A. In an approved travel trailer camp.
  - B. In an approved travel trailer sales lot.
  - C. Any property owner may park his travel trailer, or that of a visitor, on his own property, provided the trailer is parked no closer than six feet to any lot line. A trailer so parked shall not be used as living quarters for more than four weeks in any calendar year. If the trailer is to be occupied for more than 4 weeks, a temporary zoning permit is required. If the trailer remains for more than 90 days, it will need to meet all zoning requirements for a single family residence, as well as obtain a potable water permit and wastewater permit issued by the State.
- (2) It shall be unlawful for any person or firm to construct, maintain or operate any travel trailer camp unless such person or firm holds a valid permit issued by the Zoning Administrator. The issuance of a permit shall require conditional use approval by the Development Review Board Board of Adjustment where applicable, and proof of compliance or intent to comply with applicable state regulations. In addition to any applicable state regulations the following standards shall apply with respect to all travel trailer camps:
  - A. All access driveways within a trailer camp must be at least thirty feet in width and have a compacted gravel surface at least twenty feet in width.
  - B. A strip of land at least twenty five feet in width shall be maintained as a landscaped area abutting all trailer camp property lines except when the camp boundary is adjacent to residential uses, in which case the landscaped area shall be at least fifty feet in width.
  - C. All trailer camps must comply with the sanitation and health laws of the State of Vermont and Town of Troy.



- (3) Travel trailers which are a part of traveling circuses, fairs, carnivals, etc., may secure a temporary permit not to exceed 21 days. Temporary permits for travel trailers shall be issued by the Zoning Administrator provided that all health and sanitary laws and regulations of the State of Vermont and Town of Troy are met.

### **Section 323: Obstruction of Vision**

In all districts on a corner lot, within the triangular area formed by the intersection of two street property lines and a third line joining them at points twenty-five feet away from their intersection, there shall be no obstruction to vision between the heights of one foot and ten feet above the average grade of each street.

### **Section 324: Open Storage in Residential Areas**

- (1) Inoperable vehicles, household appliances, fishing shanties, and other household debris shall not be stored on any property unless shielded from view of any public roads.
- (2) No more than one unregistered yet operable vehicle shall be parked in any yard of any property for more than 30 days.

### **Section 325: Private Swimming Pool**

Private swimming pools installed below ground level shall be enclosed by a lockable fence not less than four feet in height.

### **Section 326: Outdoor Wood Boilers**

- (1) Outdoor wood boilers may be installed and operated in the following districts:
  - A. Rural
  - B. Commercial/Residential
  - C. Industrial
- (2) The installation and operation of outdoor wood boilers is prohibited in the Village Districts.
- (3) All outdoor wood boilers shall be in compliance.
- (4) In accordance with Vermont Air Pollution Control Regulations, outdoor wood boilers shall not be used to burn any materials other than untreated wood and shall ~~All outdoor wood boilers shall~~ be located at least 200 feet from any abutting property lines and be positioned on a non-combustible foundation.

### **Section 327: Performance Standards**

In accordance with § 4414(5) of the Act, in all districts the following performance standards together with all applicable State standards must be met. The ~~Development Review Board Planning Commission~~ shall decide whether proposed uses meet these standards.

In all districts uses are not permitted which exceed any of the following standards measured at the property line:



- (1) Emit noise in excess of 70 decibels.
- (2) Emit any smoke, in excess of Ringlemann Chart No. 2.
- (3) Emit any noxious gases which endanger the health, comfort, safety or welfare of any person, or which have a tendency to cause injury or damage to property, business or vegetation.
- (4) Cause, as a result of normal operations, a vibration which creates displacement of 0.002 of one inch.
- (5) Lighting or signs which create glare, which could impair the vision of a driver of any motor vehicle.
- (6) Cause a fire, explosion or safety hazard.
- (7) Cause harmful wastes to be discharged into the sewer system, streams or other bodies of water. Effluent disposal shall comply with the most current local and State wastewater regulations (*Wastewater System and Potable Water Supply Rules*, Vermont Department of Environmental Conservation, Wastewater Management Division).

### **Section 328: Storage of Flammable Liquids**

The storage of any highly flammable liquid in tanks above ground with a capacity greater than five hundred and fifty gallons shall be prohibited, unless such tanks up to and including ten thousand gallon capacity are placed not less than eighty feet from all property lines, and unless all such tanks of more than ten thousand gallon capacity are placed not less than two hundred feet from all property lines.

All tanks having a capacity greater than five hundred and fifty gallons shall be properly retained with dikes having a capacity not less than one and one-half times the capacity of the tanks surrounded.

### **Section 329: Wellhead Protection Area Overlay**

Development within a wellhead protection area is subject to these regulations which overlay any other existing zoning districts and regulations, and shall not in any way impair or remove the necessity of compliance with any other local, state, federal laws or regulations.

- (1) Development proposed within the wellhead protection area shall be subject to Conditional Use Review.
- (2) Lots within the wellhead protection area shall have no more than 5% coverage of impermeable surfaces, excluding the roof of the building.
- (3) Driveways and internal roads in areas within the wellhead protection area shall have crushed gravel surfaces.

### **Section 330: Landscaping & Screening Requirements**

Landscaping may be required under Site Plan Review and Conditional Use Review for screening and/or stormwater management purposes, and for ground-mounted solar plants regulated by the

Public Utility Commission, in accordance with 24 V.S.A. Section 4414(15). When required, landscaping shall be installed and maintained in front, side and rear yards, shall take the form of shade trees, deciduous shrubs, evergreens, grassed areas and ground cover. All such landscaping shall be maintained in a healthy, growing condition, with ground cover or grassed area.

Minimum landscaping requirements include the following:

- (1) Where any land use in non-residential districts abuts land in any residential district, a strip of land at least twenty-five feet in width shall be maintained as a landscape and utility area in the front yard, side yards, and rear yard which adjoin these other districts, unless waived by the ~~Planning Commission or Board of Adjustment~~ Development Review Board.
- (2) Where any non-residential land use in a residential district abuts residential land uses, a strip of at least 15 feet in width shall be maintained as a landscape and utility area in the front yard, side yards, and rear yard which adjoin these uses, unless waived by the ~~Planning Commission or Board of Adjustment~~ Development Review Board.
- (3) In the residential districts a strip of land at least five feet in width shall be maintained as a landscape and utility area in the front, side and rear yards, unless waived by the ~~Planning Commission or Board of Adjustment~~ Development Review Board.
- (4) In any Planned Unit Development as required by the ~~Planning Commission or Board of Adjustment~~ Development Review Board

### **Section 331: Mobile Home Parks**

The following requirements shall apply with respect to mobile home parks:

- (1) Area and dimensional requirements.
  - A. A mobile home park shall have an area of not less than 10 acres.
  - B. A mobile home shall be located on the mobile home space so that it is at least twenty feet from the right-of-way of the access driveway and ten feet from any other lot line of the mobile home space.
  - C. Mobile home park offices and/or service buildings shall be located at least fifty feet from all public street right-of-way lines and property lines.
- (2) Mobile home parks shall provide for individual mobile home spaces, access driveways, parking and recreation open space as follows:
  - A. Each mobile home space shall be at least 8,000 square feet in area, and at least sixty feet wide by at least one hundred and twenty feet in depth, and shall front on an access driveway.
  - B. A suitable non-porous pad shall be provided on each mobile home space.

- C. All access driveways within a mobile home park shall have a right-of-way at least fifty feet in width and have a surface of treated compacted gravel at least twenty-four feet in width and twelve inches in depth. All weather walkways shall be provided.
- D. Two parking spaces with a compacted gravel surface twelve inches in depth, each ten feet wide by twenty-two feet long, shall be provided for each mobile home space.
- E. Mobile home parks shall provide at least ten percent of the total area for recreation and other open space purposes.

(3) Utilities:

- A. Each mobile home space shall have an attachment for water supply which is adequate, safe and potable.
- B. Each mobile home space shall have an attachment for sewage disposal. The sewage disposal system shall not be located on the mobile home space unless the mobile home space is at least one acre in size.
- C. Provisions for disposal of household garbage and rubbish shall be made.
- D. An electrical source supplying at least 60 amps, 220 volts shall be provided for each mobile home space. Such electrical outlets shall be weatherproof. The use of underground utility installation shall be required unless waived by the Development Review Board Planning Commission.

- (4) A strip of land at least twenty-five feet in width shall be maintained as a landscaped area abutting all mobile home park property lines except when the park boundary is adjacent to residential uses where the landscaped area shall be at least fifty feet in width.

## **ART 4: NON-CONFORMITIES**

### **Section 401: Permits Approved Prior to Amendment of Bylaw**

Permits issued prior to the enforcement of this bylaw that are valid on the effective date of this bylaw may be utilized, even if such permits will result in a nonconformity. In addition, nothing contained herein shall require any changes to the plans or construction of previously permitted structures and/or uses. Such nonconformities, however, shall be established within the permit's effective period of two years. Applications to renew expired permits issued under the prior bylaw will not be approved unless the structure or use for which the original permit was issued conforms to the requirements of this bylaw.

### **Section 402: Non-Conforming Uses**

In accordance with Title 24 VSA § 4412(7), the following provisions shall apply to all non-conforming uses existing on the effective date of this bylaw:

- (1) A non-conforming use shall not be expanded, enlarged, or extended, except in accordance with (5), nor shall any external evidence of such use be increased by any means whatsoever.
- (2) A non-conforming use shall not be changed to another non-conforming use.
- (3) A non-conforming use shall not be re-established if such use has been discontinued for a period of one year, and has been changed to, or replaced by a conforming use. Intent to resume a non-conforming use shall not confer the right to do so.
- (4) A non-conforming use shall not be restored for other than a conforming use after the structure devoted to the non-conforming use has been damaged from any cause, unless the restoration of that structure is substantially commenced within one year of such damage. If the restoration of such building is not substantially commenced within one year, the non-conforming use of such building shall be deemed to have been discontinued, unless carried on without interruption in the undamaged part of the building.
- (5) The ~~Development Review Board~~ ~~Board of Adjustment~~ may, after public notice and hearing, allow the expansion of any non-conforming use up to 20 percent greater than its existing ~~size footprint~~, provided it does not adversely affect the character of the surrounding area and complies with any applicable requirements of this bylaw.

### **Section 403: Non-conforming Structures**

In accordance with Title 24 VSA § 4412(7), the following provisions shall apply to all non-conforming structures:

- (1) A non-conforming structure may be continued indefinitely and may be expanded, subject to approval by the ~~Board of Adjustment~~ ~~Development Review Board~~, provided the expansion does not increase the degree of non-compliance and meets the requirements of Section 402 (5) regarding expansion of a non-conforming use.
- (2) A non-conforming structure shall not be restored to other than a conforming structure after the ~~Development Review Board~~ ~~Board of Adjustment~~ has determined that the structure is substantially damaged from any cause, unless the restoration of such building is substantially commenced within one year.
- (3) Nothing in this section shall be deemed to prevent normal maintenance and repair of a non-conforming structure provided that such action does not increase the degree of non-compliance.

## **ART 5: ADMINISTRATION & ENFORCEMENT**

### **Section 501: Zoning Administrator**

- (1) The Zoning Administrator shall be appointed by the Selectboard, following the nomination by the Planning Commission, to administer the zoning bylaws, as provided for in 24 V.S.A.

§ 4448. The Selectboard may remove a Zoning Administrator for cause at any time after consultation with the Planning Commission.

- (2) The Zoning Administrator shall literally administer and strictly enforce the provisions of this bylaw, and in so doing shall inspect developments, maintain records, and perform all other necessary tasks as is necessary and appropriate to carry out the provisions of these regulations. All development review is initiated with the Zoning Administrator.
- (3) The Zoning Administrator is responsible for posting, on the applicant's property, within view of the public right-of-way, any permit issued by the Zoning Administrator or any development application awaiting a hearing by the ~~Planning Commission or Board of Adjustment~~ Development Review Board. Such posting shall occur within 24 hours of any permit issued by the Zoning Administrator.
- (4) An acting Zoning Administrator may be appointed by the Selectboard, from nominations submitted by the Planning Commission, who shall have the same duties and responsibilities of the Zoning Administrator in the Zoning Administrator's absence, or if the Zoning Administrator has a conflict of interest. In the event an acting Zoning Administrator is appointed, the Selectboard shall establish clear policies regarding the authority of the Zoning Administrator relative to the authority of the acting Zoning Administrator.

#### **Section 502: Planning Commission**

- (1) The Planning Commission shall consist of not less than ~~five (5)~~ three (3) or more than ~~seven (7)~~ nine (9) voting members appointed by the Selectboard in accordance with 24 V.S.A. §4321-4323. At least a majority of the members shall be residents of the municipality. Any member of the Planning Commission may be removed at any time by a unanimous vote of the Selectboard.
- (2) The Planning Commission shall adopt rules of procedure and rules of ethics with respect to conflicts of interest to guide its official conduct, as required under 24 V.S.A. §4461(a) and Vermont's Open Meeting Law.
- (3) The Planning Commission shall have the following duties regarding this bylaw, in accordance with 24 V.S.A. §4441:
  - A. To prepare proposed amendments to this bylaw, and consider proposed amendments submitted by others, including amendments supported by a petition signed by at least five percent of the voters of the Town of Troy.
  - B. To prepare and approve written reports on any proposed amendment to this bylaw; and,
  - C. To hold one or more warned public hearings on proposed amendments to these regulations, prior to submission of a proposed amendment and written report to the Selectboard.

~~(4) The Planning Commission shall have all powers and duties set forth in 24 V.S.A. Chapter 117 to administer the provisions of these regulations, including but not limited to the power to hear and act upon:~~

~~A. applications for rights-of-way or easements for development lacking frontage (Section 313);~~

~~B. applications for site plan approval (Section 505);~~

~~C. applications for subdivision (Section 506);~~

~~D. applications for Planned Unit Development (Section 321).~~

### **Section 503: Board of Adjustment Development Review Board**

~~(1) In accordance with 24 V.S.A. Section 4460, the Development Review Board (DRB) shall consist of no fewer than five (5) nor more than nine (9) members. Members of the DRB may consist of the members of the members of the Planning Commission, or one or more members of the Planning Commission.~~

~~(2) The DRB shall adopt rules of procedure and rules of ethics with respect to conflicts of interest to guide its official conduct, as required under 24 V.S.A. §4461(a) and Vermont's Open Meeting Law.~~

~~(3) The DRB shall have all powers and duties set forth in 24 V.S.A. Chapter 117 to administer the provisions of these regulations, including but not limited to the power to hear and act upon:~~

~~A. Applications for rights-of-way or easements for development lacking frontage (Section 313),~~

~~B. Applications for Planned Unit Development (Section 321).~~

~~C. Applications for site plan approval (Section 505),~~

~~D. Applications for subdivision (Section 506),~~

~~E. Applications for conditional use approval (Section 507)~~

~~F. Appeals from any decision, act or failure to act by the Zoning Administrator (Section 601), and any associated variance requests (Section 512)~~

~~G. Requests for waivers from one or more dimensional standards (Section 513).~~

### **Section 504: Administrative Review**

(1) No land development, as defined in §4303(10) of the Act, may be commenced without a permit therefore issued by the Zoning Administrator. No zoning permit may be issued by the Zoning Administrator unless the proposed development complies with all applicable sections of this bylaw, and all applicable approvals required by the ~~Planning Commission and Board of Adjustment~~ **DRB** have been granted.

- (2) Special Events (e.g., concerts, festivals, fairs and other cultural events, trade and antique shows), may be allowed as a temporary use, provided that such use occurs for no more than seven days within any twelve-month period, and adequate off-street parking and circulation, sanitary and trash collection facilities are provided. Special events may be issued a zoning permit by the Zoning Administrator, for a specified period of time not to exceed one year from the date of issuance, with the provision that the use will be discontinued upon the expiration of the permit. In addition:
- A. Family or household events associated with a residential use (e.g., weddings, reunions) are exempt from this provision, and shall not require a zoning permit.
  - B. Special Events with an expected attendance of over 100 people, or extending more than seven days within a twelve-month period, shall be subject to conditional use review by the DRB under Section 507 prior to the issuance of a zoning permit.
- (3) Temporary permits may be issued by the Zoning Administrator for a period not exceeding one year, for non-conforming uses incidental to construction projects, for handicapped access ramps, and for temporary roadside stands for the sale of agricultural products raised on the property, provided such permits are conditioned upon agreement by the owner to remove the structure or use upon expiration of the permit. Such permits may be renewed upon application for an additional period not exceeding one year.
- (4) No Zoning Permit shall be required for the following activities:
- A. ~~Acepted~~ Required agricultural practices, including the construction of farm structures, as those practices are defined by the Secretary of Agriculture, Food and Markets, in accordance with 24 V.S.A. §4413(d). Written notification, including a sketch plan showing structure setback distances from the road rights-of-way, property lines, and surface waters shall be submitted to the Zoning Administrator prior to any construction, as required for ~~accepted~~ required agricultural practices. Such structures shall meet all setback requirements under these regulations, unless specifically waived by the Secretary.
  - B. Accepted management practices for silviculture (forestry) as those practices are defined by the Commissioner of Forests, Parks and Recreation, in accordance with 24 V.S.A. §4413(d).
  - C. Power generation and transmission facilities, which are regulated under 30 V.S.A. §248 by the Vermont Public ~~Service Board~~ Utilities Commission. Such facilities, however, should conform to policies and objectives specified for such development in the Municipal Plan, including screening requirements for ground mounted solar installations.
  - D. Hunting, fishing, and trapping as specified under 24 V.S.A. §2295 on private or public land. This does not include facilities supporting such activities, such as firing ranges or rod and gun clubs, which for the purpose of these regulations are defined as outdoor recreation facilities.



- E. With exception of the Special Flood Hazard Area, small accessory buildings associated with residential uses which are less than thirty-two (32) square feet of floor area and less than eight (8) feet in height, and not located within required setbacks.
- F. Garage sales, yard sales, auctions, or similar activities that do not exceed 4 consecutive days, nor more than 12 days in any calendar year.
- G. A solar energy device that heats water or space or generates electricity that is located on a flat roof of an otherwise complying structure. "Flat roof" means a roof having a slope less than or equal to five degrees.
- H. Improvements association with the construction or installation of a communications line, as defined in 24 V.S.A. §4413.

(5) An application for a zoning permit shall be filed with the Zoning Administrator on forms provided by him for that purpose. All required application fees for all relevant development review processes, as set by the Town of Troy Selectboard, shall be submitted with the application as well. The applications for a permitted use shall include a sketch plan, no smaller than 8.5" x 11", drawn to scale, that depicts the following:

- A. the dimensions of the lot, including existing property boundaries,
- B. the location, footprint and height of existing and proposed structures or additions,
- C. the location of existing and proposed accesses (curb cuts), driveways and parking areas,
- D. the location of existing and proposed easements and rights-of-way,
- E. existing and required setbacks from property boundaries, road rights-of-way, surface waters and wetlands,
- F. the location of existing and proposed water and wastewater systems,
- G. snow removal/storage; and,
- H. other such information as required by the Zoning Administrator to determine conformance with these regulations.

(6) Within thirty (30) days of receipt of a complete application, including all applicable application materials and fees, the Zoning Administrator shall act to either issue or deny a zoning permit in writing, or to refer it to the ~~Planning Commission or Board of Adjustment~~ Development Review Board for consideration. In accordance with 24 V.S.A. §4448 and §4449, if the Zoning Administrator fails to act within the 30-day period, a permit shall be deemed issued on the 31<sup>st</sup> day.

(7) No zoning permit shall be issued by the Zoning Administrator for any use or structure which requires the approval of the ~~Planning Commission or Board of Adjustment~~ Development Review Board until such approval has been obtained.



- (8) No zoning permit issued by the Zoning Administrator shall take effect until the timeframe for appeal (15 days) has passed [see §4449(a)(3)], or in the event that a notice of appeal is properly filed, such permit shall not take effect until final adjudication of the appeal.
- (9) The Zoning Administrator, within three (3) days of the date of issuance, shall deliver a copy of the permit to the Town of Troy Listers; and shall post a copy of the permit in the Town Clerk's office for a period of fifteen (15) days from the date of issuance.
- (10) Within 30 days of the issuance of a zoning permit, the Zoning Administrator shall deliver the original, a legible copy, or a notice of the permit to the Troy Town Clerk for recording in the Town of Troy land records.
- (11) Zoning permits shall remain in effect for two years from the date of issuance. All development authorized by the permit shall be substantially commenced within this two-year period or reapplication shall be required to continue development.
- (12) Appeals of the actions of the Zoning Administrator must be submitted to the ~~Board of Adjustment~~ Development Review Board within 15 days of the Zoning Administrator's action.

### **Section 505: Site Plan Review**

No zoning permit shall be issued by the Zoning Administrator for any use or structure except for one-family and two-family dwellings, accessory uses or structures, and agricultural uses, until the ~~Planning Commission~~ Development Review Board grants site plan approval after public notice and hearing in accordance with 24 V.S.A. §4416.

The owner shall submit two sets of maps and supporting data to the ~~Commission~~ DRB which shall include the following:

- (1) Site plan drawn to scale showing:
  - A. Existing features, contours, structures, easements, and proposed structure locations and land use areas.
  - B. Streets, driveways, circulation, parking and loading spaces, and pedestrian walks.
  - C. Landscaping, including site grading and screening.
  - D. Structures utilizing renewable energy resources.
- (2) In reviewing site plans, the ~~Planning Commission~~ Development Review Board may impose appropriate conditions and safeguards with respect to the following:
  - A. The adequacy of parking.
  - B. Traffic access and circulation for pedestrians and vehicles.
  - C. Landscaping and screening.

- D. The protection of the utilization of renewable energy resources.
- E. Exterior lighting.
- F. The shape and design of lots.
- G. The size, location, and design of signs.
- H. Erosion and sedimentation control.
- I. Snow removal/storage areas.

### **Section 506: Subdivisions of Land**

- (1) Applications for subdivisions of land shall be subject to Site Plan Review by the ~~Planning Commission~~ Development Review Board after public notice and hearing. In accordance with 24 V.S.A. §4464(a)(1), the warning period for public hearing shall not be less than 15 days.
- (2) Any application for subdivision of land shall be accompanied by a plat of sufficient scale and clarity to portray existing conditions and proposed development. The plat shall include all lot lines and boundary dimensions, names of roads abutting the property, location and size of existing improvements identified as “existing”, location and size of proposed improvements identified as “proposed,” setback dimensions of proposed and existing structures, location of existing and proposed driveways and culverts, ~~location of existing and proposed driveways and culverts~~, location of existing and proposed wells and/or septic systems and location of waterways, wetlands, and flood plains. In addition, a topographic survey may be required.
- (3) An undersized lot resulting from subdivision of land may be created, provided it is combined with land for an adjacent property to form a conforming lot, and a single property description with a new warranty or similar deed is filed in the Town’s land records.
- (4) All proposed new subdivision roads must have a 50-foot right of way and, if a cul de sac, a turnaround with a 100 foot radius.
- ~~(4)~~ (5) The approved subdivision may not be officially filed until all appeal periods have expired and/or all appeals are concluded.
- ~~(5)~~ (6) A final plat on mylar must be submitted to the Town Clerk for filing in the Town’s land records.

### **Section 507: Conditional Use Review**

- (1) After public notice and hearing, the ~~Board of Adjustment~~ Development Review Board shall determine if a proposed conditional use has the potential to have an undue adverse effect on the following:
  - A. The capacity of existing or planned community facilities;

- B. The character of the area affected, as defined by the purpose or purposes of the zoning district within which the project is located, and specifically stated policies and standards of the municipal plan;
  - C. Traffic on roads and highways in the vicinity;
  - D. Bylaws in effect with special reference to this zoning bylaw; and,
  - E. The utilization of renewable energy resources.
- (2) In permitting a conditional use, the ~~Board of Adjustment~~ Development Review Board may impose, in addition to the regulations and standards expressly specified by the bylaw, other conditions found necessary to protect the best interests of the surrounding property, the neighborhood, or the municipality as a whole. These conditions may include the following:
- A. Increasing the required lot size or yard dimensions in order to protect adjacent properties.
  - B. Limiting the coverage or height of buildings because of obstruction of view or reduction of light or air to nearby properties.
  - C. Controlling the location and number of vehicular access points to the property.
  - D. Increasing the road width.
  - E. Increasing the number of off-street parking or loading spaces required.
  - F. Limiting the number, location, and size of signs.
  - G. Requiring suitable landscaping where necessary to reduce noise and glare and to maintain the property of a character in keeping with the surrounding area.
  - H. Specifying a specific time limit for construction, alteration, or enlargement of a structure to house a conditional use.
  - I. Requiring that any future enlargement of alteration of the use be reviewed by the ~~Board of Adjustment~~ Development Review Board to permit the specifying of new conditions.
  - J. As a condition of the grant of a conditional use, the ~~Board of Adjustment~~ Development Review Board may attach such additional reasonable conditions and safeguards as it may deem necessary to implement the purposes of 24 V.S.A. and this bylaw.
- (3) Change of use, expansion or contraction of land area or expansion of structures for uses which are designated as conditional uses within the district in which they are located, and which are existing therein prior to the effective date of the bylaw, shall conform to all regulations herein.

**Section 508: Combined Review**

- (1) In accordance with 24 V.S.A. §4462, in cases where a proposed project will require more than one type of development review, the ~~(planning commission/zoning board of adjustment)~~ Development Review Board may warn and hold a hearing for the purpose of reviewing and acting on the proposal. The Zoning Administrator shall identify proposed projects appropriate for combined review and assist applicants in preparing and submitting coordinated applications to facilitate combined review.
- (2) Notice for a combined review hearing shall be made in accordance with 24 V.S.A. §4464(a)(1). The hearing notice shall include a statement that the hearing will be a combined review of the proposed project and list each review process that will be conducted at the hearing.
- (3) As applicable, the combined review process shall be conducted in the following order:
  1. Site Plan
  2. Access by right-of-way
  3. Requests for Waivers or Variances
  4. Subdivision Approval (preliminary and final) or Planned Unit Development approval
  5. Conditional Use Review
- (4) All hearing and decision requirements, and all deadlines applicable to each review process shall apply. Separate written decisions may be issued for each review conducted as part of the combined review, but shall be coordinated where appropriate.

### **Section 509: Appeals of Zoning Administrator Decisions**

- (1) Any interested person as defined under 24 V.S.A. §4465 may appeal a decision or act of the Zoning Administrator within 15 days of the date of the decision or act by filing a notice of appeal with the Town Clerk, and by filing a copy of the notice with the Zoning Administrator. A notice of appeal filed under this section shall be in writing and include the following information:
  - A. The name and address of the appellant,
  - B. A brief description of the property with respect to which the appeal is taken,
  - C. A reference to applicable provisions of these regulations,
  - D. The relief requested by the appellant, including any request for a variance from one or more provisions of these regulations,
  - E. The alleged grounds why such relief is believed proper under the circumstances.
- (2) The ~~Board of Adjustment~~ Development Review Board shall hold a public hearing on a notice of appeal within 60 days of its filing, as required in 24 V.S.A. §4468. The ~~Board of Adjustment~~ Development Review Board shall give public notice of the hearing under

Section 511 of this bylaw, and shall mail a copy of the hearing notice to the appellant not less than 15 days prior to the hearing date.

- (3) The ~~Board of Adjustment~~ Development Review Board may reject an appeal or request for reconsideration without hearing, and render a decision which shall include findings of fact within 10 days of the filing of a notice of appeal, if the Board determines that the issues raised by the appellant have been decided in an earlier appeal or are based on substantially or materially the same facts presented by or on behalf of the appellant.
- (4) All appeal hearings shall be open to the public and shall be conducted in accordance with the ~~Development Review Board's Board of Adjustment's~~ rules of procedures, as required by 24 V.S.A. §4461. Any interested person or body may appear and be heard in person or be represented by an agent or attorney at the hearing. The hearing may be adjourned by the Board from time to time, provided that the date, time, and place of the continuation of the hearing are announced at the hearing.
- (5) A decision on appeal shall be rendered within 45 days after the final adjournment of the hearing. The decision shall be sent by certified mail to the appellant within the 45 day period. Copies of the decision shall be mailed to every person or body appearing and having been heard at the hearing, and filed with the Zoning Administrator and the Municipal Clerk as part of the public records of the municipality. If the ~~Board of Adjustment~~ Development Review Board fails to issue a decision within this 45-day period, the appeal will be deemed approved and shall be effective on the 46<sup>th</sup> day.

### **Section 510: Appeals to Environmental Court**

- (1) In accordance with 24 V.S.A. §4471, an interested person who has offered oral or written testimony in a hearing of the ~~Board of Adjustment or Planning Commission~~ Development Review Board may appeal a decision rendered by either of those bodies, within 30 days of such decision, to the Vermont Environmental Court.
- (2) The notice of appeal shall be filed by certified mailing, with fees, to the Environmental Court and by mailing a copy to the Zoning Administrator of the Town of Troy, who shall supply a list of interested persons (including the applicant if not the appellant) within five (5) working days.
- (3) Upon receipt of the list of interested persons, the appellant shall, by certified mail, provide a copy of the notice of appeal to every interested person. If any one or more of those persons are not then parties to the appeal, upon motion they shall be granted leave by the court to intervene.

### **Section 511: Public Notice**

Any requirements of public notice required by this bylaw, whether or not required by any provision of 24 V.S.A., Chapter 117, and whether applicable to the ~~Board of Adjustment or Planning Commission~~ Development Review Board, shall be given by the publication and posting of a public hearing notice as required by 24 V.S.A. §4464.

### **Section 512: Variances**

The ~~Board of Adjustment~~ Development Review Board shall hear and decide requests for variances in accordance with 24 V.S.A. §4469(a) and appeal procedures under §508 of this bylaw. In granting a variance, the ~~Board of Adjustment~~ Development Review Board may impose conditions it deems necessary and appropriate under the circumstances to implement the purposes of these regulations and the municipal plan currently in effect. The Development Review Board ~~Board of Adjustment~~ may grant a variance and render a decision in favor of the appellant only if all of the following facts are found, and the findings are specified in its written decision:

- (1) There are unique physical circumstances or conditions, including irregularity, narrowness, or shallowness of lot size or shape, or exceptional topographical or other physical conditions peculiar to the particular property, and that unnecessary hardship is due to these conditions and not the circumstances or conditions generally created by the provisions of these regulations in the neighborhood or district in which the property is located;
- (2) Because of these physical circumstances or conditions, there is no possibility that the property can be developed in strict conformity with the provisions of these regulations and that the authorization of a variance is necessary to enable the reasonable use of the property;
- (3) The unnecessary hardship has not been created by the appellant;
- (4) The variance, if authorized, will not alter the essential character of the neighborhood or district in which the property is located, substantially or permanently impair the appropriate use or development of adjacent property, reduce access to renewable energy resources, or be detrimental to the public welfare; and
- (5) The variance, if authorized, will represent the minimum that will afford relief and will represent the least deviation possible from these regulations and from the plan.

### **Section 513: Waivers**

- (1) The Development Review Board ~~Board of Adjustment~~ shall hear and decide requests for waivers on dimensional requirements (including signage) as needed to allow for disability accessibility, fire safety, energy conservation, transportation access, and renewable energy structures, and other requirements of the law.
- (2) The waiver, if authorized, shall not result in an undue adverse affect on the essential character of the neighborhood or district in which the property is located, substantially or permanently impair the appropriate use or development of adjacent property, reduce access to renewable energy resources, or be detrimental to the public welfare, including the safety and maintenance of the Town's roadways.
- (3) Waivers may not be issued for any of the development standards outlined in Section 320 (9) of this bylaw.
- (4) Approval or denial of a waiver may be appealed to the Environmental Court as specified in Section 510 of this bylaw.

### **Section 514: Penalties**

The commencement or continuation of any land development that does not meet the requirements of these regulations shall constitute a violation. All violations shall be pursued in accordance with 24 V.S.A. §4451 and §4452. Each day that a violation continues shall constitute a separate offence. The Zoning Administrator shall institute, in the name of the Town of Troy, any appropriate action, injunction or other proceeding to enforce the provisions of these regulations. All fines imposed and collected shall be paid over to the municipality.

- (1) No action may be brought under this section unless the alleged offender has had at least seven (7) days warning notice by certified mail that a violation exists, as required under 24 V.S.A. §4451. The notice of violation also shall be recorded in the land records of the municipality. The notice shall state that a violation exists; that the alleged offender has an opportunity to cure the violation within the seven (7) day notice period, and that the alleged offender will not be entitled to additional warning notice for a violation occurring after the seven days. Action may be brought without notice and opportunity to cure if the alleged offender repeats the violation of the regulations after the seven-day notice period and within the next 12 months.
- (2) An action, injunction or other enforcement proceeding relating to the failure to obtain or comply with the terms and conditions of any required or duly recorded municipal land use permit may be instituted against the alleged offender if the action, injunction, or other enforcement proceeding is instituted within 15 years from the date the alleged violation first occurred, and not thereafter, in accordance with 24 V.S.A. §4454. The burden of proving the date the alleged violation first occurred shall be on the person against whom the enforcement action is instituted. No enforcement proceeding may be instituted to enforce an alleged violation of a municipal land use permit unless the permit or notice of the permit has been recorded in the land records of the municipality under Section 504(8) of this bylaw.

## **ART 6: AMENDMENTS, INTERPRETATION, EFFECTIVE DATE**

### **Section 601: Amendments**

This bylaw may be amended according to the requirements and procedures established in §4441 and §4442 of the Act.

### **Section 602: Interpretation**

In their interpretation and application, the provisions of this bylaw shall be held to be minimum requirements adopted for the promotion of the public health, safety, comfort, convenience, and general welfare.

Except for §4413(c) of the Act and where, in this bylaw, specifically provided to the contrary, it is not intended by this bylaw to repeal, annul or in any way to impair any regulations or permits previously adopted or issued, provided, however, that where this bylaw imposes a greater restriction upon use of a structure or land than are required by any other statute, ordinance, rule, regulation, permit, easement, or agreement, the provisions of this bylaw shall control.

### **Section 603: Effective Date**



This bylaw shall take effect in accordance with the voting and other procedures contained in §4442 of the Act.

**Section 604: Separability**

The invalidity of any article or section of this bylaw shall not invalidate any other article or section thereof.

**Section 605: Repeal**

The existing ordinance relating to zoning regulations together with all changes and amendments thereto is repealed as of the effective date of this bylaw.

**ART 7: DEFINITIONS**

For the purpose of this bylaw, certain terms or words used herein shall be interpreted as follows:

**Section 701: Word Definitions**

The word PERSON includes firms, associations, organizations, partnerships, trusts, companies, corporations and individuals.

The present tense includes the future tense, the singular number includes the plural and the plural number includes the singular.

The word SHALL is mandatory, the word MAY is permissive. The words USED or OCCUPIED include the words INTENDED, DESIGNED, or ARRANGED TO BE USED or OCCUPIED. The word LOT includes the words PLOT or PARCEL.

**Section 702: Term Definitions**

**ACCESSORY USE OR STRUCTURE:** A use or structure on the same lot with, and of a nature customarily incidental and subordinate to, the principal use or structure.

**ACRE:** 43,560 square feet.

**ALTERATION:** Structural change that increases the exterior height, width, or length of the building, including relocation of, or addition to, an existing building.

**AGRICULTURE:** The business of cultivating the soil, producing crops and/or raising livestock useful to man, and all other practices outlined in the statutory definition of farming according to Title 10 §6001(22):The cultivation or other use of land for growing food, fiber, Christmas trees, maple sap, or horticultural and orchard crops; or

- (1) The raising, feeding, or management of livestock, poultry, fish, or bees; or
- (2) The operation of greenhouses; or
- (3) The production of maple syrup; or



- (4) The onsite storage, preparation, and sale of agricultural products principally produced on the farm; or
- (5) The on-site production of fuel or power from agricultural products or wastes produced on the farm; or
- (6) The raising, feeding, or management of four or more equines owned or boarded by the farmer, including training, showing, and providing, instruction and lessons in riding, training, and the management of equines.

**AIRPORT:** A place where aircraft can land and take off, usually equipped with hangers, facilities for refueling and repair, and various accommodations for passengers.

**ANIMAL HOSPITAL:** A place where animals or pets are given medical or surgical treatment and the boarding of animals is limited to short-term care incidental to the hospital use.

**AREA OF SPECIAL FLOOD HAZARD:** A synonymous meaning with the phrase “Special Flood Hazard Area” for purposes of these regulations.

**AUTO SALES & SERVICE:** The use of any building, land area or other premise for the display and sale of new or used automobiles, trucks or vans, trailers, or recreational vehicles and may include any warranty repair work and other repair service conducted as an accessory use.

**AUTO REPAIR:** Any area of land, including structures thereof, which is used or designed to be used for the general repair, rebuilding, or reconditioning of engines, motor vehicles, or trailers.

**AUTO SERVICE STATION:** Any building, land area, or other premises, or portion thereof, used for the retail dispensing or sales of vehicular fuels and/or the servicing and repair of automobiles, and may include as an accessory use the sale of convenience goods, or the sale and/or installation of lubricants, tires, batteries, and similar vehicle accessories.

**BANK:** An establishment concerned especially with the custody, loan exchange, or issue of money, the extension of credit, and the transmission of funds.

**BASE FLOOD:** That flood having a one percent chance of being equaled or exceeded in any given year (commonly referred to as the 100-year flood).

**BASE FLOOD ELEVATION (BFE):** The elevation of the water surface resulting from a flood that has a 1 percent chance of equaling or exceeding that level in any given year. On the Flood Insurance Rate Map the elevation is usually in feet, in relation to the National Geodetic Vertical Datum of 1929, the North American Vertical Datum of 1988, or other datum referenced in the Flood Insurance Study report, or the average depth of the base flood, usually in feet, above the ground surface.

**BASEMENT:** Any area of the building having its floor elevation below ground level on all sides.

**BED & BREAKFAST:** A building serving as a dwelling unit, and occupied by the owner, which has the capacity to provide overnight accommodations and morning meals to transient guests for compensation.

**BOUNDARY LINE ADJUSTMENT:** If a boundary line adjustment is proposed that will not result in one of the parcels becoming non-conforming as to lot size or required setbacks, and if less than an acre is being transferred, site plan review by the DRB is not required. If the boundary line adjustment results in an acre or more being transferred, site plan review is required.

**BUILDING:** Any structure having a roof supported by columns or walls and intended for the shelter, housing, or enclosure of any individual, animal, process, equipment, or materials of any kind.

**CEMETERY:** Property used for the interring of the dead.

**CHANNEL:** An area that contains continuously or periodic flowing water that is confined by banks and a streambed.

**CHANNEL WIDTH (or Bankfull Width):** The width of a stream channel when flowing at a bankfull discharge. The bankfull discharge is the flow of water that first overtops the natural banks. This flow occurs, on average, about once every 1 to 2 years.

**COMMON PLAN OF DEVELOPMENT:** When a structure will be refurbished over a period of time. Such work might be planned unit by unit.

**COMMERCIAL DAY CARE:** Any place operated as a business or service on a regular or continuous basis whose primary function is the protection, care and supervision of children outside of their homes and by a person other than a child's own parent, guardian, or relative, but not including kindergarten approved by the state board of education.

**CONTRACTOR'S YARD:** An area of land, including buildings, used by a contractor for the storage of tools, equipment and/or materials.

**CRITICAL FACILITIES:** Critical facilities include police stations, fire and rescue facilities, hospitals, emergency shelters, schools, nursing homes, water supply and waste handling facilities, and other structures the community identifies as essential to the health and welfare of the population during and following disaster situations.

**DEVELOPMENT:** Any human-made change to improved or unimproved real estate, including but not limited to the division of a parcel into two or more parcels, the construction, reconstruction, conversion, structural alteration, relocation, or enlargement of any building or other structure, or of any mining, dredging, grading, filling, paving, excavation or drilling operations, and any change in the use of any building or other structure, or land, or extension of use of land.

**DWELLING:** A building or structure thereof which is used exclusively for human habitation.

**DWELLING, ACCESSORY:** An accessory or one-bedroom apartment, located within or appurtenant to an owner-occupied single family dwelling, that is clearly subordinate to a single-family dwelling, and has facilities and provisions for independent living, including sleeping, food preparation, and sanitation.

**DWELLING, MULTI-FAMILY:** A residential building designed for or occupied by three or more families living independently of each other in individual dwelling units, each equipped with separate kitchen and bathroom facilities, where the number of families in residence does not exceed the number of dwelling units provided.

**DWELLING, SINGLE FAMILY:** A detached residential dwelling unit, including a mobile home or a modular home, designed for and occupied by only one family.

**DWELLING, TWO FAMILY:** A residential building designed for or occupied by two families living independently of each other in individual dwelling units.

**DWELLING UNIT:** One room, or rooms connected together, constituting a separate and single independent housekeeping establishment for owner occupancy, rental or lease, physically separated from any other rooms or dwelling units which may be in the same structure, and containing independent cooking and sleeping facilities. It shall include prefabricated, modular units and mobile homes, but shall not include motels, hotels, or similar structures.

**ESSENTIAL SERVICE:** Services and utilities needed for the health, safety, and general welfare of the community, such as fire, police, road maintenance, water, sewerage, and other utilities, and the building, equipment, and appurtenances necessary for such systems to furnish an adequate level of service for the area in which they are located.

**EXISTING MOBILE HOME PARK OR SUBDIVISION:** A mobile home park or subdivision for which the construction of facilities for servicing the lots on which the mobile homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by a community.

**EXPANSION TO AN EXISTING MOBILE HOME PARK OR SUBDIVISION:** The preparation of additional sites by the construction of facilities for servicing the lots on which the mobile homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

**FAMILY:** One or more persons living, sleeping, cooking, and eating on the same premises as a single housekeeping unit.

**FILL:** Any placed material that changes the natural grade, increases the elevation, or diminishes the flood storage capacity at the site.

**FLOOD:** (a) A general and temporary condition of partial or complete inundation of normally dry land areas from: the overflow of inland or tidal waters; the unusual and rapid accumulation or runoff of surface waters from any source; and mudslides which are proximately caused by flooding and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current. (b) The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as a flash flood or

subnormal tidal surge, or by some similarly unusual and unforeseeable even which results in flooding.

**FLOOD INSURANCE RATE MAP (FIRM):** An official map of a community, on which the Federal Insurance Administrator has delineated both the Special Flood Hazard Areas and the risk premium zones applicable to the community.

**FLOOD INSURANCE STUDY:** An examination, evaluation, and determination of flood hazards and, if appropriate, the corresponding water surface elevations or an examination, evaluation and determination of mudslide and/or flood related erosion hazards.

**FLOODPLAIN OR FLOOD-PRONE AREA:** Any land area susceptible to being inundated by water from any source (see definition of “flood”).

**FLOOD PROOFING:** Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

**FLOODWAY:** The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot at any height. Please note that Special Flood Hazard Areas and floodways may be shown on separate map panels.

**FLOODWAY, REGULATORY IN TOWN OF TROY/VILLAGE OF NORTH TROY:** The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot at any point.

**FORESTRY:** The harvesting of timber and the erection of temporary structures and the construction of logging roads for the purpose of harvesting timber.

**FRONTAGE or FRONT LOT LINE:** The side of a lot abutting on a public or private right-of-way.

**GROUP HOME:** Any residential facility operating under a license or registration granted or recognized by a state agency, that serves not more than eight unrelated persons, who have a handicap or disability as defined in 9 V.S.A. § 4501, and who live together as a single housekeeping unit. In addition to room, board and supervision, residents of a group home may receive other services at the group home meeting their health, developmental or educational needs.

**HEALTH CARE FACILITY:** A facility or institution, whether public or private, principally engaged in providing services for health maintenance, diagnosis or treatment of human disease, pain injury, deformity or physical condition, including, but not limited to, a general hospital, special hospital, mental hospital, public health center, diagnostic center, treatment center, rehabilitation center, extended care facility, skilled nursing home, nursing home, intermediate care facility, tuberculosis hospital, chronic disease hospital, maternity hospital, outpatient clinic, dispensary, home health care agency, and bio-analytical laboratory or central services facility

serving one or more such institutions, but excluding institutions that provide healing solely by prayer.

**HEAVY INDUSTRY:** Any facility for the assembly, manufacture, compounding, processing, packing, treatment, or testing of materials, goods, or products, where these activities are carried out in such a manner that they require the use of public water and sewer and may possibly generate noise, smoke, vibration, dust, glare, odors, electrical interference, or heat that is detectable at the boundaries of the lot.

**HISTORIC STRUCTURE:** Any structure that is: (a) listed individually in the National Register of Historic Places (a listing maintained by the Department of the Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register; (b) certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district; (c) individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or (d) individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either (i) by an approved state program as determined by the Secretary of the Interior or (ii) directly by the Secretary of the Interior in states without approved programs.

**HOME OCCUPATION:** An occupation, carried on within a principal or accessory residential structure, which is customarily incidental and secondary to the use of the premises for dwelling purposes, and which does not substantially alter the character thereof.

**HOME CHILD CARE:** A family day care home is a day care facility which provides for care on a regular basis in the caregiver's own residence for not more than ten children at any one time. Of this number, up to six children may be provided care on a full-time basis and the remainder on a part-time basis. For the purpose of this subdivision, care of a child on a part-time basis shall mean care of a school-age child for not more than four hours a day. These limits shall not include children who reside in the residence of the caregiver; except: (a) these part-time school-age children may be cared for on a full-day basis during school closing days, snow days and vacation days which occur during the school year; and (b) during the school summer vacation, up to 12 children may be cared for provided that at least six of these children are school age and a second staff person is present and on duty when the number of children in attendance exceeds six. These limits shall not include children who are required by law to attend school (age 7 and older) and who reside in the residence of the caregiver.

**LETTER OF MAP AMENDMENT (LOMA):** A letter issued by the Federal Emergency Management Agency officially removing a structure or lot from the flood hazard zone based on information provided by a certified engineer or surveyor. This is used where structures or lots that are located above the base flood elevation and have been inadvertently included in the mapped special flood hazard area.

**LIGHT INDUSTRY:** Any facility for the assembly, manufacture, compounding, processing, packing, treatment, or testing of materials, goods, or products, provided these activities are

conducted in such a manner so as not to generate noise, smoke, vibration, dust, glare, odors, electrical interference or heat that is detectible at the boundaries of the lot.

**LODGING FACILITY:** A facility in which rental accommodations are provided as a series of sleeping units lacking individual kitchen facilities and in which meals also may be supplied as part of the rent. The use of a lodging facility is distinct from the use of multi-family housing.

**LOT:** A designated area of land established by subdivision or otherwise permitted by law, that exists as depicted or described on a plat or deed in the Town of Troy's land records.

**LOWEST FLOOR:** The lowest floor of the lowest enclosed area, including basement, except an unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements.

**LOT LINE, FRONT:** That lot line separating a lot from a public right-of-way.

**LOT LINE, REAR:** That lot line opposite and most distant from the front lot line. In the case of triangular or otherwise irregularly shaped lots, a line 10 feet in length entirely within the lot, parallel to and at a maximum distance from the front lot line.

**LOT LINE, SIDE:** Any lot line which is not a front or rear lot line.

**LOT OF RECORD:** A lot which is part of a subdivision recorded in the office of the Town Clerk, or a lot or parcel described by metes and bounds, the description of which has been so recorded.

**LOT WIDTH:** The widest distance between the side lines of the lot, measured along a straight line parallel to the front lot line.

**MANUFACTURED HOME:** See Mobile Home.

**MANUFACTURED HOME PARK OR SUBDIVISION:** See Mobile Home Park or Subdivision.

**MIXED USE DEVELOPMENT:** The development of a tract of land, building, or structure with a variety of complementary and integrated uses, such as, but not limited to, residential, office, retail, public, and recreation, in a compact urban form.

**MOBILE HOME:** A structure or type of manufactured home that is built on a permanent chassis and is designed to be used as a dwelling with or without a permanent foundation, includes plumbing, heating, cooling, and electrical systems, and is: (1) transportable in one or more sections; and (2) at least eight feet wide or 40 feet long or when erected has at least 320 square feet or if the structure was constructed prior to June 15, 1976, at least eight feet wide or 32 feet long; or (3) any structure that meets all the requirements of this subdivision except for size and for which the manufacturer voluntarily files a certification required by the U.S. Department of Housing and Urban Development and complies with the standards established under Title 42 of the U.S. Code.



**MOBILE HOME PARK:** Any parcel of land under single or common ownership or control which contains, or is designed, laid out or adapted to accommodate, more than two mobile homes. Nothing herein shall be construed to apply to premises used solely for storage or display of mobile homes. Mobile Home Park does not mean any parcel of land under the ownership of an agricultural employer who may provide up to four mobile homes used by full-time workers or employees of the agricultural employer as a benefit or condition of employment or any parcel of land used solely on a seasonal basis for vacation or recreational mobile homes.

**MORTUARY:** A place for the storage of human bodies prior to their burial or cremation.

**NEIGHBORHOOD RETAIL STORE:** Any commercial facility such as a grocery general, newspaper or drug store or retail service establishment intended principally to serve the area in which it is located.

**NEW CONSTRUCTION:** Structures commenced on or after the effective date of this bylaw. For floodplain management purposes, “new construction” means structures commenced on or after the effective date of the flood hazard area regulations of this bylaw (Section 320) and includes any subsequent improvements to such structures. For the purposes of determining flood insurance rates, “new construction” means structures for which the start of construction commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures.

**NEW MOBILE HOME PARK OR SUBDIVISION:** a mobile home park or subdivision for which the construction of facilities servicing the lots on which the mobile homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by a community.

**NONCONFORMING LOT OR PARCEL:** Lots or parcels that do not conform to the present bylaws covering dimensional requirements but were in conformance with all applicable laws, ordinances, and regulations prior to the enactment of the present bylaws, including a lot or parcel improperly authorized as a result of error by the Zoning Administrator.

**NON-CONFORMING STRUCTURE:** A structure or part of a structure that does not conform to the present bylaws but was in conformance with all applicable laws, ordinances, and regulations prior to the enactment of the present bylaws, including a structure improperly authorized as a result of error by the Zoning Administrator.

**NON-CONFORMING USE:** Use of land that does not conform to the present bylaws but did conform to all applicable laws, ordinances, and regulations prior to the enactment of the present bylaws, including a use improperly authorized as a result of error by the Zoning Administrator.

**NONCONFORMITY:** A nonconforming use, structure, lot or parcel.

**NON-RESIDENTIAL:** includes uses other than single-family, two-family, multifamily, and accessory dwellings.

**OFFICE:** A room or group of rooms used for conducting the affairs of business, profession, service, industry, or government and generally furnished with desks, tables, files, and communication equipment.

**OFF-LOT WATER & SEWER:** The providing of water from a source and the disposal of sewage not located on the lot on which the building is located for which these utilities are provided.

**OFF-STREET PARKING SPACE:** A temporary storage area for a motor vehicle that is directly accessible to an access aisle and that is not located on a dedicated street right-of-way.

**ON-LOT WATER & SEWER:** The providing of water from a source such as a drilled well and the disposal of the sewage by such means as septic and drainage field located on the same or adjacent lot as the building for which these utilities are provided.

**OUTDOOR WOOD BOILER:** (a.k.a., outdoor wood-fired hydronic heater or outdoor wood furnace) is a fuel burning device: (1) designed to burn primarily wood; (2) that the manufacturer specifies should or may be installed outdoors or in structures not normally occupied by humans, such as attached or detached garages or sheds; and, (3) which heats spaces or water by the distribution through pipes of a fluid heated in the device, typically water or a mixture of water and antifreeze.

**PERSONAL SERVICE:** Establishments primarily engaged in providing services involving the care of a person or his or her personal goods or apparel, including barber, hairdresser, beauty parlor, spa, shoe repair, shoe shine, laundry, dry cleaner, photographic studio, and other businesses providing similar services of a personal nature.

**PLANNED UNIT DEVELOPMENT:** One or more lots, tracts or parcels of land to be developed as a single entity, the plan for which may propose any authorized combination of density or intensity transfers or increases, as well as the mixing of land uses. This plan, as authorized, may deviate from bylaw requirements that are otherwise applicable to the zoning district in which it is located with the respect to lot size, bulk or type of dwelling or building, use, density, intensity, lot coverage, parking, required common open space, or other standards.

**PRIVATE CLUB:** A building and related facilities owned or operated by a corporation, association, or group of individuals established for the fraternal, social, educational, recreational or cultural enrichment of its members and not primarily for profit, and whose members meet certain prescribed qualifications for membership and pay dues.

**PUBLIC FACILITY:** Usage by agencies and departments of local, county, state and federal government. Includes auditorium, theater, public hall, and meeting hall.

**MUNICIPAL WATER, MUNICIPAL SEWER:** Water supply and/or sewage disposal systems approved and provided by the town for municipal operation.

**RECREATIONAL FACILITY:** Includes any indoor or outdoor recreational facility, that is used for sports, leisure time activities, and other customary and usual recreational activities that can be performed by members of the general public.



**RECREATIONAL VEHICLE:** A vehicle which is (a) built on a single chassis; (b) 400 square feet or less when measured at the largest horizontal projection; (c) designed to be self propelled or permanently towable by a light duty truck; and (d) designed primarily not for use as a permanent dwelling but as a temporary living quarters for recreational, camping, travel or seasonal use.

**RELIGIOUS INSTITUTION:** A structure or place in which worship, ceremonies, rituals and education pertaining to a particular system of beliefs are held.

**RESIDENTIAL CARE HOME:** A place, however named, excluding a licensed foster home, which provides, for profit or otherwise, room, board and personal care to three or more residents unrelated to the home operator.

**RESTAURANT:** An establishment where food and drink are prepared, served, and consumed primarily within the principal building.

**RETAIL FUEL OIL:** Establishments engaged in selling heating fuels and other petroleum products to the general public for personal or household consumption and rendering services incidental to the sale of such goods.

**RETAIL SALES & SERVICE:** Establishments engaged in the selling or rental of goods for personal use or household consumption and may include services incidental to the sale of such goods.

**RIGHT OF WAY:** The right to one to pass over the property of another.

**SAND & GRAVEL PIT:** A place where rock, ore, stone and similar materials are excavated from the surface and/or subsurface and for sale or off-tract use.

**SCHOOL:** Any building or part thereof which is designed, constructed or used for education or instruction in any branch of knowledge

**SIGN:** Any object, device, display, or structure, or part thereof, situated outdoors that is used to advertise, identify, display, direct, or attract attention to an object, person, institution, organization, business, product, service, event, or location by any means, including words, letters, figures, design, symbols, fixtures, colors, illumination, or projected images.

**SPECIAL FLOOD HAZARD AREA:** The floodplain within a community subject to a 1 percent or greater chance of flooding in any given year. For purposes of these regulations, the term “area of special flood hazard” is synonymous in meaning with the phrase “special flood hazard area”. This area is usually labeled Zone A, AO, AH, AE, or A1-30 in the most current flood insurance rates studies and on the maps published by the Federal Emergency Management Agency (FEMA). Maps of this area are available for viewing in the municipal office or online from the FEMA Map Service Center: [www.msc.fema.gov](http://www.msc.fema.gov). Base flood elevations have not been determined in Zone A where the flood risk has been mapped by approximate methods. Base flood elevations are shown at selected intervals on maps of Special Flood Hazard Areas that are determined by detailed methods. Please note, where floodways have been determined they may be shown on separate map panels from the Flood Insurance Rate Maps.

**START OF CONSTRUCTION:** For purposes of flood plain management, the “start of construction” determines the effective map or bylaw that regulated development in the Special Flood Hazard Area. The “start of construction” includes substantial improvement, and means the date the building permit was issued provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slabs or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a mobile home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footing piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, regardless of whether that alteration affects the external dimensions of the building.

**STORAGE OR SHIPPING CONTAINER:** storage or shipping containers (including CONEX boxes) shall be considered structures that require a permit and must comply with all setbacks required of permanent structures.

**STREET:** Public right-of-way for vehicular traffic which affords the principal means of access to abutting properties.

**STREET LINE:** Right-of-way line of a street as dedicated by a deed of record. Where the width of the street right-of-way has not been established, the street line shall be considered to be twenty-five feet from the center line of the traveled portion of the right-of-way.

**STRUCTURE:** An assembly of materials for use, occupancy, or ornamentation whether installed on, above, or below the surface of land or water. For flood insurance purposes, means: (1) a building with two or more outside rigid walls and a fully secured roof, that is affixed to a permanent site; (2) a mobile home; or (3) a travel trailer without wheels, built on a chassis and affixed to a permanent foundation, that is regulated under the flood hazard area regulations and any building ordinances or laws. For floodplain management purposes, “structure” also includes gas or liquid storage tanks.

**SUBSTANTIAL DAMAGE:** The damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damage condition would equal or exceed 50% of the market value of the structure before the damage occurred.

**SUBSTANTIAL IMPROVEMENT:** Any reconstruction, rehabilitation, addition, or other improvement of a structure after the date of this bylaw, the cost of which, over three years, or over a period of a common plan of development, cumulatively equals or exceeds 50 percent of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred “substantial damage” regardless of the actual repair work to be performed. The term does not, however include either (1) any project for improvement of a structure to correct existing violations of state or local health, sanitary, or

safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions or (2) any alteration of a “historic structure” provided that the alteration will not preclude the structure’s continued designation as a historic structure.

**SUBDIVISION:** The division of a lot, parcel, or tract of land into two or more lots, parcels, or tracts for development, sale, or lease.

**SUBSTANTIALLY COMMENCED:** Visible signs of activity on new construction of a new structure or repair of a damaged structure, including the commitment of resources and materials to a project, such as the pouring of a foundation, the completion of a frame, or the delivery of all required building materials to the construction site.

**TOP OF BANK:** The vertical point along a stream bank where an abrupt change in slope is evident. For streams in wider valleys it is the point where the stream is generally able to overflow the banks and enter the floodplain. For steep and narrow valleys, it will generally be the same as the top of slope.

**TRAVEL TRAILER CAMP:** A plot of ground on which two or more trailers are located and occupied for sleeping purposes for a fee.

**TRAVEL TRAILER OR TRAILER:** any vehicle used or so constructed as to permit its being used as a conveyance on the public streets and highways, whether licensed or not, and constructed in such a manner as will permit occupancy thereof as a dwelling or sleeping place for one or more persons. A trailer under this bylaw shall also mean tent trailers, truck campers, vehicles converted to sleeping facilities, other than a mobile home and/or what normally constitutes a permanent dwelling unit. This definition includes uses to which trailers might be put.

**TRUCK SALES & SERVICE:** (See definition of AUTO SALES & SERVICE.)

**TRUCKING TERMINAL:** An establishment providing services incidental to shipping or transportation, such as loading and unloading truck or rail cargo and freight, forwarding, packing services, short-term storage, and arranging passenger freight for transportation.

**VIOLATION:** The commencement or continuation of any land development or use that does not meet the requirements of this bylaw. For purposes of the Flood Hazard Area Regulations: a structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in the Code of Federal Regulations (44 CFR 60.3) is presumed to be in violation until such time as that documentation is provided.

**WAREHOUSE:** A building used primarily for the storage of goods and materials, and available to the general public for a fee.

**WELLHEAD PROTECTION AREA:** The area within 1,000 ft. radius from a well serving a public water source.

**WHOLESALE SALES:** Establishments or places of business primarily engaged in selling merchandise to retailers; to industrial, commercial, institutional, or professional business users,

or to other wholesalers; or acting as agents or brokers and buying merchandise for, or selling merchandise to, such individuals or companies.

**YARD:** Space on a lot not occupied with a building or structure. Porches, whether enclosed or unenclosed, shall be considered as part of the main building and shall not project into a required yard.

**YARD, FRONT:** The space between the front lot line and the front line of a building extended to the side lot lines of the lot. The depth of the front yard shall be measured from the street line to the front line of the building.

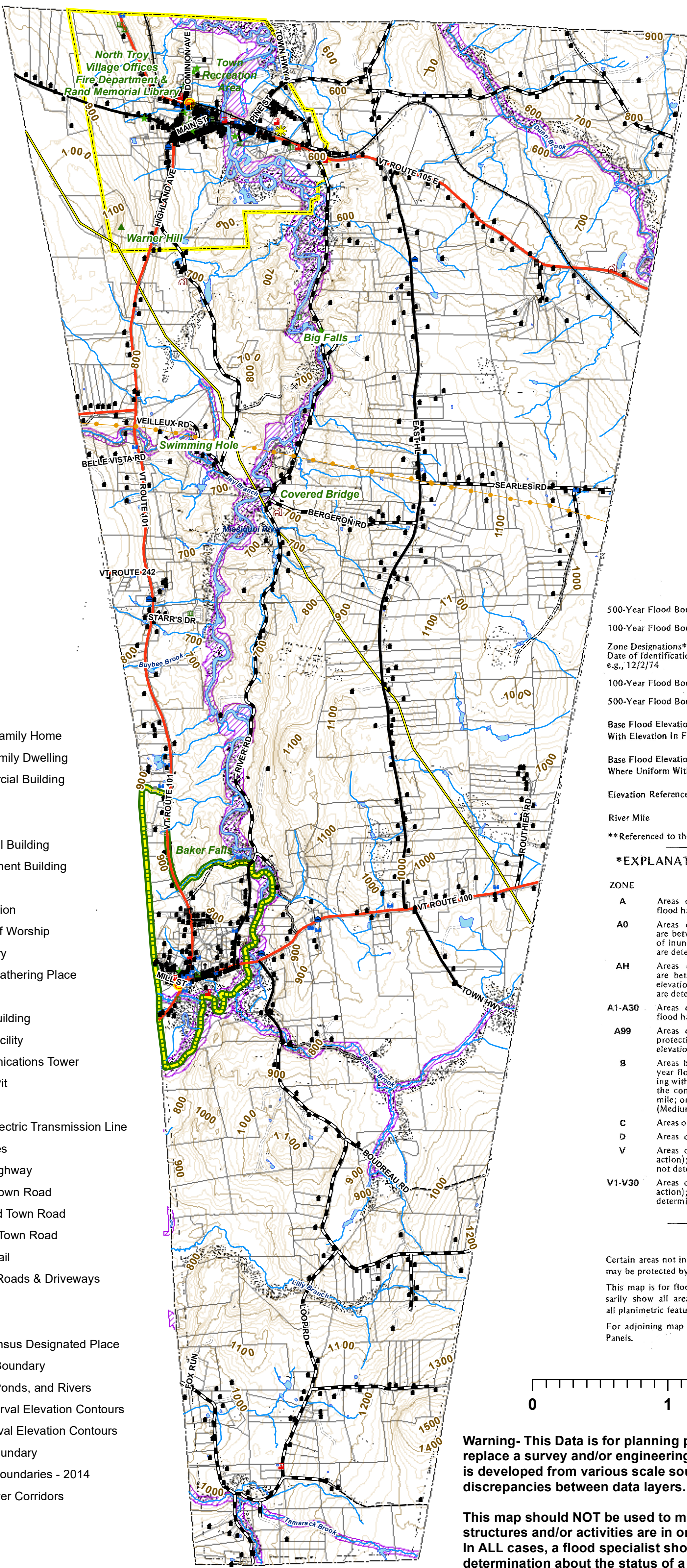
**YARD, REAR:** The space between the rear lot line and rear line of a building extended to the side lot lines of the lot. The depth of the rear yard shall be measured from the rear lot line to the rear line of the building.

**YARD, SIDE:** The space between the principal building or accessory building and a side lot line, extending through from the front yard to the rear yard.



# Town of Troy, VT River Corridors & Flood Map

10/25/2019



- Single Family Home
- Multi-Family Dwelling
- Commercial Building
- Lodging
- Farm
- Industrial Building
- Government Building
- School
- Fire Station
- House of Worship
- Cemetery
- ★ Public Gathering Place
- ★ Cutural
- Other Building
- ★ Solar Facility
- ↑ Communications Tower
- × Gravel Pit
- ▲ Peaks
- Major Electric Transmission Line
- Rail Lines
- State Highway
- Paved Town Road
- Unpaved Town Road
- ==== Class 4 Town Road
- Legal Trail
- Private Roads & Driveways
- Pipeline
- Streams
- ▭ Troy Census Designated Place
- ▭ Village Boundary
- Lakes, Ponds, and Rivers
- 100' Interval Elevation Contours
- 20' Interval Elevation Contours
- Town Boundary
- ▭ Parcel Boundaries - 2014
- ▨ ANR River Corridors

### KEY TO MAP

- 500-Year Flood Boundary ———→
- 100-Year Flood Boundary ———→
- Zone Designations\* With Date of Identification e.g., 12/2/74
- 100-Year Flood Boundary ———→
- 500-Year Flood Boundary ———→
- Base Flood Elevation Line With Elevation In Feet\*\* ——— 513 ———
- Base Flood Elevation in Feet Where Uniform Within Zone\*\* (EL 987)
- Elevation Reference Mark RM7 ×
- River Mile M1.5

### \*EXPLANATION OF ZONE DESIGNATIONS

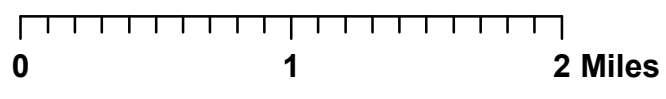
ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

### NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.



**Warning- This Data is for planning purposes only and does not replace a survey and/or engineering study. Because this map is developed from various scale sources, there may be some discrepancies between data layers.**

**This map should NOT be used to make determinations about whether structures and/or activities are in or out of a flood hazard area. In ALL cases, a flood specialist should be contacted to make any determination about the status of a structure or proposed structure.**







Irene Nagle <inagle@nvda.net>

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## Troy Local Hazard Mitigation Plan

1 message

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Irene Nagle <inagle@nvda.net>

Fri, Apr 8, 2022 at 4:37 PM

To: nctownclerk@comcast.net, cpion@lowelltown.org, TOWN WESTFIELD <townofwestfield@comcast.net>, townofjay@comcast.net

Cc: Robert Langlands <mudlane@comcast.net>, TOWN OF TROY <townoftroy@comcast.net>

Hello neighbors to Troy,

Attached please find the revised Local Hazard Mitigation Plan for the Town of Troy/Village of North Troy, for your review.

Please provide any comments you may have on the document to me at the below email address by April 30th. Prior to adoption by the Troy Selectboard, the document will be submitted to the State Hazard Mitigation Planner for final approval.

Thank you,

Irene

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Irene M. Nagle, AICP  
Senior Planner

**NVDA**

Northeastern Vermont Development Association  
36 Eastern Avenue, Suite 1  
St. Johnsbury, VT 05819  
(802) 424-1423  
[www.nvda.net](http://www.nvda.net)

***NVDA employees have returned to their offices on a limited basis. Our building is closed to the general public, but our employees are accepting meetings by appointment upon request. Please call or email and we will respond as soon as possible. Thank you.***

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 **Draft LHMP with appendices.April 2022.pdf**  
4742K