Poultney Village and Town, Vermont
Multi-Jurisdiction Hazard Mitigation Plan

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1 Introduction

The impact of expected, but unpredictable natural events can be reduced through community planning. The goal of this Plan is to provide a natural hazards local mitigation strategy that makes Poultney (both the Village and Town) more disaster resistant.

Hazard Mitigation is any sustained action that reduces or eliminates long-term risk to people and property from natural hazards and their effects. Mitigation planning is an investment in the community. This Plan recognizes that communities have opportunities to identify mitigation strategies and measures during all the other phases of Emergency Management – Preparedness, Response and Recovery. Hazards cannot be eliminated, but it is possible to determine what the hazards are, where the hazards are most severe, and identify local actions that can be taken to reduce the severity of the hazard.

2 Purpose

The purpose of this Plan is to assist Poultney in identifying all natural hazards facing the community, ranking them according to local vulnerabilities, and identifying strategies to reduce risks from vulnerabilities of highest concern. Once adopted, this Plan is not legally binding; instead, it outlines goals and actions to prevent future loss of life and property.

The benefits of mitigation planning include:

- Identifying actions for risk reduction that are agreed upon by stakeholders and the public;
- Focusing resources on the greatest risks and vulnerabilities;
- Increasing education and awareness of threats and hazards, as well as their risks;
- Communicating priorities to State and Federal officials; and
- Aligning risk reduction with other community objectives.

Furthermore, Poultney seeks to be in accordance with the strategies, goals, and objectives of the 2018 State Hazard Mitigation Plan.

3 Community Profile

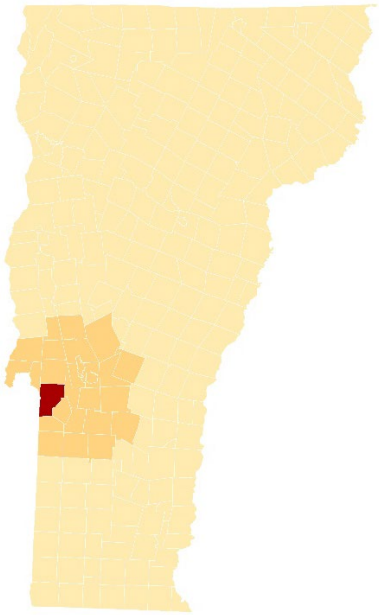
Land Use and Development Patterns

Poultney is in the southwestern part of Rutland County with the Poultney River separating its western border from New York State. It has a varied by moderate terrain ranging from 430 feet elevation to 2,320 feet at Spruce Knob.

There are three distinct population centers: Poultney Village (incorporated in 1908); East Poultney centered on the green; and the shore of Lake St. Catherine.

Historic Poultney Village is the center for community functions, employment and commerce with a mixture of residential dwellings, business, light industry, churches, and schools including the former-Green Mountain College campus, which ceased operating as a college in 2019. The Village is basically a district of services for water, sewage, street maintenance, and lighting with its own administration.

The Town is generally rural with residential and agricultural uses comprising most of the land outside of the two Village centers. Slate quarrying and processing are a dominant land use along the western edge of town. The north half of Lake St. Catherine is within the Town's boundaries and has been recognized as a vacation resort for over 100 years.



Demographics and Growth Potential

The 2017 American Community Survey Five-Year Estimates prepared by the U.S. Census Bureau shows an estimated population of 3,349 (1,510 Village / 1,839 Town), and 2,312 housing units (571 Village / 1,741 Town). Of the population included in the survey, 25% were 19 or under, and 17% were 65 or over, with a median age of 25.7 years in the Village and 39.4 in the Town, significantly lower than Vermont's median age of 42, presumably due to the former College.

Poultney's population has been in slow decline since 2010. The effect of Green Mountain College's closure on population is currently unclear. However, significant growth is not anticipated within the foreseeable future.

Precipitation and Water Features

Precipitation in Poultney is typical of the rest of the region. Average precipitation is 41 inches of rain; the most rain falls during the 31 days centered around June 11. Average snowfall is 67 inches; the most snow falls during the 31 days centered around January 28.

Aside from Lake St. Catherine, other major water elements include the Poultney River and its tributaries as well as the 96-acre Boczek Marsh Wildlife Management Area. Flood hazard areas are designated on the Flood Insurance Rate Maps (FIRM) for Poultney.

Water and Sewer Supply

Village facilities include municipal water and sewer. The Village water system serves approximately 520 customers. All others rely on private wells for water supply. The municipal water system includes seven miles of transmission/distribution piping and a water storage tank – no booster pump stations. Water is supplied from two gravel wells located west of the Village. Well 1 is located behind the former-Green Mountain College and Well 2 is located off Granville Street. Both wells are in the Special Flood Hazard Area.

The Village sewer system serves approximately 520 customers. All other sewer services are individual on-site septic systems. The municipal sewer system includes seven different zones that collect domestic waste and deliver it either directly to the Wastewater Treatment Plant or to two different pump stations. The primary pump station is located behind the former-College – in the Special Flood Hazard Area. It collects and pumps 70% of the daily flows to the plant. The second pump station is located on Allen Avenue and serves six residents and the Poultney Elementary School. The two pump stations have battery backup alarm dialers, but not standby power. The collection system consists of seven miles of collection piping. The Wastewater Treatment Plant is a two basin sequential batching reactor with UV disinfection. The plant is the only portion of both the municipal water and sewer systems that is equipped with a standby generator.

Transportation

Poultney is served by two types of transportation routes— state and town highways. Primary access to Poultney is afforded via VT Routes 30, 31, and 140. Town and Village highway maintenance crews maintain a combined 72 mile road network (66 Town / 6 Village).

Poultney has a total of 27 bridges and ±475 culverts. Eight town-owned bridges have a span of 20 feet or more; 19 are less than 20 feet. Four are part of the state system.

Electric Utility Distribution System

Electric service to approximately 2,000 customers is provided by Green Mountain Power via several circuits. Average annual outage statistics between 2015 and 2018 are summarized in Table 1.

Table 1: Power Outage Summary

Average Annual (2015-2018)	
Avg # of times a customer was without power	1.49
Avg length of an outage in hours	3.05
# of hours the typical customer was without power	4.55
2018 only	
Avg # of times a customer was without power	1.84
Avg length of an outage in hours	2.44
# of hours the typical customer was without power	4.50

The longest power outage affecting the greatest number of customers between 2015 and 2018 was 33.58 hours long and impacted 24 customers. During this same time period, there was a 52.21 hour long outage, but it only impacted 1 customer.

Emergency Management

Poultney has its own fire department on Beaman Street, Poultney Fire Department. Fire services are provided to the Town and Village, including the former-College campus.

Emergency service providers are quite active in Poultney. The 25-member volunteer department is assisted by mutual aid agreements with surrounding towns, as well as a volunteer First Response Rescue Squad. Poultney Rescue Squad serves as Poultney's ambulance service.

Law enforcement in Poultney is provided by an appointed constable with supplemental services through Rutland County Sheriff's Department.

The nearest hospital is the Rutland Regional Medical Center with some services provided by a nearby clinic in Castleton.

Emergency Management Planning

Poultney has an appointed Emergency Management Director (EMD) who works with others in the Village and Town to keep the Local Emergency Plan up-to-date as well as to coordinate with nearby towns and regional emergency planning efforts.

4 Planning Process

Plan Developers

Steffanie Bourque, an Emergency Management Planner at the Rutland Regional Planning Commission (RRPC), assisted Poultney with updating its Local Hazard Mitigation Plan. Hazard Mitigation Grant Program funds from FEMA supported this process.

The Hazard Mitigation Planning Team members who assisted with the update include the Town/Village Manager, EMD, the Fire Chief, Road Commissioners, and Planning Commission Chair.

Plan Development Process

The 2020 Poultney Local Hazard Mitigation Plan is the first multi-jurisdiction mitigation plan drafted for the Village and Town. Previously, Poultney had a local Annex in the 2009 Rutland County, VT Hazard Mitigation Plan.

Table 2: Plan Development Process

October 29, 2019: Hazard Mitigation Planning Team kick-off meeting. Discussed what a LHMP is; the benefits of hazard mitigation planning; current plan status; the planning process; outreach strategy; and plan sections. No members of the public attended.

November 6, 2019: Public notice posted on RRPC social media that Poultney is engaged in hazard mitigation planning and updating their LHMP. Emailed notice to officials in neighboring towns of Fair Haven, Castleton, Ira, Middletown Springs, and Wells. Name and contact information provided in notices for more information. No replies to public outreach.

November 14, 2019: Public notice posted on Front Porch Forum that Poultney is engaged in hazard mitigation planning and updating their LHMP. Name and contact information provided in notice for more information. No replies to public outreach.

November 18, 2019: Public notice posted at the Poultney Town Office, Public Library, and Post Office that Poultney is engaged in hazard mitigation planning and updating their LHMP. Agenda for November 20, 2019 Planning Team meeting posted in same locations.

November 20, 2019: Planning Team meeting – confirmed the plan purpose and completed work on the community profile and community hazard risk assessment. Began work on storm history and identifying vulnerable assets for highest risk hazards. No members of the public attended.

December 2, 2019: Working draft LHMP shared with Vermont Hazard Mitigation Planner for review and comment.

December 18, 2019: Working draft LHMP presented at joint public meeting of the Poultney Planning Commission, Selectboard, and Village Trustees to encourage input from local government and general public that could affect the plan's conclusions and better integrate with Town/Village initiatives. The flood hazard at the D&H Rail Trail bridge was discussed and incorporated into the plan.

January 8, 2020: Planning Team meeting – completed work on hazard identification and risk assessment. Began work on hazard mitigation strategy – confirmed mitigation goals; identified community capabilities; and began developing mitigation actions.

Table 2: Plan Development Process (cont.)

January 30, 2020: Planning Team meeting – continued work on mitigation strategy; changes since the 2009 plan; and process for plan maintenance.

February 20, 2020: Complete draft LHMP presented at joint public meeting of Poultney Planning Commission, Selectboard, and Village Trustees for input from local government and general public. Meeting attendees agreed to share the draft plan at Town Meeting.

March 2, 2020: Draft LHMP shared with the public at Town Meeting; posted for 14-day public comment period on the Town and RRPC websites; emailed to above mentioned neighboring municipalities and Poultney Mettowee Conservation District.

TBD, 2020: [placeholder for public comments received].

TBD, 2020: Draft Plan submitted to VEM for Approval Pending Adoption.

This Plan has been reconstructed as a multi-jurisdiction, stand-alone Local Hazard Mitigation Plan for Poultney Village and Town that will be submitted for approval to FEMA. As such, several sections have been added or updated to include all necessary information. A summary of the process taken to develop this Plan is provided in Table 2.

In addition to the local knowledge of Planning Team 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.**

Changes Since the 2009 Plan

Land use development changes in Poultney have largely occurred in accordance with the Future Land Use Map and in conformance with or furtherance of goals and objectives stated within the Poultney Town Plan. Notably, a large swath of mountainous land has come under conservation in the newly designated Northeast Conservation Wildlife Habitat Overlay District. Green Mountain College, which housed one of Poultney's emergency shelters, closed its doors in August 2019, and at the time of this writing a new use for the land has not yet been identified.

Table 3: Existing Plans, Studies, Reports & Technical Information

2019 Local Emergency Management Plan

2019 FEMA NFIP Insurance Reports

2019 Poultney-Wells Stormwater Master Plan

2018 State of Vermont Hazard Mitigation Plan

2018-2014 Green Mountain Power Outage Data

2017 American Community Survey Five-Year Estimate

2015 Poultney Town Plan

2014 Unified Zoning Regulations

2013 Stormwater Infrastructure Mapping Study

2009 Rutland Region All Hazards Mitigation Plan

RRPC Local Liaison Reports of Storm Damages

National Oceanic and Atmospheric (NOAA) National Climatic Data Center's Storm Events Database

FEMA Disaster Declarations for Vermont

OpenFEMA Dataset: Public Assistance Funded Project Summaries for Vermont

U.S. Geological Survey National Water Information System- Stream Gage Data

"Climate Variability and Socioeconomic Consequences of Vermont's Natural Hazards: A Historical Perspective" by Lesley-Ann Dupigny-Giroux, 2002, Vermont History 70: 19-39.

Rutland Herald Archives

FEMA Flood Insurance Rate Maps

Relevant Stream Geomorphic Assessments and/or River Corridor Plans

In 2014, the Town combined zoning, subdivision, and updated flood hazard area regulations into Unified Bylaws.

In 2011, the Town worked with the Rutland Regional Planning Commission to identify all structures within the recently digitized FEMA Flood Insurance Rate Maps (FIRMs) and participated in an outreach effort to provide landowners with information about the FIRMs and National Flood Insurance Program.

There has been little change in Poultney's mitigation priorities between this Plan update and the 2009 plan. In 2009, floods and fluvial erosion, winter storms, and high winds were Poultney's highest risk hazards.

As described below in Section 5, power outages associated with thunder and/or winter storms remain a concern. Especially if the outage coincided with a large scale sheltering event.

Hazard mitigation actions from 2009 are presented in Appendix C. The Hazard Mitigation Planning Team reviewed these actions and reported on the status of each.

Poultney has made progress in completing mitigation actions since 2009. They now have a Road Stormwater Management Plan for the Town and Village, which is a customized, multi-year plan designed to stabilize the municipal road drainage system. A Stormwater Master Plan for the Wells River/Lake St. Catherine Watershed was completed in 2019, which identifies a range of projects to mitigate stormwater inputs to the river and lake. Poultney is diligent about roadway maintenance and are systematically replacing culverts (upsizing them as necessary) on an annual basis.

5 Hazard Identification and Risk Assessment

Local Vulnerabilities and Risk Assessment

One of the most significant changes from the 2009 Plan is the way hazards are assessed. To be consistent with the approach to hazard assessment in the 2018 State Hazard Mitigation Plan, the Hazard Mitigation Planning Team conducted an initial analysis of known natural hazards to determine their probability of occurring in the future.

The Planning Team then ranked the hazard impacts associated with the known natural hazards based on the probability of occurrence and potential impact to life, the economy, infrastructure, and the environment. The ranking results are presented in **Table 4**.

After engaging in discussions, Poultney identified the following "highest risk hazards" that they believe their community is most vulnerable to:

- Thunderstorms with associated flash flooding, fluvial erosion, inundation flooding, high winds, and/or hail.
- Winter Storms with associated extreme cold, snow, ice, and high winds.

Each of these "highest risk hazards" (orange in **Table 4**) are further discussed in this section and depicted in the Local Hazards and Vulnerabilities Map in **Appendix B**.

The "lower risk hazards" that are considered to have a low probability of occurrence and low potential impact are not discussed. For information on these hazards, consult the State Hazard Mitigation Plan.

Table 4: Community Hazard Risk Assessment

Hazard Event	Hazard Impacts	Probability	Potential Impact					Score
			Life	Economy	Infrastructure	Environment	Average	
Thunderstorm Tropical Storm/Hurricane Landslide Ice Jam Tornado	Flash Flooding/ Fluvial Erosion	4	1	2	3	2	2	8
	Wind/Hail	4	2	2	2	2	2	8
	Inundation Flooding	3	1	2	1	1	1.25	3.75
Winter Storm	Cold/Snow/ Ice/Wind	3	3	2	1	1	1.75	5.25
Drought	Heat	2	1	1	1	1	1	2
	Drought	1	1	1	1	1	1	1
Wildfire	Wildfire	1	1	1	1	1	1	1
Earthquake	Earthquake	1	1	1	1	1	1	1
*Score = Probability x Average Potential Impact								

	Frequency of Occurrence: Probability of a 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:** 1–10% probability of occurrence per year, or at least one chance in next 100 years	**Minor:** isolated occurrences of moderate to severe property and environmental damage, potential for injuries, minor economic disruption
3	**Likely:** >10% but <75% probability per year, at least 1 chance in next 10 years	**Moderate:** severe property and environmental damage on a community scale, injuries or fatalities, short-term economic 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

High Risk Hazard Profiles

Inundation Flooding/Flash Flooding/Fluvial Erosion

As noted in the State Hazard Mitigation Plan, "Flooding is the most common recurring hazard event in Vermont" (2018: 55). There are two types of flooding that impact communities in Vermont: inundation and flash flooding. Inundation is when water rises onto low lying land. Flash flooding is a sudden, violent flood which often entails fluvial erosion (stream bank erosion).

Flooding of land adjoining the normal course of a stream or river is a natural occurrence. If these floodplain areas were left in their natural state, floods likely would not cause significant damage.

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

While inundation-related flood loss is a significant component of flood disasters, the more common mode of damage in Vermont is associated with fluvial erosion, often associated with physical adjustment of stream channel dimensions and location during flood events. These dynamic and oftentimes catastrophic adjustments are due to bed and bank erosion, debris and ice jams, or structural failure of or flow diversion by human-made structures. An ice jam occurs when the ice layer on top of a river breaks into large chunks which float downstream and cause obstructions (State HMP 2018). Poultney does not have a high incidence or high probability of ice jams.

Several major flooding events have affected the state in recent years, resulting in multiple Presidential Disaster Declarations. From 2003 to 2010, Rutland County experienced roughly $1.4 million in property damages due to flood events.

The worst flooding event in recent years came in August of 2011 from Tropical Storm Irene (DR4022), which dropped up to 10-11 inches of rain in some areas of Rutland County. Irene caused 2 deaths and $55,000,000 in reported property damages and $2.5 million in crop damages in Rutland County. Although the storm was technically a tropical storm, the effects of the storms are profiled in this flooding section, since the storm brought only large rainfall and flooding to Poultney, not the high winds typically associated with tropical storms. This caused most streams and rivers to flood in addition to severe fluvial erosion.

From 2012 to 2019, Rutland County experienced approximately $3.5 million in property damages; with $1.9 million due to a flash flood event in July 2017 (DR4330) and $1 million due to a flash flood event in April 2019 (DR4445).

In Poultney, flooding is a risk. Damages from Tropical Storm Irene resulted in approximately $386,200 in impacts ($52,970 in Individual Assistance; $123,110 in Public Assistance; $210,120 in National Flood Insurance). Flood damage consists of impacts to roads and culverts and occasionally residential dwellings. As shown on the Local Hazards and Vulnerabilities Map in Appendix B, areas prone to inundation flooding include South Street, D&H Rail Trail Bridge, Granville Street, and River Street by the intersection with Thrall Road.

Inundation Flood Damage on Granville Street

Although both municipal wells are in the Special Flood Hazard Area, both are constructed above the base flood elevation so have not experienced any flood impacts in the past.

Similarly, although the primary wastewater pump station behind the former-College lies in the Special Flood Hazard Area, it too is constructed above the base flood elevation so has not experienced flooding in the past. Access to the wells and primary sewer pump station has been impacted – isolating these facilities during flood events.

Currently, there are 67 structures (primarily single family dwellings) in Poultney (10 Village/57 Town) located in the Special Flood Hazard Area.

According to FEMA, there are two flood insurance policies issued in the Village. In total, these policies cover $76,000 in value. Nineteen (19) flood insurance policies are issued in the Town. In total, these policies cover $3,193,400 in value. There are no repetitive loss properties.

Flooding, especially flash flooding, can impact areas in Poultney that are located outside of designated floodplains, including along streams confined by narrow valleys. Flash flooding events periodically wash out sections of several roads – Pond Hill Ranch Road, Ames Hollow Road, Hampshire Hollow Road, Watkins Hill Road, Finel Hollow Road, Morse Hollow Road, Endless Brook Road, and River Street.

Flash Flooding on Ames Hollow Road

Flash Flooding/Fluvial Erosion on Endless Brook Road

The Poultney River watershed has undergone Stream Geomorphic Assessment (SGA), and a River Corridor Management Plan has been developed. This plan is vital in determining river and stream alterations, which affect water flows and could potentially lead to future flood damage. The SGA and River Corridor Plan suggest potential remediation actions that can be taken to reduce the risk of future flood damage including, planting stream buffers, stabilizing stream banks, removing berms, removing structures and restoring incision areas.

In addition, a Stormwater Master Plan for the Wells River/Lake Saint Catherine watershed was completed in November 2019. This plan includes many projects that are designed to decrease stormwater flows and increase resilience to floods – such as ditch erosion and runoff projects.

Severe Wind/Hail

Severe thunderstorms can produce high winds, lightning, flooding, rains, large hail, and even tornadoes. Thunderstorm winds are generally short in duration, involving straight-line winds and/or gusts in excess of 50 mph. Thunderstorm winds can cause power outages, transportation and economic disruptions, significant property damage, and pose a high risk of injuries and loss of life. From 2004 to 2010, for thunderstorms that caused more than $200,000 in damage, Rutland County experienced nearly $2 million in property damage. From 2011 to 2018, thunderstorms resulted in $2.1 million in property damage in Rutland County, with $525,000 due to a high wind event in May 2017.

Hail is a form of precipitation composed of spherical lumps of ice. Known as hailstones, these ice balls typically range from 5–50 mm in diameter on average, with much larger hailstones forming in severe thunderstorms. The size of hailstones is a direct function of the severity and size of the thunderstorm that produces it. Much of the hail activity in Rutland County is scattered and varies in intensity, and the resulting damage usually takes form in uprooted trees, downed power lines, and crop damage.

Violent windstorms are possible here; Poultney is susceptible to high directional winds. While commercial buildings in the downtown are not particularly vulnerable to wind impact; many storms with high winds result in downed trees, damaged phone and power lines.

Poultney is vulnerable to power outages. The following public buildings/critical facilities could be affected by a prolonged power outage due to lack of back-up power: Town Office, which also serves as the alternate local emergency operations center; Poultney High School, which serves as the primary local shelter; Poultney Elementary School, which serves as the alternate local shelter; Stone Bridge Welcome Center, which serves as the local food shelf; Senior Center, which is the local distribution site for Meals on Wheels; the two wastewater pump stations; and the two public drinking water well pump houses. The Poultney Fire House, which also serves as the primary local emergency operations center, and the Town Garage do have back-up power.

Extreme Cold/Snow/Ice/Wind

In the Rutland Region, most winter weather events occur between the months of December and March. Throughout the season, winter weather events can include snowstorms, mixed precipitation events of sleet and freezing rain, blizzards, glaze, extreme cold, the occasional ice storm, or a combination of any of the above. Events can also be associated with high winds or flooding, increasing the potential hazard.

The costs of these storms come in the form of power outages due to heavy snow or ice accumulations, damaged trees, school closings and traffic accidents. From 2002 to 2010, Rutland County experienced $1.1 million in property and crop damages from winter storms. From 2011 to 2019, Rutland County experienced $1.5 million in property damage, with $300,000 due to a 10” to 20” heavy, wet snowfall across the county on December 9, 2014.

There have been four winter storm-related federally declared Disasters in the county (the ice storm of January 1998 – DR 1201; severe winter storms in December 2000 and 2014 – DR 1358 and DR 4207, respectively; and severe storm and flooding in April 2007 – DR 1698). Historically, the winter storm of December 1969 brought record snowfall amounts and snowdrifts to Vermont, and later freezing rain caused prolonged power outages (Dipugny-Giroux 2002:26).

Typically, municipalities’ vulnerability to snow and ice storms are power outages and loss of road accessibility. As previously described, Poultney could be vulnerable to a power outage caused by ice/wet snow accumulation on power lines or trees falling on powerlines due to weight of ice accumulation in a storm, especially if the outage coincided with a large scale sheltering event.

In general, snow accumulation has not made Poultney vulnerable to loss of road accessibility. The Village’s and Town’s fleet of snowplows has ensured that roads are accessible, even in major snow accumulation events. Areas prone to drifting are known (VT Route 31, Blissville Road, Walker Road) as are bridges prone to freezing (Grove Street, Granville Street, Thrall Road, and VT Route 140). These high hazard areas are maintained accordingly.

In terms of impacts to municipal water and sewer utilities, the Village maintains a list of water service lines that are prone to freezing. Freezing service lines can migrate back to the distribution main and lead to significant disruption to municipal water supply and/or broken mains. The utility’s “Drip Program” is used to educate these vulnerable homeowners to run their water during the winter months to prevent them from freezing.

Periods of prolonged cold do not adversely impact the production operations of the public water system. Although these periods make it more challenging to operate the wastewater treatment plant, it can be done in accordance with the state-issued wastewater discharge permit.

High Risk Hazard History

Note: These are the most up to date significant events impacting Poultney. Federal declarations are depicted in **bold**.

Inundation Flooding/Flash Flooding/Fluvial Erosion

4.15.2019: **DR4445** 1-2" rain with significant snow melt: **$200,000 local damage**
7.1.2017: **DR4330** 3-4" rain the previous 3-4 days with flash flooding on 7/1/17: **no reported damage**
6.25-7.11.2013: **DR4140** with heavy rain over multiple days: **no reported damage**
8.28.2011: **DR4022** Tropical Storm Irene with +/-5" rain: **$386,203 local damage** ($52,972 Individual/$123,108 Public/$210,123 NFIP)
10.7.2005: 3-4" rain: no reported impact
12.16.2000: **DR1358** 2-4" rain: **$53,640 local damage**
7.14.2000: **DR1336** heavy rain: **$13,200 local damage**
9.16.1999: **DR1307** Tropical Storm Floyd with 4-5" rain: **no reported impact**
1.19.1996: **DR1101** snow melt/rain: **$23,653 local damage**

Severe Wind/Hail

2.24.2019: 48 mph winds: $25,000 regional damage
4.1.2018: 72 mph winds: $50,000 regional damage
10.30.2017: 40 mph wind: $100,000 regional damage
5.5.2017: 74 mph winds: $500,000 regional damage
10.28.2015: 40 mph winds: $50,000 regional damage
7.3.2014: 70 mph winds: $100,000 local damage
5.29.2012: Nickel-size hail: no reported impact
5.26.2010: Quarter-size hail with 70 mph wind; $100,000 local damage
6.10.2008: Nickel-size hail; no reported damage
7.6.2007: 50 mph winds: $5,000 local damage
4.16.2007: 69 mph winds: $3,500,000 regional damage
6.19.2006: 50 mph winds: $5,000 local damage
6.8.2005: 60 mph winds: $50,000 local damage
8.20.2001: 37 mph winds: no reported impact

Extreme Cold/Snow/Ice/Wind

2.1.2015: Record cold month with 15 to 20+ days below zero: no reported impact
1.7.2015: 0 to 10 degrees with winds of 15-30 mph Creating wind chills colder than -20 to -30 below zero: no reported impact
12.9.2014: **DR4207** 10-20" snow: **$27,700 local damage**
3.12-13.2014: 8-24" snow and wind gusts to 35-40 mph: $35,000 regional damage
12.26.2012: Snowfall rate of 1-2" per hour with accumulations of 6-8": no reported impact
2.23.2010: 6-30" snow: $100,000 regional damage
4.15-16.2007: **DR1698** "Nor'icane" with 3" snow and rain with winds of 60 to 80 mph: **$1,000,000 regional damage**
3.5.2001: **EM3167** 20-30" snow: **$7,000 local damage**

Vulnerability Summary

Inundation Flooding/Flash Flooding/Fluvial Erosion

Location[1]: Granville Street; South Street; D&H Rail Trail Bridge (Poultney River); River Street; Pond Hill Ranch Road; Ames Hollow Road; Hampshire Hollow Road; Watkins Hill Road; Finel Hollow Road; Morse Hollow Road; Endless Brook Road; West Lake Road; Dayton Hill Road; Ridgeview Lane; Old Lake Road

Vulnerable Assets[1]: Homes, roads, culverts, bridges

Extent: ±5" rain; extent data for fluvial erosion is unavailable

Impact: $386,203 local damage

Probability: Inundation Flooding – Likely; Flash Flooding/Fluvial Erosion – Highly Likely

Severe Wind/Hail

Location[1]: Town-wide

Vulnerable Assets[1]: Municipal wastewater pump stations, municipal drinking water wells, homes, trees, power lines

Extent: Quarter-size hail and ±70 mph winds

Impact: $100,000 local damage

Probability: Highly Likely

Extreme Cold/Snow/Ice/Wind

Location[1]: Town-wide; Drifting on VT Route 31, Blissville Road, Walker Road; Freezing Bridges on Grove Street, Granville Street, Thrall Road, VT Route 140

Vulnerable Assets[1]: Roads, culverts, bridges, trees, power lines

Extent: Up to 30" of snow, glaze coating of ice, 80 mph winds, 15 to 20+ days below zero

Impact: $27,700 local damage

Probability: Likely

[1] See **Appendix B:** Local Hazards and Vulnerabilities Map

6 Hazard Mitigation Strategy

The high risk 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 Poultney includes the most appropriate activities to lessen vulnerabilities from potential hazards.

Mitigation Goals

The Hazard Mitigation Planning Team discussed mitigation goals and identified the following as the community's main mitigation goals:

- Reduce or avoid long-term vulnerabilities to identified hazards;
- Reduce the loss of life and injury resulting from these hazards;
- Mitigate financial losses incurred by municipal, residential, industrial, agricultural and commercial establishments due to disasters;
- Reduce the damage to public infrastructure resulting from these hazards;
- Encourage hazard mitigation planning as a part of the municipal planning process;
- Encourage the adoption and implementation of existing mitigation resources, such as River Corridor Plans and Fluvial Erosion Hazard Maps, if available;
- Recognize the connections between land use, stormwater, road design, maintenance, and the effects from disasters;
- Ensure that mitigation measures are sympathetic to the natural features of community rivers, streams, and other surface waters; historic resources; character of neighborhoods; and the capacity of the community to implement them.

Community Capabilities

Each community has a unique set of capabilities, including authorities, programs, staff, funding, and other resources available to accomplish mitigation and reduce long-term vulnerability. Poultney's mitigation capabilities that reduce hazard impacts or that could be used to implement hazard mitigation activities are listed below.

Administrative and Technical

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/Village Manager (who also serves as the Zoning Administrator); Town and Village Highway Departments; Village Water and Sewer Departments; and Town/Village Clerk.

In addition to paid staff, there is a 5-member Selectboard, Board of Village Trustees, Planning Commission, and Development Review Board.

To augment local resources, Poultney has formal mutual aid agreements for emergency response – fire, EMS, and police and informal (verbal) agreements for public works. Technical support is available through the RRPC in the areas of land use planning, emergency management, transportation, GIS mapping, and grant writing. Technical support is available through the State for floodplain administration.

Strengths: Staff have some training on hazards and mitigation. Coordination between departments (both Town and Village) is effective. Past success in securing grants for public infrastructure improvements. Strong working relationships with neighboring communities to augment local resources.

Areas for Improvement: Maintenance record keeping systems; maintenance programs for cleaning culverts, ditches, and catch basins, and tree trimming within the road right-of-way; additional emergency management training.

Planning and Regulatory

Planning and regulatory 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 codes that regulate how and where land is developed, and structures are built.

Strengths: Existing unified bylaws are effective at reducing hazard impacts; codes and standards are adequately administered and enforced; elements of hazard mitigation are included in other local plans; completed stormwater master planning; local plans are coordinated to achieve a common goal.

Areas for Improvement: Zoning responsibilities are not sufficiently funded or staffed; protect river corridors from new encroachment (River Corridor Bylaws); capital planning; continuity of operations planning.

Unified Land Use Bylaws, including Flood Hazard Area Regulations: Adopted May 27, 2014
Description: Provide for orderly community growth and applies to all areas identified as areas of special flood hazard.
Relationship to Natural Hazard Mitigation Planning: Establish a Flood Hazard Area District to maintain the flood water carrying capacity of all flood-prone areas in the community and to ensure that any structures or uses permitted within these areas are properly protected from flood hazards.

Road and Bridge Standards: Adopted in 2013 (Village) and 2019 (Town)
Description: Provide minimum codes and standards for the construction, repair, and maintenance of all town roads and bridges.
Relationship to Natural Hazard Mitigation Planning: The standards include management practices and are designed to ensure the safety of the traveling public, minimize damage to road infrastructure during flood events, and enhance water quality protections.

Fire Department ISO Rating: Issued in 2017
Description: The Poultney Fire Department's ISO rating is 5 (Village) / 5X (Town). This rating is a score from 1 to 10 that indicates how well-protected the community is by the local fire department.
Relationship to Natural Hazard Mitigation Planning: Everyone wants to keep family, home, and business safe from fires. The ISO rating is a measure of the effectiveness of a community's fire services.

Municipal Plan: Adopted July 20, 2015
Description: A framework for defining and attaining community aspirations through public investments, land use regulations, and other implementation programs.
Relationship to Natural Hazard Mitigation Planning: The Emergency Management and Flood Hazard Area sections of the Town Plan include specific goals and policies related to natural hazards.

Local Emergency Management Plan: Last adopted on May 30, 2019
Description: Establishes lines of responsibility during a disaster as well as high risk populations, hazard sites, procedures, and resources.
Relationship to Natural Hazard Mitigation Planning: The LEMP 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.

Road Stormwater Management Plan (RSWMP): December 2019
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.

Wells River/Lake Saint Catherine Watershed Stormwater Master Plan (SWMP): November 2019
Description: Identify current stormwater inputs and develop prioritized projects to mitigate stormwater water quality problems.
Relationship to Natural Hazard Mitigation Planning: Many projects accomplish multiple goals – water quality and hazard mitigation.

Stormwater Infrastructure Mapping Study: April 2013
Description: Developed up to date municipal drainage system maps and established locations for BMP stormwater retrofit sites.
Relationship to Natural Hazard Mitigation Planning: Assist with emergency preparedness for large rainfall and spring snowmelt runoff events and identified several structural projects to improve the stormwater drainage system capacity.

Financial

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

Poultney's current annual Town budget is approximately $2,081,135, with $786,855 to fund the Highway Department. The current annual Village budget is approximately $342,000, with $282,000 to fund the Highway Department; $217,000 to fund the Water Department; and $340,000 to fund the Sewer Department. In addition to property tax revenues, the Village collects fees for water and sewer service. Although Poultney has not done so in the past, it is eligible to incur debt through general obligation bonds to fund mitigation actions.

Strengths: Maximize grant opportunities, especially VTrans for transportation infrastructure projects; capital budgeting and reserve funds for equipment.

Areas for Improvement: Tax revenues are sufficient for daily operations to maintain the status quo, but insufficient to handle contingencies and/or improvements; both utilities (water and sewer) are running deficits; capital budgets/accounts for buildings and infrastructure.

Education and Outreach

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

- Poultney Recreation Commission
- Poultney Downtown Revitalization Committee
- Poultney Area Chamber of Commerce
- Lake St. Catherine Association
- Poultney Comes Together
- Slate Group
- Poultney Historical Society
- Poultney Fish and Game Club
- Poultney Rotary Club
- Poultney Public Library
- Poultney Food Shelf
- Young at Heart Senior Citizens Center
- Lakes Region Farmer's Market
- Slate Valley Trails
- Slate Quarry Park
- Poultney Snowmobile Club

Strengths: Multiple programs/organizations are already in place in the community.

Areas for Improvement: Better coordination is needed with existing programs/organizations to help implement future mitigation actions; social media presence; town newsletter.

National Flood Insurance Program Compliance

Poultney joined the National Flood Insurance Program (NFIP) in 1980. The Zoning Administrator enforces NFIP compliance through permit review requirements in its unified bylaws. Poultney's regulations:

1. Require any new residential construction within the 100 year floodplain to have the lowest floor, including the basement, elevated above the 100 year flood elevation. The community must maintain a record of all lowest floor elevations or the elevations to which buildings in flood hazard areas have been flood proofed;
2. Allow non-residential structures to be elevated or dry flood proofed; and
3. Require anchoring of manufactured homes in flood prone areas.

Poultney has discussed the following as possible actions to continue NFIP compliance:

(1) Provide information to residents on safe building initiatives and the availability of flood insurance;
(2) Adopt river corridor protection language in the flood hazard regulations bylaw; and
(3) Work with the RRPC to ensure that floodplain and river corridor maps are kept up to date.

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 the State matching 7.5%. The State will increase its match to 12.5% or 17.5% of the total cost if communities take steps to reduce flood risk.

12.5% funding for eligible 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 eligible communities that also have:
1. FEMA's Community Rating System (CRS) participation; OR
2. Fluvial Erosion Hazard (FEH) or other river corridor/floodplain protection bylaw that meets or exceeds the Vermont Agency of Natural Resources FEH model regulations and scoping guidelines.

Mitigation Action Identification

The Hazard Mitigation Planning Team discussed the mitigation strategy, reviewed projects from the 2009 Plan, and identified possible new actions from the following categories for each of the high risk natural hazards identified in Section 5:

1. Local Plans and Regulations: These actions include government authorities, policies, or codes that influence the way land and buildings are developed and built.
2. Structure and 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 and infrastructure. Many of these types of actions are projects eligible for funding through the FEMA Hazard Mitigation Assistance Program.
3. Natural Systems Protection: These are actions that minimize damage and losses and preserve or restore the functions of natural systems.
4. Education and Awareness Programs: These are actions to inform and educate the public about hazards and potential ways to mitigate them. Although this type of mitigation reduces risk less directly than structural projects or regulation, it is an important foundation. A greater understanding and awareness of hazards and risk is more likely to lead to direct actions.

Local Plans and Regulations

Integrate Mitigation into Capital Improvement Programs: Hazard mitigation can be included in capital improvement programs by incorporating risk assessment and hazard mitigation principles into the capital planning efforts.

Manage Development in Erosion Hazard Areas: River Corridor Bylaws are intended to 1) allow for wise use of property within river corridors that minimizes potential damage to existing structures and development from flood-related erosion, 2) discourage encroachments in undeveloped river corridors and 3) reasonably promote and encourage infill and redevelopment of designated centers that are within river corridors.

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

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

Structure and Infrastructure Projects

Remove Existing Structures from Flood Hazard Areas: Communities may remove structures from flood-prone areas to minimize future flood losses and preserve lands subject to repetitive flooding.

Improve Stormwater Drainage Capacity: Improving the stormwater drainage capacity can help to minimize inundation flooding and fluvial erosion by: 1) increasing drainage/absorption capacities with low impact development practices; 2) increasing dimensions of 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: Regular maintenance will help drainage systems and flood control structures continue to function properly. Techniques include: 1) routine cleaning and repairing stormwater infrastructure; 2) routine cleaning debris from support bracing underneath low-lying bridges; and 3) inspecting bridges and identifying if any repairs or retrofits are needed to prevent scour.

Protect Infrastructure and Critical Facilities: Mitigation techniques can be implemented to help minimize losses to infrastructure and protect critical facilities from flood events by: 1) elevating roads above the base flood elevation to maintain dry access and 2) floodproofing critical facilities.

Protect Power Lines: Power lines can be protected from the impacts of natural hazards by: 1) incorporating inspection and maintenance of hazardous trees within the road right-of-way into the drainage system maintenance process and 2) burying power lines.

Retrofit Critical Facilities: Critical facilities can be protected from the impacts of high winds and winter storms. Techniques include: 1) retrofitting critical facilities 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.

Natural Systems Protection

Protect and Restore Natural Flood Mitigation Features: Natural resources provide floodplain protection, riparian buffers, and other ecosystem services that mitigate flooding. It is important to preserve such functionality. Possible projects include: 1) establishing vegetative buffers in riparian areas; 2) stabilizing stream banks; 3) removing berms; and 4) restore incision areas.

Education and Awareness Programs

Educate Property Owners About Freezing Pipes: Extreme cold may cause water pipes to freeze and burst, which can cause flooding inside a building. Education and Awareness Programs for property owners may include: 1) educating building owners on how to protect their pipes, including locating water pipes on the inside of building insulation or keeping them out of attics, crawl spaces, and vulnerable outside walls and 2) informing homeowners that letting a faucet drip during extreme cold weather can prevent the buildup of excessive pressure in the pipeline and avoid bursting.

Assist Vulnerable Populations: Measures could be taken to ensure vulnerable populations are adequately protected from the impacts of natural hazards, such as: 1) organizing outreach and 2) establishing and promoting accessible heating or cooling centers in the community.

Mitigation Action Evaluation and Prioritization

For each mitigation action identified, the Hazard Mitigation Planning Team evaluated its potential benefits and/or likelihood of successful implementation. Each action was evaluated against a broad 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 5**.

Mitigation Action Implementation

After careful evaluation and prioritization, the Planning Team agreed upon a list of actions that are acceptable and practical for the community to implement. Those actions without overall public support/political will were not selected for implementation. Those actions whose costs were not reasonable compared to the probable benefits were also not selected.

For the selected actions, the Planning Team then 1) assigned a responsible party to lead the implementation of each action; 2) identified potential funding mechanisms; and 3) developed a timeframe for implementing each action. This action plan is presented in **Table 6**.

Note that Poultney will make every effort to maximize use of future Public Assistance Section 406 Mitigation opportunities when available during federally declared disasters.

Table 5: Mitigation Action Evaluation and Prioritization

Mitigation Action	Life Safety	Prop Protect	Tech	Political	Admin	Other Obj	Benefit Score	Est Cost	C/B
Local Plans and Regulations									
Plan for and Maintain Adequate Road and Debris Clearing Capabilities	1	1	1	1	1	1	6	1	Yes
Integrate Mitigation into Capital Improvement Programs	0	1	1	1	1	1	5	1	Yes
Manage Development in Erosion Hazard Areas by Adopting River Corridor Bylaws	1	1	1	0	1	0	4	1	Yes
Improve Stormwater Management Planning by Completing a Stormwater Management Plan	A Stormwater Master Plan for the Wells River/Lake Saint Catherine Watershed was completed in 2019.								
Complete Road Erosion and Culvert Inventories and Develop Road Stormwater Management Plan	Poultney (Town and Village) completed initial inventories and Road Stormwater Management Plans in 2019.								
Structure and Infrastructure Projects									
Stabilize Outfalls	1	1	1	1	1	1	6	1	Yes
Re-establish/Stabilize Roadside Ditches	1	1	1	1	1	1	6	1	Yes
Routinely Clean and Repair Stormwater Infrastructure	1	1	1	1	1	1	6	1	Yes
Increase Dimension of Drainage Culverts in Flood-Prone Areas	1	1	1	1	1	1	6	1	Yes
Install Back-up Generators or Quick Connect Wiring at Critical Facilities	1	1	1	1	1	1	6	2	Yes
Review VTrans Bridge Inspection Reports[1] and Plan for Identified Repairs to Prevent Scour	1	1	1	1	1	0	5	1	Yes
Protect Power Lines and Road by Inspecting and Removing Hazardous Trees in Road ROW	1	1	1	0	1	1	5	1	Yes
Increase Drainage/Absorption Capacities with Low Impact Development Practices	0	1	1	0	1	1	4	1	Yes
Elevate Roads Above Base Flood Elevation to Maintain Dry Access	0	1	1	1	1	1	5	2	No
Bury Power Lines	1	1	1	-1	1	1	4	3	No
Floodproof Critical Facilities – Town Office	0	1	1	-1	1	1	3	2	No
Remove Existing Structures from Flood-Prone Areas	0	0	1	-1	1	0	1	2	No
Routinely Clear Debris from Support Bracing Underneath Low-Lying Bridges	No municipally-owned low-lying bridges, so the Planning Team did not evaluate this action.								
Retrofit Critical Facilities to Strengthen Structural Frames to Withstand Wind and Snow Loads	No existing critical facilities that require retrofits, so the Planning Team did not evaluate this action.								
Anchor Roof-Mounted Mechanical Equipment on Critical Facilities	No existing critical facilities with roof-mounted mechanical equipment, so the Planning Team did not evaluate this action.								
Natural Systems Protection									
Stabilize Stream Banks	1	1	1	0	1	1	5	1	Yes
Establish Vegetative Buffers in Riparian Areas	1	1	1	0	1	1	5	1	Yes
Remove Berms	1	1	1	0	1	1	5	1	Yes
Restore Incision Areas	1	1	1	0	1	1	5	1	Yes
Education and Awareness Programs									
Keep the Ditches and Catch Basins Clean Campaign	0	1	1	1	1	1	5	1	Yes
Educate Property Owners about Freezing Pipes	The Poultney Water Department already has a "Drip Program" in place to educate property owners about freezing pipes.								
Assist Vulnerable Populations	Poultney (Village and Town) already has a system in place to assist vulnerable populations – see 2019 Local Emergency Management Plan.								

[1] VTrans inspects all bridges in the state every two years. Bridge inspection reports are available on the VTrans website.

Evaluation Criteria:
Life Safety – How effective will the action be at protecting lives and preventing injuries?
Property Protection – How effective will the action be at eliminating or reducing damage to structures and infrastructure?
Technical – Is the mitigation 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, 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 $75,000; 2 = $75,000 to $500,000; 3 = more than $500,000
C/B – Are the costs reasonable compared to the probable benefits?

Table 6: Mitigation Action Implementation

Mitigation Action	Vulnerability	Lead Party	Potential Funding	Timeframe
Local Plans and Regulations				
Plan for and Maintain Adequate Road and Debris Clearing Capabilities	All High Risk Natural Hazards	Town Manager & Selectboard	Municipal Budget; Reserve Funds	Ongoing
Integrate Mitigation into Annual Budget and/or Capital Improvement Programs	All High Risk Natural Hazards	Town Manager & Selectboard	Not Applicable	Annually, during budget preparation
Manage Development in Erosion Hazard Areas by Adopting River Corridor Bylaws and Creating Fluvial Erosion Hazard Zones	Fluvial Erosion	Planning Commission	Municipal Budget; Municipal Planning Grant	2021-2023
Examine Town Plan, Bylaws and Development Regulations to Ensure Identified Hazard Areas are Addressed	All High Risk Natural Hazards	Planning Commission	Municipal Budget; Municipal Planning Grant	Town Plan – 2020 Unified Bylaws – 2021-2023
Structure and Infrastructure Projects				
Stabilize Outfalls: (1) Route 140 between Hampshire Hollow Road and Town Farm Road (2) See 2019 Road Stormwater Management Plan (3) See 2019 Stormwater Master Plan – this plan will be reviewed for potential projects and coordinated with the Poultney Mettowee Conservation District as appropriate	Flooding	Road Foreman	Municipal Budget; VTrans Grant; ANR Water Quality Grant; FEMA HMGP/PDM	(1) 2022 (2) In accordance with MRGP (3) 2020
Re-establish/Stabilize Roadside Ditches (1) See 2019 Road Stormwater Management Plan	Flooding	Road Foreman	Municipal Budget; VTrans Grant; ANR Water Quality Grant; FEMA HMGP/PDM	In accordance with MRGP
Routinely Clean and Repair Stormwater Infrastructure	Flooding	Road Foreman	Municipal Budget; VTrans Grant; ANR Water Quality Grant; FEMA HMGP/PDM	Annually or as needed
Increase Dimension of Drainage Culverts in Flood-Prone Areas: (1) York Street Extension (upsizing 4' culvert to 8' squashed) (2) Pond Hill Ranch Road – b/w O'Rourke and O'Brien (upsizing double culvert to 4' culvert) (3) Endless Brook Road (upsizing 24" culvert to 36" culvert)	Flooding	Road Foreman	Municipal Budget; VTrans Grant; ANR Water Quality Grant; FEMA HMGP/PDM	(1) 2020 (2) 2022 (3) 2020
Work with Vermont State Parks to Determine if Upsizing the D&H Rail Trail Bridge over the Poultney River is Feasible to Address Bottlenecking at this Location	Flooding	Town Manager	State-owned	2020-2023

Mitigation Action	Vulnerability	Lead Party	Potential Funding	Timeframe
Install Back-up Generators or Quick Connect Wiring at Critical Facilities: (1) Two Wastewater Pump Stations (2) Two Well Houses (3) Poultney High School	High Winds / Snow / Ice Storms	Town Manager; Selectboard; Village Trustees	Municipal Budget; USDA Rural Development; FEMA HMGP/PDM	(1) 2025 (2) 2025 (3) 2025
Review VTrans Bridge Inspection Reports and Plan for Identified Repairs to Prevent Scour	Flooding	Road Foreman	Municipal Budget; VTrans Grant; FEMA HMGP/PDM	Every two years (or as new inspection reports become available)
Protect Power Lines and Road by Inspecting and Removing Hazardous Trees in Road ROW	High Winds / Snow / Ice Storms	Road Foreman	Municipal Budget	Annually or as needed
Increase Drainage/Absorption Capacities with Low Impact Development Practices: (1) See Stormwater Master Plan – this plan will be reviewed for potential projects and coordinated with the Poultney Mettowee Conservation District as appropriate	Flooding	Road Foreman	Municipal Budget; VTrans Grant; ANR Water Quality Grant; FEMA HMGP/PDM	(1) 2020
Elevate Roads Above Base Flood Elevation to Maintain Dry Access: (1) Access roads to municipal wells and wastewater pump station (2) Granville Street	Flooding	This action was not selected for implementation at this time because the anticipated costs do not outweigh the perceived benefits.		
Bury Power Lines	High Winds / Snow / Ice Storms	This action was not selected for implementation because it lacks political support and the costs do not outweigh perceived benefits.		
Floodproof Critical Facilities – Town Office	Flooding	Although the basement in the Town Office is prone to flooding from a combination of surface runoff and high groundwater table; the Planning Team did not believe the cost to floodproof the foundation was justified given the other building deficiencies. Therefore, this action was not selected for implementation.		
Remove Existing Structures from Flood-Prone Areas	Flooding	This action was not selected for implementation because it lacks political support and the costs do not outweigh perceived benefits.		
Natural Systems Protection				
Evaluate the Need for Stream Bank Stabilization Measures and/or Vegetative Buffers in Riparian Areas	Flooding	Planning Commission & Poultney Mettowee Conservation District	Municipal Budget; Ecosystem Restoration Grant	2020 - 2025
Remove Berms	Flooding	These actions were not selected for implementation because there are no known project needs at this time.		
Restore Incision Areas	Flooding			
Education and Awareness Programs				
Keep the Ditches and Catch Basins Clean Campaign	Flooding	Town Manager	Municipal Budget	Annually beginning in 2021

Process for Incorporating Plan Requirements into Other Planning Mechanisms

For Poultney to succeed in reducing long-term risks, the information and recommendations of this Plan should be integrated throughout government operations.

The following are specific examples of how Poultney will incorporate this Plan into other plans, programs and procedures:

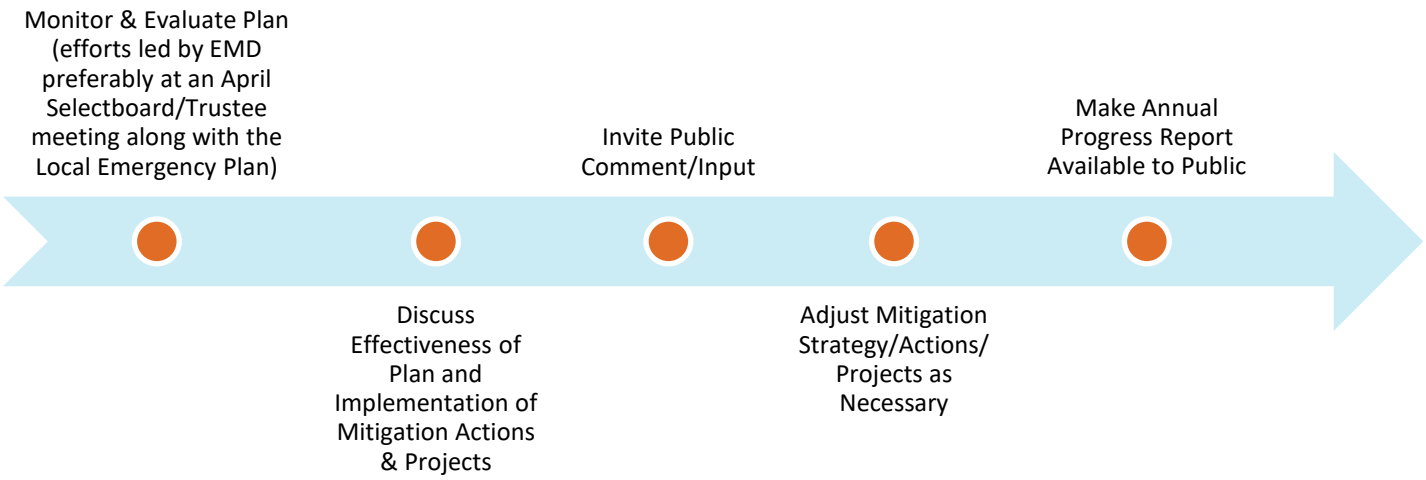
- The Town/Village Manager will work with the Highway Department heads, Town Selectboard, and Village Trustees to incorporate risk assessment and hazard mitigation goals into the capital planning efforts.
- The Planning Commission will integrate the hazard mitigation goals for disaster resiliency into the goals and objectives of the next Town Plan update in 2020.
- The Planning Commission will consider the data, analysis, and maps for the risk assessment in the next review of the local unified land use bylaws beginning in 2021.
- The Planning Commission will work with the Poultney Mettowee Conservation District on future water quality planning projects to identify opportunities for natural system protection – specifically stream bank stabilization and riparian vegetated buffers.
- The Village and Town Highway Departments will implement several infrastructure projects (e.g., increase dimension of drainage culverts in flood-prone areas, stabilize outfalls, re-establish/stabilize roadside ditches, increase drainage/absorption capacities with LID practices) through existing plans (2019 Road Stormwater Management Plan, 2019 Wells River/Lake Saint Catherine Watershed Stormwater Master Plan), which already have community support.

7 Plan Maintenance

This Plan is dynamic. To ensure the Plan remains current and relevant, it is important it be monitored, evaluated, and updated periodically.

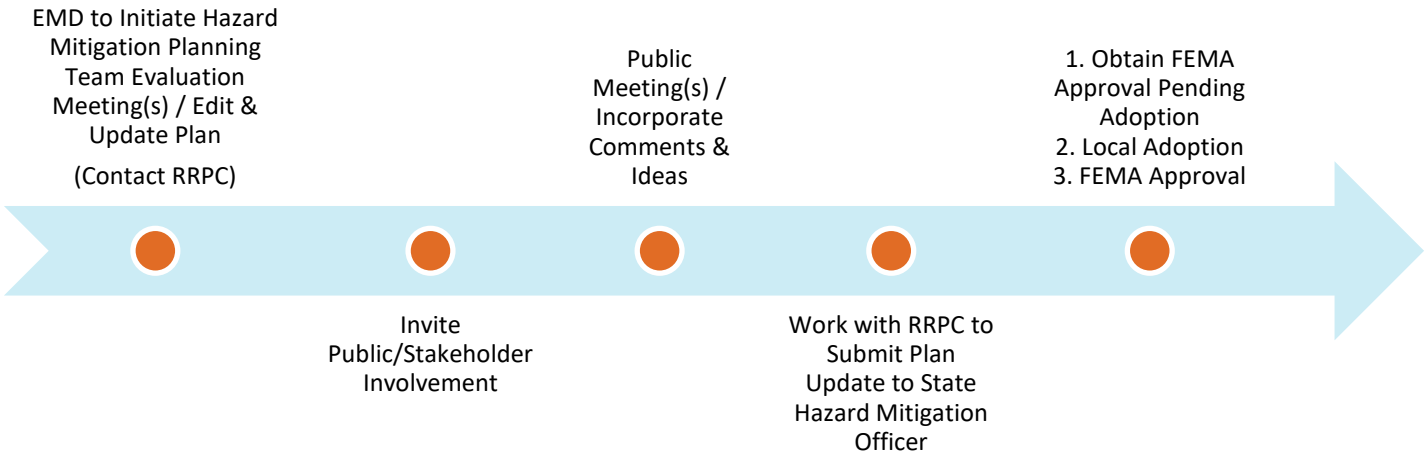
Monitoring and Evaluation

This Plan will be monitored and evaluated annually in accordance with the following process:



Updating

This Plan will be updated at a minimum every five (5) years in accordance with the following process:



CERTIFICATE OF ADOPTION
<<DATE>>
Town of Poultney, Vermont Selectboard
A Resolution Adopting the Poultney, Vermont 2020 Local Hazard Mitigation Plan

WHEREAS, the Town of Poultney has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of the hazards profiled in the **2020 Poultney, Vermont Local Hazard Mitigation Plan,** which result in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Town of Poultney has developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for its **2020 Poultney, Vermont Local Hazard Mitigation Plan (Plan)** under the requirements of 44 CFR 201.6; and

WHEREAS, the **Plan** specifically addresses hazard mitigation strategies, and Plan maintenance procedures for the Town of Poultney; and

WHEREAS, the **Plan** recommends several hazard mitigation actions (projects) that will provide mitigation for specific natural hazards that impact the Town of Poultney with the effect of protecting people and property from loss associated with those hazards; and

WHEREAS, adoption of this **Plan** will make the Town of Poultney eligible for funding to alleviate the impacts of future hazards; now therefore be it

RESOLVED by Town of Poultney Selectboard:

1. The **2020 Poultney, Vermont Local Hazard Mitigation Plan** is hereby adopted as an official plan of the Town of Poultney;

2. The respective officials identified in the mitigation action plan of the **Plan** are hereby directed to pursue implementation of the recommended actions assigned to them;

3. Future revisions and **Plan** maintenance required by 44 CFR 201.6 and FEMA are hereby adopted as part of this resolution for a period of five (5) years from the date of this resolution; and

4. An annual report on the process of the implementation elements of the Plan will be presented to the Selectboard by the Emergency Management Director or Coordinator.

IN WITNESS WHEREOF, the undersigned have affixed their signature and the corporate seal of the Town of Poultney this ____ day of _____ 2020.

_____
Selectboard Chair

_____
Selectboard Member

ATTEST

_____
Town Clerk

CERTIFICATE OF ADOPTION
<<DATE>>
Village of Poultney, Vermont Trustees
A Resolution Adopting the Poultney, Vermont 2020 Local Hazard Mitigation Plan

WHEREAS, the Village of Poultney has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of the hazards profiled in the **2020 Poultney, Vermont Local Hazard Mitigation Plan,** which result in loss of property and life, economic hardship, and threats to public health and safety; and

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2. The respective officials identified in the mitigation action plan of the **Plan** are hereby directed to pursue implementation of the recommended actions assigned to them;

3. Future revisions and **Plan** maintenance required by 44 CFR 201.6 and FEMA are hereby adopted as part of this resolution for a period of five (5) years from the date of this resolution; and

4. An annual report on the process of the implementation elements of the Plan will be presented to the Trustees by the Emergency Management Director or Coordinator.

IN WITNESS WHEREOF, the undersigned have affixed their signature and the corporate seal of the Village of Poultney this ____ day of _____ 2020.

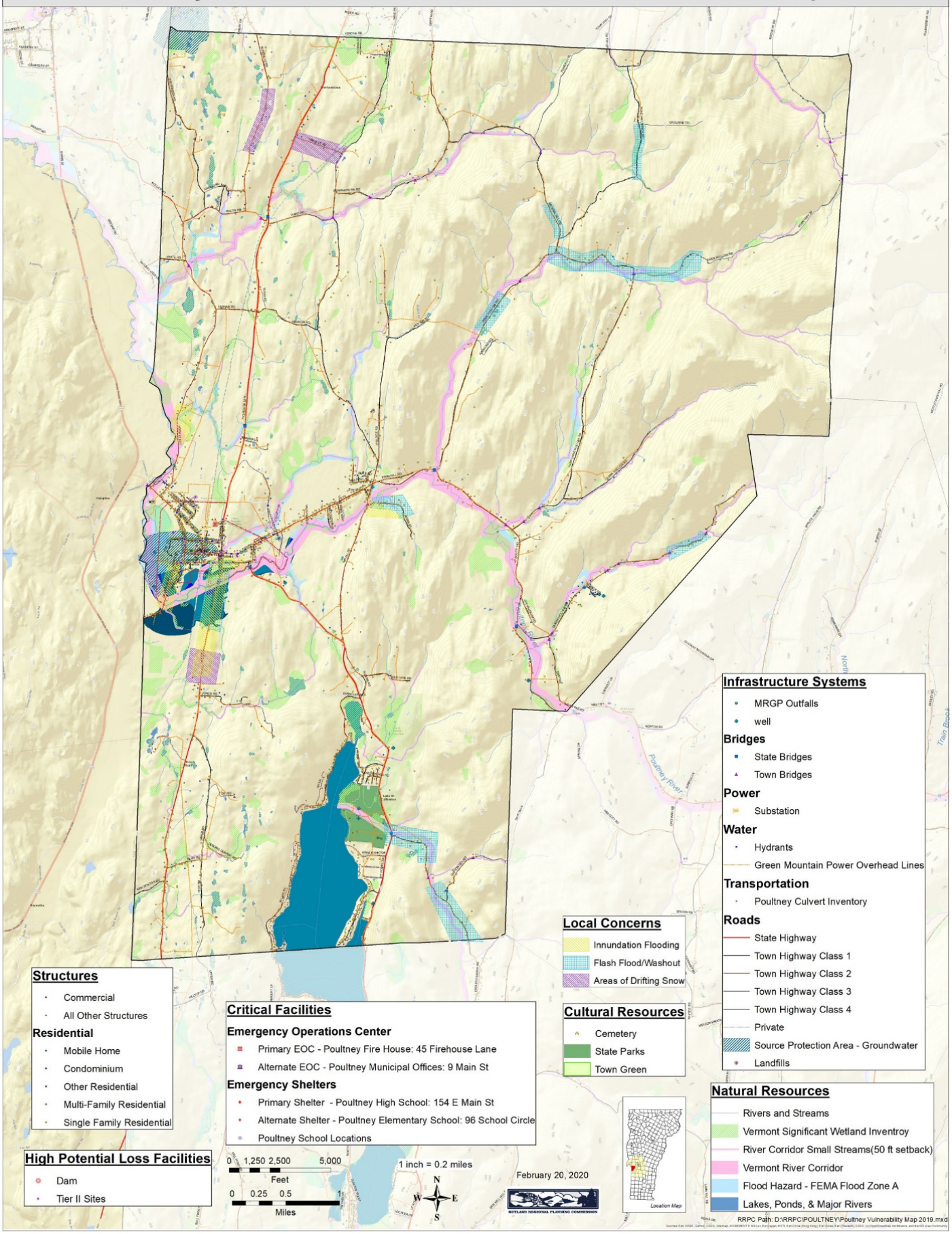
_____
Board of Trustees Chair

_____
Trustee Member

ATTEST

_____
Town Clerk

Poultney, Vermont: Local Natural Hazards and Vulnerabilities Map



Mitigation Action	Who is Responsible	Approx. Time Frame & Potential Funding Sources	2020 Status Update
Obtain generators for key town facilities (High School, and Water Wells)	EMC and Fire Department	• Med-term • HSU funds	This remains a priority.
Continue efforts to add fire suppression/prevention measures to building within village area and on college campus.	Fire Department in conjunction with State Labor and Industry staff	• Ongoing • State and Local Resources	Some progress has been made. This remains an all-hazards priority, not a natural hazards priority and therefore is no longer addressed in this plan.
Obtain ladder truck to fight fires in buildings above three stories.	Fire Department	• Med-Term •	Poultney now relies on mutual aid for a ladder truck, so this is no longer a priority.
Obtain new vault for the town offices and raise documents on shelves in basement.	Selectboard	• Short-Term • State and Local Resources	Documents have been raised on shelves in the basement. A new vault remains an all-hazards priority, not a natural hazards priority and therefore is no longer addressed in this plan.
Incorporate proposed strategies into Annual Budget and/or Capital Improvement Plan	Selectboard	• Short-Term • Local Resources	This remains an ongoing priority.
Continue upgrade, replacement and clean-out of culverts. Continue road resurfacing.	Selectboard, Town Manager and Road Crew	• On-going; local resources.	This remains an ongoing priority.
Examine Town Plan, bylaws and development regs to ensure identified hazard areas are addressed	Planning Commission/ Selectboard	• Med-term • Municipal Planning Grant	This remains a priority.
Adopt Wellhead Protection Plan for the town.	Town Manager	• Med Term • Local resources	This action has been completed.
Follow recommendations in River Corridor Plans and SGAs to address fluvial erosion hazards. Create Fluvial Erosion Hazard Zones.	Selectboard/ Agency of Natural Resources	• On-going • Long Term	This remains a priority.
Create long-term plan for moving pumphouse and wells out of floodplain.	Selectboard and Town Manager	• Long Term • Local Resources, USDA Grant # 10.760 (Water and Waste Disposal Systems for Rural Communities)	This no longer remains a priority. The Planning Team agreed it is cost prohibitive to relocate this infrastructure.
Complete work on Route 31 to drop road level in vicinity of Ruby Road in order to improve visibility at this intersection.	Selectboard	• Med-term • Local Resources	This is no longer an all-hazards priority.
Complete work on Route 30 along lake edge (remove ledge, estimated cost $400K)	Selectboard	• Med-term • Local Resources	This is a state-owned road and therefore is no longer addressed in this plan.

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