LOCAL HAZARD MITIGATION PLAN

TOWN OF STARKSBORO, VERMONT

2025

FEMA Approval Pending Adoption Date

Municipal Adoption Date:

FEMA Formal Approval Date:

Local Hazard Mitigation Planning Committee for the Town of Starksboro	
Rebecca Elder Town Administrator	Amy McCormick Town Clerk
Nancy Boss Zoning Administrator and Treasurer	Dennis Casey Planning Commission Chair
Tom Estey Fire Chief / Former Road Foreman	Cheryl Estey First Responder/ Former Town Clerk
Dan Kuzio Fire Department	Tracey Orvis First Responder
Charlene Phelps EMS Coordinator	

Technical Assistance by SEAM Solutions LLC

Key Partners	
VT Agency of Transportation - Maintenance District 3	Agency of Natural Resources – Department of Environmental Conservation Western Region Floodplain Manager
VT Department of Health	Addison County Regional Planning Commission
Green Mountain Power And Vermont Electric Cooperative	Agency of Natural Resources – Department of Environmental Conservation National Flood Insurance
Addison Housing Works	Lewis Creek Association

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1 INTRODUCTION

The impact of expected, but unpredictable natural events can be reduced through community planning and action. The goal of this Plan is to advance mitigation investment to reduce risks posed by natural hazards and to increase the Town of Starksboro's resilience to natural hazard impacts.

Hazard mitigation is any sustained action or policy that reduces or eliminates long-term risk to people and property from natural hazards and their effects. Natural and human-caused hazards may affect a community at any time; they are not usually avoidable, however, their impact on human life and property can be reduced through community planning. The goal of this Plan is to help the community identify risks and provide local mitigation strategies it can take to make Starksboro more disaster resilient.

2 PURPOSE

The purpose of this Plan is to assist the town in identifying hazards that affect the town, assessing the risk and vulnerability to these hazards. Identify strategies to reduce or eliminate these hazard risks and to create a more resilient town. This plan will focus on the hazards and mitigation programs best suited for the town.

The Town of Starksboro seeks to be in accordance with the strategies, goals, and objectives of the 2023 Vermont State Hazard Mitigation Plan. This updated Plan has been reorganized and updated to meet this goal.

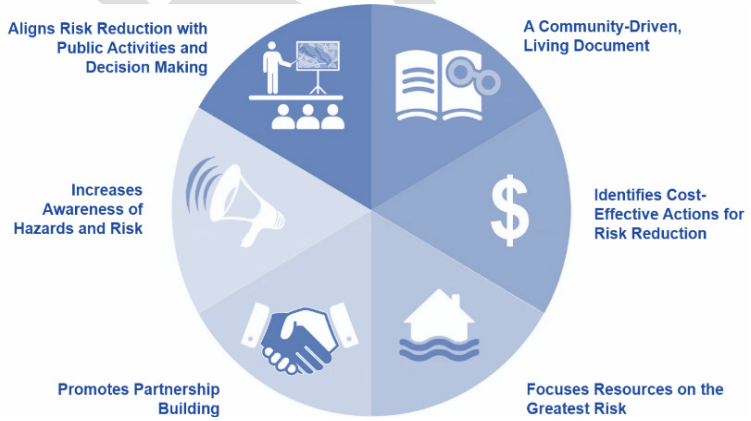


Figure 1- Source: FEMA LHMP Skill Share Workshop 2021

3 COMMUNITY PROFILE

Land Use – Land and Water Features - Development Patterns

Starksboro, Vermont is a town of 45 square miles and around 1,800 residents located in the northeastern corner of Addison County. It adjoins the towns of Starksboro, Lincoln and Monkton in Addison County, as well as Hinesburg and Huntington in Chittenden County.

Starksboro is located in the western foothills of the Green Mountains and is characterized by its terrain, which ranges from 372 to 2,500 feet above sea level. Hogback Mountain, a north-south ridge that defines the town's western border, slopes sharply into the Lewis Creek Valley. The valley is recognized for its high quality agricultural soils and the scenic views of the surrounding hills and ridges visible beyond the fields and pastures. From the valley eastward, the land rises by a series of gradually ascending hills to another significant ridgeline, East Mountain. That north-south ridgeline extends in a broken, irregular manner nearly the whole length of the town, sloping steeply on the east towards the Huntington River, which flows for a short distance in Starksboro. Most of the town drains to the Lewis Creek, which has its source in the Hillsboro Mountain and Ireland Road area and flows north through the western parts of Starksboro ultimately emptying into Lake Champlain. Numerous small streams, tributaries of Lewis Creek, flow out of Starksboro's hillsides.

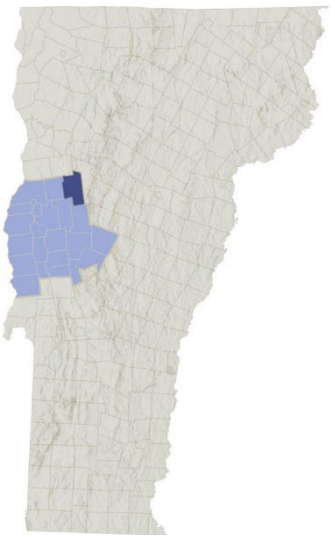


Figure 2 – State Map locating Starksboro

Those streams and the rugged terrain have shaped the town's settlement pattern and transportation system. Starksboro Village, the traditional town center, is located in the Lewis Creek Valley, along the town's main north-south highway, now Vermont Route 116. High above the valley in the southeastern part of town, known as South Starksboro, the historic hamlet of Jerusalem developed along one of the few east-west crossings over the Green Mountains, now Vermont Route 17. Several town roads wind their way eastward from the valley up into the town's higher elevations following the narrow stream valleys. The hill farms once scattered along these roads have largely disappeared, replaced in recent decades by rural residences. Large areas of the town's uplands remain inaccessible by vehicle, creating large tracts of undisturbed forestland.

"We envision our town remaining largely as it is today. It is our hope that the future Starksboro will remain recognizable to current residents and that the best parts will be preserved. "

– 2018 Town Plan

Demographics and Growth Potential

According to the U.S. Census Bureau in 2020 Starksboro saw a 1.2% decrease since 2010 from 1,777 to 1,756 residents. Starksboro had seen a steady increase in population from a low in 1960 of about 502 to 2010 level of 1,777 residents. With changing demographics and lifestyle preferences, Starksboro is attracting fewer new residents. Without significant growth in the regional economy that would attract new residents, it seems unlikely that the town will return to the growth levels seen in earlier decades. (Starksboro Town Plan 2018-2026)

In Starksboro, the majority of homes are single-family wood structures, approximately 75% are owner occupied single family homes 10% renter occupied and 75 seasonal camps. Of the single-family homes, nearly 347 households are mobile homes in three parks, Brookside, Lazy Brook and Hillside Manor. Starksboro is among a small group of towns statewide with a high concentration of residents living in mobile home parks.

Water and Wastewater

Most town residents rely on drilled wells for their drinking water. Some groundwater wells produce water containing nuisance substances such as iron, manganese, hardness minerals, hydrogen sulfide gas and sulfate reducing or iron fixing bacteria. Well yields vary from plentiful to extremely low and highly problematic.

Other residents rely on a mix of groundwater and surface water in wells that are relatively shallow dug wells or springs. Such wells are susceptible to natural contamination and pollutants such as leaking petroleum or industrial tanks, road salt, failing septic systems and agricultural chemicals.

A limited number of residents within the village are served by the Starksboro Village Water Cooperative.

Transportation

Starksboro has its own Highway Department headquartered at the former Colton gravel pit with a full-time Road Foreman and two additional employees. The department is responsible for summer maintenance, winter snow removal and maintenance, and reconstruction of town highway infrastructure on 32.38 of town-owned roads. There are also 12.079 miles of state owned highways totaling 44.459 miles of roads in the Town.

Starksboro has a town garage and various pieces of road maintenance and construction equipment which are factored into a capital equipment replacement fund. Highway expenditures are the largest item within the town (non-school) budget. The budget hovers at approximately $830,000, about half of which pays for winter maintenance with additional portions going toward bridge and highway construction. In 2013, Starksboro adopted the VTrans recommended road and bridge standards which include maintenance and replacement standards and confirms that adoption annually.

Tri Valley Transit currently provides primarily commuter service between the Addison County towns of Middlebury, and Vergennes from Bristol, as well as to Burlington on the 116-commuter service. The public transportation is vital to those without other means of transportation.

Our busses and vans are equipped with wheelchair lifts and securement of wheelchairs for those in need of a paratransit option. That service can be available for emergency evacuation of private care facilities and any senior housing as well as public and private schools. I can provide an inventory of available wheelchair securement positions if desired.

Electric Utility Distribution

Electrical power is provided to 713 customers in Starksboro by Green Mountain Power. However, The Vermont Electric Cooperative has a distribution network which covers the northeastern corner of town accessed by Big Hollow Rd. The Vermont Electric Power Company (VELCO), a private corporation owned by the power companies in the state, owns most of the bulk power transmission system in Vermont. Average annual outage statistics between 2019 and 2023 are summarized in **Table 1**.

The longest power outage affecting the greatest number of accounts between 2019 and 2023 was 43.30 hours which occurred in December of 2022.

Table 1: Green Mountain Power Average Annual Outage Data for the Town of Starksboro

Average Annual Outage Data(2019-2023)	
Average number of outages per customer per year	3.79 times per year
Total outage duration per customer	3.99 hours per year
Average length of each outage	15.13 hours per year

Public Safety

The Addison County Sheriff's Department provides Civil Process for the entire county. In addition, the Town of Starksboro contracts with the county Sheriff to provide traffic enforcement. The Vermont State Police provide service for motor vehicle regulation and criminal law enforcement. Starksboro is also served by an elected constable who is available to assist law enforcement officials when requested.

There is a dedicated group of volunteers in the Starksboro Volunteer Fire Department with equipment housed in the Firehouse at the town gravel pit off Rte. 116 in the Rockville section of town. The FY 22-23 appropriation in support of the fire department was $55,255 with an additional $11,235 set aside in a fire equipment reserve fund. Between July 1, 2022 and June 30, 2023 they responded to 48 calls that included fires, motor vehicle crashes, carbon monoxide, medical assists, and mutual aid to other departments. There is a substation at 397 Jerusalem South Starksboro that houses a pumper

Richmond Rescue (RR) is now the primary EMS service in one area of town and Starksboro Rescue Squad (SRS) still remains in the other parts of town as primary. Bristol RS, who serves 5 towns, has seen over a 30% increase in their call volume, while RR saw a more modest 5% increase over the past two years but maintains an excellent level of care. They are funded based on a $25 per capita budget per town that they serve. Starksboro First Response is an all-volunteer agency made up of town residents and provides initial emergency medical services in town. The first response agency is provided approximately $12,000 annually to support its mission. Records from 2024 show that they responded to 158 calls. The Starksboro Rescue Squad, with headquarters in Starksboro, responds to calls for patient transport in Starksboro. Bristol Rescue Squad (BRS) bills for its services, receives additional funding from towns serviced, and accepts donations.

There are no medical facilities in Starksboro, but many doctors, nurses and dentists are available a short distance north or south of town. Addison County Home Health and Hospice can make home visits, and the Community Health Services of Addison County has an Open Door Clinic in Middlebury.

Emergency Management

The Town has identified an Emergency Manager and uses a Local Emergency Management Plan (LEMP) last adopted in 2024 to coordinate response to larger incidents. The LEMP identifies the Town office at 2849 VT Rte. 116 as the primary emergency operations center (EOC) and the Fire Station at 3902 VT Rte. #116 as the backup. The Town Garage could be considered as an alternative, however would need an

upgraded generator. The Robinson Elementary School is the primary shelter with the Starksboro Town Hall after renovations that will be occurring in the next few years and the fire station as community shelters. Another potential other shelter site is the auxiliary station in South Starksboro.

Critical Facilities

The planning committee identified a number of critical facilities in Starksboro. These facilities provide important services to the community, such as basic government functions, water and power services, and schools. Some of these facilities can also serve additional roles during an emergency situation, including as a shelter for displaced residents, a staging area for emergency response and recovery activities, or a location for important Town administration functions. This also includes the manufactured home communities such as Brookside, Hillside Mano and Lazy Brook. Damage to these facilities can impair response and recovery operations and may lead to a disruption of vital services for Starksboro residents.

Dams

According to the Vermont Dam Inventory (VDI), Starksboro has no high hazard potential dams, but does have 4 dams which are all privately owned, 3 of which are low hazard, and one, the Baldwin Pond dam, has significant hazard potential. The Baldwin Pond dam, a 93 x 10 foot earthen recreation dam has been in poor condition since 1985, with no change after the 2023 flood event. Two of the low hazard potential dams are associated with the Lewis Creek Basin. The Common Ground Pond dam, a 208 x 13 foot earthen dam is in satisfactory condition. The Clifford Dam, a 900 x 11 foot earthen recreation dam that was built in 2008 currently has no conditional rating but was “fast” inspected after the 2023 flood event. The third, Pechie Dam, a 295 x 27 foot earthen recreation dam, rated in poor condition is on the Hollow Brook, part of the Winooski River basin. See **Figure 3** for locations.

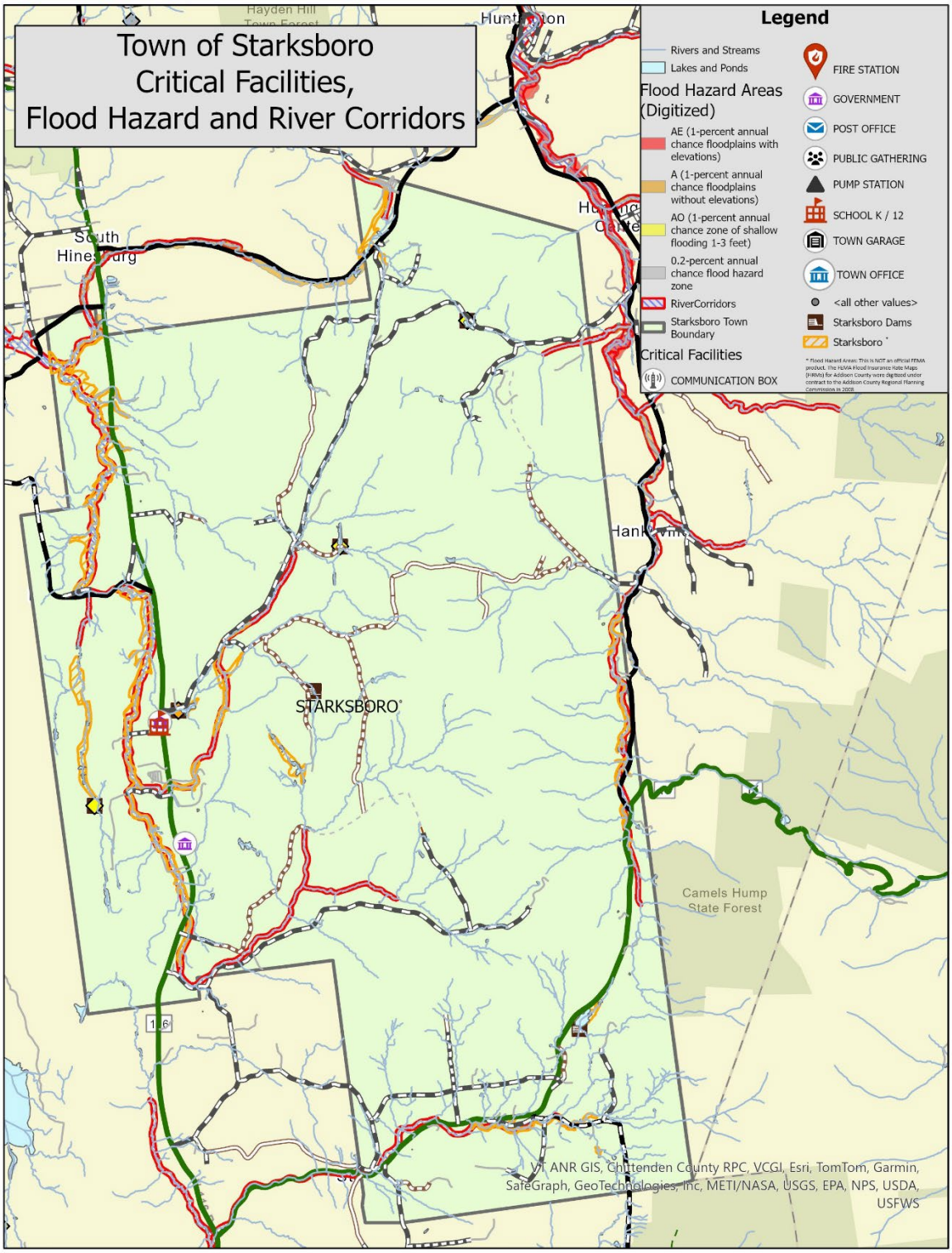


Figure 3 - Critical Facilities - Flood Hazard - River Corridors

4 PLANNING PROCESS

Plan Developers

The Town assembled a Hazard Mitigation Planning Team to participate in updating the Plan. Team members included: Town Administrator, Fire Chief, Road Foreman, First responder/former Town Clerk, EMS Coordinator, Planning Commission, Zoning Administrator and Town Cler.

The Town hired SEAM Solutions to assist with this Plan update. FEMA Building Resilient Infrastructure and Communities (BRIC) funds supported this process.

Plan Development Process

The 2025 Local Hazard Mitigation Plan is an update to the 2018 single jurisdiction mitigation plan. A summary of the process taken to develop the 2025 update is provided in **Table 2**.

Table 2 – Plan Development Timeline and Process

Nov 14, 2023: Kick-off meeting. Discussed what an LHMP is; benefits of hazard mitigation planning; current plan status; planning process; outreach strategy; and plan sections. Planning Team working meetings were not open to the public.
Dec 12, 2023: Announcement of plan update on Front Porch Forum, Social Media, Town's website and available at town office. The plan update was discussed at the Selectboard meeting. We strategized various community outreach including businesses, churches, Common Ground camp, schools and vulnerable populations. Reviewed Community Survey questions for publication. Reviewed the Introduction, Purpose and Community Profile and described revisions needed. Introduced the Community Hazard Risk Assessment and assessed fluvial erosion. Did not receive any feedback. **(See Appendix A)**
Feb 7, 2024: Plan update will be discussed at Town Meeting Day and included in the Town report. Discussed working with the Town resource officer to reach vulnerable populations. Reviewed and revised Community Survey. Final review of the Introduction, Purpose and Community Profile sections. Completed the Community Hazard Risk Assessment table.
Town Meeting Day March 5, 2024: Plan update announced by the fire chief and encouraged residents to participate in the process and complete the Community Survey. Did not receive any feedback. **(See Appendix A)**.
March 19, 2024: Continued discussion of public outreach strategy for vulnerable population and finalized Community Survey questions. Community Survey posted on the Town's website, and had copies on hand in the town office. **(See Appendix C for results)**
April 9, 2024: Identified Critical facilities list and reviewed the past plan list of mitigation actions that were completed and identified actions that should be carried forward.
July 17, 2024: Discussed/hot wash of the July 10 flood event and how it affected the Town. The Town will be implementing VTAlert in order to get information to the residents more efficiently. Reviewed the Community Hazard Risk Assessment Table and made minor adjustments. Discussed future mitigation actions.
July 30, 2024: Continued identifying future mitigation actions. Identified community capability strengths and areas for improvement.
September 5, 2024: Reviewed list of mitigation actions, evaluated the actions and prioritized them.
September 20, 2024 – Submitted to VEM for review
October 8, 2024 – Town administrator sent plan update announcement to surrounding communities, VTrans District Office, DEC Floodplain Manager, ANR River Engineer, Addison Housing Works, Mount Abraham Unified

School District, Starksboro Food Shelf. Received feedback from Tri Valley Transit and Addison Housing Works and addressed concerns where applicable. **(See Appendix A)**
Public Comment – selectboard /town meeting day announcement TBD

In addition to the local knowledge of the Planning Committee members and other relevant parties, several existing plans, studies, reports, and technical information were utilized in the preparation of this Plan. A summary of these is provided in **Table 3.**

Table 3 – Existing Plans, Studies, Reports and Technical Information

2018 Town Plan Referenced to develop the Community Profile, Capabilities, Integrating into Existing Plans and Procedures, Mitigation Strategy Updates – Changes Since 2018 Plan in Section 6.
2024 Local Emergency Management Plan Primarily used to identify local organizations that support vulnerable populations to ensure these organizations are invited to participate in the plan update along with updating the Section 3.
2020 Zoning Bylaws Referenced to develop the Community Profile, Capabilities, Integrating into Existing Plans and Procedures, Mitigation Strategy Updates – Changes Since 2018 Plan in Section 6, NFIP participation and regulation.
2019-2023 Green Mountain Power Outage Data Used to develop Table 2 in the Community Profile Section and identify potential vulnerabilities.
2020 US Census Data Used to develop the Demographics and Growth Potential information in Section 3.
2020 Unified Development Regulations Referenced to develop Community Capabilities, Integrating into Existing Plans and Procedures, Mitigation Strategy Updates in Section 6 and Changes Since 2018 Plan in Section 4.
2021 American Community Survey Five-Year Estimate Used to develop the Demographics and Growth Potential information in Section 3.
2023 State of Vermont Hazard Mitigation Plan Primarily referenced to develop the risk assessment and profiles in Section 5.
2023 FEMA Local Mitigation Planning Handbook Used to ensure plan meets the Federal mitigation planning requirements, including those for addressing climate change.
2023 FEMA Hazard Mitigation Assistance Program Policy Guide Used to ensure plan meets the Federal mitigation planning requirements, including those for addressing climate change.
2021 Vermont Climate Assessment Referenced to develop the flood risk profile in Section 5.
FEMA NFIP Insurance Reports Used to determine how many structures are insured and describe NFIP compliance in Section 6. NOTE: Due to FEMA Region I concerns related to personally identifiable information (PII), NFIP repetitive loss and severe repetitive loss information is unavailable for this plan update.
2017 FEMA Region I Mitigation Ideas for Natural Hazards Used to develop mitigation actions to address impacts from severe winter storms, high winds and floods.
2019 Road Erosion Inventory Referenced to develop the risk profile in Section 5 and mitigation actions to address floods in Section 6.
VTrans Transportation Resilience Planning Tool Referenced to develop the risk profile in Section 5 and mitigation actions to address floods in Section 6.
Vermont Dam Inventory (VDI) Referenced to develop the risk profile in Section 5 and mitigation actions to address floods in Section 6.
National Oceanic and Atmospheric (NOAA) National Climatic Data Center's Storm Events Database Referenced to develop the risk profile and hazard history in Section 5.

FEMA Disaster Declarations for Vermont Referenced to develop the risk profile and hazard history in Section 5.
OpenFEMA Dataset: Public Assistance Funded Project Summaries for Vermont Referenced to develop the risk profile and hazard history in Section 5.
Vermont Department of Health Referenced to develop the risk profile in Section 5.
Vermont Agency of Natural of Resources Referenced to develop the risk profile in Section 5.
Vermont Agency of Natural of Resources Watershed Projects Referenced to identifying completed and develop mitigation actions to address floods in Section 6

Changes since the 2018 Plan

The 2018 local hazard mitigation planning effort analyzed natural hazards and the risk they posed to the Town of Starksboro. The risk assessment resulted in the categorization of High and Low priority risk level hazards. In the 2018 plan; Flash flood, invasive species, structure fire, severe snow, ice storm, insect borne illness, highway accident, severe mud, high winds and hazmat spill were ranked as the community's High Priority risk natural hazards. The town would like to not that the hazard type flash flooding as described in the 2018 plan could be considered both flash flooding and fluvial erosion when reviewing the vulnerability summary and it describes areas between creeks and roads (See Page 23-24 of the 2018 plan). Actions proposed in 2018 focused on mitigating risks from flooding and power outages.

The 2025 hazard ranking aligns with the State Hazard Mitigation Plan's identified hazards that consolidates many of the hazards identified in the previous plan. Starksboro recognizes that man-made events exist such as structure fire, hazmat spills, highway crashes, and severe mud. Crucial to recognizing their threat to the community however, there are other mechanisms such as the LEMP annexes that are better to deal with most short term risks.

As the Town has sought to implement the 2018 mitigation strategy, they have looked for opportunities to incorporate information and recommendations from the 2018 Plan into other plans, programs, and procedures. They were successful in doing so in the Town Plan and Zoning Bylaws were undergoing updates at the same timeframe.

The Starksboro Town Plan, adopted in 2018, serves as the Town's framework and guide for reaching community goals, including those for how future growth and development should proceed.

It includes flood resilience and land use policies and actions to support the goal of mitigating risks to public safety, critical infrastructure, historic structures, and municipal investments posed by flooding and fluvial erosion.

The Town Plan is the basis for local land use controls such as those in the Starksboro Zoning Bylaws, adopted in 2020. Starksboro's Zoning Bylaws includes Flood Hazard Area to ensure the selection, design, creation, and use of development in these hazard areas is reasonably safe and accomplished in a manner that is consistent with public wellbeing, does not impair stream equilibrium, flood plain services, or the stream corridor.

In addition, Starksboro made significant progress in completing other mitigation actions identified in the 2018 Plan – see **Appendix B**.

A generator transfer switch has been installed at the Town Office to facilitate installation of a generator/back up power supply. Zoning requirements have been modified to require the installation of "hurricane clips" on all new mobile home being set in the Town.

The Town upsized a culvert on Brown Hill Road off Big Hollow Road to better accommodate stormwater and make the road more resilient to flash flooding and fluvial erosion that achieved the intended results and performed well during the July 2023 and 2024 storms. Other road improvements have been ongoing with the Municipal Roads General Permit projects. These mitigation investments have 1) strengthened the community's Transportation lifeline; 2) reduced risk to infrastructure; and 3) supported Town efforts to comply with the Municipal Roads General Stormwater Discharge Permit and protect water quality by controlling erosion and stormwater runoff from municipal roads.

As described in the Community Profile above, Starksboro's population has been in slow decline since its peak in 2000 and growth potential is believed to be limited by a lack of developable land and public water and sewer utilities.

Changes in population and development since 2018 have not made Starksboro more vulnerable to natural hazards and therefore are not the primary drivers for a shift in the Town's mitigation priorities in 2025. Rather changing weather conditions due to climate change most influenced the Town's current mitigation strategy.

Climate Change

The FEMA Hazard Mitigation Assistance Program and Policy Guide states "Climate change is increasing the frequency, duration, and intensity of storms, floods, fires, and extreme temperatures across the nation. Local communities are feeling the impacts of climate change now, and these multi-hazard trends are expected to continue to increase in severity over the next century."

As a result, Starksboro considered the effects of future conditions, like climate change, on the type, location, and range of intensities of identified hazards when they conducted the risk assessment in 2024. The highest risk hazard impacts that the Town believes they are most vulnerable to streamlined those from 2018 and changed based on the newer risk assessment approach:

- **Floods associated with heavy rain events, thunderstorms or winter storms that can cause ice jams**
- **Snow associated with severe winter storms**
- **Wind associated year-round with any storm system**

The primary mitigation goal in the 2025 Plan is to increase the Town's resilience to natural hazards by advancing mitigation investment to reduce or avoid long-term risk to people, homes, neighborhoods, the local economy, cultural and historic resources, ecosystems, and Community Lifelines.

When evaluating mitigation actions, the Town selected actions that support the mitigation goal and are acceptable and practical for the community to implement. Actions that directly benefit a vulnerable population were assigned a high prioritization score – see **Table 7.**

5 HAZARD IDENTIFICATION AND RISK ASSESSMENT

Local Vulnerabilities and Risk Assessment

One of the most significant changes from the 2018 Plan is the way hazards are assessed. To be consistent with the approach to hazard assessment in the 2023 State Hazard Mitigation Plan, the Hazard Mitigation Planning Team conducted an initial analysis of known natural hazard events in the Town of Starksboro. While there have been 16 FEMA disasters declared in Addison County since 2000 only 6 have affected the Town of Starksboro **(see Table 4**). This analysis aided determining their probability of occurring in the future (high probability events are **in a darker shade of blue** in **Table 5**).

The Team then ranked the impacts associated with the natural hazard events based on 1) probability of occurrence and 2) potential impact to people, infrastructure, the environment, and local economy.

This assessment considered the effects of future conditions, like climate change, on the type, location, and range of intensities of identified hazards.

The ranking results are presented in **Table 5** and reflect the following **highest risk hazard impacts** that the Town believes they are most vulnerable to:

The Committee identified the following as High Risk Hazards:

Each of the **highest risk hazard impacts** are profiled in this section. Lower risk hazards impacts do justify mitigation but to a lesser extent due to a low probability of occurrence and/or low impact. See the 2023 State Hazard Mitigation Plan if you are interested in more information on the lower risk hazards.

Hail and Earthquakes were decided by the planning team to be outside of the realm of justification within our region for mitigation actions. Hail being that the historic record of damage being primarily minimal and to vehicles. Earthquakes even though experienced also are historically small in Vermont do occur but were deemed to be of minimal threat and with no building codes basically impossible for a town to develop effective mitigation strategies.

Table 4 - Federally declared disasters affecting Starksboro

Year	Date	Description	Dec. #	County Est.	Starksboro
1998	1/6-16/1998	Ice Storms	DR1201	$ 662,388.00	$ 52,613.00
1998	7/17-8/17/1998	Severe Storms and Flooding	DR1228	$ 2,146,484.00	$ Unavailable
2001	3/5-7/2001	Snowstorm	EM3167	$ 138,333.08	$ $3,938.75
2011	4/23-5/9/2011	Severe Storms and Flooding	DR1995	$ 384,416.53	$ 71,644.25

2011	8/27-9/2/2011	Tropical Storm Irene	DR4022	$ 1,175,911.20	$ 14,955.23
2015	12/9-12/13/2014	Severe Winter Storm	DR4207	$ 184,715.05	$ 54,707.56
2015	6/9/2015	Severe Storm and Flooding	DR4232	$ 893,310.63	$ 262,886.48
2020	10/31 – 11/1/2019	Severe Storm and Flooding	DR4474	$ Unavailable	$ 637,069.19
2020	1/20-5/11/2020	Covid-19 Pandemic	DR 4532		
2023	7/7 – 7/17/2023	Severe Storms, Flooding, Landslides, and Mudslides	DR 4720		
2023	8/3 – 8/5/2023	Severe Storms and Flooding	DR 4744		
2024	7/9 – 7/11/2024	Severe Storm, Flooding, Landslides, and Mudslides	DR 4810		?
2024	8/8/202-8/10/2024	Tropical Depression Debby	EM3609		?
		Total Since 2025:			$ 1,045,201.46

Table 5 – Community Hazard Risk Assessment

Hazard Events	Hazard Impact	Probability	Potential Impact					Score	Rank
			Infrastructure	Life	Economy	Environment	Average		
Thunderstorm	**Fluvial Erosion/Flash Flooding**	**3**	**3**	**2**	**4**	**4**	**3.25**	**9.75**	**1**
Ice Jam	**Inundation Flooding**	**3**	**3**	**2**	**3**	**2**	**2.5**	**7.5**	**3**
Tropical Storm/Hurricane	**Wind**	**3**	**2.5**	**2**	**2**	**2**	**2.125**	**6.375**	**4**
Tornado	Hail	1	1	1	1	1	1	1	13
Landslide	Landslide/slope failure	2	1	1	1	1	1	2	11
Winter Storm	Ice	2	2	1	2	2	1.75	3.5	9
	Snow	**4**	**2.5**	**2**	**2**	**2.5**	**2.25**	**9**	**2**
	Cold	3	1	1	2	1	1.25	3.75	6
Drought	Heat	3	2	2	2	1	1.75	5.25	6
	Drought	1	2	1	2	2.5	1.875	1.875	12
Wildfire	Wildfire	3	1	1	1	1	1	3	10
Earthquake	Earthquake	1	1	1	1	1	1	1	13
Invasive Species	Invasive Species	3	1	1	2	3	1.75	5.25	5
Infectious Disease	Infectious Disease	2	1	3	3	1	2	4	8

*Score = Probability x Average Potential Impact

	Frequency of Occurrence: Probability of plausibly significant event	Potential Impact: Severity and extent of damage and disruption to population, property, environment, and the economy
1	**Unlikely**: < 1% probability of occurrence per year	**Negligible:** Isolated occurrences of minor property and environmental damage, potential for minor injuries, no to minimal economic disruption
2	**Occasionally**: 1% to 10% probability of occurrence per year, or at least one chance in the next 100 years	**Minor:** Isolated occurrences of minor property and environmental damage, potential for minor injuries, no to minimal economic disruption
3	**Likely:** >10% but <75% probability per year, at least one chance in the next 10 years	**Moderate**: Severe property and environmental damage on a community scale, injuries or fatalities, short-term impact
4	**Highly Likely:** > 75% probability in a year	**Major:** Severe property and environmental damage on a community or regional scale, multiple injuries or fatalities, significant economic impact

Highest Risk Hazard Profiles

Floods

Floods (fluvial erosion, inundation, and flash flooding) can damage or destroy property; disable utilities; destroy or make impassable roads, bridges and culverts; destroy crops and agricultural lands; cause disruption to emergency services; and the loss of life.

People may be stranded in their homes for a time without power, heat, or communication or they may be unable to reach their homes. Long-term collateral dangers include the outbreak of disease, loss of livestock, broken sewer lines or wash out of septic and wastewater systems causing water supply pollution, downed power lines, loss of fuel storage tanks, fires, and release of hazardous materials.

As noted in the 2023 State Hazard Mitigation Plan and 2021 Vermont Climate Assessment, the most common recurring hazard event impacting Vermont communities is flooding. There are two types of flooding: inundation and flash flooding.

Inundation is when water rises onto low lying land. Flash flooding is a sudden, violent flood which often entails stream bank erosion (fluvial erosion). Inundation flooding of land adjoining the normal course of a stream or river is a natural occurrence. If these floodplain areas are in their natural state, floods likely would not cause significant damage. However, most business districts within Vermont are built within this floodplain due to the historical significance of water power.

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

Location: Starksboro's moderate to steep terrain, when combined with heavy rainfall are conditions conducive to flash flooding throughout town and also contributes to fluvial erosion. The only area of town where inundation flooding may be more common than flash flooding is along the north-south valley of Lewis Creek through the center of town. The river valleys, as in much of Vermont, were the easiest to

travel along for early settlers and therefore contain much of the town's road infrastructure and dispersed settlement.

There are 3 manufactured home communities in Starksboro, two of which are in the river corridor and could be considered at risk.

The Lewis Creek Association has funded several geomorphic assessments of the Lewis Creek and its tributaries which have identified multiple undersized culverts on private roads/driveways along High Knob Brook and Hollow Brook to reduce fluvial erosion. Changes to driveway standards could be adopted to prevent future situations where the failure of undersized driveway culverts end up washing out town-owned structures.

Extent: Based on National Weather Service's precipitation records for nearby Burlington, VT, the summer months of June July and August receive the greatest amount of rain. The Flash Flood Risk map indicates where the committee knows flash flooding and fluvial erosion risk is highest. Generally, any rain in excess of 2.5" in a 24-hour period are likely to result in some flash flooding and or fluvial erosion. Rains in excess of 3-4" can cause floods in multiple locations with considerable damage to town roads. Single 24-hour storm totals exceeded 6" in both 1927 and 2011, the two "watershed" events which resulted in statewide devastation. Two rain events in 2023 and 2024, according to NOAA that resulted in 2-3 inches of rain falling in the area.

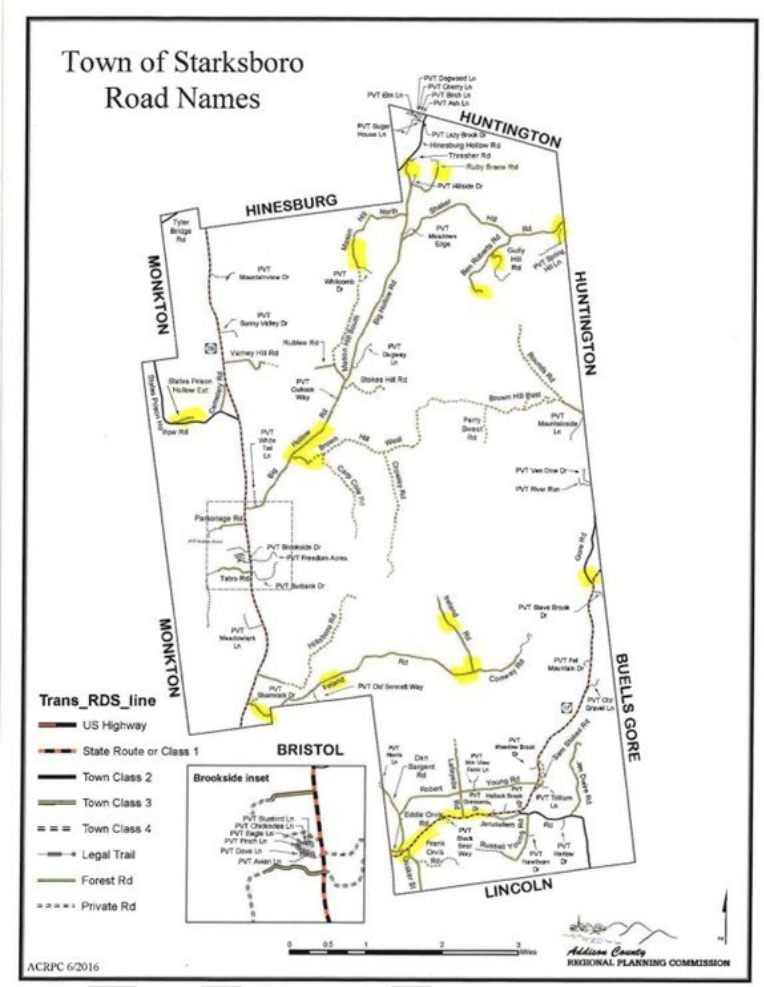


Figure 4 - Flash Flood and Fluvial Erosion Risk Locations

Previous Occurrences: The committee identified several storms in Starksboro where damage was great enough to warrant federal assistance. In late June of 1998, Starksboro was the recipient of a chain of successive rainstorms. Once the ground was saturated, the remainder flowed into streams in torrents. The nearby Town of Lincoln was entirely cut off from the rest of the state and Starksboro also had major damages. The damage resulted in disaster declaration DR1228 which caused over $2 million in damages in Addison County alone. 2011 saw another banner year for flooding/flash flooding in Starksboro. Spring rains which eventually caused record water levels on Lake Champlain DR-1995 and Tropical Storm Irene DR-4022 both contributed to damages of over $100,000.

1976 saw remnants of another tropical storm which also left its mark of Starksboro's highway system. DR 518 resulted in washouts throughout southern Starksboro. Prior to the committee's collective memories, Starksboro was also the recipient of major flash flooding in 1927, 1938, and 1952.

In 2008 a single storm concentrated its rain on the towns of Starksboro and Nearby New Haven, causing localized flash flooding resulting in DR1790. 2011 saw another banner year for flooding/flash flooding in Starksboro. Tropical Storm Irene DR-4022 alone contributed to damages of over $44,000 in town. There have been no flash flooding events large enough to warrant federal assistance in Starksboro since 2011.

In July of 2024 the remnants of Hurricane Beryl came through Vermont and hit Starksboro particularly hard with 20 roads in Starksboro affected. Ireland Road experience extreme damage and was impassable, State's Prison Hollow Extension, Shamrock Drive , Ireland Road and Hillsboro Road also had extensive damage. Numerous homes and private drives also received significant damage.

Future Probability: Whether the current climate change trend is the direct result of human activity or due to other circumstances, it is impossible to not see it happening. While FEMA has only existed for the past half century, the increase in disaster declarations in Vermont has been noticeable. As one committee member identified, we had five, 700yr storms in a 10yr period. Observing and predicting a rising trend in larger and more severe storms is not a stretch. Following an extended period of calmer/drier weather from the 1950s through the 1980s, this current trend is even more obvious, and it is likely to continue on into the future.

Vulnerability Summary: The Town of Starksboro's topography and location along the western slopes of the Green Mountains practically guarantees the likelihood of flash flooding and fluvial erosion events. Areas identified as most vulnerable to fluvial erosion were mostly distant from the village center, primarily in places with a low number of residences where creeks ran alongside or across roads (including Lewis Creek along Ireland Road and States Prison Hollow Road, Carpenter Brook along Ben Roberts Rd and Shaker Hill Rd, and the headwaters of Hollow Brook). However, some areas like Baldwin Creek along Rte. 17 in South Starksboro, the Huntington River headwaters at Rte. 17 and Gore Rd, and a small creek parallel to Big Hollow Rd may threaten critical transportation routes through town from flash flooding fluvial erosion and in some cases inundation flooding. The most damages to date have occurred to the town highway infrastructure in the form of washouts and culvert failures. Fortunately, a progressive road crew monitors trends and proactively installs culverts and repairs ditching in anticipation of ever worsening rainfall/flooding events. The Starksboro hazard mitigation committee identified flash flooding/fluvial erosion as the highest vulnerability to the community. The vulnerability to flash flooding would be considered a regional concern which shows as a similar vulnerability in much of the rest of Vermont. Fortunately, the community understands this vulnerability and supports the road crew's efforts to prepare against future risk.

Flood Hazard History

These are the most up to date significant events impacting Addison County. Starksboro's Federal Declarations are depicted in **bold**.

8/20/2024: 5" rain: DR4810:$TBD
10/6/2023 rain: DR 4744?
7/14/2023: 4" rain: DR4720: $ TBD
1/17/2020: rain: DR 4474
11/1/2019: 2.5-4" rain; $637,069
7/1/2017: 3-4" rain: $150,000
2/25/2017: ½-1" rain and snow melt: $30,000
7/29/2015: 2-3" rain: DR4232: $262,886
6/9/2015: 3" heavy rain: $250,000
7/3/2013: >2" rain; $250,000
5/29/2012: 2" rain: $75,000
9/1/2011: 3-5": DR4022: $14,955
6/15/2011 DR1995 $71,644
10/1/2010: $500,000

8/6/2008:$750,000
6/14/2008:$ 750,000
8/28/2004:$1,700,000
12/17/2000:$100,000
7/16/2000: $600,000
7/1/1998: $1,000,000

Extreme Snow

Location: Severe winter storms with heavy accumulations of snow can occur geographically in any part of Starksboro. The upper elevations of town, South Starksboro and Jerusalem are particularly susceptible to snows both early (October) and late (April). North and South prevailing winds tend to build up drifts along east/west roads and deep valleys often retard spring snow melt well into May.

Extent: When conditions are predicted, the National Weather Service issues warnings ranging from a Winter Storm Warning (heavy snowstorm predicted within 24 hours) to Blizzard Warning (sustained wind and snow with gusts up to 35 mph for at least 3 hours) to Heavy Snow Warning (accumulations of over 6 inches in a 24-hour period).

Construction standards for snow loads (see map) indicate that structures in the Town of Starksboro should be built to withstand loads of 50 - 60 pounds per square foot. This would indicate an average depth of snow of 40-45 inches on a square foot of roof surface. At that point, design standards would be exceeded, and the structure runs the risk of collapse. Given this standard, a snowstorm which dumped 40-45 inches of snow would likely result in a few collapsed roofs, especially on structures which are not built to these standards. Given the normally higher rate of snowfall in eastern Starksboro, a higher rate of collapse would be expected.

Previous Occurrences: The National Climatic Data Center (NCDC) records indicate that the Addison Region experienced 123 winter storm events over the past 25 years. The worst storms resulted in $100,000 in damages in both 2005 and 2010. During that period an estimated $1,743,000 in cumulative property damages and $10,000 in crop damages were incurred.

A March 1993 snowstorm left a record 51.4 inches in nearby Lincoln. In March of 2001, the so-called “Town Meeting Day” snow event (Emergency Declaration #EM3167) caused reduced ability for residents to travel to the voting booth due to hazardous conditions. In some Addison County communities,

additional efforts to keep polling places open were reimbursed with federal funds but Starksboro managed without any additional assistance.

As recently as February 2007, a significant snowstorm coupled with high wind nearly crippled much of Vermont including the Addison County region which suffered a reported

$237,000 in damages. This "Valentines' Day Blizzard" stressed the resources of most local communities, including the Town of Starksboro, to capacity but did not ultimately result in a federal declaration.

Future Probability: The number and severity of winter storms have been increasing since the 1980's. The misnomer of "global warming" has reduced the concerns of many citizens. Unfortunately, "global climate change" more effectively describes the issue and has led to more numerous and more severe storms of all types in the past 30 years. If the current trend continues, it is likely there will be a continued increase in severe winter storms that will impact the Town of Starksboro in the future.

Vulnerability Summary With a regular occurrence of a significant snow or ice storm, the town feels the impact of a winter storm most on the transportation infrastructure of the community. The town is able to keep the roads open and treated for most storms and rarely has lost the ability to keep up with a winter storm due to the Town's high preparedness level and ongoing mitigation actions. Fortunately, the regular occurrence of winter storms also causes most residents to maintain a high level of preparedness for winter storms.

As population growth and housing expands into the more rural areas of town, increasing dependency on local roads by the new homeowners requires changes in winter maintenance. The town has, thus far, been able to keep up with those increased demands on its services.

Extreme Snow

These are the most up to date significant events impacting Starksboro. Federal Declarations for Starksboro are depicted in bold. Damages are to Addison County

12/1/1997: 9-12"; $10,000
3/21/1998: 12-15"; $10,000
1/25/2000: 14"; $15,000
1/30/2000: 12"; $15,000
2/13/2000: 12"; $10,000
2/18/2000: 10.5"; $10,000
4/9/2000: 11.5"; $30,000
12/31/2000: 8-19"; $20,000
3/5/2001: 15-30"; $100,000
3/5/2001: 15" snow: DR3167:$3,938
3/22/2001: 8-25"; $50,000
3/30/2001: 5.5-16"; $50,000
1/31/2002: 10"; $10,000
3/26/2002: 12"; $20,000
11/17/2002: 6-10"; $5,000
12/25/2002: 8"; $10,000
1/4/2003: 18"; $40,000
3/30/2003: 8"; $10,000
4/5/2003: 11"; $10,000
2/3/2015:10"-20" snow: DR4207: $54,707

Update picture

Strong Wind

Location: High winds can be experienced almost anywhere in the Town of Starksboro and are generally seen in any corridor running north/south along the ridges of town. Especially noted by the committee are areas between VT Route 116 through the village and VT Route 17 along its eastern border. An evaluation of the entire State of Vermont identifies a string of locations along the mountain ridges which would be outstanding for generation of wind power in the Town of Starksboro

Extent: Extreme high winds can wreak havoc resulting in downed trees, power outages, roof failures and overturned trailers/trucks. These, in turn, can result in electrical fires, failed communications towers and substandard housing for those impacted. Elsewhere in the region, roofs have collapsed, trees have been uprooted and outdoor furniture has been lost.

High winds in excess of 50mph cause noticeable damage but those which exceed 60mph are most noticeable resulting in structural damage to buildings. Fortunately, much of the Town of Starksboro is sheltered by hills which break up major wind events felt in more open areas. Unfortunately, areas not sheltered by hills receive the brunt of high winds.

Previous Occurrences:

NCDC records indicate The Addison Region has experienced 34 High Wind events and 35 Strong Wind events over the past 25 years resulting in $1,451,000 in cumulative property damage and $25,000 in crop damage. The Addison Independent archives record the damage associated with the "Great Windstorm of November 1950". That storm saw the remnants of a late season hurricane blow through the Addison region between the Town of Pittsford in Rutland County and the City of Vergennes west of Starksboro. "Hundreds of trees were uprooted, miles of fences ruined, seven out of every ten houses suffered roof damage…Barns were blown down, 1,000 head of cattle are dead, families are temporarily homeless." This storm resulted in over $1million in damages in 1950 dollars, an amount equal to over $10 million in 2016 dollars.

Locally, the Starksboro hazard mitigation committee recalled several times when severe winds caused damage in town. In 2002, Kelly's hay shed at the corner of Robert Young and Lafayette Roads was damaged when winds broke the posts of this pole barn. In both 2012 and 2016, the Clifford farm withstood damaged roofs when overly severe gusts were experienced. The Starksboro Fire Dept experienced damage during a chimney fire in a wind storm when one of the doors blew off a truck.

Future Probability:

Over the past 15-20 years there has been an observable increase in the severity and frequency of storms in Addison County. The Starksboro Hazard Mitigation Committee collectively commented that there has been an observable increase in storms with sustained winds recently. Extremes in warming and cooling which we have seen in recent years lead to high winds as convective forces meet cooling forces. It is probable that in the future, we will not see a lessening in winds or wind producing storms. Certainly, if climatologists' predictions are true, this trend is expected to continue into the future. Since, by nature, severe storms are accompanied by high winds, damage due to wind are expected to increase as well.

Vulnerability Summary:

Residents of the Town of Starksboro are expected to see an increase in so-called "Freak" storms which are often accompanied by high winds. Because these storms were formerly unusual occurrences, most people in town are unprepared for high winds. Exceptionally high winds found in cyclonic storms would likely result in damage to roofs in town and result in the collapse of some structures. Fortunately, the hills and deep valleys make much of Starksboro basically safe from cyclonic storms (tornados).

Power outages are the main reason for disrupting communications, which are crucial in times of crisis. Telecommunications are also needed for warning systems before a disaster, as well as for response during and recovery after. During a disaster, municipal response is managed by the local Emergency Operations Center (EOC), this would include all communications – from phone calls to internet browsing and 2-way radio. In addition to power outages, downed trees during strong wind (and heavy snow/ice) events can damage buildings and other property.

Strong Wind Hazard History

These are the most up to date significant events impacting Starksboro. Federal Declarations are depicted in bold. Damages are to Addison County

3/28/2000	68 mph	$75,000
9/19/2003	52 mph	$10,000
11/13/2003	35 mph	$ 5,000
12/11/2003	46 mph	$ -
11/28/2004	50 mph	$5,000
9/29/2005	35 mph	$50,000
1/18/2006	55 mph	$30,000
2/17/2006	37 mph	$50,000
10/28/2006	60 mph	$20,000
12/16/2007	50 mph	$10,000
12/9/2009	74 mph	$100,000
1/25/2010	50 mph	$10,000
2/26/2010	50 mph	$25,000
12/1/2010	61 mph	$250,000
12/12/2010	50 mph	$10,000
4/16/2011	50 mph	$20,000
10/29/2012	50 mph	$10,000
12/21/2012	53 mph	$50,000
4/1/2018	56 mph	$150,000
12/23/2022	52 mph	$100,000

Update picture

Invasive Species

Location: Invasive species are becoming a widespread problem throughout Starksboro and the rest of Vermont. Damages range from skin blistering and scarring in the case of poison parsnip, to the devastating effect the Asian Longhorn Beetle could have on Vermont's famous maple sugar industry.

The Starksboro hazard mitigation committee pointed out that much of the spread of unwanted invasive plants is along roadsides and has entered the town via state highways. Flying insect invasives will be far more widespread due to the mobility of these pests and could strike anywhere in the community where their hosts live (Ash for Emerald Ash Borer and Maple for Asian Longhorned Beetle). From small woodlots to large-tract forests, all treed land is susceptible.

Extent: Widespread establishment of Wild or Poison Parsnip (*Pastinaca sativa*) along roadsides and/or open fields can effectively remove those areas for recreational purposes through much of the summer months. Once contracted many are quite hesitant to venture far from cleared paths and given the non-developed nature of much of Vermont's attraction for tourists, could heavily impact future visits.

Ash trees are the source for hardwood that can bend and withstand considerable stress. Historically, ash has been the source for axe handles, hockey sticks and baseball bats. It is a component of timber harvesting in Vermont and provides that industry with a moneymaking product. Spread of the Emerald Ash Borer (*Agrilus planipennis*) (EAB) into Vermont's forests would have a significant impact on timber values.

A third invasive of immediate concern to Vermont is the Asian Longhorned Beetle (*Anoplophora glabripennis*) (ALB) which attacks and kills maple trees. Vermont is famous for its maple syrup and is the largest producer of maple products in the United States.

Widespread loss of maple trees could result in the collapse of this iconic industry and a severe impact to the state's economy.

Other invasives include Purple Loosestrife, Japanese Knotweed, Rock Snot and many others which all have a detrimental impact on the state's native populations and the state's ecological balance.

Previous Occurrences: The most noticeable impact of invasives in Vermont began when a load of elm lumber was imported from Europe in the early 1900s. Embedded in this load were spores of what we now call Dutch elm disease. At the time, elm was the most popular street tree in the US due to its hardiness in many types of conditions. The loss of these trees which were liberally planted as shade trees in many village greens and along roadsides had an extreme impact both aesthetically and due to the loss of shade, in the overall use of electricity in summer months. Now, elm is uncommon in most of the north east and the disease continues to spread westward.

Other examples include the importation of gypsy moth to attempt to create locally grown silk, the spread of zebra mussels which threaten water intakes on infested water bodies and the unintentional importation of the Norway Rat in ships holds with early colonists. Each of these has had its own impacts on the economy and ecological stability of the US and Vermont.

Future Probability: With an increasing global economy, new and unknown invasives are sure to be imported from other countries in the future. In recognition of the inevitable spread of EAB and ALB into Vermont, trapping is being conducted by foresters and biologists along the border areas of Vermont. Both EAB and ALB are expected in Vermont within the next few years and damage caused by their spread is already anticipated by the Vermont Agency of Natural Resources.

Vulnerability Summary: Starksboro is extremely vulnerable to the economic impacts of invasives and is limited in its ability to combat their spread. The community does what it can but is highly dependent on State and Federal agencies to slow down the spread of invasives. With a number of local businesses focused on the forests and forest products, the community economy is vulnerable, and sections of roads through predominantly forested areas like Rte. 17, Big Hollow Road, and Ireland Road may be threatened by dead and weakened trees. The hazard mitigation committee scored Invasives as its second highest risk with a score of 13 and a vulnerability rating of 4 reflecting the regional nature of the hazard and its importance.

Landslide/Slope Failure

Landslide is the sliding of a large mass of rock, earth, or debris, down a sloped section of land. Landslides can be caused by rain storms, fires, alternate freezing or thawing and/or by the steepening of slopes by erosion or human modification. In Starksboro, landslides tend to occur or are exacerbated by fluvial erosion as most of the landslides occur on or near a stream bank, or during extreme wet conditions in areas of clay substrate.

Landslides have three major causes: geology, morphology, and human activity. Geology refers to characteristics of the material itself. The earth or rock might be weak or fractured, or different layers may have different strengths and stiffness.

Morphology refers to the structure of the land. For example, slopes that lose their vegetation to fire or drought are more vulnerable to landslides.

Vegetation holds soil in place, and without the root systems of trees, bushes, and other plants, the land is more likely to slide away.

Human activity, such as agriculture and construction, can increase the risk of a landslide. Irrigation, deforestation, excavation, and water leakage are some of the common activities that can help destabilize, or weaken, a slope.

The Town of Starksboro has 2 active and one inactive landslide locations with in the town as listed on the Vermont Agency of Natural Resources Landslide map that was last updated in 2020. Historically landslides in Starksboro have been small at ~0.1 of an acre or less.

Ice

Ice events typically occur between the months of December and March in Vermont. They can include snow, sleet, freezing rain, or a mix of these wintry forms of precipitation. Events can also be associated with strong wind or floods, increasing the potential hazard.

Ice storms are characterized by ice accretion from freezing rain, which can weigh down trees and power lines, causing outages and potentially occurring in conjunction with flooding in rain on snow events. Ice storms can occur alone or in conjunction with snow storms, blizzards, and extreme cold. Significant accumulations of ice can cause hazardous conditions for travel, weigh down trees and power lines, and cause power outages.

Freezing rain can also be combined with mixed precipitation and snowfall, hiding ice accumulation and further hindering travel. Ice accumulation on waterways is associated with the potential for ice jams and flooding.

The NOAA breakdown based off of light winds, under 10 mph for ice accumulation:

- .25 inch, isolated power outages
- .50 inch, widespread outages
- .75 inch, major damage
- 1.0 inch, devastating damage

Location: Severe ice storms are common throughout Vermont and can occur geographically in any part of Starksboro. Located on the edge of the Champlain Valley, Starksboro is at greater risk for more widespread Ice. Generally, ice storms strike within a particular elevation band depending on temperatures with higher elevations experiencing snow and lower elevations experiencing rain. As a town with a topography ranging from relatively flat lowlands to the higher elevations of the Green Mountains, portions of Starksboro can easily fall into just such a band.

Extent: Because Ice storms are extremely temperature and elevation dependent, they are notoriously difficult to predict. When conditions conducive to ice build-up are predicted, the National Weather Service issues a Winter Storm Warning with emphasis on ice accumulation. The Starksboro hazard mitigation committee identified the ice storm of 1998 as the worst they had seen with accumulations of up to ¾ inch and loss of power for up to 2.5 weeks.

Previous Occurrences: The National Climatic Data Center reports that the Addison Region has experienced 2 major Ice Storm events over the past 25 years. The highest recorded damages were incurred during the 1998 Ice Storm which impacted most of the northeastern US and resulted in $750,000 in damages to Addison County properties. During the same 25-year period an estimated $850,000 in total property damages were recorded. The major impacts within the Town of Starksboro are generally limited to residents impacted by loss of power and the occasional downed tree or branches in the road.

Future Probability: Warmer temperatures such as might be anticipated with climate change could result in less snow and a higher likelihood of ice in winter. Other predictions indicate that climate change will bring colder winters that might increase ice storms in early spring and late fall. In both cases, storms are predicted to increase in severity which would make category 0-1 storms less frequent and 2-5 storms a higher possibility.

Vulnerability Summary: The Town of Starksboro is a rural community with a strong summer tourist economy. The tree-lined rural roads so popular with tourists add additional risk of ice laden trees falling on power lines and resulting in widespread power failures. Power company policy is to repair the simplest fixes which impact the highest populations as the highest priority. Many residences off Ireland, Conway, and Shaker Hill Roads may not be restored for lengthy periods of time. The combination of these two circumstances points to a high risk of extended power failures due to ice storm throughout the Town of Starksboro.

Widespread power outages have been extensively mitigated by service providers in the past few years following the disastrous Ice Storm of 1998 effectively reducing the community's vulnerability.

Extreme Heat and Cold

Heat warnings are becoming increasingly more prevalent due to our shifting climate. Vermont has been seeing an increase in 90+ degree temperature days. This trend is expected to continue. Most of our housing stock and individuals are well adapted to dealing with cold temperature, but the quick swings to higher temperatures do not allow for acclimation, and many of our structures are designed to retain, rather than shed, heat.

Epidemiological analyses completed by the Vermont Department of Health indicate that Vermonters are five times as likely to visit the emergency department for heat-related illnesses when the heat index reaches the 80s, 10 times as likely when the heat index reaches the low 90s, and over 20 times as likely

when the heat index reaches the upper 90s or hotter. These risks are greatly modified by how acclimated a person is to hot weather – the risk for heat-related health impacts is higher early in the heat season, and lower if it has been consistently hot over the past week or more.

Consecutive days of hot weather with warm overnight temperatures further increase the risk of experiencing severe heat-related health impacts. Risk also depends on the "normal" level of heat experienced in an area – places that are relatively cooler will typically experience health impacts at lower heat index values than a place that is relatively warmer. June of 2024 saw forecasted heat index of 102. Below are the 4 heat related listing from the SHMP of 2023.

Eastern Addison 8/1/2006 Heat
Eastern Addison 8/2/2006 Heat
Eastern Addison 3/17/2012 Heat – caused $450,000 in crop damage across Addison County
Eastern Addison 7/1/2018 Heat

Older adults, people with chronic health conditions, and people with disabilities are at particularly high risk, especially if they live in housing without air conditioning or are unhoused and cannot access cooling facilities and other support resources. The unhoused may not be or feel welcomed at cooling centers, sleep in hot tents, and carry heavy loads of their possessions in the heat. There is increasing risk to multiday heat events in Starksboro with a greater increase in heat warning. With there being at least 1 multiday heat advisory on average per year.

In the region, extreme cold can still be an issue. If it is a long-lasting cold without snow cover, frost can migrate deep into the ground freezing pipes and heaving roadways. Most of this would be dealt with by the town either through their utility contracts or by the town road crew in keeping the transportation infrastructure in usable condition. Loss of power during one of these cold snaps may require use of the town shelter and is planned for in the town Local Emergency Management Plan.

What constitutes "extreme cold" can vary across different areas of the country based on what the population is accustomed to in their respective climates. Vermont is adapted to cold conditions; however very cold temperatures remain a threat despite their commonality during Vermont winters. For cold weather events the City uses the same sites plus has the capacity to open the Elementary School as an additional shelter if in association with a power outage. Below are the 7 cold related listing from the SHMP of 2023.

Eastern Addison 1/25/2007 Cold
Eastern Addison 3/6/2007 Cold
Eastern Addison 3/9/2007 Cold
Eastern Addison 1/14/2009 Cold
Eastern Addison 1/7/2015 Cold
Eastern Addison 1/11/2022 Cold
Eastern Addison 1/14/2022 Cold

Drought

Taking from the 2023 State Hazard Mitigation Plan "Drought is a deficiency of moisture that results in adverse impacts on people, animals, or vegetation over a sizeable area (NOAA National Weather Service) or a period of abnormally dry weather sufficiently long enough to cause a serious hydrological imbalance (American Meteorological Society)."

Droughts in the Northeast tend to be, what are referred to as "flash" droughts, defined as rapid onset of intense dry periods that can follow periods of normal or above normal precipitation. These may last from 2-6 months, and can have profound impacts within the region, on agricultural losses, shortages of water supply and very low stream flows. This pendulum often swings from a dry year to a wet year.

There have been 3 instances of D2 (Severe Drought) level droughts in Addison County Vt since 2000. One longer event in 2016 and then two short events in 2018 and 2020.

Category	Description	Possible Impacts
D0	Abnormally Dry	Going into drought: short-term dryness slowing planting, growth of crops or pastures Coming out of drought: some lingering water deficits pastures or crops not fully recovered
D1	Moderate Drought	Some damage to crops, pastures Streams, reservoirs, or wells low, some water shortages developing or imminent Voluntary water-use restrictions requested
D2	Severe Drought	Crop or pasture losses likely Water shortages common Water restrictions imposed
D3	Extreme Drought	Major crop/pasture losses Widespread water shortages or restrictions
D4	Exceptional Drought	Exceptional and widespread crop/pasture losses Shortages of water in reservoirs, streams, and wells creating water emergencies

Wildfire

Wildfires are not often much of a concern within the region of Starksboro, although the spring and fall can be times when dry hazardous conditions exist.

Opportunity for wildfires occurs due to the lack of foliage in these seasons, before spring green up or in the fall after foliage has died back when combined with dry conditions. Historically, Vermont has seen the most wildland fires between March and June. These are generally times when dry conditions exist for an extended period causing drought conditions. Ignition of wildfires is predominantly caused by human activity and mainly from debris fires that are not contained or not supervised. Thus, messaging when conditions exist is very important to convince individuals not to make mistakes in relation to ignition sources. This messaging is handled by the town fire warden in association with the fire department.

There have only been small isolated wildfires within the last 50 years within Addison County. But due to the shifting weather patterns due to climate change this should be planned for due to spring and fall risk with flash droughts.

Infectious Disease and Insect-Borne Illness

The Vermont Department of Health defines an infectious disease as one that is caused by micro-organisms, such as bacteria, viruses or parasites. A vector-borne disease is an infectious disease that is transmitted to humans by blood-feeding arthropods, including ticks, mosquitoes and fleas, or in some cases by mammals (e.g. rabies). Climate change is increasing the likelihood of viral and bacterial pathways through warmer temperatures and in association with floods. Due to the climatic associated shifts due to the warming climate the seasons that vector borne organisms can survive in has increased by 7 day over the last 2 decades.

According to the Vermont Department of Health, infectious disease dynamics depend on a range of factors, including: land use, human behavior, climate, efficacy of healthcare services, population dynamics of vectors, population dynamics of intermediate hosts and the evolution of the pathogens themselves. Many of these diseases require continuous monitoring, as they present seasonal threats to the general population. An epidemic emerges when an infectious disease occurs suddenly in numbers that are in excess of normal expectancy. Infectious disease outbreaks put a strain on the healthcare system, can cause continuity of operations challenges for local businesses, impact the economy, and interrupt daily life for everyone within a community. These outbreak incidents are a danger to emergency responders, healthcare providers, schools, and the public. Examples include Coronavirus 19 (Covid-19) which was a federally declared disaster DR-4532, influenza (e.g. H1N1), pertussis, West Nile virus, and many other diseases.

There is no scale or metric for prioritizing infectious disease at the town level. The easiest method would be to track hospitalizations by day increase above the average. Or in a pandemic scenario record of days with closed businesses due to risk of infection.

The primary vulnerability would be to those who are immune compromised, elderly and young populations and are most susceptible to respiratory viruses.

Readers should look to the Vermont Department of Health for more information on significant infectious disease outbreaks, such as epidemics and pandemics. The Town will monitor these for up to date threat information and follow the appropriate protocols developed by these agencies as necessary.

Insect-borne diseases

Location: Health risks associated with Insect-Borne Illness are on the increase in Vermont and Starksboro. Much of the risk is equally spread out within the town, broadly present in forest and field alike. West Nile Virus, Eastern Equine Encephalitis (EEE), and Lyme Disease are illnesses which were basically nonexistent in Vermont 25-30 years ago, yet are now toward the front of many residents' minds. Insects associated with these diseases breed in wetlands, forestlands and fields. The Starksboro hazard mitigation committee specifically identified the area around the Lazy Brook mobile home neighborhood as an area of greater risk than others due to the higher concentrations of residents and the proximity to low lying wetlands.

Extent: A major outbreak of any of these diseases could result in a high mortality among those who contract the disease. Numbers exceeding 50% mortality is common for Eastern Equine Encephalitis (EEE) and was seen in cases involving EEE in the southern Champlain Valley communities of Salisbury, Leicester, Whiting, Sudbury, and Brandon in 2012.

Victims of Lyme disease, can experience debilitating pain in joints for years following contracting the disease via the bite from an infected Black Legged Tick. Any delay in treatment via antibiotics can result in a victim being unable to perform tasks and possibly their jobs for the rest of their lives and this loss of manpower/labor can have a widespread impact on the local economy. In 2015, the CDC reported that the State of Vermont had ten times the rate of infection due to Lyme Disease of any other state in the nation. In 2015, a random sample of Black Legged Ticks in Vermont found that the ticks are now present throughout Vermont and that roughly 50% carry the disease.

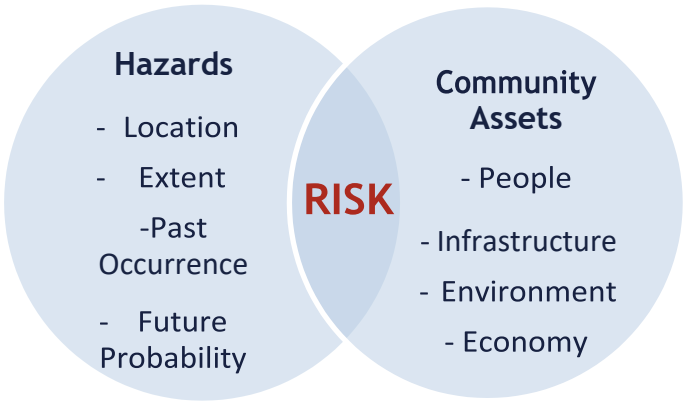
West Nile has been confirmed in every county in Vermont according to the VT Department of Health. Though incidents are currently rare (8 Since 2011), the presence of a disease pool throughout Vermont is of great concern. In mild cases, the disease manifests as fever, and aches and can last for a few days. Of far more concern is a strain of the virus which attacks a victim's neurological system and can result in paralysis or even coma. Again, should this disease become more widespread, the impacts to the local economy both through loss of labor force and from loss of tourist dollars could have lasting effects.

Previous Occurrences: Each of the three diseases mentioned by the mitigation committee have come to the forefront in Vermont in the past 5-10 years. The number of confirmed cases of Lyme Disease skyrocketed from 11 in 2002 to 674 in 2013. This rapid increase resulted in a bill passing the legislature and being signed into law which addresses the treatment of Lyme disease and its status for insurance purposes.

2012 saw the first cases of EEE in Vermont and the first fatalities as well. The cases resulted in efforts by the Department of Health to eradicate the mosquito hosts through an aerial spray program. West Nile Virus was first reported in Vermont shortly after its discovery in New York in 1999. It is of a great enough concern to public health officials that there has been an ongoing mosquito trapping and bird carcass collection program since 2002.

Future Probability: The preponderance of the insects carrying these diseases is being credited to a reduction in harsh winters which formerly would have wiped out most population gains each year. Forecasts for the current trends in warmer winters due to global climate change would indicate that the insects carrying these diseases will continue to move northward. Many insect-borne illnesses formerly confined to warmer climates (Zika, Malaria, Yellow Fever and others) could become much more common in areas like Vermont in the next 25 years.

Vulnerability Summary: Current wisdom attempting to address ecological imbalances indicates that pesticides should be used sparingly. Chemical treatments theoretically reduce risk to these diseases due to lowering the insect populations. Reductions in spray programs and the restoration of wetlands over the past 50 years have begun to create ecological balance in much of Starksboro. Unfortunately for the residents, the town's vulnerability to insect-borne illnesses has increased during the same period. Improved and ecologically safe treatment regimens have not yet been developed which would lessen the vulnerability.



- -NOAA 2022 Vermont Climate summary

The Hazard Identification and Risk Assessment is the foundation for the Mitigation Strategy to reduce future risk.

Vulnerability Summary	
Floods **Vulnerable Assets:** people (especially older adults, children, and sick); highway infrastructure; buildings; public water and wastewater systems; dams; local businesses; power and telecommunication systems **Location:** Jerusalem Rd, Gore Rd, Ireland Rd, Hillsboro Rd, Meadowlark, State Prison Hollow, Big Hollow Rd; Lewis Creek; Brookside, Hillside Mano and Lazy Brook **Extent:**±6" rain; extent data for fluvial erosion is unavailable **Past Occurrence:** $1,001,510 local / $6,893,579 regional damage **Future Probability:** 75% Probability in a year	**Strong Wind** **Vulnerable Assets:** people (especially older adults, children, and sick); highway infrastructure; buildings; power lines; telecommunications systems; public water system; trees; local businesses **Location:** Town-wide; between VT 116 through the village and VT 17 **Extent:** Up to 75 mph **Past Occurrence:** $980,000 regional damage **Future Probability:** 75% Probability in a year
Extreme Snow **Vulnerable Assets:** people (especially older adults, children, and sick); highway infrastructure; power lines; telecommunications systems; public water system; trees; local businesses **Location:** Town-wide; regional; statewide **Extent:** Up to 20" snow **Past Occurrence:** $59,000 local / $382,800 regional damage **Future Probability:** >7% probability in a year	

6 HAZARD MITIGATION STRATEGY

The highest risk natural hazards and vulnerabilities identified in the previous section of this Plan directly inform the hazard mitigation strategy outlined below, which the community will strive to accomplish over the coming years. The mitigation strategy chosen by the Town includes the most appropriate activities to reduce future risk from potential hazards.

Mitigation Goals and Objectives

The Hazard Mitigation Planning Team identified the following as the community's primary mitigation goal:

Increase the Town of Starksboro's resilience to natural hazards by advancing mitigation investment to reduce or avoid long-term risk to people, homes, neighborhoods, the local economy, cultural and historic resources, ecosystems, and Community Lifelines such as transportation, water, sewer, energy, and communications.

See Community Survey Results in **Appendix C** for which assets survey respondents thought were most important to protect against potential future severe weather impacts.

Community Lifelines

Community Lifelines enable the continuous operation of critical government and business functions and are essential to human health and safety or economic security. The goal of the lifeline concept is to focus response efforts on stabilizing or re-establishing these most fundamental services during and after a disaster. Mitigating lifelines should reduce cascading impacts across government and business functions and lessen system-wide damage.

1. Law Enforcement
2. Fire Service
3. Search & Rescue
4. Government Service
5. Community Safety

1. Highway/Road/Motor Vehicle
2. Mass Transit
3. Railway
4. Aviation
5. Maritime

1. Medical Care
2. Public Health
3. Patient Movement
4. Medical Supply Chain
5. Fatality Management

1. Infrastructure
2. Responder Communications
3. Alerts, Warnings, & Messages
4. Finance
5. 911 & Dispatch

1. Food
2. Water
3. Shelter
4. Agriculture

1. Power Grid
2. Fuel

1. Facilities HAZMAT, Pollutants, Contaminants

Community Capabilities

Administrative and Technical

This capability refers to the Town's staff and their skills and tools that can be used for mitigation planning and to implement actions. In addition to the Emergency Management staff described in Section 3, municipal staff that can be used for mitigation planning and to implement specific mitigation actions include: Town Administrator, Town Treasurer, Town Clerk, Assistant Town Clerk, Zoning Administrator, Road Foreman, and Tree Warden.

In addition to paid staff, there is a 5-member Selectboard, 4-member Planning Commission, Fire Warden, Town Health Officer, Development Review Board, and Constable.

To augment local resources, the Town has formal mutual aid agreements for emergency response – fire and public works. Technical support is available through the Addison County Regional Planning Commission (ACRPC) in the areas of land use planning, emergency management, transportation, GIS mapping, and grant writing. Technical support is also available through the State ANR for floodplain bylaw administration and VTrans Districts for hydraulic analyses.

Strengths community with a family atmosphere committed small core of volunteers involved in several committees and groups strong interdepartmental communication and cooperation
Areas for Improvement potential candidates for volunteering is limited small pool of volunteers creates burn out and limited time commitments

Planning and Regulatory
These capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of hazards. Examples of planning capabilities that can either enable or inhibit mitigation include land use plans, capital improvement programs, transportation plans, stormwater management plans, disaster recovery and reconstruction plans, and emergency preparedness and response plans. Examples of regulatory capabilities include the enforcement of zoning ordinances, subdivision regulations, and building codes3 that regulate how and where land is developed, and structures are built.

Town Plan: 2018-2026
Description: A framework and guide for how future growth and development should proceed.
Relationship to Natural Hazard Mitigation Planning: Includes goals and policies related to flood resilience and land use.

Zoning Bylaws: January 2020
Description: Provides for orderly community growth promoting the health, safety, and general welfare of the community.
Relationship to Natural Hazard Mitigation Planning: Establish site plan review requirements and zoning districts, including Flood Hazard and River Corridor Overlay Districts, with specific standards for proposed development. Requirements are designed to prevent overdevelopment; to mitigate negative impacts to the natural and human environment; minimize effects to the historical and aesthetic character of the community; and ensure design and construction of development in flood and other hazard areas are accomplished in a manner that minimizes or eliminates the potential for flood loss or damage to life and property.

Roads and Bridge Standards: July 2019
Description: Provide minimum codes and standards for construction, repair, maintenance of town roads and bridges.
Relationship to Natural Hazard Mitigation Planning: Standards include management practices and are designed to ensure travel safety, minimize damage to road infrastructure during flood events, and enhance water quality protections.

Road Erosion Inventory Report: August 2018
Description: Prioritizes those infrastructure projects necessary to improve transportation network resiliency and water quality.
Relationship to Natural Hazard Mitigation Planning: Improvements are designed to minimize or eliminate flood impacts on hydrologically connected road segments.

Local Emergency Management Plan: May 2024
Description: Establishes lines of responsibility and procedures to be implemented during a disaster and identifies high risk populations, hazard sites, and available resources.
Relationship to Natural Hazard Mitigation Planning: Includes actions for tracking events and response actions including damage reports to facilitate funding requests during recovery. This type of information can be essential to preparing hazard mitigation project applications for FEMA funding.

Strengths plans and regulations in place are being executed keep plans and regulations up to date strong local partners in implementing plans
Areas for Improvement ISO ratings need to be present pressured water needs to be expanded zoning administrator needs to be a full-time position with increased enforcement efforts

Financial
These capabilities are the resources that a community has access to or is eligible to use to fund mitigation actions.

Starksboro's 2022-2023 town budget is $1,039,789, with $832,747 to fund the Highway Department. In addition to property tax revenues, the Town collects other tax revenue, along with licenses, permits and fees.

Strengths well-funded budgets

Areas for Improvement staffing increases in Highway Department some aging fleet vehicles capital reserves for equipment need to be increased.

Education and Outreach
Starksboro has several outreach and education opportunities that could be used to implement mitigation activities and communicate hazard-related information:

Strengths multiple programs/organizations are already in place in the community particularly strong online and social media presence

Areas for Improvement better coordination needed to help implement future mitigation activities leverage communication tools available through VTAlert.

National Flood Insurance Program (NFIP)
The Town has been a member of the National Flood Insurance Program since 1985 and as such has adopted zoning by-laws designating Flood Hazard Areas including associated regulations for administering those areas. The administration of these regulations is the duty of the Town Zoning Administrator. All applications for development are viewed through the standard zoning regulations and reviewed for any proximity to the floodplain as identified in the Town of Starksboro Flood Insurance Rate Maps (FIRM) dated 12/4/1985. If the proposed development appears to be located in the 1% floodplain, the application is referred to the Development Review Board for review prior to any issuance of permit or conditional permit. Starksboro's regulations outline detailed minimum standards for development in flood hazard areas defined as FEMA Special Flood Hazard Areas and Floodway Areas. The regulations also require administering Substantial Improvement and Substantial Damage (SI/SD) requirements in accordance with FEMA P-758 SI/SD Desk Reference, May 2010. The Town is in the process of updating their flood zone bylaws in accordance with the new FEMA/State guidelines.

Fortunately, much of the mapped floodplain floods regularly and therefore is not particularly attractive for new development. The availability of alternate sites has thus far discouraged development along these areas due to difficulties in disposing of septage and the costs of complying with floodplain regulations. A comparison of e-911 locations in Starksboro and the current flood maps show a total of 22 structures located in FEMA Special Flood Hazard Area Zone A, which is a 1% annual chance flood otherwise known

as the 100 year flood . According to the data available on the State Flood Ready website there are 38 buildings (or 3% of the buildings in town) are the floodplain. The discrepancy between the two can be attributed to the difference in digitized flood maps data. There are no repetitive-loss structures located in Starksboro.

The Town discussed the following as possible actions to continue NFIP compliance:

1) Prepare, distribute, or make available NFIP insurance explanatory pamphlets or booklets.

2) Participate in NFIP training offered by the State and/or FEMA.

3) Establish mutual aid agreements with neighboring communities to address administering the NFIP following a major storm.

4) Consider adding language such as "Substantial improvement or substantial damage determinations shall be made in accordance with current FEMA guidelines or procedure established by the **zoning bylaws or development review board** in accordance with 24 V.S.A. § 1972 and 24 V.S.A. § 4461 and shall be used to determine the appropriate development standards for repair and rebuilding.

State Incentives for Flood Mitigation

Vermont's Emergency Relief Assistance Funding (ERAF) provides state funding to match FEMA Public Assistance after federally declared disasters. Eligible public costs are generally reimbursed by FEMA at 75% with a 7.5% State match. The State will increase its match to 12.5% or 17.5% if communities take steps to reduce flood risk as described below.

12.5% funding for communities that have adopted four (4) mitigation measures:

1) NFIP participation;

2) Town Road and Bridge Standards;

3) Local Emergency Plan; and

4) Local Hazard Mitigation Plan.

17.5% funding for communities that also participate in FEMA's Community Rating System OR adopt Fluvial Erosion Hazard or other river corridor protection bylaw that meets or exceeds the Vermont ANR model regulations.

Starksboro's current ERAF rate is 7.5%. Upon adoption of the 2025 Local Hazard Mitigation Plan, ERAF Rate Actions 1-4 will be up to date and therefore their ERAF rate will increase to 12.5%

Hazard Mitigation Identification

The Hazard Mitigation Planning Committee discussed the mitigation strategy, reviewed projects from the 2018 Plan, and identified possible new actions from the following categories for each of the highest risk natural hazards identified in Section 5.

Local Plans & Regulations These actions include government authorities, policies, or codes that influence the way land and buildings are developed and built.

Structure & Infrastructure Projects These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This applies to public or private structures as well as critical facilities.

Natural Systems Protection These actions minimize damage and losses and preserve or restore the functions of natural systems.

Outreach & Education Programs These actions inform and educate the public about hazards and potential ways to mitigate them. Although this type of action reduces risk less directly than structure projects or regulation, it is an important foundation. Greater awareness is more likely to lead to community support for direct actions.

Local Plans & Regulations Examples

Integrate Mitigation into Capital Improvement Programs: Incorporate risk assessment and hazard mitigation principles into capital planning.

Reduce Impacts to Roadways: The leading cause of death and injury during winter storms is automobile accidents, so it is important to plan for and maintain adequate road and debris clearing capabilities.

Develop a Road Right-of-Way Vegetation Management Plan: Identify community priorities and plan of action for site-specific tree and roadside forest management to increase roadside resilience.

Improve Flood Resilience with a Flood Study: The aim of a flood study is to define existing flood behavior for a particular catchment, river, or creek. The study helps inform building, land use planning, community awareness and disaster management.

Improve Stormwater Management Planning: Rain and snowmelt can cause flooding and erosion in developed areas. A community-wide stormwater management plan can address stormwater runoff-related flooding.

Manage Development in Erosion Hazard Areas: The intent of River Corridor Bylaws is to allow for wise use of property within river corridors that minimizes potential damage to existing structures and development from flood-related erosion.

Structure & Infrastructure Project Examples

Protect Power Lines: Protect power lines by 1) inspecting and maintaining hazardous trees in the road right-of-way and 2) burying power lines.

Protect Critical Roadways: Use snow fences or living snow fences (e.g., rows of trees) to limit blowing and drifting of snow.

Retrofit Critical Facilities: Critical facilities can be protected from the impacts of high winds and winter storms by 1) retrofitting them to strengthen structural frames to withstand wind and snow loads; 2) anchoring roof-mounted mechanical equipment; and 3) installing back-up generators or quick connect wiring for a portable generator.

Remove Existing Structures from Flood Hazard Areas: FEMA policy encourages the removal of structures from flood-prone areas to minimize future flood losses and preserve lands subject to repetitive flooding.

Improve Stormwater Drainage Capacity: Minimize flooding and fluvial erosion by 1) increasing drainage/absorption capacities with green stormwater management practices; 2) increasing dimensions of undersized drainage culverts in flood-prone areas; 3) stabilizing outfalls with riprap and other slope stabilization techniques; and 4) re-establishing roadside ditches.

Conduct Regular Maintenance for Drainage Systems: Help drainage systems and flood control structures function properly with 1) routine cleaning and repair; 2) cleaning debris from support bracing underneath low-lying bridges; and 3) inspecting bridges and identifying if any repairs are needed to maintain integrity or prevent scour.

Protect Infrastructure and Critical Facilities: Minimize infrastructure losses and protect critical facilities from flooding by 1) elevating roads above base flood elevation to maintain dry access; 2) armoring streambanks near roadways to prevent washouts; 3) rerouting a stream away from a vulnerable roadway; and 4) floodproofing facilities.

Natural Systems Protection Examples

Protect and Restore Natural Flood Mitigation Features: Natural conditions can provide floodplain protection, riparian buffers, groundwater infiltration, and other ecosystem services that mitigate flooding. Preserving such functionality is important. Examples include 1) adding riparian buffers; 2) stabilizing stream banks; 3) removing berms; 4) minimizing impervious area development; 5) restore floodplain; and 6) restore incision areas.

Outreach & Education Program Examples

Educate Residents about Extreme Winter Weather: Winter storms create a higher risk of car accidents, hypothermia, frostbite, carbon monoxide poisoning, and heart attacks from overexertion. Educational outreach can help minimize these risks.

Assist Vulnerable Populations: Measures can be taken to protect vulnerable populations from natural hazards, such as 1) organizing outreach and 2) establishing and promoting accessible heating or cooling centers in the community.

Hazard Mitigation Evaluation

For each mitigation action identified, the Planning Team evaluated its potential benefits and/or likelihood of successful implementation. Actions were evaluated against a range of criteria, including a planning level assessment of whether the costs are reasonable compared to the probable benefits. Results of this evaluation are presented in **Table 6**.

See Community Survey results in **Appendix C** for which category of mitigation actions survey respondents wanted the Town to prioritize.

The Planning Team, after much deliberation, agreed on a list of actions that support the Mitigation Goals of this Plan and are acceptable and practical for the community to implement.

The action plan is presented in **Table 7**.

For the selected actions, the Planning Team then 1) assigned a responsible party to lead the completion of each action; 2) identified potential grant funding; 3) defined a timeframe for implementation; and ranked each action's priority (high, medium, low).

Natural hazards pose a unique threat to the Town's vulnerable populations. Data has shown that underserved and marginalized populations tend to live in at-risk hazard-prone areas or in homes with substandard construction. The data from FEMA Hazard Mitigation Assistance Program and Policy Guide also suggests that this segment of the community is less likely to fully recover after a disaster. When ranking an action's priority, those that directly benefit a vulnerable population were ranked high.

Table 6 - Mitigation Action Evaluation and Prioritization

Mitigation Action	Life Safety	Prop Protect	Tech	Political	Admin	Other Obj	Benefit Score	Est Cost	C/B
Local Plans & Regulations									
Recommended for Implementation									
LEMP plan for communication and EOC structure	1	1	1	1	1	1	6	1	Yes
Invasive species and forest management plan	1	1	1	1	1	1	6	1	Yes
Update Zoning Bylaws	1	1	1	1	1	1	6	3	Yes
Structure & Infrastructure Projects									
Recommended for Implementation									
Removing Hazardous Trees in Road ROW	1	1	1	1	1	1	6	1	Yes
Radio repeater needed /communication	1	1	1	1	1	1	6	1	Yes
Install/Re-work Roadside ditches and culverts; Ireland rd, Quaker St, State Prison Hollow Ext, Sugarhouse Lane, Hillsboro Rd	1	1	1	1	1	1	6	3	Yes
Install Back-up power at Critical Facilities: Town Garage; Food Shelf	1	1	1	1	1	1	6	1	Yes
Town residents "spotters" to identify invasive species	1	1	1	1	1	1	6	1	Yes
Mowing to reduce roadside weeds	1	1	1	1	1	1	6	1	Yes
Bridge Replacement on Hillsboro Rd	1	1	1	1	1	1	6	3	Yes
Natural Systems Protection									
Recommended for Implementation									
Implement Lewis Creek Study identified projects	1	1	1	1	1	1	6	3	Yes
Home buyouts for floodplain restoration	1	1	1	1	1	1	6	3	Yes
Outreach & Education Programs									
Recommended for Implementation									
VTAlert	1	1	1	1	1	1	6	1	Yes
Invasive species and forest management plan outreach	1	1	1	1	1	1	6	1	Yes

Table 6 Evaluation Criteria:
Life Safety –Will the action be effective at protecting lives and preventing injuries?
Property Protection –Will the action be effective at eliminating or reducing damage to structures and infrastructure?
Technical – Is the action a long-term, technically feasible solution?
Political – Is there overall public support/political will for the action?
Administrative – Does the community have the administrative capacity to implement the action?
Other Community Objectives – Does the action advance other community objectives, such as capital improvements, economic development, benefit a vulnerable population, environmental quality, or open space preservation?
Rank each of the above criteria in Table 5 with a -1, 0, or 1 using the following table:
1 = Highly effective or feasible
0 = Neutral
-1 = Ineffective or not feasible
Estimated Cost – 1 = less than $50,000; 2 = $50,000 to $100,000; 3 = more than $100,000
C/B – Are the costs reasonable compared to the probable benefits? Yes or No

Table 7: Mitigation Action Plan

Update flood zone bylaws: The planning commission is going to be updating our flood zone bylaws in accordance with the new FEMA/state guidelines. Consider adopting no future build of areas where homes were damaged or destroyed prior even though they may not be in the SFHA. Permit for sizing culverts on private property, especially repetitive damaged culverts. This will be a several month process but will be completed well ahead of when the new FEMA maps for Addison County come out in 2027.

Addressed Hazards: Floods
Type of project: Local Plans & Regulations
Community Lifelines Targeted: Safety & Security ; Transportation
Area of Impact: Jerusalem Rd, Gore Rd, Ireland Rd, Hillsboro Rd, Meadowlark, State Prison Hollow, Big Hollow Rd; Lewis Creek; Brookside, Hillside Mano and Lazy Brook
Lead Party: Planning Commission Chair
Grant Funding Source: Town general fund and volunteer time
Partnerships: None
Project Timeframe: Complete by 2027
Prioritization: High

Annex Additions to Local Emergency Management Plan (LEMP): Add communications and Incident Command System (ICS) annexes to the LEMP so that response and recovery to hazard events is more efficient and effective to potentially reduce the extent of damages and ensure communication and documentation is collected and distributed consistently.

Addressed Hazards: Floods, Wind, Snow
Type of project: Local Plans & Regulations
Community Lifelines Targeted: Safety & Security; Food, Water, Shelter; Health and Medical; Communications; Transportation; Hazardous Materials
Area of Impact: Townwide
Lead Party: Emergency Management Director (Primary); Town Administrator
Grant Funding Source: Town general fund and volunteer time
Partnerships: None

Project Timeframe: LEMP update 2025
Prioritization: Medium

Invasive species and forest management plan/ Removing Hazardous Trees in Road ROW: Hazard trees in the road ROW can contribute to power and communication outages as well as debris in the roadway during winter storms and wind events. This hazard is exacerbated by the possibility of Emerald Ash Borer infestation. To increase roadside resilience, Starksboro will develop a plan to 1) identify community priorities 2) define a plan of action for site-specific tree and roadside forest management 3) Encourage residents to utilize plan for personal property management and 4) Implement management

Addressed Hazards: Wind; Snow
Type of project: Local Plans & Regulations; Structure & Infrastructure Project; Outreach & Education
Community Lifelines Targeted: Energy; Communications; Transportation
Area of Impact: Townwide road network
Lead Party: Conservation Commission Chair (Primary); Town Foreman
Grant Funding Source: Town general fund and volunteer time
Partnerships: None
Project Timeframe: Plan completion 2025; implementation is 2025-2029
Prioritization: High

Radio Repeater: Add a radio repeater to increase communication capabilites during events so that response and recovery to hazard events is more efficient and effective to potentially reduce the extent of damages and ensure communication and documentation is collected and distributed consistently.

Addressed Hazards: Floods; Wind; Snow
Type of project: Structure & Infrastructure Project
Community Lifelines Targeted: Safety & Security; Food, Water, Shelter; Health and Medical; Communications; Transportation; Hazardous Materials
Area of Impact: Townwide
Lead Party: Town Administrator (Primary); Road Foreman; Fire Chief
Grant Funding Source: Town general fund; Homeland Security
Partnerships: None
Project Timeframe: Complete by 2027
Prioritization: Medium

Install/Re-work Roadside ditches and Replace Culverts: Properly installed and stabilized roadside ditches are critical to protect the integrity of the road. Starksboro has an extensive network of ditches, with 151 road segments with ditches that must be improved to current municipal Road Standards. Of these, 56 are very high, 44 are high priority, and 51 are moderate/low priority. Starksboro has 407 culverts that need to be maintained and replaced as they deteriorate or need upsizing. Of these, 101 culverts are in critical, urgent or poor condition.

Addressed Hazards: Floods
Type of project: Structure & Infrastructure Project
Community Lifelines Targeted: Safety & Security; Transportation
Area of Impact: Townwide; see MRGP Road Erosion Inventory for non-compliant road segments and VTCulverts for culvert inventory; Ireland rd, Quaker St, State Prison Hollow Ext, Sugarhouse Lane, Hillsboro Rd

Lead Party: Road Foreman
Grant Funding Source: Town highway fund; VTrans grants; New Community Project
Partnerships: None
Project Timeframe: Complete by 2027
Prioritization: High

Install Back-up Power at Critical Facilities: Generators (standby or portable) are emergency equipment that provide a secondary source of power to a facility. Starksboro has identified two critical facilities needing back-up power – the Town Garage and the Food Shelf

.

Addressed Hazards: All Hazards
Type of project: Structure & Infrastructure
Community Lifelines Targeted: Energy; Food, Water, Shelter
Area of Impact: Town Garage; Food Shelf
Lead Party: Town Administrator (Primary); Selectboard
Grant Funding Source: Town general fund; Homeland Security
Partnerships: None
Project Timeframe: Complete by 2025
Prioritization: High

Bridge Replacement on Hillsboro Rd: Replace bridge that is a point that causes clogging of the stream and causes flooding. .

Addressed Hazards: Flooding
Type of project: Structure & Infrastructure
Community Lifelines Targeted: Safety & Security; Transportation
Area of Impact: Hillsboro Rd and its residents
Lead Party: Selectboard (Primary); Road Foreman
Grant Funding Source: Town highway fund; VTrans Town Bridge Program
Partnerships: VTrans
Project Timeframe: Complete by 2029
Prioritization: High

Implement Lewis Creek identified projects: Lewis Creek Flood Study identified multiple projects that includes Remove berms and/or accumulated debris from stream to restore flood capacity and stream bank stabilization .

Addressed Hazards: Flooding
Type of project: Structure & Infrastructure; Natural Systems Protection
Community Lifelines Targeted: Safety & Security; Transportation
Area of Impact: Lewis Creek
Lead Party: Conservation Commission Chair (Primary) ; Selectboard; Town Administrator
Grant Funding Source: ; FEMA/VEM Hazard Mitigation; USDA/NRCS
Partnerships: VEM Recovery and Mitigation Sections
Project Timeframe: Determine Project Schedule 2025/ Develop Project Schedule 2026
Prioritization: High

Home Buyouts for Floodplain Restoration: Buyout repetitively flooding homes and homes that have been destroyed by past flooding .

Addressed Hazards: Flooding
Type of project: Structure & Infrastructure; Natural Systems Protection
Community Lifelines Targeted: Safety & Security
Area of Impact: Homes that have been impacted by repetitive flooding
Lead Party: Selectboard; Town Administrator (Primary)
Grant Funding Source: Town general fund; FEMA/VEM Hazard Mitigation
Partnerships: VEM Mitigation Section
Project Timeframe: Participated in the 2024 Pre-App Program and will continue to apply until funds are awarded
Prioritization: High

VTAlert Implementation: Implement VTAlert as an efficient mode of providing information, warnings, and event updates in an efficient manner to residents.

Addressed Hazards: All Hazards
Type of project: Outreach & Education Programs
Community Lifelines Targeted: Safety & Security; Communications; Transportation; Food, Water, Shelter
Area of Impact: Townwide
Lead Party: Selectboard; Town Administrator (Primary)
Partnerships: None
Grant Funding Source: Town general fund and volunteer time
Project Timeframe: 2024
Prioritization: High

Continue to actively support the road crew's mowing standards that reduce the spread of roadside weeds.

Estimated cost: limited to diligence by the road crew in timing mowings Source of funds: Town highway budget.
Responsibility: Joint Town Highway Dept. and Selectboard
Timeframe: Annually
Benefits: reduced spread of noxious weeds

Support efforts by town residents as advanced "spotters" in identifying invasives through educational programs.

Estimated cost: Space availability, trainers Source of funds: State ANR invasives program
Responsibility: Selectboard, Conservation Commission, Road crew
Timeframe: Annually
Benefits: capacity for early response

Provide educational literature on invasives identification and treatments for residents at town offices.

Estimated cost: none, space only Source of funds: N/A
Responsibility: Joint Town Clerk, ACRPC

Timeframe: Q4, 2018 – indefinitely Benefits: capacity for early response
Benefits: capacity for early response

Integrating Into Existing Plans and Procedures

For Starksboro to succeed in reducing long-term risk, information from this Plan should be integrated throughout government operations. When activities are connected, they can not only reduce risk and increase resilience, but also accomplish other objectives such as environmental protection, economic development, financial stability, and land use planning.

There are several ways the Town can achieve integration into existing plans and procedures to support risk-informed community planning. They can include the community's primary mitigation goal as stated on page 24, information from the risk assessment, and mitigation actions as follows:

- Funding for mitigation actions can be prioritized in the annual budget process.
- The mitigation goal and risk assessment information can support the Town's interest in expanding local capacity to enforce State building codes as part of the development review process.
- The mitigation goal and risk assessment information can be incorporated into the next Town Plan update (Land Use and Flood Resilience chapters in particular) to help steer growth and redevelopment away from high-risk locations.
- The mitigation goal and risk assessment information can be incorporated into future zoning ordinance updates.
- Several flood-related mitigation actions for increasing road resiliency can be implemented under the existing Municipal Road General Permit (8273-9040) for controlling stormwater discharges from town roads.

7 PLAN MAINTENANCE

This Plan is dynamic. To ensure it remains current and relevant, it should be annually evaluated and monitored and updated every five years, in accordance with FEMA guidelines in effect at the time.

Annual Evaluation and Monitoring

Within 12 months of FEMA Final Approval, the Plan will be annually evaluated and monitored as follows:

1. The Selectboard will assemble a Review/Update Committee to evaluate the effectiveness of the Plan in meeting the stated goals. Things to consider during this evaluation:

- What disasters has the town (or region) experienced?
- Should the list of highest risk natural hazard impacts be modified?
- Are new data sources, maps, plans, or reports available? If so, what have they revealed, and should the information be incorporated into this plan?
- Has development in the region occurred and could it create or reduce risk?
- Has the town adopted new policies or regulations that could be incorporated into this plan?
- Have elements of this plan been incorporated into new plans, reports, policies, or regulations?
- Are there different or additional community capabilities available for mitigation implementation?

2. Next, the Review/Update Committee will monitor mitigation action progress. Things to consider:

- Is the mitigation strategy being implemented as anticipated?
- Were the cost and timeline estimates accurate?
- Should new mitigation actions be added?
- Should proposed actions be revised or removed?
- Are there new funding sources to consider?

The status (e.g., in progress, complete) of each action should be recorded in **Table 7**. If the status is "in progress" note whether the action is on schedule. If not, describe any problems, delays, or adverse conditions that will impair the ability to complete the action.

3. The Selectboard will seek public comment from the whole community on plan implementation. Things to consider:

- Are there any new stakeholders to include?
- What public outreach activities have occurred?

- How can public involvement be improved?

4. Based on input received, the mitigation strategy and/or actions will be modified, if needed.

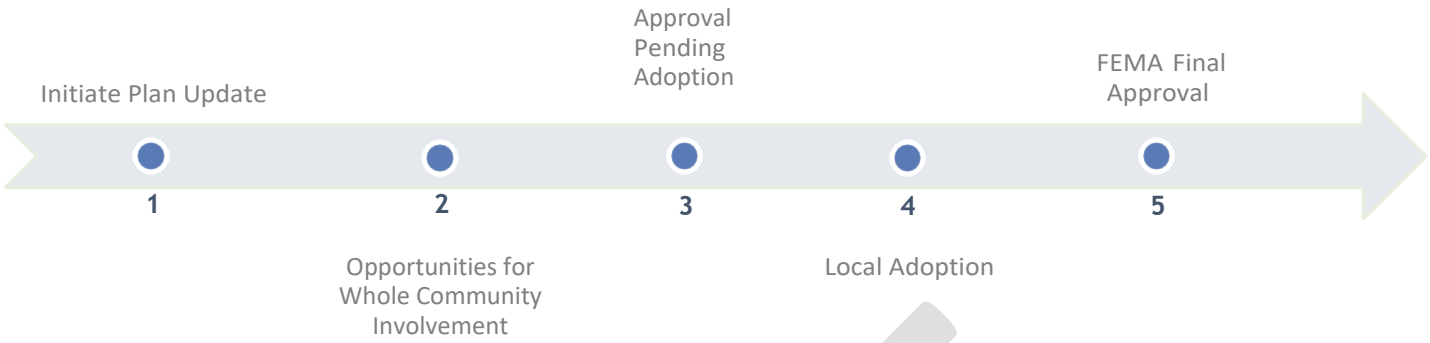
5. A report (or record in the form of meeting minutes) of the annual evaluation and monitoring will be made available to the public.

Table 7: Mitigation Action Status

Mitigation Action	2025	2026	2027	2028	2029
Local Plans & Regulations					
Structure & Infrastructure Projects					
Natural Systems Protection					
Outreach & Education Programs					

5-Year Updates

This Plan will be updated at a minimum every five (5) years as follows:



1. Currently, funding to assist municipalities in paying for planning services to update the Local Hazard Mitigation Plan is available through FEMA's Building Resilient Infrastructure and Communities (BRIC) grant program. If using this grant, Starksboro should contact Vermont Emergency Management (VEM) to apply for funding in 2027 – approximately 2 years before the Plan expires.

   Once funding is secured and the grant agreement between the Town and State is in place, the Town Manager can issue a request for proposals (RFP) to procure planning services in accordance with the grant agreement. The RFP should be issued approximately 14 months before the Plan expires.

   Once a consultant is procured, the Plan update can begin with a kick-off meeting including the consultant and local hazard mitigation planning team. The kick-off meeting should be scheduled approximately 12 months before the Plan expires. The Town should allot approximately 8 months for the Plan update process.

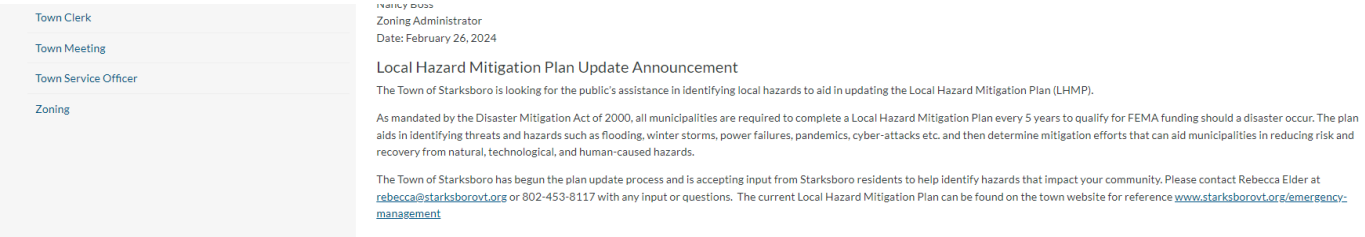
2. Opportunities for Whole Community involvement throughout the Plan update process need to be factored into the schedule. These opportunities may include a community survey, planning workshop, and public meetings at critical milestones agreed to at the project kick-off meeting.

3. Once the local hazard mitigation planning team has prepared a final draft, they can seek authorization from the Selectboard to submit the Plan for VEM/FEMA approval. Plan approval is accomplished in two steps – the first is Approval Pending Adoption. The Town should submit for Approval Pending Adoption approximately 4 months before the Plan expires to allow for time to respond to any review comments received from VEM/FEMA.

4. Once the Town receives Approval Pending Adoption, the Selectboard should adopt the Plan as soon as their next regular meeting.

5. Once adopted, the Town can submit the Plan for VEM/FEMA Final Approval. The Town should submit for Final Approval approximately 1 month before the Plan expires to ensure there is no gap in coverage between updates. The plan will expire 5 years from the FEMA Final Approval.

APPENDIX A – Community Outreach



Town Clerk

Town Meeting

Town Service Officer

Zoning

Zoning Administrator
Date: February 26, 2024

Local Hazard Mitigation Plan Update Announcement

The Town of Starksboro is looking for the public's assistance in identifying local hazards to aid in updating the Local Hazard Mitigation Plan (LHMP).

As mandated by the Disaster Mitigation Act of 2000, all municipalities are required to complete a Local Hazard Mitigation Plan every 5 years to qualify for FEMA funding should a disaster occur. The plan aids in identifying threats and hazards such as flooding, winter storms, power failures, pandemics, cyber-attacks etc. and then determine mitigation efforts that can aid municipalities in reducing risk and recovery from natural, technological, and human-caused hazards.

The Town of Starksboro has begun the plan update process and is accepting input from Starksboro residents to help identify hazards that impact your community. Please contact Rebecca Elder at rebecca@starksborovt.org or 802-453-8117 with any input or questions. The current Local Hazard Mitigation Plan can be found on the town website for reference www.starksborovt.org/emergency-management

Town Meeting Day 2024 Outreach – Town of Starksboro

Hi Everyone,

I am most likely not going to be able to make tonight's meeting (unless a work conflict ends early) but wanted to share a few updates/thoughts based on the agenda.

Town Meeting - I gave a brief overview of our work at the end of Town Meeting and let everyone know that we're working on a survey that will be distributed through FPF, social media, community groups, etc.

There was no big feedback to this (that I heard at least) except that a resident (Sprague Huntington) offered her large sugarhouse in South Starksboro as an emergency shelter site for that part of town if the need arises. She said it's equipped with a large generator and she has storage space to keep some totes of supplies that the shelter would need. I know we addressed not having an ideal shelter up South at our last meeting, so this may be a good mitigating action to include in the plan later on.

Public Outreach - Some ideas for community/nonprofit groups that could help with outreach are:

- Churches
- Robinson Elementary School
- Starksboro Cooperative Preschool
- Common Ground Center (depending on how local their focus is - I'm not familiar with it)
- Starksboro Sports Program (playing fields are affected by flooding)

Cheers | Dan Kuzio – Fire Department

APPENDIX B – Past Mitigation Actions Updates

Flash Flood/Flooding

Flash flooding has been a major cause of disaster declaration in Starksboro. The following generalized road projects have been identified which will help mitigate the effects of flash flooding in the road network system. These projects will be implemented as funding allows. All identified culvert and bridge replacements will be subject to the State of Vermont's stream alteration permit and the codes and standards adopted by the Town of Starksboro.

Stone-line ditches according to the town's road and bridge standards when work is being completed on any road.

Estimated cost: Varies dependent on project Source of funds: Town highway budget.
Responsibility: Joint Town Highway Dept. and Selectboard Timeframe: 2019

Ongoing and included under Install and Re-work Roadsided Ditches and Culverts

In addition to the above-mentioned standard road work, the following projects were identified specifically by the town's hazard mitigation committee and by river studies conducted by the Lewis Creek Association:

Replacement of the existing undersized culvert on Hinesburg Hollow Road with a 12 ft. "Squashed Culvert" of bank-full width to reduce vulnerability of adjoining communities. Estimated cost: $200,000
Source of funds: Town highway budget, HMGP, State bridge and culvert program. Responsibility: Joint Town Highway Dept. and Selectboard
Timeframe: 2019 - Q3, 2022

Added to the current plan under Implement Lewis Creek Study Identified Projects

Replacement of existing undersized culvert on Brown Hill Road off Big Hollow Road.

Estimated cost: $50,000
Source of funds: Town highway budget.
Responsibility: Joint Town Highway Dept. and Selectboard Timeframe: 2019-2021

Completed - Added a culvert

Replacement of existing undersized culvert on Stokes Hill Road off Big Hollow Road.

Estimated cost: $50,000
Source of funds: Town highway budget.
Responsibility: Joint Town Highway Dept. and Selectboard Timeframe: 2019-2021

Was not completed – Remove, no residents beyond, class 4

Replacement of existing undersized culvert on Big Hollow Rd just downstream of Dugway Ln.

Estimated cost: $50,000
Source of funds: Town highway budget.
Responsibility: Joint Town Highway Dept. and Selectboard Timeframe: 2019-2021

Pairs of culverts - Added to the current plan Install and Re-work Roadsided Ditches and Culverts

Replacement of existing undersized culvert at corner of Big Hollow Rd and Dugway Ln.

Estimated cost: $50,000

Source of funds: Town highway budget.

Responsibility: Joint Town Highway Dept. and Selectboard Timeframe: 2019-2021

Josh to update

Replacement of undersized culverts on Rte. 116 South of the village

Estimated cost: $400,000

Source of funds: VTrans/State highway budget Responsibility: VTrans with encouragement by Selectboard Timeframe: 2019-2021

Check VTrans data – under current conversation with VTrans

Added to the current plan Install and Re-work Roadsided Ditches and Culverts

Josh to update

Replacement of existing undersized culverts on private roads in Freedom Acres, 1127 Big Hollow Rd, Path behind home and barn off Big Hollow Rd, Driveway at 3382 Big Hollow Rd. ***Estimated*** cost: $20,000 each

Source of funds: Homeowners

Responsibility: homeowners with encouragement by town road crew and selectboard Timeframe: 2019-2021

Evaluation and engineering for replacement of existing undersized private culverts generally along High Knob Brook and Hollow Brook.

Estimated cost: under $5,000 each Source of funds: Homeowners

Responsibility: homeowners with encouragement by town road crew and selectboard Timeframe: 2019-2021

Added to the current plan Install and Re-work Roadsided Ditches and Culverts

Invasive Species

Awareness of invasives and their hazards are beginning to rise in priority among town residents. Actions the town can take to mitigate the spread of invasives, however, are limited.

Continue to actively support the road crew's mowing standards that reduce the spread of roadside weeds.

Estimated cost: limited to diligence by the road crew in timing mowings Source of funds: Town highway budget.

Responsibility: Joint Town Highway Dept. and Selectboard Timeframe: Q4, 2018 – indefinitely

Benefits: reduced spread of noxious weeds

Ongoing as part of Invasive species and forest management plan

Support efforts by town residents as advanced "spotters" in identifying invasives through educational programs.

Estimated cost: Space availability, trainers Source of funds: State ANR invasives program

Responsibility: Selectboard, Conservation Commission, Road crew Timeframe: Q4, 2018 – indefinitely

Benefits: capacity for early response

Ongoing as part of Invasive species and forest management plan

Provide educational literature on invasives identification and treatments for residents at town offices.

Estimated cost: none, space only Source of funds: N/A

Responsibility: Joint Town Clerk, ACRPC Timeframe: Q4, 2018 – indefinitely Benefits: capacity for early response

Added to the new plan *as part of Invasive species and forest management plan* - Difficulty getting the literature from State but the town would like to have the literature

Structure Fire

Starksboro supports the following as mitigation actions for structure fires:

Establish minimum water supply standards as a requirement for subdivisions.

Estimated cost: As part of next subdivision regulation rewrite Source of funds: Municipal Grant Program, volunteer efforts.

Responsibility: Planning Commission with recommendations from fire dept. Timeframe: Q1, 2019 – Q4, 2020

Benefits: adequate water supply for firefighting

No progress - state requirements for subdivision (need to research)

Chapter 3 50 PUD standards

Support fire department fire safety program in schools.

Estimated cost: Volunteer time

Source of funds: Fire Dept annual budget Responsibility: Selectboard, Fire Dept.

Timeframe: Q3, 2018 – annually

Benefits: early safety awareness for children and parents

FD has been in once or twice since 2019 – likely get into a routine of going the school in October – fire safety information at the events (open houses/Halloween party) and at the fire station - Ongoing

Encourage smoke detector installation and battery check publicity

Estimated cost: none, space only Source of funds: N/A

Responsibility: Joint Town Clerk, Fire chief Timeframe: Q3, 2018 – indefinitely

Benefits: early detection and evacuation saves lives

Ongoing but not relevant to current list of hazards identified - Fire Department brings this up at town meeting and is in the annual town report

Severe Snow

Starksboro supports the following as mitigation actions for severe snow events:
Install transfer switch at the Town Office to facilitate installation of a generator/back-up power.

Estimated cost to Town: $3,000- $5,000 Source of funds: Town general fund, HMGP Responsibility: Town Selectboard Timeframe: Q3, 2020 – Q4, 2020

Benefits: Allows operation of Town office during snow storm caused outage

Completed - Installed late 2020

Conduct test installations of snow fence at drift-prone locations throughout town.

Estimated cost to Town: $3,000- $5,000 Source of funds: Town highway fund

Responsibility: Town Selectboard, highway crew Timeframe: Q4, 2018 – Q2, 2019

Benefits: Potential to limit closure of roads during severe storms

Discontinued – Annual monitoring identified that no real drifting is occurring in recent years but will continue to moniture

Ice Storm

Install transfer switch at the Town Office to facilitate installation of a generator/back-up power.

Estimated cost to Town: $3,000- $5,000 Source of funds: Town general fund, HMGP Responsibility: Town Selectboard Timeframe: Q3, 2020 – Q4, 2020

Benefits: Allows operation of Town office during an outage.

Completed - Installed late 2020

Change zoning to encourage burial of power line to new homes

Estimated cost to Town: none as part of an overall zoning rewrite Source of funds: Town general fund, Municipal planning grants Responsibility: Town Planning Commission

Timeframe: Q3, 2018 – Q4, 2018

Benefits: Reduces the likelihood of power loss due to power line failure between the distribution network and the home.

Ongoing – Included in Zoning Bylaws update

Manage vegetation in the ROW to allow space for ice storm events.

Estimated cost to Town: $3,000 annual cost Source of funds: Town general fund Responsibility: Town Selectboard, road crew Timeframe: Q1, 2019 and ongoing

Benefits: reduces likelihood of trees falling on power lines

Ongoing with garage staff Invasive species and forest management plan and implementation
Ongoing with GMP and VELCO

Insect-Borne Illness

Conduct public educational outreach via newsletter and publications at town office

Estimated cost to Town: $0.00 (space in newsletter and office) Source of funds: VT Dept Health
Responsibility: Town EMD Timeframe: Q3, 2018 – Q4, 2020
Benefits: Allows residents to make knowledgeable decisions to protect themselves from insects.
Ongoing - possible in the annual flyer

Discontinured - Towns priorities have changed and is no longer relevant

Evaluate importation of natural predators into breeding areas of high concentration of pests. (mosquito larval predators, wild turkeys, etc.)

Estimated cost to Town: $0.00
Source of funds: State F&W funds, VDH grants Responsibility: Town Selectboard, EMD Timeframe: Q3, 2019 – Q4, 2021
Benefits: reduced populations of carrier pests

Discontinured - Towns priorities have changed and is no longer relevant

Highway Accident

Request Evaluation of hazardous road locations through the Systemic Local Road Safety Program (SLRS)

Estimated cost to Town: $500.00 (road commissioner's salary expenses)
Source of funds: Town highway budget
Responsibility: Joint Road Commissioner and Selectboard
Timeframe: Q2, 2019 – Q3, 2020
Benefits: Reduced hazards on sections of town roads
Check with Josh/Tom – believe something was done

Installation of speed reduction signage and reflective arrows where needed to reduce accidents.

Estimated cost to Town: $1,000- $2,000
Source of funds: Town highway funds
Responsibility: Town Selectboard, road crew
Timeframe: Q3, 2018 – Q3, 2019
Benefits: reduced speeds along town roads

Ongoing - Need traffic study but not relevant to current list of hazards identified

High Winds

Manage vegetation in the ROW to allow space for ice storm events. (same as for Ice Storm)

Estimated cost to Town: $3,000 annual cost
Source of funds: Town general fund
Responsibility: Town Selectboard, road crew
Timeframe: Q3, 2018 and ongoing
Benefits: reduces likelihood of trees falling on power lines

Ongoing with garage staff Invasive species and forest management plan and implementation
Ongoing with GMP and VELCO

Explore feasibility of requiring installation of "hurricane clips" on all new mobile home installations.

Estimated cost to Town: $0 annual cost

Source of funds: Town general funds or Municipal Planning Grants
Responsibility: Town Selectboard, Planning Commission
Timeframe: 2019-2020 (at next zoning rewrite)
Benefits: reduces likelihood of trees falling on power lines

COMPLETED

Severe Mud

Rebuild sections of town roads where mud is a perennial problem:

- Big Hollow Rd. (3 segments)
  - improved
- Shaker Hill Rd. (2 segments**) Completed in 2023**
  - No complaints
- Mason Hill Rd. (north and south intersections with Big Hollow Rd.
  - Mason hill north – is in pretty good shape
  - South - unknown
- Ireland Rd. (2 segments)
  - They did a lot of work this spring
  - Sap haulers caused damage
- Various segments around South Starksboro roads.

- ***Estimated cost to Town: $3,000- $5,000 per segment***
- ***Source of funds: Town highway fund, FEMA grant funding***
- ***Responsibility: Town Selectboard, road crew***
- ***Timeframe: Q3, 2019 – Q3, 2022***
- ***Benefits: reduce frequency of mud holes in these locations***

COMPLETED

Ongoing but not relevant to current hazards identified

Rebuild the intersection of Lafayette Rd and Robert Young Rd.
Estimated cost to Town: $15,000 - $20,000 estimate
Source of funds: Town highway fund
Responsibility: Town Selectboard, road crew
Timeframe: Q2, 2019 – Q3, 2019
Benefits: reduce frequency of mud holes in these locations

Believe it was COMPLETED

Hazardous Materials Spill

Encouraging conversion to alternate heating sources to reduce overall transport of fuels
Estimated cost to Town: Minimal as part of a Town Plan Energy Section
Source of funds: Town General Fund, Municipal Planning Grants
Responsibility: Town Selectboard & Planning Commission
Timeframe: Q3, 2018 – Q4, 2019 (During rewrite of town energy plan)

Benefits: Increased energy efficiency of current housing stock and reduced transport of Hazardous Materials (Fuels) over town highway

Ongoing - Energy Committee has been having discussion – page in the town report – Merc grant to assess but also piggy backing off current legislation requirements to end use of fossil fuel but not relevant to current list of hazards identified

APPENDIX C – Community Survey Questions

APPENDIX D – Meeting Agendas and Notes

Meeting with Rebecca Elder – October 16,2023 – M-Th in the office

Send service agreement

She sent list of participants

Send out a few dates for meeting and preferences to time/day of the week

Town and zoning plans are on the website

Plan expires in November 2023

Grant expires 9/22/2025

Meeting Notes

Starksboro – LHMP Kickoff Meeting

November 13, 2023

Participants:

Rebecca Elder – Town Administrator

Tom Estey – Fire Chief / Road Foreman*

Cheryl Estey – First Responder – Former Town Clerk*

Dan Kuzio – Fire Department

Tracey Orvis – First Responder

Charlene Phelps – EMS Coordinator

Dennis Casey – Planning Commission Chair

Nancy Boss – Zoning Administrator / Treasurer

Amy McCormick – Town Clerk

Steph Magnan – Consultant

Josh Martel – Road Foreman

Agenda Items:

- Introductions
- Set meeting schedule (2nd Tuesday of the month @ 6:30pm)
    - Ask about Zoom vs Teams
- Public Outreach
    - Public announcements – being inclusive as possible (vulnerable population)
    - Community stakeholders – churches/non-profit organizations/businesses
        - *Town website, FB and FPF, postcards, mailings, libraries (FB), FD (FB), Starksboro Parents and the school principal (Friday folders)*
- Outline of activities
    - Review (template of state plan outline)
        - Introduction
        - Purpose
        - Community Profile
            - Land use – water- waste water -transportation – electric distribution (Green Mountain Power – Vt electric coop)
            - Public safety – emergency management
    - Identify critical facilities
    - Identify Hazards (any additions in new state plan)
        - Potential impact
        - Hazard history
    - Review past plan actions
    - Identify capabilities and vulnerabilities
    - Plan integration -
    - Identify hazard mitigation
        - Strategies – programs – projects – activities
    - Identify and prioritize actions
    - Plan maintenance

Tasks Generate and who they are assigned to:

- Plan update announcement language to post on the website (Steph)
- Get a consensus of Zoom vs Teams meetings (Steph)
- Send out Introduction/Purpose/ Community Profile for review (Steph)

Discussion Items:

- 2nd Tuesday of the month @ 6:30pm – works for everyone

- Community stakeholders – churches/non-profit organizations/businesses
    - Town website, FB and FPF, postcards, mailings, libraries (FB), FD (FB), Starksboro Parents and the school principal (Friday folders)

- Electric Utility – Green Mountain Power and Vt Electric Coop

Further meeting discussion:

- Review and discuss Introduction/Purpose/ Community Profile
- Identify critical facilities

Future Meetings: December 12 @ 6:30

Meeting Notes

Starksboro – LHMP 2nd Meeting

December 12, 2023

Participants:

Rebecca Elder – Town Administrator

Tom Estey – Fire Chief

Cheryl Estey – First Responder – Former Town Clerk

Dan Kuzio – Fire Department

Tracey Orvis – First Responder

Charlene Phelps – EMS Coordinator

Dennis Casey – Planning Commission Chair

Nancy Boss – Zoning Administrator / Treasurer

Amy McCormick – Town Clerk

Steph Magnan – Consultant

Josh Martell – Road Foreman

Agenda Items:

- Announcement of plan update
  - Has been part of selectboard discussion
  - FPF/Website/FB
  - Steph will send a template
- Public Outreach Strategy
  - Questionnaire
  - Residents

    - Community
    - Business
        - Camp Common Ground -
        - Churches - POC
    - Schools
    - Vulnerable populations
    - Put out a survey – google sheets
        - Send template
    - Could access Friday folder
- Review
    - Introduction
    - Purpose
    - Community Profile
- Community Hazard Risk Assessment
    - Worked through Probability and Potential Impact for fluvial erosion

Tasks Generated and who they are assigned to:

Steph

Announcement template

Survey template

Hazard List Ranking spreadsheet

First three sections

Amy/Rebecca

Release plan update announcement

Set up Zoom meeting for **January 9th at 6:30pm**

Meeting Notes

Starksboro – LHMP 2nd Meeting

February 13, 2024

Participants:

Rebecca Elder – Town Administrator

Tom Estey – Fire Chief

Cheryl Estey – First Responder – Former Town Clerk

Dan Kuzio – Fire Department

Tracey Orvis – First Responder

Charlene Phelps – EMS Coordinator

Dennis Casey – Planning Commission Chair

Nancy Boss – Zoning Administrator / Treasurer

Amy McCormick – Town Clerk

Steph Magnan – Consultant

Josh Martell – Road Foreman

Agenda Items:

- Announcement of plan update
  - Has gone out on the website
  - Town meeting day
  - Selectboard report in the town report
- Public Outreach Strategy
  - Mention at town meeting
  - Binding business
  - Flyer
  - Rebecca will bring it up with the Town resources officer
    - Non profits
    - Food shelf
- Questionnaire
  - Pair down – Rebecca will resend
  - Paper and online – store/library

- Community Hazard Risk Assessment
- Review
  - Introduction
  - Purpose
  - Community Profile

Tasks Generated and who they are assigned to:

Lyme disease – is that invasive species (3)

Meeting Notes

Starksboro – LHMP 2nd Meeting

March 19, 2024

Participants:

Rebecca Elder – Town Administrator

Tom Estey – Fire Chief

Cheryl Estey – First Responder – Former Town Clerk

Dan Kuzio – Fire Department

Tracey Orvis – First Responder

Charlene Phelps – EMS Coordinator

Dennis Casey – Planning Commission Chair

Nancy Boss – Zoning Administrator / Treasurer

Amy McCormick – Town Clerk

Steph Magnan – Consultant

Josh Martell – Road Foreman

Agenda Items:

- Announcement of plan update
  - Town meeting day
    - Any feedback?
    - Dan provided feedback via email
- Public Outreach Strategy – reach out after meeting to get information
  - Rebecca will bring it up with the Town resources officer
    - Nonprofits – list?
      - How are they involved with community and vulnerable population
    - Food shelf
- Questionnaire
  - Pair down – Rebecca will resend
    - Status?
  - Paper and online – store/library

- Review past plan Mitigation Actions
- Community capabilities

Tasks Generated and who they are assigned to:

Lyme disease – is that invasive species (3) – YES – to include?

April 9 works for the next meeting

Meeting Notes

Starksboro – LHMP Meeting

April 9, 2024

Participants:

Rebecca Elder – Town Administrator

Tom Estey – Fire Chief

Cheryl Estey – First Responder – Former Town Clerk

Dan Kuzio – Fire Department

Tracey Orvis – First Responder

Charlene Phelps – EMS Coordinator

Dennis Casey – Planning Commission Chair

Nancy Boss – Zoning Administrator / Treasurer

Amy McCormick – Town Clerk

Steph Magnan – Consultant

Josh Martell – Road Foreman

Agenda Items:

- Public Outreach Strategy – reach out after meeting to get information
    - Rebecca will bring it up with the Town resources officer
        - Nonprofits – list?
            - How are they involved with community and vulnerable population
        - Food shelf
- Questionnaire
    - Pair down – Rebecca will resend
        - Status?

    - Paper and online – store/library
    - Dan will be assisting – Rebecca has the template
    - Rebecca will take care of posting it
- Critical Infrastructure
- Community capabilities

Tasks Generated and who they are assigned to:

Rebecca/Dan – Finalize the questionnaire

- Public outreach – work with town resource officer

Amy – Send Steph information on the dam owned by Dan Hale

Steph - Adjust the critical facilities map based on feedback corrections

-Talk with Andrew about GIS layer

talked via Teams after meeting with Bristol 4/17

Andrew sent files on 4/17

Sent to Charlen and Dan 4/21

-Draft first three sections for review

-Send Tom list of road mitigation actions for review

Sent on 4/12

Next meeting May 14 @ 6:30

Meeting Notes

Starksboro – LHMP Meeting

July 17, 2024

Participants:

Rebecca Elder – Town Administrator

Tom Estey – Fire Chief

Cheryl Estey – First Responder – Former Town Clerk -EMD

Dan Kuzio – Fire Department

Tracey Orvis – First Responder

Charlene Phelps – EMS Coordinator

Dennis Casey – Planning Commission Chair

Nancy Boss – Zoning Administrator / Treasurer

Amy McCormick – Town Clerk

Steph Magnan – Consultant

Josh Martell – Road Foreman

VTAlert – get signed up

https://vem.vermont.gov/vtalert

Agenda Items:

- Public Outreach Strategy – reach out after meeting to get information
    - Rebecca will bring it up with the Town resources officer
        - Nonprofits – list?
            - How are they involved with community and vulnerable population – first responders maintain a list
        - Food shelf
    - ✓ FPF, town website, flyer (mailing)*newsletter
- Questionnaire
    - Pair down – Rebecca will resend
        - ✓ Rebecca said questionnaire was done – need to get that – maybe 2-3
        - ✓ maybe resend questionnaire?
    - Paper and online – store/library
- Critical Infrastructure finalize
    - TO DO -Steph send list and map to group
- ✓ Review hazard ranking – Finalize
- Any comments on Introduction/Purpose/Community Profile
- **Mitigation Action Identification**
    - Local Plans and Regulations
        - Zoning bylaws – based on state guidance
        - Add the sugar house as a possible shelter
        - LEMP plan for communication
    - Structure and Infrastructure Projects
        - Radio repeater needed / communication
        - Ireland rd
        - Big hollow

        - Quaker St
        - States prison hollow ext
    - Natural Systems Protection
        - Stream mitigation – Talk with Andrew
            - Federal agents together to coordinate
            - Lewis Creek – high priority – Andrew has ideas
            - Future no build of areas that lost towns
            -
    - Outreach and Education Programs
        - Vt alert
        - Getting info out to the community
- **Left to do:**
- **Finish identifying mitigation actions**
- **Evaluate and Prioritize Mitigation Actions**
    - See tab on hazard ranking spreadsheet
- **What are the community capabilities in town have when it comes to (Strengths and Areas for Improvement)**
    - **Administrative & Technical**
        - staff/EMS services/Mutual Aid/RPC and VTrans relationships. Need for more volunteers
    - **Planning and Regulatory**
        - plans, policies, codes, ordinances ie Town Plan, zoning, LEMP, roads and bridge standard, REI, etc. Need for a permanent zoning administrator.
    - **Outreach and Education**
        - outreach and education opportunities both town run and other community organizations, social media, bulletins, etc. Need for better organization or outreach opportunities, leverage tools of private and nonprofits.
- **NFIP Compliance** - zoning administrator enforce? Is there an outreach program, does the town participate in State/FEMA training opportunities?

Tasks Generated and who they are assigned to:

- Group – think about mitigation actions
- Rebecca – republish questionnaire?
- Steph – Send critical infrastructure list and map
    - Adjust the hazard ranking to prioritize Fluvial erosion/inundation flooding/ wind/snow

Next meeting: July 30th at 5:30

Meeting Agenda/Notes

Starksboro – LHMP Meeting

July 30, 2024 @ 5:30

Participants:

Rebecca Elder – Town Administrator

Tom Estey – Fire Chief

Cheryl Estey – First Responder – Former Town Clerk -EMD

Dan Kuzio – Fire Department

Tracey Orvis – First Responder

Charlene Phelps – EMS Coordinator

Dennis Casey – Planning Commission Chair

Nancy Boss – Zoning Administrator / Treasurer

Amy McCormick – Town Clerk

Steph Magnan – Consultant

Josh Martell – Road Foreman

VTAlert – get signed up

https://vem.vermont.gov/vtalert

Agenda Items:

- Public Outreach Strategy – reach out after meeting to get information
  - Rebecca will bring it up with the Town resources officer
    - Nonprofits – list?
      - How are they involved with community and vulnerable population – first responders maintain a list
    - Food shelf
  - ✓ FPF, town website, flyer (mailing)*newsletter
- ✓ Questionnaire
  - Pair down – Rebecca will resend
    - ✓ Rebecca said questionnaire was done – need to get that – maybe 2-3

        - ✓ maybe resend questionnaire?
    - Paper and online – store/library
- Critical Infrastructure finalize
    - TO DO -Steph send list and map to group
- ✓ Review hazard ranking – Finalize
- Any comments on Introduction/Purpose/Community Profile
- **Mitigation Action Identification**
    - Local Plans and Regulations
        - Zoning bylaws – based on state guidance -incremental implementation – compliant by 2028 (Rob Evans)
            - https://legislature.vermont.gov/bill/status/2024/S.213
            - https://www.vermontpublic.org/local-news/2024-05-31/governor-phil-scott-flood-safety-act-climate-bill-law-state-regulations-river-corridor-wetlands
        - Add the sugar house as a possible shelter
        - LEMP plan for communication
- Develop a shelter plan and a shelter director – including lock box
    - Structure and Infrastructure Projects
        - Radio repeater needed / communication
        - Ireland rd
        - Big hollow
        - Quaker St
        - States prison hollow ext
        - 2 bridges on Jerusalem – collect debris
    - Natural Systems Protection
        - Stream mitigation – Talk with Andrew
            - Federal agents together to coordinate
            - Lewis Creek – high priority – Andrew has ideas
            - Future no build of areas that lost towns
            -
    - Outreach and Education Programs
        - Vt alert
        - Getting info out to the community
    - ACRPC Suggested Actions
- Apply for funding and support voluntary buyouts of private properties that have suffered repeated flood damage and risk along Lewis Creek. Especially in properties in the areas of States Prison Hollow Road Extension, and between Ireland Road and Hillsboro Road. (Pictures of some of the recent flood damages are attached in case helpful)
- Upgrade at risk town-owned culverts and bridges, and support or apply for funding to upgrade culverts on – ongoing
- ~~Adopt and enforce River Corridor protections in Zoning that meet state standards.~~

- Private property have a river corridor easements – land trust VHCB
- Maintain NFIP enrollment and adopt the most recent FEMA Special Flood Hazard Areas identified in updated Flood Insurance Rate Maps. Work in progress
- Apply for funding for and support the install back-up power for the ~~Starksboro Volunteer Fire~~ Department and Town Garage – apply for grants

- **Left to do:**
- **Finish identifying mitigation actions**
- **Evaluate and Prioritize Mitigation Actions**
    - See tab on hazard ranking spreadsheet
- **What are the community capabilities in town have when it comes to (Strengths and Areas for Improvement)**
    - **Administrative & Technical**
        - staff/EMS services/Mutual Aid/RPC and VTrans relationships.
        - Need for more volunteers and staffing
        - Develop mutual aid for assistance from other town office
        - Volunteer management
    - **Planning and Regulatory**
        - plans, policies, codes, ordinances ie Town Plan, zoning, LEMP, roads and bridge standard, REI, etc.
            - Conservation Commission
            - Development Review
            - Energy Committee
                - Energy plan – revise to include resilience?
            - Planning Commission
            - Jerusalem Community Center Committee
            - Lewis Creek Association
                - 2022 ACRPC – planning grant to explore options to minimize the impacts of flooding
                - 2023/2024 ACRPC – received funding
                - Inclusive of the towns – communications have improved
                    - Tension points based on points of view
                    - They present 2 times a year
                    - Cota field issues and assisting to grant floodplain resilence
            - Addison County River Watch
                - No communications – more Middlebury area
            - Plans and policies:
            - Town Plan (2018-2026)
                - Mentions on p11 Fluvial Erosion Hazard (FEH) zones are contained in the recently completed corridor plans for

Lewis Creek and can inform the creation of appropriate setback zones
        - Land use and Development regulation (2020)
            - Enforcement process
            - Flood hazard area regulation
                - Align with the states planning by 2028
        - Purchasing policy – 200 CFR – has been updated
    - Enforcement of the bylaws- as needed on call

- **Outreach and Education**
    - outreach and education opportunities both town run and other community organizations, social media, bulletins, etc.
        - FPF, FB, postcards
        - Boots on the ground during events
    - Open house at the fire department

    - Need for better organization or outreach opportunities, leverage tools of private and nonprofits. EXAMPLE
    - Developing a PIO and VTalert
- **NFIP Compliance** - zoning administrator enforce? Is there an outreach program, does the town participate in State/FEMA training opportunities?
    - **17 structures (town plan p38) ERAF indicates 18**
    - **Acrpc – and outreach to those areas**
- **Hazard maps for manufactured home communities – plan?**
    - Brookside – outside river corridor
    - Hillside Manor – partially in 100 yr floodplain and 50' small stream buffer
    - Lazy Brook – partially in river corridor
      Owned by Addison housing work (ACCT) – community block grant – infrastructure improvement
      Send the draft plan
      Are they eligible for buyout? If the land owned by one entity and the mobile home
    - Language in zoning about mobile home specs ie tie downs, building up

Tasks Generated and who they are assigned to:

- Group – think about mitigation actions
- Rebecca – republish questionnaire?
- ✓ Steph – Send critical infrastructure list and map
    - Include 2008 Lewis Creek Corridor info on map if available
- ✓ Adjust the hazard ranking to prioritize Fluvial erosion/inundation flooding/ wind/snow

Next meeting: July 30th at 5:30

Hotwash

Communications – overwhelming for the town office

and the community

No communications with VEM for debris separation and forewarning of pick ups

Timelines of repairs and not pay attention

Mitigation action – adopt ICS structure

Grant from VEM to conduct a table top exercise

Improve communication with the region, VTrans, RPC

Eyes and ears communication at first

Look at PAPPG to see about in kind services that are being / time limit on

Talk with Andrew sugar house lane abutments – private road

Send link about $90M pre-app

Uvm spatial lab

Language in PAPPG about building back better

APPENDIX E – Certificate of Adoption

CERTIFICATE OF ADOPTION
Town of STARKSBORO,
Vermont Selectboard
A Resolution Adopting the Local Hazard Mitigation Plan-Town of Starksboro, Vermont-2024

WHEREAS the Town of Starksboro Selectboard recognizes the threat that natural hazards pose to people and property within the Town of Starksboro; and

WHEREAS the Town of Starksboro Selectboard has prepared a natural hazard mitigation plan, hereby known as the Local Hazard Mitigation Plan-Town of Starksboro, Vermont-2024 in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

WHEREAS the Local Hazard Mitigation Plan-Town of Starksboro, Vermont-2024 identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the Town of Starksboro from the impacts of future hazards and disasters; and

WHEREAS adoption by the Town of Starksboro Selectboard demonstrates its commitment to hazard mitigation and achieving the goals outlined in the Local Hazard Mitigation Plan-Town of Starksboro, Vermont-2024.

NOW THEREFORE, BE IT RESOLVED BY THE TOWN OF TOWN OF STARKSBORO, VERMONT, THAT:

Section 1. In accordance with 24 VSA §872, the Town of Starksboro Selectboard adopts the Local Hazard Mitigation Plan-Town of Starksboro, Vermont-2024. While content related to the Town of Starksboro may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the Town of Starksboro to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

ADOPTED by a vote of_____ in favor and_____ against, and_____ abstaining, this day of_____,2024.

By:_____(print name)
Selectboard Chair

ATTEST: By: _____(print name)