

# Town of St. Albans, Vermont HAZARD MITIGATION PLAN Draft\* 2015



Adopted by the Town of St. Albans, Selectboard

Date: \_\_\_\_\_, 2015

**\*The plan will be final following adoption by St. Albans Town Selectboard and FEMA approval.**

Whereas, natural and man-made disasters may occur at any time, we recognize that by lessening the impacts of these disasters we will save resources, property and lives in the Town of St. Albans, Vermont;

And whereas the creation of the Town of St. Albans Hazard Mitigation Plan is necessary for the development of a risk assessment and effective mitigation strategy;

And whereas, the Town of St. Albans is committed to the mitigation goals and measures as presented in this plan;

Therefore the Town of St. Albans Select Board hereby adopts the 2015 St. Albans Town Hazard Mitigation Plan.

AUTHORIZING SIGNATURES

Date: \_\_\_\_\_

\_\_\_\_\_  
Chair

\_\_\_\_\_  
Brent Palmer

\_\_\_\_\_  
Stan Dukas

\_\_\_\_\_  
Bruce Cheeseman

\_\_\_\_\_  
David McWilliams

## TABLE OF CONTENTS

1. INTRODUCTION .....	3
2. METHODOLOGY.....	3
3. COMMUNITY PROFILE.....	6
4. RISK ASSESSMENT .....	12
5. CRITICAL FACILITIES.....	32
6. MITIGATION STRATEGY.....	33
7. PLAN IMPLEMENTATION, MONITORING & EVALUATION.....	40

DRAFT

**ACKNOWLEDGEMENTS**

**Project Steering Committee**

Bernie Boudreau – St. Albans Town Selectboard Chair

Carrie Johnson – St. Albans Town Manager, EMC

Maren Hill – St. Albans Town Planner

Steve Beauregard – St. Albans Town Road Foreman

**Project Coordinator:**

Shaun Coleman – Northwest Regional Planning Commission

**Project Participants:**

Town of St. Albans Town Manager

Town of St. Albans Highway Department

Town of St. Albans Planner

Northwest Regional Planning Commission

Northwest Regional Planning Commission GIS

Local Emergency Planning Committee (Franklin County)

Town of St. Albans Fire Department

Vermont Agency of Transportation District 8

Vermont Department of Emergency Management and Homeland Security

Vermont Agency of Natural Resources

Northeast States Emergency Consortium

Federal Emergency Management Agency

National Weather Service

Vermont Geological Survey

This plan should be considered a plan in work due to the continual changing environment in which these hazards present themselves. This plan must also be reviewed and adjusted as growth in population, industry, and overall community demographics change.

## **1. INTRODUCTION**

This is a hazard mitigation plan for the Town of St. Albans, Vermont.

The impact of expected, but unpredictable natural and human-caused events can be reduced through community planning. The goal of this plan is to provide an all-hazards local mitigation strategy that makes the Town of St. Albans, 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 Project Impact efforts, FEMA and state agencies have come to recognize that it is less expensive to prevent disasters than to repeatedly repair damage after a disaster has struck. This plan recognizes that communities have opportunities to identify mitigation strategies and measures during all of the other phases of Emergency Management – Preparedness, Response and Recovery. Hazards cannot be eliminated, but it is possible to determine what the hazards are, where the hazards are most severe and identify local actions that can be taken to reduce the severity of the hazard.

Hazard Mitigations Strategies and Measures **alter** the hazard by eliminating or reducing the frequency of occurrence, **avert** the hazard by redirecting the impact by means of a structure or land treatment, **adapt** to the hazard by modifying structures or standards or **avoid** the hazard by stopping or limiting development and could include projects such as:

- Flood-proofing structures
- Tying down propane/fuel tanks in flood-prone areas
- Elevating furnaces and water heaters
- Identifying & modifying high traffic incident locations and routes
- Ensuring adequate water supply
- Elevating structures or utilities above flood levels
- Identifying & upgrading undersized culverts
- Proactive land use planning for floodplains and other flood-prone areas
- Proper road maintenance and construction
- Ensuring critical facilities are safely located
- Buyout & relocation of structures in harms way
- Establish & enforce appropriate building codes
- Public information

## **2. METHODOLOGY**

The St. Albans Town Hazard Mitigation Plan will be submitted as a single jurisdiction plan.

The Committee developed this Plan following the described planning steps:

### 1: Establish and Orient a Hazard Mitigation Planning Committee

Northwest Regional Planning Commission (NRPC) and the Town of St. Albans coordinated St. Albans Town's Local Hazard Mitigation Plan process. Work on the plan began in December 2013 and continued until October 2014.

NRPC staff discussed updating the plan with Town officials at the Town office on December 9, 2013 and January 13, 2014. Shortly after the first meeting, the Town Manager identified the local officials and stakeholders listed on page 2 of this plan. Additionally, the following resources were consulted in preparation of the plan.

- Town of St. Albans, Vermont Town Plan (2010)
- Town of St. Albans, Zoning Bylaws (2009)
- State of Vermont Hazard Mitigation Plan (2013)
- FEMA Disaster Declarations for Vermont ([http://www.fema.gov/disasters/grid/state-tribal-government/35?field\\_diasaster-type\\_term-Tid\\_1=All](http://www.fema.gov/disasters/grid/state-tribal-government/35?field_diasaster-type_term-Tid_1=All))
- Open FEMA Dataset: Public Assistance Funded Project Summaries for Vermont.
- Town of St. Albans Flood Insurance Rate Maps (1988)
- Northwest Regional Planning Commission Regional Plan (2007-2014)
- National Oceanic and Atmospheric Administration (NOAA) National Climatic Data Center's Storm Events Database (<http://www.ncdc.noaa.gov/stormevents/>)
- National Weather Service (Burlington, VT) Recent Weather Event Summaries (<http://www.weather.gov/btv/recentwx>)

A complete list of references may be found in Attachment F.

St. Albans Town Select Board meetings were held at the St. Albans Town Office on \_\_\_\_, 2013, \_\_\_\_\_, 2014, \_\_\_\_\_, 2014, and \_\_\_\_\_, 2014 to discuss hazard mitigation projects, the communities risk to hazards and the hazard mitigation plan. A community meeting was held at the St. Albans Town Educational Center Library by the Northwest Regional Planning Commission and the City and Town of St. Albans on January 10, 2013 to discuss disaster resiliency/mitigation and economic development. These meeting were publicly warned and the public was given an opportunity for comment.

During the plan development process, municipal officials were interviewed including the Emergency Management Director, Emergency Management Coordinator, Town Manager, Select Board members, Highway Foreman, Town Planner and local residents. The interviews identified commonalities related to natural, man-made and hazardous materials hazards and identified key long and short-term strategies/activities to reduce risk from these hazards. Outcomes included the types of hazards the town was subjected to and what they believed the top hazards would be, identification of mitigation projects and strategies for implementation.

## 2: Identification of Hazards and Critical Facilities

The Committee members identified human-made and natural hazards that could or have affected the Town of St. Albans. The project coordinator collected data and compiled research on the fifteen hazards which included: severe winter storm (ice storm) , flooding, fluvial erosion/landslide, thunderstorms/lightning, high winds, loss of electrical service, structure fire, hazardous materials, hail, drought, telecommunications systems failure, tornado, earthquake, major fire – wildland, civil disturbance/terrorism/WMD. Research materials came from local, state and federal agencies including FEMA, NOAA, and DOT. Research was also conducted by referencing historical local newspapers, texts, interviewing residents, and scientific documents. Internet references were widely utilized in historical research applications. Current mitigation activities, resources, programs, and potential action items from research materials and stakeholder interviews were also identified.

Additionally, locations were identified that have sustained or could be susceptible to each hazard. The results are shown in Section 4. The Committee then identified, catalogued and mapped all of the critical facilities within the Town. The result is found in Attachment B and shown on a location map in Attachment E.

### 3: Assessing Probability, Severity and Risk, and Estimating Potential Losses

The Committee members completed Risk Assessment Worksheets for all of the types hazards identified in Step 2 in order to assess probability, severity and risk. Potential and future losses for each hazard type were estimated. This data is found in Section 4 and Attachment A, Hazard Identification and Risk Assessment.

### 4: Analyze Development Trends

This step was conducted by Town staff, the St. Albans Town Planning Commission and Regional Planning Commission staff. The results of this research can be found in Section 3.

### 5: Existing Mitigation Strategies and Proposed Improvements

The Committee identified plans and policies that are in place to reduce the effects of human-made and natural hazards. The Committee also identified mitigation actions for each of the potential hazards identified in Section 4. The results are found in Section 5.2. The Committee also identified programs in place that are on-going community preparedness activities.

### 6: Identification of Mitigation Projects

To assist with determining mitigation projects, the Committee considered the following objectives: Preventative (Programs & Policies), Property Protection, Structural, Public Education and Information, Engineering Projects, Equipment Purchase, and Training.

### 7: Prioritized Mitigation Measures

The Committee developed a prioritized list of mitigation projects identified in Step 6 considered feasible to implement. The priority matrix and associated criteria can be found in Attachment C.

### 8: Develop an Implementation Strategy - Action Plan

Using the prioritized list of mitigation actions identified in Step 6, the Committee developed a strategy that outlines who is responsible for implementing each project, potential funding sources/support, time-frame, initial implementation steps. Potential mitigation actions were developed with a particular emphasis placed on projects and programs that reduce the effects of hazards on both new and existing buildings and infrastructure. The implementation schedule can be found in Section 6.

### 9: Public Involvement

The draft LHMP was made available to the public for comments at the St. Albans Town Office office and at the Northwest Regional Planning Commission's office and website. An announcement of the draft LHMP was also issued in the NRPC newsletter, which reaches over 150 people in the Region's 22 municipalities including the surrounding municipalities of Fairfield, Swanton, St. Albans City and Georgia.

Presentations of the draft LHMP were held during a public meeting at the St. Albans Town Hall on Monday, March 23<sup>rd</sup>, 2015. Comments were taken and incorporated into the draft LHMP. The Town Planner was responsible for collecting and considering comments.

The draft plan was shared with the Local Emergency Planning Committee, the fire department and road department, and at local meetings with other local, regional or state officials. During future updates, additional stakeholders who provide services to the jurisdiction and major business owners will be directly invited to the meetings.

The Hazard Mitigation Committee recognizes the need for even greater public involvement for the rural community in future updates of the plan. Notices of specific Hazard Mitigation Steering Committee meetings will be warned in local newspapers, websites, etc. Additionally, efforts will be made to outreach to businesses, academia, nonprofits and other interested parties. Such groups will be encouraged to become involved in the planning process. The Local Emergency Planning Committee (LEPC) for Franklin County is comprised of representatives from these groups. Based on demographics of the county and the rural nature of the greater community, outreaching to the LEPC to gain more input from the public sector was a logical step. Future updates should coincide with Town Meeting Day to gain greater involvement from the public as well.

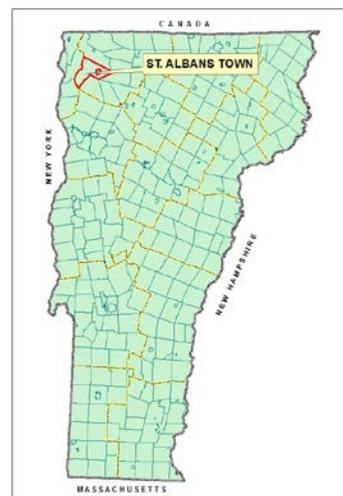
#### 10: Adopt and Implement the Plan

The Committee members reviewed and approved each section of the plan as it was completed. After acceptance by the Committee, the draft Mitigation Plan was presented to the State Hazard Mitigation Committee through the State Hazard Mitigation Officer (SHMO) for review and comment and a recommendation for forwarding to FEMA Region I. FEMA must issue a notice to the Selectboard Chair that the LHMP meets “Approval Pending Adoption” (APA). Once APA is reached the St. Albans Town Selectboard will then adopt the plan at a public meeting and then the Selectboard will return the final plan containing a copy of the Adoption certificate to FEMA (via the SHMO). FEMA will conduct one final review to ascertain that no changes were made to the plan (other than removing watermarks and inserting dates) following the APA and then the plan is deemed “FINAL”.

The Select Board Chair is charged with requesting annual reports as to the progress of each project. It is important to the Town of St. Albans that this plan be monitored and updated annually or after a presidentially declared disaster. Section 6 addresses this issue.

### **3. COMMUNITY PROFILE**

St. Albans Town is located in the northwest part of Vermont in Franklin County and is bounded north by Swanton, east by Fairfield, south by Georgia, and west by Lake Champlain, a part of which separates it from North Hero. St. Albans is a rural town covering 60.66 square miles of which 37.6 square miles (62.4%) is land and 23.0 square miles (37.98%) is water. The Town of St. Albans surrounds the City of St. Albans and shares borders with the Town of Swanton, the Town of Fairfield, the Town of Fairfax, and the Town of Georgia. The Town extends into Lake Champlain. Across Lake Champlain is the Town of North Hero and the Town of Grand Isle. The Town of St. Albans is approximately 30 miles north of the City of Burlington, Vermont’s largest City, and approximately 80 miles south of Montreal, Canada. The major roadways serving the Town of St. Albans are Interstate 89 and Route 7, which ties in with Route 105 and Route 207 at the north end of Town and Route 104 at the south end of the Town.



### Population and Housing

According to the US Census the population of St. Albans Town was 5,999 in 2010. According to the 2010 Census figures, there were 2,792 total housing units, of which 2,277 are occupied throughout the year. There are 422 units classified as seasonal, recreational or occasionally occupied and 546 are either vacant, for sale only or rent. Most housing units are single-family structures.

The 2013 municipal wide listed value of structures is \$849,946,300<sup>1</sup>. The median value of owner occupied housing unit from 2007-2011 in the Town of St. Albans Town is \$226,700<sup>2</sup> according to the Vermont Center for Rural Studies and the 2000 US Census American Community Survey .

### Existing Land Use

St. Albans Town is continuing to evolve from primarily an agricultural community to one that supports a mix of agricultural, residential, commercial and industrial development. The Town encourages commercial development, especially around Exits 19 & 20 of Interstate 89, and that type of development brings opportunities to the Town for increased development. This also supports seasonal, residential, commercial and industrial development.

1. *Western Area of Town* - This area is dominated by the lakeshore, including the historic St Albans Bay settlement area and has a Lakeshore Overlay. Lakeshore development is mainly given over to dense year round and seasonal residential use, the exception being the St Albans Bay area that is characterized by mixed use development, although the density and intensity of use here is less than in other mixed use areas. Also located on the western side are the majority of the remaining agricultural operations in town and single family residential homes.
2. *Eastern Area of Town to Interstate 89* - This area consists of sparsely developed hill areas that lead down to the growth center areas, in the north and south, along Route 7 and Interstate 89. Located in this area are the radar site, low density residential development, some agricultural uses, and the designated sites for telecommunication towers.
3. *Center Area of the Town* - This area is predominately the boundaries of the City of St. Albans creating an island within the Town of St. Albans boundaries.
4. *Northern Area of Town* - This area contains one of the designated growth center overlay districts and consists of high density commercial and industrial development, mostly along Route 7 and Interstate 89 Corridors. Outside of the designated growth center overlay districts are high density residential developments. Incentives are available to encourage greater density in this area.
5. *Southern Area of Town* - This area contains one of the designated growth center overlay districts and consists of high density residential and commercial development. Incentives are available to encourage greater density in this area.
6. *Town of St. Albans Industrial Park* - This area is within the southern area of Town, but

---

<sup>1</sup> Town of St. Albans Grand List (2013)

<sup>2</sup> May not fully reflect current median home values. In the event of a hazard incident, a current home value data should be used to estimate losses.

has been and continues to be developed as an industrial park.

A broad overview of the land use pattern shows a conscious effort by the Town of St. Albans to cluster development appropriately. The high intensity of residential, commercial and industrial uses is located in areas that have easy access to major thoroughfares such as Route 7 and Interstate 89 and the railway. The exception is the Lakeshore area where there is intense residential development. The hillside areas to the east are sparsely developed and the area to the west is mostly agricultural.

#### Future Land Use

Zoning Districts define how land should be developed in a given area, what kind of uses will be allowed in a defined area, and what the Town of St. Albans requires for certain uses. Zoning Districts serve to give notice to landowners about what they can expect will be allowed both on their land and the land of their neighbors. Zoning Districts provides a base zoning regulation standard and the Overlays allow for flexibility and incentives for development that the Town wants.

Currently the Town has the following Zoning Districts:

1. *Conservation District*

The purpose of the Conservation District is to limit development in order to protect sensitive natural areas such as wetlands and to provide habitat to wildlife sufficient to provide food, shelter and corridors for wildlife migration.

2. *Lakeshore District*

The purpose of a Lakeshore District is to protect the shoreline of Lake Champlain from erosion, clearing, and hazardous development and to maintain its character of seasonal and year-round homes, open space, access to the lake, and commercial uses that support lakeshore recreational activities.

3. *Rural District*

The purpose of the Rural District is to maintain the rural landscape by encouraging agriculture, forestry, recreation, single-family residences as the primary uses in the District.

4. *Residential District*

The purpose of the Residential District is to provide areas for residential development that maintains the characteristics of existing neighborhoods and sets aside areas for new residential-only development.

5. *Mixed Commercial/Residential District*

The purpose of the Mixed Commercial/Residential District is to provide for residential development and certain commercial uses that enhance residential living by the provision of shopping facilities, personal services and professional services.

6. *Commercial District*

The purpose of the Commercial District is to provide an area for primarily commercial development with conditional use review of multi-family residential uses (in growth centers only) that clusters development.

7. *Heavy Industrial District*

The purpose of the Heavy Industrial District is to provide an area for intensive industrial uses including manufacturing, warehousing and transportation terminals that increase the Town's tax base and provides employment opportunities.

Currently the Town has the following Overlays:

1. *Flood Hazard Overlay*

The purpose of the Flood Hazard Overlay is to assure compliance with minimum National Flood Insurance Program (NFIP) standards, which limits increases in flood damage caused by development in flood hazard areas, minimizes future public and private losses due to floods and promotes the public health, safety and general welfare. Compliance with minimum National Flood Insurance Program (NFIP) standards allow landowners designated on a FEMA floodplain map to buy flood insurance at a reasonable rate.

2. *Telecommunications Overlay*

The purpose of the Telecommunications Overlay is to cluster commercial communication tower sites to centralize the growth of commercial communication towers in Town.

3. *Corrections Facility Overlay*

The purpose of the Corrections Facility Overlay is to allow for the housing and rehabilitation of individuals who are being detained by local, state or federal authorities, and to help plan for the upkeep and possible expansion of the Northwest Correctional facility.

4. *Growth Center Overlay*

The purpose of the Growth Center Overlay is to provide incentives to encourage dense, clustered and concentrated residential and commercial development in designated areas where public utilities and access to major thoroughfares is available.

Energy

Two power companies serve St. Albans Town: Green Mountain Power, serving the western and central areas; and the Vermont Electric Co-operative, serving the eastern portion. According to the 2008-2012 American Community Survey, fuel oil and kerosene are the most popular home heating fuels and were used by 1007 homes (43.9 %). Utility gas is the second most popular home heating fuel with 835 homes (36.4%) and bottled, tank or LP gas is the third most popular home heating fuel with 280 units (12.2%) followed electricity at 7 units (0.3%), other fuel at 165 units (7.2%).

Water and Sewer Service

The Town does not have a municipal water supply system or wastewater system. The majority of residents in the Town of St. Albans rely on privately drilled wells and septic systems for their water, waste water and sewer. For those areas that do not support on-site septic, new innovative systems may address this limitation on development.

Emergency Services

Police Protection is provided by the Vermont State Police who have a barracks facility on VT104, east of the City. Additionally, The St. Albans City Police Department, located on Lower Weldon St. in St. Albans City, has a contractual agreement to provide law enforcement. It is anticipated that as the Town of St. Albans grows and continues to develop with expanding commerce and new residential neighborhoods, there will also be greater demand for police protection. The level of law enforcement provided should

keep pace with the growth of the Town to ensure that residents and visitors can enjoy a safe and orderly environment.

In 1975, the Town of St. Albans Fire Department was organized to provide the community with fire protection and emergency rescue services. Since then, the Fire Department has expanded to include heavy rescue, water rescue, EMS and hazardous material response capabilities. The heavy rescue unit is equipped and trained to respond motor vehicle, farm and industrial accidents. The Town Fire Department is located at 428 Lake Road/VT 36. The Department has over 30 volunteer members on call 24 hours a day, 7 days a week and 1 Full Time member during the hours of 8:00 am to 4:00 pm Monday thru Friday. The Department has one pumper (2,000 gpm), one 75' Quint (1,750 gpm), two pumper/tankers (1000 gpm ea.), one rescue vehicle, one utility vehicle and one marine unit.

*North End Fire Station:* The Town has considered establishing a second fire station with the location to be on the North end of Swanton Road/VT Rt. 7 where commercial development is occurring. A possible cooperative agreement with the Town of Swanton to provide apparatus to this could be warranted.

One hospital, Northwestern Medical Services (NMC) located on VT36, provides a full range of services to the surrounding communities. NMC is a 70-bed, private, non-profit accredited community hospital that employs more than 575 people including 70 physicians.

Emergency Medical Services are provided by AmCare which is a private medical emergency response company located in St. Albans Town. The Town contracts with AmCare to respond to emergencies. AmCare also provides service to Fairfield, Georgia and St. Albans City. Each town contributes a per capita fee to AmCare in order to receive emergency medical services.

#### Emergency Planning and Mitigation

St. Albans Town has a Local Emergency Operations Plan that is updated annually. The St. Albans Town Education Center and the Collins-Perley Sports Complex are designated emergency shelters. The St. Albans Town Education Center has also been identified by the state of Vermont with assistance from local agencies as a mass care-med surge facility for the State Public Safety District A.

St. Albans Town is a member of the Franklin County Mutual Aid Agreement and the Franklin County International Firefighters Association.

#### Transportation

There are 27.227 miles of Federal and State Highways in St. Albans Town including: 7.723 miles of Interstate 89 (including Exits 19 and 20), 2.897 miles of US7, 5.323 miles of VT36, 3.345 miles of VT38, 4.263 miles of VT104, 2.098 miles of VT105, 0.588 miles of VT207 and 0.990 miles of SASH. The Town maintains a total of 51.230 miles of town owned highways including: 20.570 miles of class 2 roads, 30.660 miles of class 3 (including 0.990 of class 4 roads).

With the expansion of the commercial base in the northern section of the Town around Exit 20 and along Route 7 north, the town is in the process of planning for a relief road to run parallel to Route 7 in this area. Bridge repair and replacement is an on-going project.

The Northwest Vermont Public Transit Network operates a public transit system. St. Albans Bay is located on Lake Champlain which is a highly valued corridor for recreational boat traffic. New England Central Railroad is located in the St. Albans community and provides passenger and freight services.

The Town of St. Albans currently has 326 structures in its culvert inventory. The inventory is updated by the Town of St. Albans Public Works Director and all data is entered into the Vermont Online Bridge & Culvert Inventory Database. With this web-based application, local officials and interested members of the public can review the Town's culvert inventory including the type, size, condition and other factors. The Town of St. Albans last updated the inventory in the fall of 2010.

The most recent data shows the following culvert conditions:

1. Excellent or good - 32%
2. Fair - 57%
3. Poor, critical or closed - 7%
4. 8 culverts condition are unknown.

In 1988, the Town of St. Albans adopted regulations related to roads and driveways. Recently, the Town of St. Albans has set a policy that the Road Ordinance be reviewed and updated on a regular basis to reflect changes to new standards and new Town policies. Road standards are not restricted to the roads that the Town of St. Albans owns and maintains; the road standards also apply to private roads.



St. Albans Bay, April 2011

#### National Flood Insurance Program (NFIP)

Federal Emergency Management Agency conducted a flood hazard study for the Town of St. Albans in 1988 and flood hazard areas were identified along the Stevens Brook, Rugg Brook, and Saint Albans Bay lake shore. Flood Insurance Rate Maps (FIRMs) were prepared by FEMA in 1988. They are available for review at the St. Albans Town Office and on-line at FEMA.gov.

Creation of the Flood Hazard District in the Town's Subdivision and Zoning bylaws enabled the Town of St. Albans to be eligible for FEMA's National Flood Insurance Program (NFIP), which permits residents within the Flood Hazard District to purchase flood insurance. The purpose of the district is to prevent increases in flooding caused by development in flood hazard area, to minimize future public and private losses due to floods, and to promote the public health, safety and general welfare. The Town is committed to enforcing floodplain regulations and ordinances to be eligible to participate in the NFIP program and protect the people and property of St. Albans by restricting development in flood prone areas.

According to FEMA's National Flood Insurance Program as of September 26, 2014, the Town of St. Albans has 42 policies in force with \$7,494,700 insurance in-force and \$29,173 written premium in-force. Payments since 1978 total \$1,253,331. There are no repetitive loss properties in St. Albans Town. There are currently no large or small developments planned in St. Albans Town that would be

considered in the floodplain. It is a goal of the Town to remain in compliance with the National Flood Insurance Program.

#### **4. RISK ASSESSMENT ~ Identifying Hazards, Profiling Hazards and Assessing Vulnerability**

The information is based on surveys and interviews with local officials and the best available data sources found from federal, state, regional, and local agencies and departments. The risk and/or impact of several hazards were negligible.

Hazard identification and risk estimation can be a highly complex, time consuming and very costly effort if sophisticated technical and engineering studies are undertaken. The Town of St. Albans does not have the resources to undertake hazard identification and risk assessment studies to a high level of detail. The Town of St. Albans and the Northwest Regional Planning Commission used a hazard profile risk matrix (Attachment A) to develop a risk rating for each identified hazard. The matrix was completed by relying on hazard identification and risk evaluation information as well as the knowledge and judgment of planning participants. Health and safety consequences, property damage, environmental damage and economic disruption are classified as consequences of occurrence for each hazard. The following is a description of the risk characteristics used to classify each hazard:

##### **Frequency of Occurrence:**

1. Rare: Unknown but rare occurrence
2. Unlikely: Unknown but anticipate an occurrence
3. Possible: 100 years or less occurrence
4. Likely: 25 years or less occurrence
5. Highly Likely: Once a year or more occurrence

##### **Magnitude or % Area Impacted:**

0. Negligible: < 10% of developed area impacted.
1. Limited: 10% to < 25% of developed area impacted.
2. Critical: 25% to 50% of developed area impacted.
3. Catastrophic: > 50% of developed area impacted.

##### **Health & Safety Impacts:**

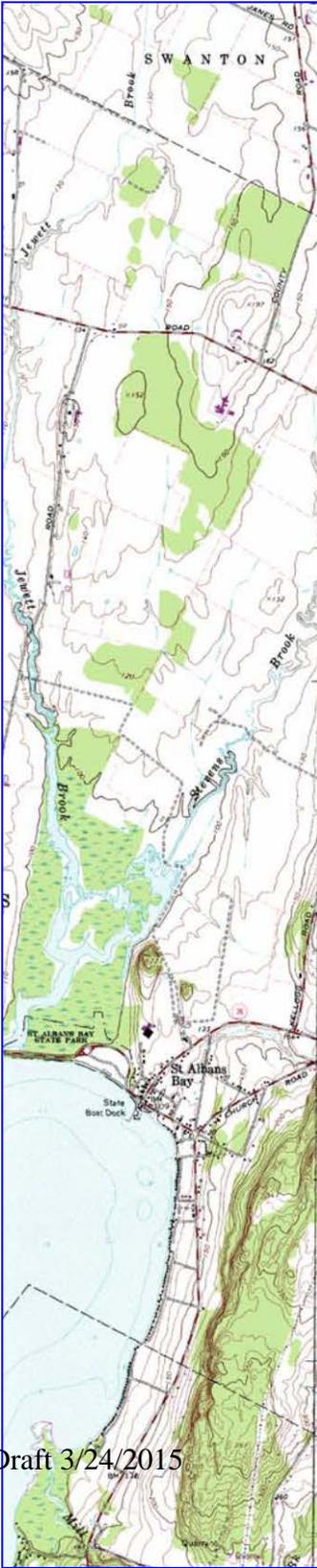
0. No health and safety impact
1. Few injuries or illnesses
2. Few fatalities but many injuries or illnesses
3. Numerous fatalities

##### **Property Damage:**

0. No property damage
1. Few properties destroyed or damaged
2. Few destroyed but many damaged
3. Few damaged but many destroyed
4. Many properties destroyed and damaged

**Environmental Damage:**

0. Little or no environmental damage
1. Resources damaged with short term recovery practical
2. Resources damaged with long term recovery feasible
3. Resources destroyed beyond recovery



**Economic:**

0. No economic disruption
1. Low direct and/or indirect costs
2. High direct and low indirect costs
3. Low direct and high indirect costs
4. High direct and high indirect costs

The hazard risk matrix (See Attachment A) for the Town derives a “relative risk score” using a qualitative process in which to compile estimates of the likely **frequency** of occurrence, the **extent** of the community that would be impacted, and the likely **consequences** in terms of public safety, property damage, economic impacts and harm to environmental resources. The total is considered in this plan to constitute the relative risk score. The hazards with the highest risk scores are severe winter storm (ice storm) followed by flooding and fluvial erosion/landslide. It should be noted that the community’s overall risk rating is low (258 out of a possible high of 1,200).

Vulnerability assessments build on the identification of hazards in the community and the risk that the hazards pose to the community. The vulnerability assessment examines more specifically how the facilities and systems of the town would be damaged or disrupted by the identified hazard. Vulnerability assessments are included in each hazard profile and in Table 4.2.

Each hazard was analyzed to estimate losses within the Town of St. Albans. The results are included in each hazard profile and in Table 4.2. Human losses were not calculated during this exercise, but could be expected to occur depending on the type and severity of the hazard. Most of these figures exclude both the land value and contents of the structure. The data was calculated using FEMA’s Understanding Your Risks: Identifying Hazards and Estimating Losses (August 2001). Damage estimates were made in 2014 and it should be noted that projected dollar losses change with inflation and time. As future development in St. Albans is unpredictable at this time, it is uncertain as to how many future structures could be threatened by hazards.

**Flooding, Fluvial Erosion, Lake Shore Erosion**

Flooding in St. Albans Town is caused by rainfall, rainfall mixed with snowmelt, spring thawing of the lake ice, and by a combination of the three. Flooding is most likely to occur during the spring when snowmelt, ice melt and rainfall cause water levels to rise. Floods have occurred on Stevens and Rugg Brook and along the lakeshore during all seasons of the year.

According to the St. Albans Flood Insurance Study dated June 15, 1988, significant flooding occurs on an average of every 5 years. This report states that many areas in the residential section east of US7 and the commercial section towards Newton Road are susceptible to flooding. A majority of flooding is characterized as frequent out-of-bank flooding throughout the urban areas, associated with spring snowmelt and summer rainfall events. Larger fluvial floods resulted in basement and first floor flooding of homes and businesses, inundation of local roads, and washing out of riverbanks and culverts.

Floods can damage or destroy public and private property, disable utilities, make road and bridges impassable, destroy crops and agricultural lands, cause disruptions to emergency services and result in fatalities. People may be stranded in their homes for a time without power or heat may be unable to reach their homes. Long-term collateral dangers include the outbreak of disease, loss of livestock, washout of septic systems, water pollution, downed power lines, loss of fuel storage tanks, fire and release of hazardous materials.

While inundation-related flood loss is a significant component of flood disasters, the more common mode of damage is associated with fluvial erosion, streambed and streambank erosion, often associated with physical adjustment of stream channel dimensions and location during flood events. These dynamic and oftentimes catastrophic adjustments are due to bed and bank erosion, debris jams or structural failure of or flow diversion by human-made structures.

Stevens Brook and Rugg Brook are two separate perennial streams that flow through the Town of St. Albans and the City of St. Albans. Both brooks discharge into St. Albans Bay on Lake Champlain. The drainage area of these streams is approximately three square miles. Both brooks are known to flood. Flood can damage or destroy public and private property, disable utilities, make roads and bridges impassable, destroy crops and agricultural lands, cause disruption to emergency services, and result in fatalities. People may be stranded in their homes for a time without power or heat or they may be unable to reach their homes. Long-term collateral dangers include the outbreak of disease, loss of livestock, damaged septic systems, loss of fuel storage tanks, fires and release of hazardous materials.

In 1900, due to persistent flooding along Stevens Brook, the State of Vermont enacted legislation regarding the diversion of flood discharges from Stevens Brook into Rugg Brook. No action was taken for over 50 years. In the spring of 1955, Stevens Brook experienced significant flooding during a rain event. Following the storm, St. Albans Town, St. Albans City, and the Franklin County Soil Conservation District took action to divert floodwaters. A storm water diversion structure built to divert high water flows from adjacent Stevens Brook into Rugg Brook to avoid flooding in the most populated areas of the City of St. Albans. The diversion structure is an open channel that connects Stevens Brook to the lower reaches of Rugg Brook.

The Stevens and Rugg Brook Watershed Study Report from July 2003 notes from local interviews



*Flooding of the Collins Perley Sports Complex  
June 5, 2002.*

that the frequency of out-of-bank flooding has increased significantly over time. Surcharging of the City-owned storm drain system has occurred approximately six times from 1985 to 2003, resulting in localized flooding.

A winter storm that occurred on January 15, 1996 (FEMA 1101-DR) triggered flooding throughout the Town and County. The flooding damaged many roads throughout Town.

In January 1998, a significant ice storm event caused flooding throughout parts of the town. Vermont Routes 36 and 38 experienced some flooding. The storm caused extensive damage to trees and power lines, leaving many residences without power.

In June 2002, several storm events passed through the area generating significant rainfall amounts and associated flooding. On June 5<sup>th</sup>, 2.91 inches of rainfall was recorded. On June 11<sup>th</sup> and 12<sup>th</sup>, 2002 a storm event generated 4.3 inches of rainfall. This storm was estimated to be between the 30 year and 40 year rainfall recurrence frequency. Many homes suffered flood damages to basements and yards. The Collins-Perley Sports and Fitness Center was inundated with water during the June 11-12<sup>th</sup> event. Damages to the outdoor facilities included the deposition of silts and sediments on the fields and surrounding area, erosion and loss of access until the facilities were dried and restored.

There were three flood events in 2004. The Burlington Weather Service reports that 2004 was the third wettest summer on record. On September 23, 2004 a disaster declaration (FEMA-1559-DR) was declared due to severe storms and flooding from August 12th through September 12th, 2004. Franklin County was included in the disaster declaration. Flooding occurred as a result of heavy rain produced from Tropical Storm Francis.

May 2006 experienced above normal monthly rainfall amounts. A two day heavy rainfall event on May 18 and 19, 2006 brought of 3 to 5 inches of rain in Franklin County with locally more than 6 inches along the western slopes of the Green Mountains at nearby Jay Peak. Widespread flooding occurred from May 19th to the 20th resulting in numerous flooded roads, as well as some road and culvert washouts.

A series of storms affected the entire state from June 14 to 17, 2008 (DR 1778). Stronger storms on Monday June 16 produced up to 1 inch hail. These storms also produced heavy rainfall, but were moving more quickly. No flooding resulted. On Tuesday June 17th strong thunderstorms produced pea sized hail and heavy rain in the Trout River basin in northwest Vermont. Flash flooding occurred in the eastern parts of Franklin County.

The year 2011 was a record year for flooding in the state of Vermont. The first floods occurred over a two-week period in April and May of 2011 (DR 1995, 4043). These floods impacted the northern half of the state, including the counties of Addison, Chittenden, Essex, Franklin, Grand Isle, Lamoille, Orleans, Washington, and Windham. The damage totaled over \$1.8 million in FEMA assistance.

Heavy rains in late March into early April 2011, on top of a deep late season snowpack, resulted in riverine flooding and sent Lake Champlain well over the 500-year flood elevation breaking the 140-year-old peak stage elevation. Additional spring runoff events resulted in Lake Champlain being above base flood elevation for more than a month. High lake levels coupled with wind driven waves in excess of 3 feet resulted in major flood damages for shoreline communities. On May 6, 2011, Lake Champlain reached its record peak flood stage of 103.27 feet. Flood stage for the Lake is

In St. Albans Bay, many seasonal lakeshore dwellings were impacted by the Lake flood in 2011. Many cottages and camps along Hathaway Point Road and Georgia Shore Road in St. Albans received a range of damages from property erosion to structural damage. The St. Albans Town Park and Kamp Killkare State Park were almost completely flooded. Camps and cottages along Lapan's Bay were also inundated. Many roads that accessed the Lapan's Bay were inaccessible due to flood waters. Numerous roads were closed throughout the Town. Town Highway crews worked day and night shifts to keep the Hathaway Point Road open.

Floods are a reminder to the residents of St. Albans Town of the power inherent in nature. Floods are



*VT 36. St. Albans Bay. April 2011*

an urgent reminder of the need for proper management and appropriate use of critical floodplain areas. Development within floodplains poses significant risks and should generally be avoided. River channels and floodplains function as a single hydrologic unit, periodically transferring floodwaters and sediment from one to the other. Appropriate uses of floodplains are those that can accommodate this cycle. Examples of uses that are appropriate to floodplains include agriculture, open space, and recreation.

### *Fluvial Erosion, Lakeshore Erosion*

According to the Stevens and Rugg Brook Watershed Study from 2003, increased erosion in all areas of the watershed is identified as a source of water quality problems. Fluvial erosion causes the transport of sediments and silts into the brooks. Erosion may be caused by excessive runoff during storms events. Excessive runoff has resulted from long term development within the St. Albans Bay watershed, converting pervious land to impervious lands with drainage systems connected directly to the streams. Also, development in riparian buffer areas may contribute to the issue.

Shoreline erosion around the lakeshore is a natural process that can result in property loss, structural damage to roadways and /or houses, and poor water quality. Traditional shoreline protection methods, such as seawalls and embankments of large stones, can be very effective; however, such methods are expensive and can have detrimental, unintended environmental consequences. In the Lake Champlain Basin including St. Albans Bay, there has been a significant effort

<p>The Entire Watershed Forms a System:</p> <ul style="list-style-type: none"><li>• Rain =&gt; Runoff</li><li>• Runoff Transports Sediment</li><li>• Slope/Meanders Impact Transport of Sediment</li></ul> <p>Manmade Features Impact Everything.</p>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

to find natural, cost effective processes, such as bioengineering, that use live plantings, as well as other methods such as land use planning, to modify the processes of shoreline erosion.

During the June 2002 flood, many residences experienced flooding and flood damage to basements and yards. Flooding of streets and roads and inundation of large tracts of land also occurred. For example, Collins Perley Sports Complex was inundated as a result of out-of-bank flooding and stormwater discharge. Residences along Clyde Allan Drive had flooded basements. Erosion and deposition of silts and gravels and flood borne debris was common along the flood plain corridors.

Northern Vermont experienced record rainfalls during the spring of 2011 (DR1995 and DR4043). High precipitation combined with snowmelt resulted in prolonged saturated conditions and significantly elevated and/or perched water tables. The saturated ground and high water table conditions contributed to slope instability and landslides at several locations throughout northern Vermont. St. Albans Town did not experience any landslides however; many properties along the lake shore were inundated for through much of April and early May.

Additionally, flooding and fluvial erosion caused by Tropical Storm Irene was catastrophic, destroying property and again eliciting a federal disaster declaration (DR-4022). The details and impacts of Tropical Storm Irene are provided in the Hurricanes/Tropical Storms section of this risk assessment. However, it is important to underscore that the majority of damages resulting from Tropical Storm Irene were due to flooding and fluvial erosion.

Effective July 1, 2014, the Vermont Legislature passed the Shoreland Protection Act (Chapter 49A of Title 10, §1441 et seq), which regulates shoreland development within 250 feet of a lake's mean water level for all lakes greater than 10 acres in size. The intent of the Act is to prevent degradation of water quality in lakes, preserve habitat and natural stability of shorelines, and maintain the economic benefits of lakes and their shorelands. The Act seeks to balance good shoreland management and shoreland development.

A GIS based overlay analysis was conducted using FIRM data with the Vermont E-911 Esite data of structure location. The results found that there are two hundred eighty-five (285) structures within the 100 or 500 year flood plain in St. Albans Town. There are one hundred and ninety three (193) seasonal camps, eighty-eight (83) single family dwellings, two (2) mobile homes, two (2) commercial sites, two public gathering sites (pavilions), and three (3) are classified as other or unknown.

Estimating flood damage of the 9% of structures with 20% damage is \$15,299,033. Cost of repairing or replacing the utilities, roads, bridges, culverts, and contents of structures is not included. Impacts to future populations, residences, new buildings, critical facilities and infrastructure are anticipated to remain the same.

In addition to the previously mentioned road structure projects, the Town has identified the following priority road projects to address flooding issues. The projects identified were selected due to the frequency of maintenance and road repairs on each road following flood events. The projects include the Dunsmore Road Bridge replacement, Hathaway Point Road improvements, Little County Road culvert replacement, Church Road culvert upgrade, French Hill Road drainage improvements.

VT36 near St. Albans Town Park: VT36 floods on an annual basis between the St. Albans Town Park and Black Bridge at the confluence of Stevens Brook and Jewett Brook in St. Albans Bay. The State Highway typically is flooded but passable. VT36 is a State Highway and is under the State's jurisdiction.

Dunsmore Road (TH30) Bridge 9. The Dunsmore Road crosses Jewett Brook at a narrow low lying Bridge. The bridge constricts bankfull channel width of the Brook. The bridge is dated and should be replaced with a structure that will safely accommodate the variety of farm trucks and allow for better flow of water.

Hathaway Point Road (TH3). Hathaway Point Road runs along the west side of St. Albans Bay and is heavily used by recreationists as well as residents that live in the area. A half mile section of the road from the fishing access/boat launch to the northeast needs drainage upgrades and improvements to mitigate annual spring flooding damages.

Little County Road (TH30). A steel culvert greater than 2 feet in width on Little County Road near the intersection with Lake Road is in critical condition. The Town recommends replacing and upgrading the culvert to accommodate drainage in the area and to prevent degradation of the road shoulder.

Church Road (TH5). A concrete culvert on Church Road near the intersection with Lake Road is in critical condition. The area experiences flooding during rain events because the culvert has failed. There is evidence of erosion along the road shoulders. The Town recommends replacing and upgrading the culvert.

French Hill Road (TH14). A steep section of French Hill Road to the east of town has experienced gullyng and other erosion in the town right-of-way because a series of culverts were not designed to accommodate stream flow. The site should be evaluated by stream engineers to mitigation gullyng and other road shoulder erosion that is threatening the road. The Town recommends reestablishing a structurally sound drainage that will safely support French Hill Road and prevent future slope failure.

The Town has identified the following actions to mitigate the impacts on the community due to flooding, fluvial erosion and lakeshore erosion:

*St. Albans Town Park Lake Shore Improvements:* The St. Albans Town Park shoreline is subject to lake shore erosion from the expansion and thawing of lake ice in winter and spring and wave action during the warmer months. The Civilian Conservation Corps armored the Town Park lake shore, when the Park was state owned, with large stones to prevent the shoreline from failing. The town has to maintain the shore each year to prevent further deterioration.

*Distribute the Shoreline Stabilization Handbook for Lake Champlain and Other Inland Lakes to property owners along Lake Champlain within the Town.*

*Encourage lake shore property owners to establish riparian buffers along the lakeshore to prevent shoreline properties from eroding.*

### **Severe Winter Storms (Ice Storm)**

In northwestern Vermont where St. Albans Town is situated, a severe winter storm can last for several days and can be accompanied by strong winds creating blizzard conditions with blinding wind-driven snow, severe drifting, and dangerous wind chill. Strong winds, accumulations of ice and heavy snow can

knock down trees, utility poles, communication towers and power lines. Communications and power can be disrupted for days while utility companies work to repair the extensive damage. People have been trapped at home for up to two weeks, without utilities or other services.

Extreme cold often accompanies a severe winter storm or is left in its wake. Prolonged exposure to the cold can cause frostbite or hypothermia and become life-threatening. Infants and elderly people are most susceptible. Even small accumulations of ice may cause extreme hazards along roadways. Heavy snowfall and blizzards can trap motorists in their cars. Attempting to walk for help in a blizzard can be a deadly decision.

The National Weather service defines a blizzard as “a storm which contains large amounts of snow or blowing snow, with winds in excess of 35 mph and visibilities of less than 1/4 mile for an extended period of time (at least 3 hours). Some of the worst historical storms in St. Albans Town have left snow depths of 14” (March 2001), wind speeds up to 40 mph (January 1998), and ice accumulations of 2-4” (January 1998 and December 2013). The following is a review of the history of severe winter storms that have impacted the Town.

The Halloween Storm occurred during the evening of October 1, 1993 leaving snow amounts of 6 to 10 inches across Franklin County.

A FEMA declared disaster (FEMA 1101-DR-VT) for the county was made following a January 19th, 1996 winter storm. A warming trend produced heavy rains causing rapid snow melt that led to flooding.

In January of 1998 the infamous Ice Storm swept to the north and west of town causing isolated flooding from freezing rain. Power outages were widespread in the region lasting for several weeks. The event was a federally declared disaster (FEMA-1201-DR-VT).

On March 26, 2002 a late season storm came in the form of snow mixed with sleet and freezing rain during the night creating hazardous travel conditions. In St. Albans, 7 inches of snow was reported as were numerous accidents.

A rare autumn Nor’easter struck Franklin County on October 25, 2005. The Nor’easter was fed by the remnants of Hurricane Wilma. There were reported snowfall amounts in the County varied from 6 to 14 inches. Trees still laden with fall foliage were downed due to the weight of heavy, wet snow. There were many reports of snapped power lines from downed trees and branches. Many homes serviced by Vermont Electric Cooperative were without power for several days.

On the night of March 3rd, 2006, a storm occurred across northern Vermont causing snow accumulations of six inches in town by the following morning.

On February 14, 2007 a winter storm blanketed most of New England. In Vermont, snow fell heavy at times from late morning through early evening before dissipating during the night. Snowfall rates of 2 to 4 inches per hour and brisk winds of 15 to 25 mph caused near whiteout conditions at times, along with considerable blowing and drifting snow, making roads nearly impassable. Temperatures in the single numbers combined with brisk winds created wind chill values of 10 degrees below zero or colder in St. Albans Town.

On December 22, 2010, Vermont received a Federal disaster declaration (DR 1951) to supplement state and local recovery efforts in the areas struck by severe storms during the period of December 1-5, 2010. FEMA's public assistance funds were made available to affected counties including Franklin County.

During December 20-26, 2013 (DR-4163) a wide-spread low pressure system that brought snow and freezing rain through Ontario, Quebec, and Northern New England. These areas experienced an ice storm that brought wide-spread power outages. Many Towns throughout Franklin County, Vermont were affected by the ice storm. Vermont Electric Cooperative responded to over 60,000 customer outages during the week and estimated costs of restoring power at \$7,400,000. In St. Albans Town, both Fire and Highway departments were active keeping roads open and removing ice damaged trees and limbs from local roads. Some residents were without power for brief periods of time. The storm's impact was greater on neighboring municipalities south and east of town.

Winter storms affect the entire Town and generally cause disruptions to public and private services. The primary impacts of a storm typically include the disruption to transportation networks, school closings and occasionally telecommunications and power outages. Vulnerable populations such as the elderly, those dependent on medical equipment and specialized health or physical care are at risk to winter storms. Also at risk are farms and associated structures and livestock. Barns can collapse due to heavy snow loads. Dairy cattle are susceptible to mastitis if they are unable to be milked.

The Town's recent history has not recorded any loss of life due to the extreme winter weather. These random events are difficult to set a cost to repair or replace any of the structures or utilities affected. Impacts to future populations, residences, new buildings, critical facilities and infrastructure are anticipated to remain the same.

The Town highway department has snow removal equipment in place to respond to winter storms. The community has designated shelters including the St. Albans Town Educational Center which is a certified American Red Cross shelter and is a designated State Mass Care – Med Surge facility.

The Town has identified the following actions to mitigate the impacts on the community due to severe winter storms (ice storms):

*Procure and install a generator and automatic transfer switch at the St. Albans Town Hall.*

*Reduce Impacts to Roadways by planning and maintaining adequate road and debris clearing capabilities.*

*Identify specific at-risk populations in the town's Emergency Operations Plan that are vulnerable in the event of long-term power outages.*

*Organize outreach to vulnerable populations, including establishing and promoting warming shelters in the community.*

*Encourage homeowners to install carbon monoxide monitors and alarms.*

*Educate citizens that generators must be vented to the outside.*

### Hazardous Materials (Fixed Site and Transport)

There are 25 sites in town that have sufficient types and/or quantities of hazardous materials to require reporting (see Attachment B). Agriculture based businesses such as farms typically store various hazardous materials including various fuels, pesticides and fertilizers. Of more concern are the various trucks carrying hazardous materials traveling along Interstate 89, US7, VT36, VT38, VT104 and VT105.

New England Central Railroad (NECR) operates on rail lines that run north-south through St. Albans Town. NECR provides service of mixed (import and domestic) containers from the U.S./Canadian border and throughout New England. Some of the freight that is hauled through town includes propane tank cars that move bulk propane from refineries and gas plants to bulk plants. An incident involving a propane tanker such as a derailment would impact a mile area around where the derailment occurred. Depending on the incident, evacuation notices or shelter-in-place notices would be carried out in the affected area. There are several lighted and marked rail crossings in town including US Route 7, Industrial Park Road, Brigham Road, Lower Newton Road and Jewett Avenue. An incident at any intersection would cause some delays and disruptions in traffic.

There are no reporting hazmat facilities located within the 100 or 500 year flood plain in St. Albans Town. Based on the recommended Public Safety evacuation distance from the 2000 Emergency Response Guidebook, a 1,000-foot circle has been drawn around those sites. Structures inside the circle are those that are at risk to a hazmat incident and may need to be evacuated or shelter-in-place if an incident occurred. There are approximately 300 structures identified by VT E-911 in St. Albans Town that might be impacted during a hazmat fixed site incident. Those structures are located along Pearl Avenue Extension, Brigham Road South, Brigham Road South of rail crossing and North to Newton Road, East and West of Rail Crossing at Newton Road including Stoney Acre Drive, Mosher Lane, Loomis Lane, Ethel Court, Jewett Avenue, Pike Drive on the South West side and the St. Albans Town Industrial Park Road and along Ethan Allen Highway/Rt. 7 South of St. Albans City.

Additionally, there are approximately 170 structures along Interstate 89, 338 structures along Route 7, 438 structures on Routes 36, approximately 164 structures on Route 38, approximately 202 structures on Route 104, and approximately 147 structures on Route 105 that could be impacted by hazardous materials transport incident. The fire station, town hall, and elementary school are critical facilities located within the zone. The St. Albans Town Fire Department has trained personnel and equipment to safely address a HAZMAT event.

The largest quantities of hazardous materials used in St. Albans Town are flammable or combustible liquids: heating fuels and automotive fuels. Other types of HazMat incidents that should be anticipated at vehicle and heating fuel dispensing depots include spills, leaks, fires and explosions. Propane, in high volumes, is stored and moved frequently and can be expected to be involved in a high percentage of hazardous materials incidents. There are many safeguards within the Vermont Natural Gas distribution system so that an incident involving natural gas is highly unlikely.



Agriculture based businesses such as farms typically store various hazardous materials including various fuels, pesticides and fertilizers. Of more concern are the various trucks carrying hazardous materials traveling along Interstate 89, VT Route 7, VT36, VT38, VT104 and VT105. The St. Albans Town Volunteer Fire Department members have received HazMat

awareness and technical training. The Town has a limited ability to deal with incidents involving hazardous materials. It is expected that the Vermont HazMat response team would assist in responding to a HazMat incident. The nearest HazMat response vehicle is located 33 miles away from the village at the IBM facility in Essex, Vermont. HazMat decontamination trailers are stationed 9 miles away in Swanton Village, 26 miles in Essex Junction and 22 miles away in Colchester.

Household Hazardous Waste is common household products that exhibit the characteristics of hazardous waste. As a result these products may be harmful to human health and/or the environment. Many of these products are very common and are usually purchased from local hardware, automotive, and grocery stores. These products can be used and found in our house, in our garages, on our lawns, and in our gardens. Because these products are so common and easy to purchase, many people forget that these products can be extremely harmful to their health or the environment. For example, common household products like toilet bowl and oven cleaners can potentially cause burns, blindness, nausea, and shortness of breath.

Automotive products such as gasoline, oil, and antifreeze can be extremely harmful to the environment. According to the EPA, just one gallon of used oil can pollute one million gallons of drinking water. Used oil that ends up in Vermont's waterways can threaten aquatic life. Antifreeze can be extremely toxic to children and pets, potentially causing liver and brain damage, and cardiac failure.

Lawn and garden products such as pesticides, herbicides, and fertilizers can be washed off lawns and gardens by the rain, and ultimately end up in water supplies and surface waters. These products can kill fish, non-target insects, and can bio-accumulate in the environment causing harm to animals. One infamous example is the pesticide DDT causing major health problems in birds of prey.

The Northwest Solid Waste District operates a household hazardous waste disposal program year round. Residents may bring household hazardous waste to designated drop off sites where the waste is disposed of properly minimizing environmental threats. The Town is a member of the Northwest Solid Waste District.

Public information activities are among the least expensive mitigation measures, and at the same time are often the most effective thing a community can do to save lives and property.

Damage and loss estimates from such events were not determined due to lack of data. The Vermont HAZMAT Team had no recent reports of any responses in St. Albans Town. Impacts to future populations, residences, new buildings, critical facilities and infrastructure are anticipated to remain consistent.

The Town also expressed concern about the vulnerability of the intersection of VT 36 and VT 104. A hazmat incident at the intersection would interrupt north – south, east – west traffic near the entrance to the Northwestern Medical Center.

On June 24, 2006 a leaking propane tank on Lower Newton Road prompted the evacuation of the residents at Four Winds Nursing Home as well as several neighborhoods. The Franklin County CERT was activated to assist in the evacuation. Electricity to the area was disconnected while the state HAZMAT team and first responders secured the scene. No one was injured.

The Town has identified the following actions to mitigate the impacts on the community due to hazmat incidents:

*Reduce possibility of damage and loss to existing community assets including addressable structures, critical facilities and infrastructure due to Hazardous Material releases.*

*Provide first responders with hazmat awareness and operations level training.*

*Educate the public about the Hazardous Materials to which they are most frequently exposed.*

*Identify and publish Hazardous Materials disposal procedures.*

### **Structure Fire**

Vermont has one of the highest per capita death rates from fire in the nation. This is in fact the deadliest form of disaster throughout the state, and much of this is preventable. Although there have been requirements for smoke detectors in rental housing for over twenty years, and requirements for smoke detectors in new single family dwellings since 1994, most fatal fires occur in buildings with no working smoke alarms.

The St. Albans Town Fire Department receives 200+ calls per year on average (10 for structure fires). The Department typically offers mutual aid to St. Albans City which receives an average 251 calls per year. The fire department actively upgrades its equipment through federal grant programs and municipal budgets.

In the commercial zones of St. Albans Town, structures that are relatively close raise the risk for a multiple structure fire. The impact of this type of incident would primarily be on the commercial sector with a smaller impact on housing. Older historic buildings that lack fire alarms and sprinkler systems are greater at risk for damages.

The Department is resourceful with its operating budget and seeks federal equipment grants to offset the costs of providing fire protection. Insurance and vehicle costs are large. However, the greatest difficulty facing departments tends to be attracting enough volunteers, and in having members that are in town during the day for daytime calls.

Estimated loss due to fire damage on 9 residential structures annually is \$1,979,000<sup>3</sup>. This loss estimate does not include building contents. Impacts to future populations, residences, new buildings, critical facilities and infrastructure are anticipated to lessen due to new building construction codes and standards which address fire safety.

### **High Winds**

High winds are a hazardous threat to the Town and most commonly accompany other storm events. Violent windstorms are possible in St. Albans Town. The Town is far inland and is unlikely to receive a direct hit from a hurricane, however high winds and hail storms have occurred in Town as weakened tropical storms track near the region.

---

<sup>3</sup> 2010 US Census Median Home Values for St. Albans Town are \$226,700.

Power lines and trees are most vulnerable to high winds. Power outages may occur resulting in significant loss of business as well as threatening public safety. The town has a limited ability in quickly restoring lost power caused by damaging high winds. Cleaning up debris following high wind events can be costly depending on the severity of the event.

High winds are common along the hilltops to the east of town and along the shoreline of Lake Champlain.

In September 2002, Tropical Storms Hannah and Isidore produced winds and heavy rain in St. Albans Town on September 14-15 and September 27 respectively. No damages or flooding were reported.

On July 8, 2005 Tropical Storm Cindy produced heavy rain across much of the state including St. Albans Town. Rain amounts were estimated between 1 and 3 inches with no reported damages.

In August, 2005 tropical moisture from Katrina reached St. Albans Town on August 30<sup>th</sup>. The rain was initially steady then became heavy on the 31<sup>st</sup>. Rainfall totals across Franklin County were generally between 2.5 and 4 inches. No damages were reported.

A powerful front brought damaging high winds during the afternoon of August 16, 2007. There were brief power disruptions, downed trees and associated damages to residential property throughout Town.



On November 28, 1993 a strong pressure gradient moved across the northeast creating strong winds that knocked out power in St. Albans and many other areas.

On July 23, 1998 in St Albans, thunderstorm winds blew down some trees with winds reported to be 60 mph or greater along with pea size hail.

On June 23, 2002, a cold front moved southeast through Canada creating thunderstorms with high winds that knocked down trees throughout town.

In August 2005, a strong frontal system tracked from the west and across the lake creating hazardous conditions for residents along the lake shore. Several boats were damaged as the result of high winds generated from the front. Several residents claimed to have witnessed water spouts moving across the lake.

On June 19, 2006, a line of strong thunderstorms swept into the Champlain Valley and across town knocking down trees along Route 36. NOAA reported that one gust of wind measured 62 mph in St. Albans.

Using the media value of homes from the 2010 US Census, the estimated damage of 10% of structures with 20% damage is \$11,969,760. The estimated cost does not include building contents, land values or damages to utilities. Impacts to future populations, residences, new buildings, critical facilities and infrastructure are anticipated to remain the same.

### **Thunderstorms/Lightning**

Typically, high winds accompany strong thunderstorms that often generate lightning and/or hail. Micro bursts with high wind speeds and high precipitation accumulations over brief periods often down trees and branches and power lines and can overwhelm local drainage networks for brief periods. There are rare instances where lightning has caused structure fires (barns) and grass fires during dry periods. The Town's road crew is equipped with associated debris removal equipment.

Death or serious injury could occur to individuals exposed to lightning. Private properties in St. Albans Town have experienced lightning strikes. High elevations and areas around bodies of water such as lakes and ponds are more susceptible. The Town's Highway Department has appropriate debris removal equipment.

On July 23, 1998 in St Albans, thunderstorm winds blew down some trees with winds reported to be 60 mph or greater along with pea size hail.

On May 9, 2000, a warm front across northern portions of New York and Vermont helped focus the development of thunderstorms across northern Vermont. In St Albans, winds associated with a thunderstorm downed a large tree onto a car.

On August 7, 2006 scattered thunderstorms rolled through the County including a supercell structure that originated in Clinton County, NY. Trees were downed in several areas of town.

There are no loss estimates for lightning because it is extremely difficult to predict where the event will occur and the type of associated structural damage. Damages could come in the form of destroyed electrical appliances, structure fires, or wildland fires. Impacts to future populations, residences, new buildings, critical facilities and infrastructure are anticipated to lessen with the implementation of U.S Lightning Protection Codes and Standards which are used State fire inspectors.

### **Loss of Electrical Service**

The community does not lose power for sustained periods often. Brief interruptions of power, lasting from a few minutes to a few hours occur annually. Historically, utility service disruptions have been minor affecting small areas for a limited time. In winter, branches and trees laden with snow and ice often fall on transmission lines causing limited service disruptions.

As previously discussed under Winter Storm (Ice Storm) section, the town experienced widespread outages during two significant ice storm events: January 1998 Ice Storm and the December 2013 Ice Storm. Hundreds were without power during each event. Ice laden trees and branches fell on ice laden power lines cutting power to customers. Green Mountain Power Company estimated \$7,400,000 in costs associated to restoring power to its customers during the ice storm of 2013.

Several areas of Town experienced prolonged outages from Nor'easters that impacted the area on February 14, 2007 and October 20, 2006.

On March 8, 2008, ice and snow fell over much of the region downing trees, limbs and causing power outages. Reports on the extent of power outages ranged from one hour to seventy-two hours. 911 calls were dispatched to the Fire Department as a precaution to ensure no trees or limbs in contact with power lines before removal from roadways by highway crew or firefighters. Lines that were in contact with the downed trees or limbs were monitored until the power company's arrival. There were no estimates on losses due to the event.

On June 3, 2008, a strong cold front tracked through St. Albans producing violent thunderstorm activity. Numerous lightning strikes occurred throughout town.

During the December 2013 Ice Storm (DR-4163) there were brief power interruptions from December 20-26th.

The Fire Station has an emergency generator for providing power to the building. The St. Albans Town Education Center has an emergency generator available should the building be opened as a community shelter.

It is difficult to estimate losses due to loss of electrical service both in the public and private sectors. Damages vary dependent on the season. Power loss in the winter can cause water pipes to freeze damaging private and public structures. Power loss can also lead to loss of business transactions. No loss estimates were derived for this hazard due to lack of data and resources. Any structure dependent on electrical utility is susceptible. Impacts to future government buildings, critical facilities and infrastructure are anticipated to decrease as sustainable capital projects, such as construction of a new fire station, require the installation of emergency generators. Impacts to future privately owned buildings and residences are expected to remain the same.

### **Wildland Fire**

Wildfire typically comes in the form of grass fires. Forest fires are rare however the fuel potential for large fires exist. Grass fires occur in spring and early summer as fields are cleared of fall and winter debris. The Town has a burn permit program operated by the fire warden and local officials. During conditions such as drought the town may temporarily ban all open burning due to the risk of starting wildfires. Wildfire suppression comes from the local fire department and mutual aid organizations. The St. Albans Town Fire Department has a vehicle dedicated and equipped with forest fire fighting lines and tools to respond to wildland fires.

In the western part of town in Brigham Woods and eastern areas of Town along French Hill and Aldis Hill, there are large tracks of forested land could be at risk during sustained dry periods. The entire Town has minimal wildfire protection due to the on-call basis of the Fire Department. The potential for wildfire increases with the increase of fuel loads. Structures in forested areas without adequate fire breaks are difficult to access due to their remote nature and are more susceptible than others. A wild fire complex similar to what occurs in Florida, Texas, and western states during dry periods, has not occurred in the Town.

Potential loss estimates are difficult to ascertain due to a lack of data on losses. Impacts to future populations, residences, new buildings, critical facilities and infrastructure are anticipated to remain the same.

*New home construction in forested areas should allow for fire breaks.*

*Ensure the St. Albans Town Forest is properly managed to reduce fuel loads.*

### **Telecommunication Systems Failure**

Many areas in town have cell phone coverage. Cell phone providers have been installing towers on farm silos in order fill gaps in their coverage area. Fairpoint, AT&T, Verizon and Comcast offer high-speed internet service in the area. Fairpoint Communications provides telephone service throughout Town. Many residents utilize satellite television and satellite based internet services.

Telecommunications systems failures occur periodically and are similar to power losses. Loss of service is typically related to weather events. Heavy snow, either directly or indirectly, can cause service lines to be disrupted. Interruptions are relatively brief lasting from a few seconds to several hours. Public safety officials noted that they have decreased radio performance when trying to communicate with Central Dispatch (PSAP) or between themselves from different areas of Town.

On August 31, 2002 a Verizon Trunk Line that serviced northwestern Vermont was severed due to a tree-falling accident in the Town of Georgia. All telecommunications services that utilized the fiber optic network were lost for 8 hours. The state E-911, cell phone and Lifeline systems were disrupted. Residents were unable to place a phone call out the local exchange. Businesses were unable to make e-credit transactions. Businesses and homeowners lost their security systems. The St. Albans Amateur Radio Club established emergency lines of communications for public safety officials. Verizon has added redundancy to their network to mitigate future disruptions of a trunk line failure.

Private and public structures within the village area have access to broadband internet and would be susceptible to loss of DSL service. Individuals with cell phones would be affected by loss of cell coverage. Land line phone customers lose service when phone lines are disrupted from the effects of ice, falling limbs, high winds, etc.

The Town is interested in improving telecommunication services throughout town especially high speed internet service and cell phone service. Such services would contribute greatly to economic development efforts for home based businesses in rural areas. Rural areas are not served by public transit services and individuals and families must rely on individual automobiles to get to and from work. This creates a financial burden on some residents with associated gasoline prices and vehicle maintenance costs.

It is difficult to estimate losses due to telecommunications systems failure both in the public and private sectors. Telecommunications loss can also lead to loss of business transactions. No loss estimates were derived for this hazard due to lack of data and resources. Impacts to future populations, residences, new buildings, critical facilities and infrastructure are anticipated to remain the same.

### **Terrorism / WMD and Civil Disturbance**

Such events are possible in St. Albans Town but are considered rare. An act of terrorism would occur at the school, or at a government facility such as the Town Office or Post Office in St. Albans Bay.

Active shooter incidents are, unfortunately, becoming more frequent across the United States in facilities such as schools, government facilities and along the roadways (road rage incidents). Many government and school facilities conduct drills and exercises to prepare themselves to respond to such an event. St. Albans Town Education Center has emergency plans in place for a variety of incidents.

The loss estimate due to this event is impossible to predict for the Town of St. Albans. Impacts to future populations, residences, new buildings, critical facilities and infrastructure are anticipated to remain the same.

## Tornado

Tornados may form when strong thunderstorms track through the area. These phenomena are rare in town. There is no defined area to predict where this event will happen. Environmental impacts would include felled trees, while business impacts would be in the form of destroyed crops. Building damages may include destroyed windows, torn roofs, and destroyed barns.

Tornado events occurred in Franklin County on June 18, 1957, June 13, 1961, August 3, 1970, and July 19, 1972.

A Tornado Watch for Franklin County was issued by the National Weather Service on June 3, 2008. There were no observed tornados but high winds toppled trees, knocking out power during the late afternoon and early evening.

*For a tornado event, the estimated potential loss to 10% of structures with 20% damage is \$11,969,760<sup>4</sup>. The estimate does not include building contents, land values or damages to utilities. Impacts to future populations, residences, new buildings, critical facilities and infrastructure are anticipated to remain the same*

## Earthquake

Earthquakes have been felt in St. Albans Town and remain a geologic possibility. The Town is situated in a moderate earthquake zone. Although earthquakes are not a frequent event, they have the potential to cause extensive damage to masonry (brick) buildings that are not reinforced and older bridges. A HAZUS earthquake risk analysis and loss estimate was conducted at the regional level. There is moderate potential for serious damage to buildings and infrastructure in older portions of Town.

Structures are mostly of wood frame construction. Using the median home value<sup>5</sup>, the estimated loss of 20% of Town structures is \$119,924,300. Costs of repairing or replacing roads, bridges, power lines, telephone lines, or the contents of the structures are not included due to lack of resources to dedicate to a comprehensive loss analysis. Impacts to future populations, residences, new buildings, critical facilities and infrastructure are anticipated to remain the same.

## Drought

Droughts are rare in occurrence and relatively brief in duration. Droughts have impacted residential and commercial water supplies, particularly to dairy farms and horse ranches. Drought can be a problem in late summer with local springs and wells reduced to minimal flows. The St. Albans Town Fire Department has assisted with these types of situations until other water resources became available.

Droughts can pose a serious threat to the town, especially to agricultural based businesses, such as commercial farms and horse boarding stables that are more directly affected by droughts.

Water tables reached an all-time low during the drought of 1988, however recovery was fairly rapid.

Loss estimates are difficult to ascertain due to lack of data. Impacts to future populations, residences, new buildings, critical facilities and infrastructure will likely remain the same.

---

<sup>4</sup> 2010 US Census median home value for St. Albans Town.

<sup>5</sup> 2010 Census median values of home for St. Albans Town is \$226,700.

**Vulnerability Scores**

The combination of the *impact of the hazard* and the *frequency* determined the community's *vulnerability* (risk score) as LOW (0-24), MODERATE (25-49) or HIGH (50-75). For example, a flood event is *highly likely* (nearly 100% probability in the next year) in many communities within Franklin County but the degree of impact varies, so a *highly likely* flood with *critical* or *catastrophic* impact rates the community vulnerability as HIGH. A community with a *highly likely* or *likely* (at least one chance in the next 10 years) flood with a *limited* impact would receive a vulnerability rating of MODERATE. The vulnerability of a community having the occurrence of an event as *possible* or *unlikely* with *limited* or *negligible* impact would be LOW.

A full summary of hazards and impacts is provided in the following table:

DRAFT

**Table 4.2**

<b>Summary of Hazards and Impacts for the Town of St. Albans</b>					
<b>Hazard Type</b>	<b>Frequency</b>	<b>Severity</b>	<b>Risk</b>		<b>Vulnerability</b>
Flooding, Fluvial Erosion and Lakeshore Erosion	Highly Likely	Limited to Catastrophic	Moderate to High	\$15,299,033	Loss of road access, power loss, telecommunications loss. Roads, bridges, commercial and residential structures, seasonal homes and utilities.
Severe Winter Storm (Ice Storm)	Highly Likely	Limited to Catastrophic	Moderate to High	n/a	Roads, bridges, commercial and residential structures, seasonal homes, Town Office, Public Safety Building, Post Office and utilities.
Hazardous Materials Incidents	Likely	Limited to Catastrophic	Moderate	n/a	Residential and seasonal homes, commercial structures, Town Office, Town Garage, State Garage, Fire Station, Post Office, church, school, utilities, and the environment.
Structure Fire	Frequent	Limited to Catastrophic	Moderate	\$1,979,000	Structures.
High Winds	Highly Likely	Limited to Catastrophic	Moderate to High	\$11,969,760	Falling limbs and/or trees, power loss, telecommunications loss, church, structural damage, crop damage. Commercial structures, residential and seasonal homes, public buildings, utilities.
Severe Thunderstorms/Lightning	Highly Likely	Limited	Low	n/a	Falling limbs and/or trees, power loss, telecommunications loss, structural

					damage, & crop damage. Commercial and residential structures, seasonal homes, Town Office, Town Garage, Fire Station, Post Office and utilities.
Loss of Electrical Service	Unlikely	Limited to Critical	Low	n/a	Town Office, Town Garage, Public Safety Building,, Post Office, schools, church, utilities, residential and seasonal homes, commercial structures, industries and agriculture operations.
Major Fire - Wildland	Unlikely	Limited	Low	n/a	Residential and seasonal homes, commercial structures, utility poles and lines, road closures, fires in rural areas lacking fire breaks.
Drought	Rare	Limited to Catastrophic	Low	n/a	Dairy farms, livestock, private wells, public structures (water reservoir, water pumping station and wastewater treatment plant), residential and seasonal homes and vulnerable populations.
Tornado	Rare	Limited	Low	\$11,969,760	Falling limbs and/or trees, power loss, telecommunications loss. Structural damage to residential and seasonal homes, public buildings Town Office, Town

					Garage, Fire Station, commercial structures, & Post Office.
Earthquake	Rare	Limited to Catastrophic	Low	\$119,924,300	Infrastructure (roads, bridges), structural damage to residences, seasonal homes, commercial buildings, industries, Town Office, Town Garage, Post Office, utilities.
Telecommunication Systems Failure	Possible	Limited	Low	n/a	Residential structures, commercial businesses, industries, Town Office, Highway Dept., Fire Station, Post Office, school, utilities. Special needs populations.
Terrorism / WMD and Civil Disturbance	Rare	Limited	Low	n/a	School, Town Office, Town business and industry sector, Town Garage, Post Office.

## 5. CRITICAL FACILITIES

A critical facility is defined as a facility in either the public or private sector that provides essential products and services to the general public, is otherwise necessary to preserve the welfare and quality of life in the appropriate jurisdictions, or fulfills important public safety, emergency response, and/or disaster recovery functions. The current scope of this plan is to address these facilities and associated infrastructure. Once this plan is accepted, there is the possibility to expand the plan to cover other facilities and structures within the community.

The critical facilities identified in the Town of St. Albans Hazard Mitigation Plan include the St. Albans Town Education Center, St. Albans Town Hall, Collins-Perley Sports Complex, electric and communication utilities, Fire Department, hazardous materials storage sites, gas stations, and churches. Data from the St. Albans Town Planning Commission, Northwest Regional Planning Commission, Local Emergency Planning Committee #4, were used to assist in the analysis of areas affected by various hazards. Limited data sets from GIS were available for this analysis; however, the Northwest Regional Planning Commission GIS Service Center is committed to providing this in the future as data, time and funding permit. The results of the analysis are listed in Attachment B.

The community hazard mitigation map is included in Attachment E. The community map depicts hazard areas, critical facilities, and vulnerable sites based on the best available data derived from local, regional, state and federal sources.

## **6. MITIGATION STRATEGY**

### **6.1. Local Hazard Mitigation Goals**

#### Town Plan (Adopted August, 2012) Goals, Objectives and Policies that support Hazard Mitigation

1. Identify and establish appropriate areas to locate or expand businesses and industries.
2. Establish zoning districts to prevent overcrowding and traffic congestion and to minimize adverse effects that may result from situating non-complimentary uses next to each other.
3. Discourage development in areas that are hazardous or not suitable for development.
4. Ensure that development does not have undue adverse affect on air or water quality, or traffic in the Town of Saint Albans.
5. Expand or construct a water supply and sewage disposal system.
6. Monitor new, replacement, and existing sewage disposal systems to ensure that they have been properly installed and that they are functioning in a satisfactory manner.
7. Maintain the rigorous enforcement of state and local laws, and municipal ordinances that require high quality water supplies and superior sewage disposal facilities.
8. Encourage the development of areas in the Town of Saint Albans that currently access to municipal water and sewer.
9. To continue to promote the safe flow of pedestrian, bicycle and vehicular traffic among major transportation corridors by limiting access points.
10. Maintain a Capital Improvement Program.
11. Ensure that all Town-accepted roads are designed and constructed to meet A76 standards.
12. Encourage the alignment of intersections wherever possible.
13. Minimize the number of curb cuts on all major roads.
14. Provide safe, affordable housing that meets the needs of all the people in the Town of Saint Albans.
15. Consider the need of special population groups such single parent households, elderly, low-income and the homeless.
16. Require that further development or increased use on already developed sites on the lakeshore be carefully screened and comply with appropriate sewer regulations.
17. Encourage future development in areas where the infrastructure is readily available.
18. Limit development in flood prone areas.
19. Land development shall be discouraged on slopes greater than 25%.
20. Runoff and erosion should be carefully controlled during all phases of constructions and wastes should be treated off the steep slope area.
21. To protect the cultural, historical and scenic assets of the Town and promote community pride
22. To reduce use of and dependence on non-renewable energy resources.
23. Ensure the availability of safe and affordable child care.

### **6.2. Existing Hazard Mitigation Programs, Projects and Activities**

#### Flooding, Fluvial Erosion, Lakeshore Erosion

- The Town has Zoning Bylaws which designates a Flood Hazard District whose purpose is to minimize future public and private losses caused by development in flood hazard areas. The town participates in the National Flood Insurance Program (NFIP).
- Flood Hazard Areas in St. Albans Town are identified on Flood Hazard Boundary Maps (FHBMs) and Flood Insurance Rate Maps (FIRMs) produced by FEMA. The purpose of these districts, which are located along the flood plains of rivers and streams throughout the Town, is to prevent increases in flooding caused by excessive development of lands within flood hazard areas. Bakersfield has flood hazard development ordinances and is a member of the National Flood Insurance Program (NFIP).
- On-going regularly scheduled road maintenance programs (culvert survey & replacement, ditching along roadways, cutting vegetation).
- The Stevens and Rugg Brook Watershed Study Report from July 2003 provides a detailed analysis of the area. The study defines watershed problems and identifies solutions that can be implemented by the community to correct the problems. Additionally, a hydrologic analysis of the Collins-Perley Sport and Fitness Center was conducted by Dubois and King engineers in September 2003. Copies of the Report and the hydrologic study are available through the Northwest Regional Planning Commission in St. Albans.
- Phase 1 Geomorphic Assessment was completed on the following watersheds within St. Albans Town in 2002:
  - Jewett Brook by the Lake Champlain Committee
  - Stevens Brook by the Lake Champlain Committee
  - Rugg Brook by the Lake Champlain Committee
  - Hungerford Brook by Northwest Regional Planning Commission and South Mountain Research and Consulting
- Phase 2 Geomorphic Assessment was completed on the following watersheds within Saint Albans Town in 2005:
  - Rugg Brook- 5 reaches on the main stem by the Lake Champlain Committee
  - Stevens Brook- 9 reaches on the main stem (M01-M09), 1 reach on unnamed tributary (T1.01) and 2 reaches on Grice Brook (T2.01 and T2.02) by the Lake Champlain Committee
  - Hungerford Brook- 5 reaches on main stem (M04-M08) (not all in Saint Albans), and 7 reaches on unnamed tribs (M3T1.01-M3T1.03 and M4T2.01-M4T2.04) by Carmi Consulting

#### Severe Winter Storms (Ice Storms)

- Town Highway Department has snow removal equipment.
- Town Highway Department has response equipment to deal with downed trees and branches.
- The St. Albans Town Educational Center has an emergency generator to serve as a community shelter as situations warrant.
- St. Albans Town Fire Department and Town Hall has an emergency backup power.
- St. Albans Town Fire Department conducts welfare checks on vulnerable populations during prolonged storms.
- Town distributes educational brochures on winter safety and safe operation of emergency generators.
- The St. Albans Town Fire Department conducts safety checks on all down trees and limbs before any contact is made.

#### Hazardous Materials (Fixed Site and Transport)

- St. Albans Town Fire Department has trained personnel specializing in HAZMAT incidents.

- St. Albans Town Fire Department continues to upgrade fire fighter personal protection equipment.
- St. Albans Town is an active member of Local Emergency Planning Committee #4.
- St. Albans Town Fire Department meets with industries regarding HAZMAT storage, safety and emergency response plans.
- American Red Cross conducts shelter-in-place training to area residents.

#### Structure Fire

- Annual ISO inspection.
- Fire fighter personal protection equipment upgrades through Federal grant programs.
- Upgrades to fire fighting offensive and defensive equipment through Federal grant programs.
- Fire fighter training (FFI, FFII, Incident Command System, NIMS, HAZMAT).
- Continued specialized training of heavy rescue squad and water rescue.
- Fire Chief reviews and comments on project proposals to ensure that all new developments are designed to allow for emergency vehicle access.
- Active membership in Franklin County International Fire Mutual Aid and County Mutual Aid. NIMS/ICS Training for members to meet state NIMS strategy
- Installing dry hydrants to improve rural water supply

#### High Winds

- Town Highway Department has response equipment to deal with downed trees and branches.
- The Town of St. Albans is considering a breakwater for the bay dock marina.
- The St. Albans Town Fire Department is the initial responder to ensure there are no safety issues.

#### Loss of Electrical Service

- Emergency backup generator exists for St. Albans Town educational Center (designated mass care/med surge shelter), Town Hall, Town Fire Station, and Collins Perley Sports Complex (designated Red Cross shelter).

#### Terrorism/WMD/Civil Disturbance

- Town officials have passed National Incident Management Systems (NIMS) resolution in 2014 which designates NIMS/ICS as the emergency management operating structure in response to all hazards emergency events.
- Town Selectboard members have taken variety of ICS trainings.
- Town Officials participate in monthly St. Albans Area Emergency Response Committee Meetings.
- Town Officials are active members in Local Emergency Planning Committee District 4.
- St. Albans Town Educational Center has State School Emergency Response Guide to handle variety of emergency situations.
- School Board and Franklin Northwest Supervisory Union are proactive in addressing school safety issues.

#### On-Going Community Preparedness Activities

- Regularly scheduled maintenance programs ongoing (culvert survey & replacement, ditching along roadways, cutting vegetation to allow visibility at intersections).
- Continue the gradual paving of remaining gravel roads as funds become available.
- Proceed with plan to construct a road parallel to Route 7 north to alleviate traffic issues.

- Install raised and textured crosswalks in major locations along sidewalk & bike path.
- Continue to develop a Traffic Calming Policy Procedures manual.
- Institute traffic calming on US Route 7 and the Interstate access land.
- Conduct analysis for additional signalizations at the intersection of Routes 36 and 104 near Northwest Medical Center.
- Develop an access management plan for Exit 20 Area and seek specific access management changes.
- Update sidewalks to meet ADA standards.
- State approved Local Emergency Operations Plan.
- Continue to identify and equip emergency shelters.
- Active member of St. Albans Public Safety Committee.
- Community participates in the Vermont Enhanced 911 System program
- Continue to explore the construction or expansion of a water supply and sewage disposal system.

**Table 6.1 TOWN OF ST. ALBANS POLICIES AND PLANS**

Existing Protection	Description	Effectiveness/Enforcement/ Hazard (s) addressed
St. Albans Town Municipal Plan	Policies and vision for future land use. Adopted in 2012.	Town goals and objectives that are implemented through the zoning bylaws and subdivision regulations to ensure development occurs in appropriate locations and at a rate that is in the best interest to the people of St. Albans. Addresses land use, transportation, public facilities, natural areas and energy.
St. Albans Town Zoning Bylaws & Subdivision Regulations	Land Use Regulation. Adopted 2009	Restrictions on development in potential hazardous areas such as steep slopes, floodplains, and water resource areas. Addresses fire protection, water, sewage, public and private utilities, stormwater management, public health and public safety.
Local Emergency Response Plan	All hazards emergency response plan includes checklist, local resources and notification procedures and compendium of emergency related documents. 2014.	Updated semi annually. Utilizes NIMS, ICS Addresses: All-hazards.
Mutual Aid Agreement	NIMS compliant Franklin County Mutual Aid 2006.	Assistance from area municipal departments (fire, public works, transportation).

School Emergency Response	Vermont School Crisis Guide	Addresses response to school incident. Civil disobedience, terrorism.
Solid Waste Implementation Plan	Plan to manage solid waste within the community. Under development.	Transportation, resource recovery, recycling and disposal of solid waste. Addresses: Hazardous materials.
The Shoreline Stabilization Handbook (2003)	Created following ice storm of 1998 when significant number of trees were lost and exacerbating shoreline destabilization.	Provides specifics shoreline stabilization options and guidance on how to plan stabilization activities and obtain required permits. Addresses: Fluvial erosion, flooding, winter storm, high winds, and water loss
Collins-Perley Sports and Fitness Center Hydrologic Study (2003)	Study conducted to evaluate flooding issues around Fitness Center.	Provides 3 recommendations to improve the existing stormwater drainage system in order to reduce flooding issues. Addresses: Flooding, fluvial erosion, winter storm.
The Stevens and Rugg Brook Watershed Study Report (2003)	Study to define watershed problems and identify implementable solutions that can be used by the community.	Identifies, assesses and documents watershed implementation measures which addresses and correct problems within watershed. Addresses: Flooding, water, sewer, fluvial erosion/landslide.
Project Development Status Report: Impaired Waters of the Stevens and Rugg Brooks	Report that identifies and develops projects that demonstrate approaches for improving water quality along Stevens and Rugg Brooks	Reviews a number of Low Impact Development (LID) water quality protection techniques along with more traditional stormwater management techniques. Identifies stream buffer areas. Assesses feasibility of projects that are in development. Addresses: Flooding, water, fluvial erosion/landslide.
Stevens Brook Flow Restoration Plan	Recommends Best Management Practices to slow storm water & promote infiltration	Recommends storm water management techniques in the impaired watershed. Identifies developments which need to update their storm water permits and infrastructure and those that have capacity to treat more water. Addresses: Flooding, water, fluvial erosion/landslide.

### 6.3 Risk Reduction Goals

Through current plans, policies and mitigation actions, St. Albans Town is working to decrease damages from flooding, fluvial erosion, lakeshore erosion, severe winter storms (ice storms), hazardous materials incidents and structure fires. Other less hazardous risks are also being addressed.

### 6.4 Identified Hazard Mitigation Programs, Projects and Activities

Table 6.2 outlines mitigation programs, projects, activities and describes the overall direction the Town is taking to work toward mitigating risks from natural, technological and societal hazards. These mitigation strategies have been chosen by the Town, through surveys and interviews with community officials, as the most appropriate policies and programs to lessen the impacts of potential hazards. All proposed mitigation projects will adhere to FEMA's benefit-cost standards (e.g. BC ratio of 1.0 or greater).

The following list documents the questions (criteria) considered in establishing an order of priority. Each of the following criteria was rated according to a numeric score of "1" (indicating Poor), "2" (indicating Average) and "3" (indicating Good). The highest possible score is 36. The full scoring matrix used is located at the end of this annex.

- 1) Do the identified actions and projects address reducing the effects of hazards on existing buildings and infrastructure?
- 2) Do the identified actions and projects address reducing the effects of hazards on new buildings and infrastructure?
- 3) Does the action contribute to community objectives?
- 4) Does the action meet existing regulations?
- 5) Does the action protect historic structures or structures critical to Town operations?
- 6) Can the action be implemented quickly?
- 7) Is the action socially acceptable?
- 8) Is the action technically feasible?
- 9) Is the action administratively possible?
- 10) Is the action politically acceptable?
- 11) Is the action legal?
- 12) Does the action offer reasonable benefits compared to its cost of implementation?
- 13) Is the action environmentally sound?

Mitigation projects are listed in terms of mitigating threat or risk to public health and safety, reduction of hazard to community assets, reducing the effects of hazards on new buildings and infrastructure, adherence to Town plan and local ordinances, cost, and feasibility. Projects are classified as either short-term or long-term activities. Short-term action items are activities which the municipality may be capable of implementing within one to two years. Long-term action items may require new or additional resources, funding or authorities. Ongoing action items occur at least once per year. Potential funding sources are located in Chapter of this plan.

#### **Table 6.2. IMPLEMENTATION SCHEDULE FOR PRIORTIZED MITIGATION PROJECTS**

*Note: In the table below, time frames are defined as follows: Short term equals 6 months to one year. Medium term equals 1-3 years. Long term equals 4+ years*

Implementation Schedule for Prioritized Mitigation Projects					
Priority Score	Mitigation Project	Responsibility/Oversight	Funding/Support	Time – Frame	Initial Implementation Steps
33	Maintain Compliance with NFIP Regulations	Selectboard, Town Manager	National Flood Insurance Program, Local	On-going	Enforcing floodplain ordinances will enable the town to remain in the NFIP program and protect the people and property of St. Albans Town by restricting development in floodprone areas.
30	Emergency response training for public safety personnel	Fire Chief	Technical assistance from State fire agencies and private industry; Homeland Security grants	Ongoing	Evaluate current training needs. Contact VT Fire Academy.
30	Hathaway Point Road (TH3) Upgrade and Drainage Improvements	Selectboard, Road Commissioner, Road Foreman	Federal (FEMA HMGP) grants, Vermont Local Roads Grant, other state grants (Ecosystem Restoration)	Medium-Term	Hydraulic Study, engineering design, State permitting.
30	Relocate Town Garage	Selectboard/Town Manager	State and local resources	Medium – term	Identify new site. Develop site plan. Seek voter approval. Permitting.
28	French Hill Road (TH14) road shoulder/drainage improvements	Selectboard, Road Commissioner, Road Foreman	Federal (FEMA HMGP) grants, Vermont Local Roads Grant, other state grants (Ecosystem Restoration)	Medium-Term	Hydraulic Study, engineering design, State permitting.
28	Install Automatic Transfer Switch at Town Hall	Selectboard	State Public Safety Generator Grant, local funding	Short-term	Spec for generator switch needs. Request for proposals for switch and install.
27	Dunsmore Road (TH30) Bridge 9 Upgrade	Selectboard, Road Commissioner, Road Foreman	Federal (FEMA HMGP) grants, Vermont Local Roads Grant, other state grants (Ecosystem Restoration)	Short-Term	Hydraulic Study, engineering design, State permitting.
27	Little County Road (TH30) culvert	Selectboard, Road Commissioner,	Federal (FEMA HMGP) grants, Vermont Local	Medium-Term	Hydraulic Study, engineering

	upgrade	Road Foreman	Roads Grant, other state grants (Ecosystem Restoration)		design, State permitting.
27	Church Road (TH5) culvert upgrade	Selectboard, Road Commissioner, Road Foreman	Federal (FEMA HMGP) grants, Vermont Local Roads Grant, other state grants (Ecosystem Restoration)	Medium-Term	Hydraulic Study, engineering design, State permitting.
26	Construct North End Fire Station	Selectboard	Federal grants, private funding, local funding	Long-Term	Conduct needs analysis. Identify lot. Design. Permit. Build.
26	Address traffic safety issues (access management plan) within Exit 20 Growth Center	Selectboard / Transportation Advisory Committee, Vermont Agency of Transportation	Federal, State and local funding.	Short-term	Present issue to Regional Transportation Advisory Committee for consideration of state funded intersection study.
26	Address flooding along VT36 near St. Albans Town Park	Vermont Agency of Transportation	State and federal sources	On-going	Work with Regional Transportation Advisory Committee and District Office to prioritize project.

## 7. PLAN IMPLEMENTATION, MONITORING & EVALUATION

### Initial Approval

In addition to public involvement in the initial development of the plan, opportunities for public comment included interviews with the Town Selectboard, Highway Foreman, Town Clerk and updates to the Local Emergency Planning Committee (LEPC) and to the full Northwest Regional Commission Board of Directors. Local citizens were interviewed as well. A copy of the draft will be provided to the Town Manager, Town Road Foreman, Town Emergency Management Coordinator, Town Clerk, Selectboard and Fire Chief for comment. Future updates of the plan will include more opportunities for public comment.

Following consideration of the comments from those forums, the draft Mitigation Plan will be presented to the State Hazard Mitigation Committee through the State Hazard Mitigation Officer (SHMO) for review and comment and a recommendation for forwarding to FEMA Region I. When the document meets all the requirements, FEMA grants "Approval Pending Adoption" (APA) by notifying the Selectboard Chair. The St. Albans Town Selectboard will then adopt the plan at a public meeting and then the Selectboard will return the final plan containing copy of Adoption certificate to FEMA (via the SHMO). FEMA will conduct one final review to ascertain that no changes were made to the plan (other than removing watermarks and inserting dates) following the APA and then the plan is deemed "FINAL".

### Routine Plan Maintenance

The Hazard Mitigation Plan is dynamic and should not be fixed. To ensure that the plan remains current and relevant, it is important that it be updated periodically. Updates and evaluation by the Selectboard will also occur within three months after every federal disaster declaration and as updates to town plan/zoning and river corridor plans come into effect.

St. Albans Town shall also consider incorporation of mitigation planning into their long term land use and development planning documents. It is recommended the Town reviews and incorporates elements of the Local Hazard Mitigation Plan when updating the Municipal Plan and during development of flood hazard bylaws. The incorporation of the Local Mitigation Plan into the municipal plan, possible future zoning regulations and additional flood hazard bylaws will also be considered after declared or local disasters.

At a minimum, the plan should be updated every five years in accordance with the following procedure:

1. The Town will be notified by the Northwest Regional Planning Commission. The St. Albans Town Selectboard will appoint a team to convene a meeting of the Review/Update committee. The team will be led by staff from the Northwest Regional Planning Commission and may include a Selectboard representative, Emergency Management Coordinator, Road Foreman, Town Manager and Fire Chief.
2. The committee will discuss the process to determine if the evaluation criteria is still appropriate or modifications or additions are needed due to 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.
3. A draft report will be prepared based on these evaluation criteria and in conformance with the *FEMA Local Hazard Mitigation Plan Toolkit*.
  - Changes in community and government processes, which are hazard-related and have occurred since the last review.
  - Progress in implementation of plan initiatives and projects.
  - Effectiveness of previously implemented initiatives and projects.
  - Cost-benefit review of new mitigation projects
  - Evaluation of unanticipated challenges or opportunities that may have occurred between the date of adoption and the date of the report.
  - Evaluation of hazard-related public policies, initiatives and projects.
  - Verification of and commitment to compliance with NFIP program requirements including review and update as necessary of local flood damage reduction regulations.
  - Review and discussion of the effectiveness of public and private sector coordination and cooperation.
4. The Selectboard will review the draft report. Consensus reached on changes to the draft.
5. The changes will be incorporated into the Plan.

6. The Plan will be reviewed by appropriate representatives from DEMHS and FEMA Region 1.
7. DEMHS and FEMA comments will be addressed in the Plan.
8. The Selectboard will notify and schedule a public meeting and the review/update committee prepares presentation.
9. The public will observe presentation and provide comments on draft report.
10. The Selectboard will incorporate community comments into draft report.
11. The Selectboard will finalize and adopt the report and distributes to interested parties.

#### Continued Public Involvement

The St. Albans Town Selectboard is dedicated to involving the public directly in the continual review and updates of the Hazard Mitigation Plan. Copies of the plan will be kept at the Town Office. The existence and location of these copies will be publicized in the media (newspaper, web sites, Town Annual Report, etc.). The plan will also include the Selectboard Chair's contact information to facilitate and track public comments. In addition, any proposed changes will be publicized in the media and posted on the Town and Regional Planning Commission's website.

#### Programs, Initiatives and Projects Review

Although the plan should be reviewed in its entirety every five years as described above, the Town may review and update its programs, initiatives and projects more often directly with the State Hazard Mitigation Officer (SHMO) based on changing local needs and priorities.

The Town of St. Albans should incorporate elements of this plan, such as identified projects, into capital planning initiatives and annual budget reviews during Town Meeting. The plan should be available for distribution during public meetings particularly Town Meeting in order to educate the public on mitigation programs and receive public input regarding the process.



St. Albans Bay

**Attachment A  
Hazard Identification and Risk Assessment  
Town of St. Albans**

Refer to Section 4 of this plan for a description of the risk characteristics used to classify each hazard.

Hazard	Impacted Area	Probability Of Occurrence	Consequence of Occurrence				Total
			Health & Safety	Property	Environment	Economic	
Flooding, Fluvial Erosion, Lakeshore erosion	2	5	0	1	1	3	35
Severe Winter Storm (Ice Storm)	3	5	0	1	1	2	35
Hazardous Materials (Fixed Site and Transport)	1	4	1	1	2	3	32
Structure Fire	0	5	1	2	1	2	30
High Winds	2	5	1	1	1	1	30
Severe Thunderstorms / Lightning	1	5	0	1	0	1	15
Loss of Electrical Service	3	2	1	1	0	2	14
Major Fire – Wildland	0	4	0	1	1	1	12
Terrorism/WMD/Civil Disturbance	0	3	1	0	0	3	12
Telecommunication Systems Failure	3	2	1	1	0	1	12
Tornado	1	2	1	1	1	1	10
Drought	3	1	1	1	1	3	9
Earthquake	1	1	1	1	1	2	6
<b>Total Risk Rating</b>							<b>258</b>

**Annex B**

**Critical Facilities**

**High Hazard Sites and Vulnerable Populations**

	<b>Identified Sites (911 Or Actual Locations)</b>	<b>Type</b>
1.	Ben And Jerry's Homemade, Inc. 900 Industrial Park Rd Contact: Drake Wallis, Owner, Operator	Hazmat facility Critical Employer
2.	Burton Island State Park Vermont Department of Forests, Parks and Recreation 1 Burton Island Contact: Robert Jackson, Regional Coordinator	Hazmat Facility
3.	Camp Kill Kare State Park Vermont Department of Forests, Parks and Recreation 2714 Hathaway Pt Rd Contact: Robert Jackson , Regional Coordinator	Hazmat Facility
4.	City Of St. Albans Wastewater Treatment Plant 83 Rewes Dr Contact: Brian Willett, Chief Operator	Hazmat Facility Water/Wastewater Control Facility
5.	Colonial Mart - St. Albans 191 Swanton Rd Contact: Jim Demers, Owner/Operator	Hazmat Facility Energy/Fuel
6.	Maplefields North 366 Swanton Rd Contact: Tim Vallee, CEO	Hazmat Facility Energy/Fuel
7.	Mylan Technologies, Inc., Plant G 700 Industrial Park Rd Contact: John Hango, Safety Officer	Hazmat Facility Critical Community Employer
8.	Northwest Correctional Facility 3649 Lower Newton Rd Contact: Brian Willett, Chief Operator	Hazmat Facility Government
9.	Northwest Farm Services 1569 Bronson Rd Contact: Wayne Quilliam, Owner/Operator	Hazmat Facility
10.	Northwest Medical Center 133 Fairfield St Contact: Chris Reinfurt, Emergency Contact	Hospital Hazmat Facility Critical Community Employer

Town of St. Albans, Vermont Draft Hazard Mitigation Plan 2015

11.	QST, Inc. 300 Industrial Park Rd Contact: Tim Lagasse, EHS Manager	Critical Community Employer Hazmat Facility
12.	R.L. Vallee, Inc. 282 S. Main St. Contact: Tim Vallee, CEO	Hazmat Facility Critical Community Employer Energy Facility or System
13.	S.A.F.E. Enterprises, Inc. 53 Parah Dr. Contact: Gary Bluto, Owner/Operator	Hazmat Facility
14.	Saint Albans City Maquam Shore Water Treatment Plant 6014 Lower Newton Rd Contact: Brian Willett, Chief Water Plant Operator	Water/Wastewater Control System Hazmat Facility
15.	Saint Albans City Northwest Wastewater Treatment Plant 3283 Lower Newton Rd Contact: Brian Willett, Chief Operator	Water/Wastewater Control System Hazmat Facility
16.	Saint Albans City School – Rec fields 29 Bellows St. Contact: Mary Lynn Riggs, Principal	Critical Community Employer Hazmat Facility Vulnerable Population Community Shelter
17.	Saint Albans Town Offices 579 Lake Road	Government Office Local EOC
18.	The Bay Store 585 Lake Rd Contact: Carl Ruprecht, UST Manager	Hazmat Facility Energy/Fuel
19.	Us Postal Service 571 Lake Road	Government Office Critical Community Employer
20.	VELCO Saint Albans Substation 109 Nason St	Energy Facility or System
21.	Vermont ANG Field Maintenance Shop #6 666 Lower Newton Rd Contact: Roger Gingras, Emergency Coordinator	Hazmat Facility Government Office Emergency Service Center
22.	Vermont Agency of Transportation, District 8 Office 680 Lower Newton Rd Contact: Ernest Englehardt, DTA	Hazmat Facility Government Office Emergency Service Center Public Works
23.	Jolly's Truck Stop 711 Fairfax Contact: Carl Ruprecht, Manager	Hazmat Facility Energy/Fuel Truck Stop

*Town of St. Albans, Vermont Draft Hazard Mitigation Plan 2015*

24.	On The Run –St. Albans Mobil Station 555 Fairfax Road Contact: Tim Vallee, CEO	Hazmat Facility Energy/Fuel
25.	Franklin County Re-Hab Center, LLC 110 Fairfax Road	Assisted Living Facility/Rehab Center
26.	Holiday House Residential Care Home 642 Sheldon Road	Nursing Home
27.	Roncalli Health Haven Sheldon Road	Senior Housing
28.	Heritage Lane Apartments: (28 Apts.) 80-84 S. Main Street	Senior Housing
29.	Hawks Nest Housing: (66 Units) 106 Fairfax Road	Senior Housing
30.	St. Albans Town Educational Center 169 South Main St. Contact: Angela Stebbins, Principal	School/Libray Mass Care – Med Surge Facility Vulnerable Population
31.	Haven Health Center of St. Albans 596 Sheldon Road	Assisted Living / Rehab
32.	Brookside Senior Housing	Senior & Affordable Housing Vulnerable Population
33.	Collins-Perley Sports Complex 164 Fairfax Road Contact: DaveKimmel, Manager	Hazmat Facility Vulnerable Population
34.	East Side Condominiums South Main Street	Affordable Housing Vulnerable Population
35.	Green Mountain Power Industrial Park Road	Hazmat Facility Critical Community Employer
36.	Harbor View/Homestead Senior Care	Assisted Living Facility Vulnerable Population
37.	Laquinta Inn& Suites Fairfax, Road	Motel Vulnerable Population
38.	New England Central Railway	Train Yard Hazmat Facility
39.	St. Albans Town Fire Department 428 Lake Road	Government Office Emergency Service Center
40.	St. Albans Town Public Works Department Georgia Shore Road	Hazmat Facility Government Office Emergency Service Center Public Works

41.	VT Gas Systems St. Albans Town Industrial Park Site#1 Lake Road Site #2 Nason Street	Gas SubStation Hazmat Facility
42.		

DRAFT

**Attachment C**

**St. Albans Town Priority Matrix**

Criteria Scores: 1 = Poor, 2 = Average, 3 = Good

	Criteria											Total Score	
	1	2	3	4	5	6	7	8	9	10	11		
<b>Mitigation Action</b>	Emergency response training for public safety personnel	3	3	2	3	3	2	3	3	3	3	2	<b>30</b>
	Hathaway Point Road (TH3) Upgrade and Drainage Improvements	3	3	3	3	1	2	3	3	3	3	3	<b>30</b>
	Relocate Town Garage	3	3	2	3	3	2	3	3	3	3	2	<b>30</b>
	Maintain Compliance with NFIP Program	3	3	3	3	3	3	3	3	3	3	3	<b>33</b>
	French Hill Road (TH14) road shoulder/drainage improvements	3	3	3	1	1	3	3	2	3	3	3	<b>28</b>
	Install Automatic Transfer Switch at Town Hall	3	3	2	3	2	2	3	2	3	3	2	<b>28</b>
	Dunsmore Road (TH30) Bridge 9 Upgrade	2	3	2	2	1	2	3	3	3	3	3	<b>27</b>
	Little County Road (TH30) culvert upgrade	3	3	2	2	1	2	3	2	3	3	3	<b>27</b>
	Church Road (TH5) culvert upgrade	3	3	3	1	1	2	3	2	3	3	3	<b>27</b>
	Construct North End Fire Station	3	3	2	2	1	2	3	2	3	3	2	<b>26</b>
	Address traffic safety issues (access management plan) within Exit 20 Growth Center	3	3	3	1	1	2	3	2	3	3	2	<b>26</b>
	Address flooding along VT36 near St. Albans Town Park	3	3	3	1	1	2	3	2	3	3	2	<b>26</b>

**Criteria**

1. Does the action reduce damage?
2. Does the action contribute to community objectives?
3. Does the action meet existing regulations?
4. Does the action protect historic structures or structures critical to town operations?
5. Can the action be implemented quickly?
6. Is the action socially acceptable?
7. Is the action administratively possible?
8. Is the action politically acceptable?
9. Is the action legal?

10. Does the action offer reasonable benefits compared to its cost of implementation?
11. Is the action environmentally sound?

DRAFT