

# Wallingford, Vermont Local Hazard Mitigation Plan



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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 provide a natural hazards local mitigation strategy that makes Wallingford (the Town) more disaster resistant and more resilient after disaster has struck.

Hazard Mitigation is any sustained policy or action that reduces or eliminates long-term risk to people and property from natural hazards and their effects. FEMA and state agencies have come to recognize that it is less expensive to prevent disasters than to repeatedly repair damage after a disaster has struck. This Plan recognizes that communities have opportunities to identify mitigation strategies and measures during all 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 and policies that can be implemented to reduce the severity of the hazard.

## 2 PURPOSE

The purpose of this Plan is to assist the Town in identifying all natural hazards facing the community, ranking them according to local vulnerabilities, and developing strategies to reduce risks from those hazards. Once adopted, this Plan is not legally binding; instead, it outlines goals and actions to reduce the degree of injury and inconvenience to the townspeople and their private and municipal property.

The benefits of mitigation planning include:

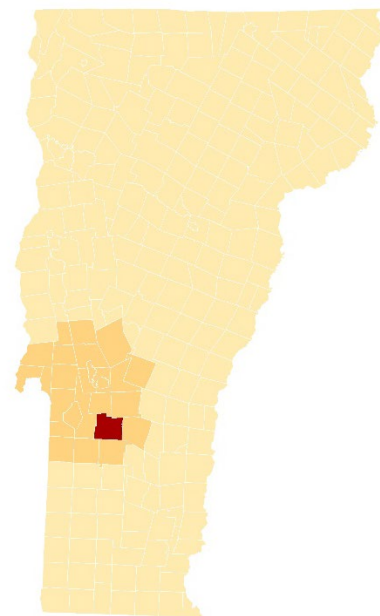
- Identifying actions for risk reduction that are agreed upon by stakeholders and the public.
- Focusing resources on the greatest risks and vulnerabilities.
- Increasing education and awareness of threats and hazards, as well as their risks.
- Communicating priorities to State and Federal officials.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

*Furthermore, the Town seeks to be in accordance with the 2018 State Hazard Mitigation Plan.*

## 3 COMMUNITY PROFILE

### Development Patterns and Land Use

There are three historic village centers in Wallingford: the Village, South Wallingford and East Wallingford. Together they represent the residential, civic, and economic hubs of the Town.



The Village developed as a milling and manufacturing center in the early 1800's, at the confluence of Roaring Brook and the Otter Creek on the Bennington to Rutland stage road (now US Rt. 7). It is served by municipal water and sewer, and includes single, two-family, and multi-family residential, retail, service/professional, restaurants, public uses, schools, libraries, churches, service clubs, gasoline stations, etc. Wallingford Village has continued throughout the century as the commercial and civic focus of the town.

To the south, a stage stop along the road evolved into the village of South Wallingford.

East Wallingford is another population center, located on the Mill River, along the eastern boundary of the municipality. After completion of the Bellows Falls to Rutland railroad in 1849, East Wallingford grew up around a station on the line as a lumbering and manufacturing center.

Public lands total 9,025 acres in the Town of Wallingford. The Green Mountain National Forest comprises 32.5% of Wallingford's land area. The National Forest and the Appalachian Trail corridor are both federally owned. State lands include fishing access areas, picnic areas, and other trails in town.

While agriculture weighed heavily in the original development patterns of Wallingford, the number of farms has declined steadily since the 1800's. Wallingford currently has 4 commercial dairy farms. Two are located along the Otter Creek, one is on East Street and the fourth is in East Wallingford. Approximately 350 acres of agricultural land is currently used for dairy operations.

Industry is comprised primarily of sand and gravel extraction as well as a few light industrial uses.

### Land Features

The eastern part of town contains the highest peaks and most remote areas of Wallingford. The Green Mountain National Forest comprises a significant part of this region.

A narrow valley corridor down the center of Town is part of the region known as the Vermont Valley. This part of Town contains flood-prone areas along Otter Creek, extensive community development, as well as significant sand, gravel, and mineral deposits. Historically, it has been the focus of development in town. The villages of Wallingford and South Wallingford and the main north-south highway, US Route 7, are in this region. It is bounded by the Green Mountains to the east and the Taconic Mountains to the west.

The Taconic Mountain region includes the area in Town west of the valley. This area is relatively small, covering mainly the area known as West Hill.

### Demographics and Growth Potential

The 2018 American Community Survey Five-Year Estimates prepared by the U.S. Census Bureau shows an estimated population of 2,094, and 1,171 housing units. Between 2010 and 2018, the population has held relatively steady.

The median age of Wallingford residents is 49 years old. Wallingford's median age is 14% higher than the Vermont median age of 42.8. The portion of the population over 60 is 28%, compared to 25% in Vermont and 20.9% in the country.

Vulnerable populations in Wallingford include:

- Lenny Burke Farm, Route 7 South, housing for those with disabilities
- Wallingford House, N Main Street, elderly housing
- Serenity House, Church Street, rehab center
- Emma's Place, N Main Street, rehabilitation center
- Housing for those with disabilities, River Street
- Housing for those with disabilities, School Street
- Wallingford Elementary School, School Street
- After School/Summer Rec Programs, School Street

*Growth potential for the Town is mixed. Residential growth is somewhat limited by the fact that a large portion of the Town lies within either floodplain or National Forest lands and/or restricted zoning regulations. There is opportunity for commercial/retail growth as there are currently several vacant commercial sites within the Town.*

### Precipitation and Water Features

Average annual precipitation is 44 inches of rain; with July being the wettest month. Average annual snowfall is 83 inches, which is about average compared to other places in Vermont, with January being the snowiest month.

The Otter Creek is the largest flowing body of water in the state and one of the most prominent aquatic features in Wallingford. Other surface water resources include Roaring Brook, Homer Stone Brook, Elfin Lake, Little Rocky Pond, and Wallingford Pond.

### Drinking Water and Sanitary Sewer

Municipal water service is provided by Wallingford Fire District # 1 and the South Wallingford Water Cooperative.

Fire District # 1 serves approximately 355 customers in Wallingford Village and the areas surrounding the Wallingford Lodge. This gravity-fed system includes a gravel well, 400,000 gallon water storage tank, and approximately four miles of transmission/distribution piping. The well is in the Otter Creek floodplain off Meadow Street.

The South Wallingford Cooperative serves ±26 households on Homer Stone, Hartsboro, and US Route 7 S. It is a gravity-fed spring with a treatment house located on Homer Stone Road.

Rural residents not served by the municipal water systems must rely on individual drilled wells, springs, or private water systems.

Sewer service in Wallingford is also provided by Wallingford Fire District # 1 to approximately 370 customers. The core of the Village is serviced by a series of gravity-fed lines to the treatment plant on Creek Road behind True Temper in the Village. The only exception to the gravity collection system is an air ejector station on US Route 7 S.

The 1960s vintage sewer treatment plant includes two pump stations, an oxidation ditch, chlorine clarifiers, and sludge drying beds. This facility is located within the Otter Creek floodplain on Creek Road.

Rural residents not served by the municipal sewer system must dispose of sewage through septic tanks and drainage fields, or other similar in-ground designs.

## Transportation

The present network of ±50 miles of roads in Wallingford serves the needs of current residents. US Route 7 is a main north/south transportation route through the state and passes directly through the center of Wallingford Village. VT Route 140 is the main east/west route. In addition to US Route 7 and VT Route 140, there are several other roads that have been identified as locally important for use as through-ways, detours, short-cuts, and access to critical facilities such as the fire stations, town garage, town office, and school. These routes are shown in orange on the map in **Figure 1**.

According to the Town's Road Stormwater Management Plan, nearly 65% of the Town's road mileage is hydrologically connected - meaning it is within 100-feet of a water resource (i.e., perennial/intermittent stream, wetland, lake, or pond). Proximity to water resources can make these sections of road more vulnerable to flooding and fluvial erosion.

Wallingford has a total of 26 bridges that span over 20 feet and ±520 culverts. Nineteen bridges are state-owned and seven are town-owned and part of the State's Town Highway Bridge Program. In addition, there are 11 town-owned bridges/structures that span less than 20 feet. The local transportation network is maintained by the Town Highway Department crew, whose garage is located on River Street.

Rail freight service passes through Wallingford and East Wallingford on two railroads operated by Vermont Rail System. Vermont Rail System continues to do standard track maintenance on both the Vermont Railway and the Green Mountain Railroad. The State of Vermont, through its Bridge Management Program, continues to inspect rail bridges along both rail lines. VTrans applied for and was awarded a Federal Rail Administration BUILD grant for the rehabilitation of 29 railroad bridges between Rutland, Vermont and Hoosick, New York along a 57.82 mile section of the former Bennington and Rutland Railroad, now operated by Vermont Railway and owned by VTrans. This project will take place over the next four years to upgrade bridges along this rail line.

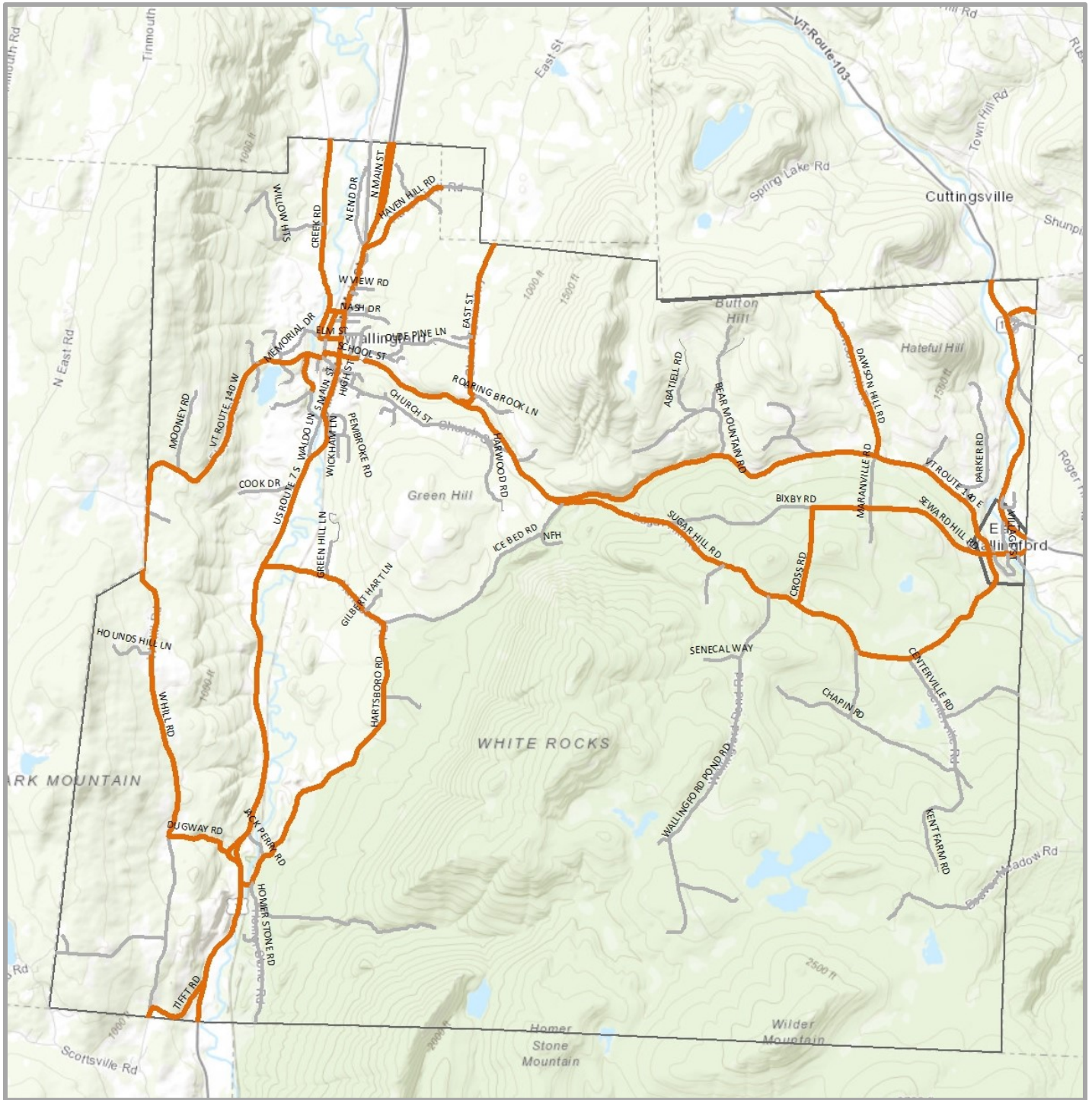


Figure 1 : VTrans Transportation Resiliency Planning Tool Identified Locally Important Routes for Through-Ways, Detours, Short-Cuts, and Access to Critical Facilities  
Shown in orange on Figure 1

## Electric Utility Distribution System

Electric service to approximately 1,215 customers is provided by Green Mountain Power via two circuits. Average annual outage statistics between 2015 and 2019 are summarized in **Table 1**.

Table 1: Power Outage Summary

<b>5-Year Average (2015-2019)</b>	
Avg # of times a customer was without power	1.96
Avg length of an outage in hours	6.36
# of hours the typical customer was without power	12.48
<b>2019 only</b>	
Avg # of times a customer was without power	2.21
Avg length of an outage in hours	5.61
# of hours the typical customer was without power	12.39

The longest power outage affecting the greatest number of customers between 2015 and 2019 was 45.27 hours long and impacted 42 customers. During this same time period, there was a 67.47 hour long outage that impacted only 3 customers.

## Public Safety

Wallingford Fire District # 1 provides fire protection service to all of Wallingford, including Wallingford Village and South Wallingford. The Fire Station is on River Street in Wallingford Village.

Wallingford Fire District #2 provides fire protection service to East Wallingford. The Fire Station is at 5988 VT Route 140 East.

Law enforcement is provided by the Rutland County Sheriff's Department on a contract basis. The current constable does not have law enforcement authority.

The nearest hospital is the Rutland Regional Medical Center. Ambulance service is provided by Wallingford Rescue except for a portion of East Wallingford, which is served by Mount Holly Rescue.

## Emergency Management

The Town has an appointed Emergency Management Director (EMD) who works with others in 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 the Town 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 Selectboard members, Town Administrator, Town Clerk, Fire Chief, and Road Commissioner.

### Plan Development Process

The 2020 Wallingford Local Hazard Mitigation Plan is an update to the single jurisdiction mitigation plan drafted for the Town in 2015.

A summary of the process taken to develop this Plan is provided in **Table 2**.



## Table 2: Plan Development Process

**June 9, 2020:** Hazard Mitigation Planning Team kick-off meeting. Planning Team members were confirmed. Discussed what a LHMP is; the benefits of hazard mitigation planning; current plan status; the planning process; outreach strategy; and plan sections. Planning Team meetings were not open to the public.

**June 11, 2020:** Public notice posted on RRPC and Town social media (website, Front Porch Forum, Facebook) that the Town is engaged in hazard mitigation planning and updating their LHMP. No public comments received. Emailed notice to officials in neighboring towns of Clarendon, Shrewsbury, Mount Holly, Mount Tabor, Danby, and Tinmouth. Name and contact information provided in notices for more information. No comments received from neighboring towns. Prudential Committee for Fire District #1 and South Wallingford Cooperative notified of planning efforts. Prudential Committees provided input on system components for the Community Profile.

**July 2020:** LHMP update article included in the *Wallingford Standard*, a monthly community newsletter – see Appendix D.

**July 7, 2020:** 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 assets vulnerable to the highest risk natural hazards.

**August 5, 2020:** Planning Team meeting – completed work on the storm history and assets vulnerable to the highest risk natural hazards. Completion of the hazard identification and risk assessment is a critical milestone in the plan update process. Draft readied for public input.

**August 12 & August 17, 2020:** Working draft LHMP presented at public meetings of the Wallingford Planning Commission and Selectboard to encourage input from local government and public that could affect the plan's conclusions and better integrate with related Town initiatives. Members of the public did attend the August 17 Selectboard meeting. Working draft posted on RRPC and Town websites. Notice of the public comment period also posted on Front Porch Forum and Town Facebook page with instructions to email comments on the draft plan to Sandi Switzer. Comments on the draft plan were accepted until September 8, 2020.

**August 17, 2020:** Working draft LHMP shared with Vermont Hazard Mitigation Officer and Rutland Natural Resources Conservation District for review and comment.

**September 8, 2020:** Public comment period on the draft Plan closed. At the Selectboard meeting, board members praised the group drafting the plan. No additional comments or recommendations were made.

**September 2020:** LHMP update on plan development process and information on how to comment on current working draft article in the *Wallingford Standard* – see Appendix D.

**September 16, 2020:** Planning Team meeting – discussed comments received on August working draft from the Selectboard; 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.

**October 7, 2020:** Planning Team meeting – completed work on the community capabilities and continued work evaluating, prioritizing, and selecting mitigation actions for implementation.

**November 4, 2020:** Planning Team meeting – completed work on the mitigation strategy; plan maintenance; and changes since the 2015 plan. Draft LHMP finalized for presentation to local officials and the public at the November 16, 2020 Selectboard meeting.

**November 2020:** LHMP update on plan development process and November 16, 2020 public meeting article in the *Wallingford Standard* – see Appendix D. Also posted on RRPC and Town websites.

**November 16, 2020:** Final draft LHMP emailed to neighboring towns, Rutland Natural Resource Conservation District, Wallingford Fire District #1, and the South Wallingford Cooperative for review and comment. Final draft LHMP posted for public comment and presented at joint public meeting of the Wallingford Selectboard and Planning Commission. Members of the public attended. Comments on additional mitigation actions to address flooding vulnerabilities were made during the meeting and incorporated into the plan. Public notice included instructions to email comments on the draft to Sandi Switzer. Comments on the draft plan were accepted until November 30, 2020.

**November 30, 2020:** Comment period closed. No additional comments were received from the public or other stakeholders.

**December 8, 2020:** Final draft LHMP submitted to VEM for Approval Pending Adoption.

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**.

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

2020 Local Emergency Management Plan
2020 FEMA NFIP Insurance Reports
2019 Wallingford Stormwater Master Plan
2019 Road Stormwater Management Plan
2019 Transportation Resiliency Planning Tool
2019-2015 Green Mountain Power Outage Data
2018 Wallingford Town Plan
2018 State of Vermont Hazard Mitigation Plan
2018 American Community Survey Five-Year Estimate
2015 Zoning Regulations
2011 Flood Hazard Area Regulations
2009 Mill River Corridor Management Plan
RRPC Local Liaison Reports of Storm Damage
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
FEMA Flood Insurance Rate Maps

## Changes Since the 2015 Plan

Wallingford's Town Plan and land use development regulations aim to preserve Wallingford's historical settlement pattern by encouraging residential and commercial growth in the existing village centers and promote the continued use of the outlying lands for agriculture, forestry, recreation, and other permitted uses.

As described in the Community Profile section of this Plan, the Town has not experienced any significant change in population or development since 2015.

According to the Wallingford Zoning Administrator, the Town issued 16 permits for new homes and numerous permits for additions (30), outbuildings (40), and commercial renovations/expansions (24) between 2015 and 2020.

*Development in Wallingford since 2015 has not made the community more vulnerable to natural hazards.*

The Town's mitigation priorities shifted a bit. In 2015, the Wallingford Local Hazard Mitigation Plan was an all-hazards (natural, manmade, and technological) plan. Flooding, fluvial erosion, and ice jams; snow and ice storms; and hazards materials, radiological and chemical/biological incidents posed the greatest risks to Wallingford.

The 2020 Plan update focused exclusively on natural hazards. The Town again ranked severe thunderstorms (with associated inundation/flash flooding and fluvial erosion) and severe winter storms (with associated extreme cold, snow, ice) as the community's highest risk natural hazards. In addition, they ranked high winds as another highest risk natural hazard.

In 2020, the Town did not formally assess the risk associated with invasive species; however, they did discuss the potential hazards and risks associated with the Emerald Ash Borer (EAB) given the confirmed detection in Rutland County in October 2020. Invasive species were not included in the 2015 Plan.

Wallingford has made some progress in completing the mitigation projects identified in the 2015 Plan – see **Appendix C**.

*Actions taken by Wallingford following Tropical Storm Irene and since 2015 have made the community more prepared and less vulnerable to future natural hazard impacts.*

Nonetheless, due to an increase in the frequency and intensity of weather events, the Town remains vulnerable to flash flooding, fluvial erosion, high winds, severe winter storms, as well as invasive species (particularly the Emerald Ash Borer).

As a result, the Town has identified two new mitigation actions to address severe winter storm and high wind impacts; one new mitigation action to address invasive species, and several actions to address remaining flood hazards – see **Table 6**.

## 5 HAZARD IDENTIFICATION AND RISK ASSESSMENT

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

### Local Vulnerabilities and Risk Assessment

One of the most significant changes from the 2015 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 hazard events<sup>1</sup> to determine their probability of occurring in the future.

The Planning Team then ranked the hazard impacts associated with the known natural hazard events 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**.

- *Thunderstorms with associated flash flooding, fluvial erosion, inundation flooding, and high winds.*
- *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 Natural 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	
<b>Thunderstorm</b> Tropical Storm/Hurricane	<b>Flash Flooding/ Fluvial Erosion</b>	<b>4</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>2</b>	<b>2.75</b>	<b>11</b>
Landslide	<b>Inundation Flooding</b>	<b>4</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>2.00</b>	<b>8</b>
<b>Ice Jam</b>	<b>High Winds</b>	<b>4</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2.25</b>	<b>9</b>
Tornado	Hail	2	1	2	2	1	1.50	3
<b>Winter Storm</b>	<b>Cold/Snow /Ice/Wind</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2.50</b>	<b>7.5</b>
Drought	Heat	2	1	2	2	2	1.75	3.5
	Drought	2	1	2	2	2	1.75	3.5
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	<b>Unlikely:</b> <1% probability of occurrence per year	<b>Negligible:</b> isolated occurrences of minor property and environmental damage, potential for minor injuries, no to minimal economic disruption
2	<b>Occasionally:</b> 1–10% probability of occurrence per year, or at least one chance in next 100 years	<b>Minor:</b> isolated occurrences of moderate to severe property and environmental damage, potential for injuries, minor economic disruption
3	<b>Likely:</b> >10% but <75% probability per year, at least 1 chance in next 10 years	<b>Moderate:</b> severe property and environmental damage on a community scale, injuries or fatalities, short-term economic impact
4	<b>Highly Likely:</b> >75% probability in a year	<b>Major:</b> severe property and environmental damage on a community or regional scale, multiple injuries or fatalities, significant economic impact

<sup>1</sup>This Plan defines natural hazards as atmospheric, hydrologic, geologic, and wildfire phenomena. Hazards not necessarily related to the physical environment, such as infectious disease, were excluded from consideration by the Planning Team.

## Invasive Species

The Planning Team did not formally assess the risk associated with invasive species; however, they did discuss the potential hazards and risks associated with the Emerald Ash Borer (EAB) specifically. Vermont's EAB infestation was first detected in 2018 in northern Orange County. In October 2020, a new detection of EAB in West Rutland was confirmed. This is the first confirmed detection in Rutland County. The Town is currently working with the Vermont Urban & Community Forestry Program to develop a *Rural Road Resilient Right-of-Ways Assessment*, which will include recommendations regarding EAB management and roadsides with plentiful or prominent Ash trees.

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). The Town does not have a high incidence or high probability of ice jams, except for at the intersection of Route 140 W and Florence Avenue along Roaring Brook. When ice jams do occur in this location, they typically do not result in flooding or other infrastructure damage.

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 the Town, 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 Wallingford, flooding is a risk. Damages from Tropical Storm Irene were significant, resulting in approximately \$1,076,000 in impacts (\$196,928 in Individual Assistance; \$274,952 in Public Assistance; \$604,334 in National Flood Insurance). Damage due to flooding usually consists of impacts to roads, culverts, bridges, and on occasion critical facilities (Wallingford Fire/Rescue, town garage), municipal recreation fields, municipal sewer utilities, and residential buildings.*

## Highest Risk Hazard Profiles

### **Inundation/Flash Flooding/Fluvial Erosion**

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.

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.

Inundation 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.

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

As shown on the Local Natural Hazards and Vulnerabilities Map in **Appendix B**, Wallingford is vulnerable to inundation flooding:

- River St (from Elm St Ext to Creek Rd) along Otter Creek.
- Hartsboro Rd (from US Route 7 to Bridge 22) along Otter Creek.
- Meadow St and Florence Ave along Otter Creek.
- Railroad St (from Elm St to Depot St) along Otter Creek.
- Earl Wade Rd along a tributary to Mill River.



West Hill Road – July 2017 (DR4330) Storm Damage

**91 structures are in the Special Flood Hazard Area (8% of community structures); including residential, commercial, and municipal properties. According to FEMA, 24% of these properties have flood insurance. In total, these 34 policies cover \$6,511,300 in value.**

*There is one repetitive loss multi-family residential property in Wallingford.*

The Fire District #1 well is sited in the Otter Creek floodplain off Meadow Street. It is housed in a flood-proofed vault and therefore not compromised during a flood. However, the entire sewer treatment plant and several sewer manhole structures on Meadow Street, River Street, Creek Road, and Railroad Street are also in the Otter Creek floodplain and are susceptible to flooding. During Tropical Storm Irene, the plant was under 4-feet of flood waters. Following Irene, all controls were relocated above base flood elevation; however, the back-up generator remains vulnerable to flooding.

Flash flooding can impact areas in Town that are located outside of designated floodplains, including along streams confined by narrow valleys. Flash flooding events periodically wash out sections of several roads, to name a few – Homer Stone, Hartsboro, West Hill, Wallingford Pond, Carrara Camp, Centerville, Chapin, Blackwood, Parker, Bear Mountain, Seward Hill, and Kent Farm.

In 2009, a river corridor plan was prepared for the Mill River watershed. Of the approximate 45,610 acre watershed that drains through East Wallingford, 6,895 acres (15%) is in Wallingford. That plan summarized information about the physical condition of the Mill River watershed; identified factors that are influencing the stability of the system; and synthesized the information to identify restoration and management priorities.

The Mill River corridor plan includes five locations in Wallingford with projects to protect the river corridor, restore incised reaches, restore riparian buffers, and remove berms.

During Tropical Storm Irene, fluvial erosion on a tributary to Mill River significantly damaged Sugar Hill Road. Dugway Road (TH47) was significantly impacted by fluvial erosion on a tributary to Mill River during the July 2017 storm (DR4330).



Dugway Road - July 2017 (DR4330) Fluvial Erosion

In 2019, the Town completed an inventory (Road Stormwater Management Plan) of all hydrologically-connected roads for the Municipal Roads General Permit and a Stormwater Master Plan. Both plans identify areas vulnerable to fluvial erosion and flash flooding and recommend actions.

### **High Wind**

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 more than 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 2019, thunderstorms resulted in just under \$2.2 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 ¼ - 2" 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 damage to automobiles and crops.

Violent windstorms are possible here; Wallingford is susceptible to high directional winds. Past storms have resulted in isolated impacts town-wide. Many storms with high winds result in downed trees, damaged phone and power lines, buildings, and other property.

*Wallingford is vulnerable to power outages, which can disrupt operations at all or many of the public buildings/critical facilities. The only facility with backup power is Fire District #1's sewer treatment plant. The plant was equipped with back-up power in 2015 to ensure operations can be maintained through an extended power outage.*

The Fire Department is in the process of purchasing a generator for the Fire Station. Otherwise, none of the following have backup power: Town Office (local emergency operations center), Elementary School (primary local shelter), Wallingford Lodge (alternate local shelter), and Town Garage.

If a power outage coincided with a large scale sheltering event, the Town could be faced with a serious situation.

There is no back-up power for the Fire District #1 well; however, in situations where Wallingford lost all power, there are four to five days' worth of water in the storage tank. A secondary emergency source would be one manual hydrant.

Although there is no back-up power at the sewer air ejector station on US Route 7 S, there is storage capacity in the system for approximately two days.

### **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 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.



Dugway Road – December 2014 (DR4207) Storm Damage

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).

*Typically, towns’ vulnerability to snow and ice storms are power outages and loss of road accessibility. As previously described, the Town is not prepared for 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 the Town vulnerable to loss of road accessibility. The Town’s fleet of snowplows has ensured that roads are accessible, even in major snow accumulation events. Areas prone to drifting on Sugar Hill, Maranville, Hawkins, and Cross Roads are maintained accordingly.



## Highest Risk Hazard History

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

### Inundation/Flash Flooding/Fluvial Erosion

6/20/2019: 6” rain; no reported local damage

**4/15/2019: DR4445 1-2” rain with significant snow melt: no reported local damage**

**7/1/2017: DR4330 3-4” rain the previous 3-4 days with flash flooding on 7/1/17: \$229,235 local damage**

**6/25-7/11/2013: DR4140 with heavy rain over multiple days: no damage reported**

**8/28/2011: DR4022 Tropical Storm Irene with +/-5” rain: \$1,076,214 local damage (\$196,928 Individual / \$274,952 Public / \$604,334 NFIP)**

3/23/2010: heavy rain/snow melt: \$2,000 local damage

6/12/2007: flash flood producing rain: \$20,000 local damage

### High Wind

2/24/2019: 48 mph winds: \$25,000 regional damage

4/1/2018: 55 mph winds: \$50,000 regional damage

10/30/2017: 40 mph wind: \$100,000 regional damage

5/5/2017: 40 mph winds: \$25,000 regional damage

10/28/2015: 40 mph wind: \$50,000 regional damage

12/21/2012: 60 mph wind: \$50,000 regional damage

9/8/2012: 60 mph wind: \$50,000 local damage

8/4/2012: 50 mph wind: \$1,000 local damage

7/13/2011: 50 mph wind: \$1,000 local damage

8/25/2007: high winds: \$600,000 regional damage

7/6/2007: thunderstorm wind: \$5,000 local damage

6/19/2006: thunderstorm wind: \$3,000 local damage

### 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

3/13/2018: 24” snow: \$10,000 regional damage

3/7/2018: 20” snow: \$20,000 regional damage

12/12/2017: 13” snow: \$10,000 regional damage

**12/9/2014: DR4207 with 10-20” snow: \$13,789 local damage**

11/26/2014: 11” snow: \$25,000 regional damage

2/13/2014: 24” snow: \$10,000 regional damage

12/26/2012: 12”: \$10,000 regional damage

2/23/2010: 6-30” snow: \$200,000 regional damage

**4/15-16/2007: DR1698 “Nor’icane” with 3” snow and rain with winds of 60 to 80 mph: \$8,677 local damage**

3/20/2002: 8” snow: \$30,000 regional damage

**3/5/2001: EM3167 26” snow: \$4,454 local damage**

2/5/2001: 10” snow: \$75,000 regional damage

**12/16/2000: DR1358: \$8,677 local damage**

## Vulnerability Summary

### Inundation/Flash Flooding/Fluvial Erosion

**Location<sup>1</sup>:** *Inundation Flooding:* River St (Elm St Ext to Creek Rd), Hartsboro Rd (from US Route 7 to B22), Meadow St, Florence Ave, and Railroad St (from Elm St to Depot St) along Otter Creek; Earl Wade Rd along a tributary to Mill River; Bridge B59 on Creek Rd spanning Otter Creek

*Flash Flooding:* Homer Stone, Hartsboro, West Hill, Wallingford Pond, Carrara Camp, Centerville, Chapin, Blackwood, Parker, Bear Mountain, Seward Hill, Kent Farm, Maranville, Mooney, White Rocks Picnic, Haven Hill

*Fluvial Erosion:* Sugar Hill Rd, Dugway Rd

**Vulnerable Assets<sup>1</sup>:** Roads, culverts, bridges, homes, recreational fields, public buildings (town garage, elementary school, fire station), wastewater treatment plant and sewer manholes

**Extent:** 6” rain; extent data for fluvial erosion is unavailable

**Impact:** \$1,076,214 local damage

**Probability:** >75% chance per year

### High Wind

**Location<sup>1</sup>:** Town-wide

**Vulnerable Assets<sup>1</sup>:** Phone and power lines, buildings, trees

**Extent:** 60 mph winds

**Impact:** \$50,000 local damage

**Probability:** >75% chance per year

### Extreme Cold/Snow/Ice/Wind

**Location<sup>1</sup>:** Town-wide; Drifting on Sugar Hill Rd, Maranville Rd, Hawkins Rd, and Cross Rd

**Vulnerable Assets<sup>1</sup>:** Roads, culverts, bridges, trees, power and phone lines

**Extent:** Up to 30” of snow; 80 mph winds; 15 to 20+ days below zero

**Impact:** \$200,000 regional / \$13,789 local damages

**Probability:** >10% but <75% chance per year

<sup>1</sup> See **Appendix B:** Local Natural Hazards and Vulnerabilities Map

## 6 HAZARD MITIGATION STRATEGY

The highest risk natural hazards and vulnerabilities identified on page 9 of this Plan resulted in the development of the hazard mitigation strategies outlined below, which the community will strive to work on over the next few years. The goal of these mitigation strategies is to reduce natural hazard impacts on the Town.

### Mitigation Goals

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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 management, 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; existing land use and the capacity of the community to implement them.

### Community Capabilities

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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. Wallingford'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 Administrator, Town Clerk/Treasurer, Assistant Town Clerk and Treasurer, Road Commissioner, and Road Foreman.

In addition to paid staff, there is a 5-member Selectboard, 5-member Planning Commission, 5-member Development Review Board, Town Health Officer, and the following volunteer committees: Conservation, Recreation, and Energy Committees.

Wallingford Fire District #1's staffing resources include a 3-member Prudential Committee, Clerk, and the Fire Chief.

To augment local resources, the Town has formal mutual aid agreements for emergency response – fire, EMS, and 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 also available through the State ANR for floodplain administration and VTrans Districts for hydraulic analyses.

**Strengths:** Proactive, experienced staff ● staff with grant writing experience ● strong working relationships with neighboring communities ● elected and appointed officials with a wide array of professional and life skills ● administrative staff and elected/appointed officials demonstrate a keen ability to identify and secure resources in times of need

**Areas for Improvement:** Maintenance programs could be more robust to reduce risks, particularly stormwater collection system maintenance ● cooperation between different municipal departments and Town entities ● Town and Fire District #1 communication ● few staff members perform multiple tasks/functions

## Planning and Regulatory

Planning and regulatory capabilities are the plans, policies, codes, and ordinances that are designed to prevent or 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 uniform enforcement of zoning ordinances, subdivision regulations, and building codes that regulate how and where land is developed, and structures are built.

**Strengths:** Existing land use ordinances are effective at reducing hazard impacts and they are adequately administered and enforced ● proactive local Planning Commission ● administrative staff engaged in securing funding for the development of plans

**Areas for Improvement:** Follow through on strategies, actions, and goals between adoption of a plan and readoption or update ● adopt a Continuity of Operations Plan ● additional training related to NFIP and Special Flood Hazard Areas for local officials and staff

**Zoning and Subdivision Regulations:** Adopted August 17, 2015 and June 15, 2009

**Description:** Provide for orderly community growth.

**Relationship to Natural Hazard Mitigation Planning:** Establish site plan review requirements and zoning districts with specific standards for proposed development. Requirements are designed to prevent overdevelopment; to mitigate the negative impacts to the natural and human environment; and minimize effects to the historical and aesthetic character of the community.

**Flood Hazard Area (FHA) Regulations:** Adopted September 19, 2011

**Description:** Apply to all areas in the Town identified as areas of special flood hazard.

**Relationship to Natural Hazard Mitigation Planning:** Ensures the 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.

**Road and Bridge Standards:** Adopted on March 16, 2020

**Description:** Provide minimum codes and standards for the construction, repair, and maintenance of all town roads and bridges.

**Relationship to Natural Hazard Mitigation Planning:** 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.

**Municipal Plan:** Adopted June 4, 2018

**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:** Includes specific goals and policies related to mitigating natural hazards.

**Local Emergency Management Plan:** Last adopted on April 6, 2020

**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 can be essential to preparing hazard mitigation project applications for FEMA funding.

**Road Stormwater Management Plan:** 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 regulated under the Municipal Roads General Permit.

**Town of Wallingford Stormwater Master Plan:** February 22, 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 mitigation.

**Rural Road Resilient Right-of-Ways Vegetation Assessment:** Under development October 2020

**Description:** Documents roadside vegetation in Tinmouth with action items and recommendations for management.

**Relationship to Natural Hazard Mitigation Planning:** Includes recommendations regarding ash trees, hazard trees, and vegetation management goals of utility companies.

## Financial

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

Wallingford's current annual municipal budget is approximately \$1,316,450, with \$352,055 to fund the Highway Department. Although the Town has not done so in the past, it is eligible to incur debt through general obligation bonds to fund mitigation actions.

Wallingford Fire District #1's annual budget includes \$402,080 for the water and sanitary sewer utilities, \$78,725 for the general fund, and \$126,200 for the Fire Department.

**Strengths:** Capital improvement planning and reserve funds ● community support for municipal budgets ● maximize grant opportunities and grant writing success

**Areas for Improvement:** Be proactive informing elected state officials of the impact unfunded mandates have on Towns

## Education and Outreach

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

- Town Website, Facebook, Front Porch Forum, email, and VT-Alert
- Monthly Town Newsletter – *Wallingford Standard*
- Gilbert Hart Library
- Rotary Club
- Communications/Events Committee
- Wallingford and East Wallingford Fire Depts
- Wallingford Rescue
- Maple Valley Grange
- Several churches
- Masonic Temple
- Mt. Moriah Lodge

**Strengths:** Strong social media presence ● multiple programs/organizations already in place in the community ● monthly town newsletter

**Areas for Improvement:** Better coordination with existing programs/organizations needed to help implement future mitigation activities

## National Flood Insurance Program Compliance

The Town joined the National Flood Insurance Program (NFIP) in 1981. The Zoning Administrator enforces NFIP compliance through permit review requirements in its Flood Hazard Area regulations. Wallingford's regulations outline detailed minimum standards for development in flood hazard areas defined as FEMA Special Flood Hazard Areas and Floodway Areas.

The Town 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.
- 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 as described below.

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 Management Plan (LEMP)
- 4) Local Hazard Mitigation Plan (LHMP)

17.5% funding for eligible 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.

*Wallingford's current ERAF rate is 12.5% because they have adopted all four mitigation measures. Wallingford could increase their ERAF rate to 17.5% by adopting river corridor protection bylaws.*

## Mitigation Action Identification

The Hazard Mitigation Planning Team discussed the mitigation strategy, reviewed projects from the 2015 Plan, and identified possible new actions from the following categories for each of the highest 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 community support for 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:

The intent of River Corridor Bylaws is to 1) allow for 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 infill (developing vacant parcels in existing urban areas that are largely developed) 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 and injuries 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:** FEMA policy encourages and may provide funding for the removal of 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 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:** Regular maintenance will help drainage systems and flood control structures continue to function properly. Techniques include: 1) routinely cleaning and repairing stormwater infrastructure – culverts, catch basins, and drain lines; 2) routinely cleaning debris from support bracing underneath low-lying bridges; and 3) inspecting bridges and identifying if any repairs or retrofits are needed to maintain integrity or 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; 2) armoring the banks of streams near roadways to prevent washouts or 3) rerouting a stream away from a vulnerable roadway; and 4) 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 conditions often provide floodplain protection, riparian buffers, groundwater infiltration, 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; 4) minimizing impervious area development; and 5) 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 keeping water within the pipes moving by letting a faucet drip during extreme cold weather may prevent freezing and the buildup of excessive pressure in the pipeline, avoiding 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 the Town 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
<b>Local Plans and Regulations</b>									
Plan for and Maintain Adequate Road and Debris Clearing Capabilities	1	1	1	1	1	1	6	1	Yes
Update Road Erosion and Culvert Inventories	1	1	1	1	1	1	6	1	Yes
Review VTrans Bridge Inspection Reports <sup>1</sup> and Plan for Identified Repairs to Prevent Scour	1	1	1	1	1	1	6	1	Yes
Manage Development in Erosion Hazard Areas by Adopting River Corridor Bylaws	1	1	1	0	1	1	5	1	Yes
Integrate Mitigation into Capital Improvement Programs	1	1	0	1	1	1	5	1	Yes
Improve Stormwater Management Planning by Completing a Stormwater Management Plan	A Stormwater Master Plan was completed in February 2019.								
<b>Structure and Infrastructure Projects</b>									
Stabilize Outfalls	1	1	1	1	1	1	6	1	Yes
Install/Re-establish 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
Protect Power Lines and Roadway by Inspecting and Removing Hazardous Trees in Road ROW	1	1	1	1	1	1	6	1	Yes
Increase Drainage/Absorption Capacities with Green Stormwater Management Practices	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	1	Yes
Routinely Clear Debris from Support Bracing Underneath Low-Lying Bridges	1	1	1	1	1	0	5	1	Yes
Elevate Roads Above Base Flood Elevation to Maintain Dry Access	1	1	1	0	1	1	5	2	No
	Although a low-lying section of Hartsboro Road from bridge (B22) to VT Route 7 is vulnerable to inundation flooding, the Planning Team did not believe the cost to elevate this section of road is reasonable compared to the benefits.								
Floodproof Critical Facilities	1	1	1	0	1	1	5	3	No
	Although there are no municipal critical facilities where the estimated floodproofing costs are reasonable compared to the perceived benefits, this may not be the case for Fire District #1. Therefore, it is worth noting in this Plan that Fire District #1 may consider floodproofing the generator at the sewer treatment plant and one or more of the flood-prone sewer manholes.								
Bury Power Lines	1	1	1	-1	1	1	4	3	No
Remove Existing Structures from Flood-Prone Areas	1	1	1	-1	1	1	4	3	No
Retrofit Critical Facilities to Strengthen Structural Frames to Withstand Wind and Snow Loads	No existing critical facilities that require structural 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.								
<b>Natural Systems Protection</b>									
Stabilize Stream Banks	The Planning Team did not evaluate these actions because there are no known areas; however, the Town will collaborate with the Rutland Natural Resources Conservation District to identify and implement natural systems protection projects that meet the goals of this Plan.								
Establish Vegetative Buffers in Riparian Areas									
Remove Berms									
Restore Incision Areas									

<sup>1</sup> VTrans inspects all town-owned bridges in the State's Town Highway Bridge Program every two years. Bridge inspection reports are available on the VTrans website.

Mitigation Action	Life Safety	Prop Protect	Tech	Political	Admin	Other Obj	Benefit Score	Est Cost	C/B
<b>Education and Awareness Programs</b>									
Keep the Ditches Clean Campaign	1	1	1	1	1	1	6	1	Yes
Educate Property Owners about Freezing Pipes	Wallingford Fire District #1 and the South Wallingford Cooperative already have “Drip Programs” in place to educate property owners about freezing pipes.								
Assist Vulnerable Populations	Wallingford already has a system in place to assist vulnerable populations – see 2020 Local Emergency Management Plan.								

**Table 5 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 \$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 6 Community Lifelines Description:** A Community Lifeline enables the continuous operation of critical government and business functions and is essential to human health and safety or economic security. The primary objective of lifelines is to ensure the delivery of critical services that alleviate immediate threats to life and property when communities are impacted by disasters. These critical services are organized into one of seven lifelines:



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



- Food, Water, Shelter**
1. Food
  2. Water
  3. Shelter
  4. Agriculture



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



- Energy (Power & Fuel)**
1. Power Grid
  2. Fuel



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



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



- Hazardous Materials**
1. Facilities HAZMAT, Pollutants, Contaminants



Table 6: Mitigation Action Implementation

**Plan for and Maintain Adequate Road and Debris Clearing Capabilities:** This includes capital planning and funding to support the appropriate number of staff and equipment needed to maintain the transportation network in Wallingford.

**ADDRESSED HAZARDS**

**Winter Storm**  
Primary Hazard



**High Winds**

**Lead Party**

Selectboard

**Type of Project**

Local Plans and Regulations

**COMMUNITY LIFELINES TARGETED**

**Safety & Security**



**Transportation**  
Primary Lifeline

**Area of Impact**

Town-wide; ±50 mile road network

**FUNDING SOURCES**

- Local funding

**PARTNERSHIPS**

- Road Commissioner

**BENEFIT SCORE = 6**

**PROJECT TIMELINE**

To coincide with preparing the annual Town budget

**Update Road Erosion and Culvert Inventories:** These inventories were completed in 2019 and serve as the basis for asset management and should be kept up-to-date annually, with a full re-assessment every 5 years.

**ADDRESSED HAZARDS**

**Flooding**

**Lead Party**

Road Commissioner

**Type of Project**

Local Plans and Regulations

**COMMUNITY LIFELINES TARGETED**

**Safety & Security**



**Transportation**  
Primary Lifeline

**Area of Impact**

Town-wide; ±32 miles of hydrologically-connected roads and ±520 culverts

**FUNDING SOURCES**

- Local funding
- VTrans Better Roads

**PARTNERSHIPS**

- Rutland Regional Planning Commission

**BENEFIT SCORE = 6**

**PROJECT TIMELINE**

Re-assessment during 2024 construction season

**Plan for Bridge Repairs:** Every two years, VTrans inspects all town-owned bridges that are in the State's Town Highway Bridge Program. These inspection reports will be reviewed and used to plan for any identified flood-related bridge repairs.

**ADDRESSED HAZARDS**

**Flooding**

**Lead Party**

Road Commissioner

**Type of Project**

Local Plans and Regulations

**COMMUNITY LIFELINES TARGETED**

**Safety & Security**



**Transportation**  
Primary Lifeline

**Area of Impact**

Seven (7) town-owned bridges: B7W, B47, B48, B50, B51, B54, B59

**FUNDING SOURCES**

- Local funding

**PARTNERSHIPS**

- Selectboard
- VTrans

**BENEFIT SCORE = 6**

**PROJECT TIMELINE**

Review Reports in Nov 2020  
Develop Plan for Repairs, if needed, by Jun 2021

**Manage Development in Erosion Hazard Areas with River Corridor Bylaws:** River Corridor Bylaws can be used in conjunction with Flood Hazard Area Regulations to manage development in areas prone to flood impacts. Wallingford will explore the feasibility of adopting River Corridor Bylaws.

**ADDRESSED HAZARDS****Flooding****Lead Party**

Planning Commission

**Type of Project**

Local Plans and Regulations

**COMMUNITY LIFELINES TARGETED****Safety & Security****Transportation**  
Primary Lifeline**Area of Impact**

Town-wide

**FUNDING SOURCES**

- Local funding

**PARTNERSHIPS**

- Selectboard
- Rutland Regional Planning Commission

**BENEFIT SCORE = 5****PROJECT TIMELINE**

Gauge the public support/political will in Jul 2021  
Submit recommendations to the Selectboard by Dec 2021

**Stabilize Culvert Outfalls:** Erosion at the outlet of culverts is common and can cause structural failure with serious downstream consequences. Properly stabilized outfalls protect channel bank stability and reduce erosion. Wallingford has identified the following locations where culvert outlet stabilization is needed.

**ADDRESSED HAZARDS****Flooding****Lead Party**

Road Commissioner

**Type of Project**

Infrastructure

**COMMUNITY LIFELINES TARGETED****Safety & Security****Transportation**  
Primary Lifeline**Area of Impact**

- 1) Upper and lower Dugway Rd
- 2) Sugar Hill Rd

**FUNDING SOURCES**

- Local funding
- VTrans Better Roads
- Grants-In-Aid
- FEMA HMGP

**PARTNERSHIPS**

- Selectboard
- ANR Stream Engineer
- US Army Corps of Engineers

**BENEFIT SCORE = 6****PROJECT TIMELINE**

- 1) 2022 construction season
- 2) 2023 construction season

**Re-work Roadside Ditches:** Properly installed and stabilized roadside ditches are critical to protect the integrity of the road. Although Wallingford has an extensive network of ditches, the areas noted below either need new ditches or have ditches that need to be re-worked to bring them up to current municipal Road Standards.

**ADDRESSED HAZARDS****Flooding****Lead Party**

Road Commissioner

**Type of Project**

Infrastructure

**COMMUNITY LIFELINES TARGETED****Safety & Security****Transportation**  
Primary Lifeline**Area of Impact**

New: Chapin Rd and Maraville Rd  
Rework: Sugar Hill Rd (just off 140),  
Mooney Rd, White Rocks Picnic Rd,  
West Hill Rd

**FUNDING SOURCES**

- Local funding
- VTrans Better Roads
- Grants-In-Aid

**PARTNERSHIPS**

- Selectboard

**BENEFIT SCORE = 6****PROJECT TIMELINE**

2021 – 2024 construction seasons

**Routinely Clean and Repair Stormwater Infrastructure:** Regular maintenance is one of the most effective ways to mitigate the impacts of flooding. Routine cleaning and repairs of ditches, culverts, and catch basins will be done according to the Highway Department’s maintenance schedule and the Municipal Roads General Permit (MRGP).

**ADDRESSED HAZARDS****Flooding****Lead Party**

Road Commissioner

**Type of Project**

Infrastructure

**COMMUNITY LIFELINES TARGETED****Safety & Security****Transportation**  
Primary Lifeline**Area of Impact**

Town-wide; ±50 mile road network and ±520 culverts

**FUNDING SOURCES**

- Local funding
- VTrans Better Roads
- Grants-In-Aid

**PARTNERSHIPS**

- Selectboard

**BENEFIT SCORE = 6****PROJECT TIMELINE**

See Highway Department’s Maintenance Schedule and MRGP

**Remove Hazardous Trees in Road Right-of-Way:** Hazardous trees in the road right-of-way can contribute to power and communication outages as well as debris in the roadway during winter storms and high wind events. Wallingford will remove hazardous trees within their road right-of-way as they are identified and/or request removal by Green Mountain Power if also within the power line right-of-way. This work will be done in accordance with the Rural Road Resilient Right-of-Ways Vegetation Assessment, which is currently under development.

**ADDRESSED HAZARDS****Winter Storm****High Winds****Lead Party**

Road Commissioner

**Type of Project**

Infrastructure

**COMMUNITY LIFELINES TARGETED****Energy**  
Primary Lifeline**Transportation****Communications****Area of Impact**

Town-wide

**FUNDING SOURCES**

- Local funding

**PARTNERSHIPS**

- Tree Warden
- Green Mountain Power
- Selectboard

**BENEFIT SCORE = 6****PROJECT TIMELINE**As needed  
See Rural Road Resilient Right-of-Ways Vegetation Assessment

**Install Green Stormwater Management Practices:** Green infrastructure uses vegetation, soils, and other elements and practices to restore some of the natural processes required to manage stormwater runoff and control flooding. The 2019 Wallingford Stormwater Master Plan recommends installation of an infiltration swale in the road right-of-way on Florence Avenue to provide some measure of local flood control.

**ADDRESSED HAZARDS****Flooding****Lead Party**

Road Commissioner

**Type of Project**

Infrastructure

**COMMUNITY LIFELINES TARGETED****Safety & Security****Transportation**  
Primary Lifeline**Area of Impact**

Florence Avenue

**FUNDING SOURCES**

- Local funding

**PARTNERSHIPS**

- Selectboard
- Vermont Youth Conservation Corp (VYCC)
- Rutland NRC

**BENEFIT SCORE = 6****PROJECT TIMELINE**

2024 construction season

**Adequately Size Drainage and Perennial Stream Culverts in Flood-Prone Areas:** Undersized culverts can lead to road washouts and flooding. Wallingford has identified several locations where upsized culverts are needed.

**ADDRESSED HAZARDS****Flooding****Lead Party**

Road Commissioner

**Type of Project**

Infrastructure

**COMMUNITY LIFELINES TARGETED****Safety & Security****Transportation**  
Primary Lifeline**Area of Impact**

- 1) Blackwood Rd – (2) 36”
- 2) Chapin Rd – (2) 36”
- 3) Sugar Hill Rd – (1) 36”
- 4) Haven Hill – (1) 48”
- 5) West Hill Rd – (1) 24”
- 6) Mooney Rd – (1) 24”
- 7) Maranville Rd – (1) 24”
- 8) Others as required by MRGP

**FUNDING SOURCES**

- Local funding
- VTrans Better Roads
- VTrans Structures Grant
- Grants-In-Aid
- FEMA HMGP

**PARTNERSHIPS**

- Selectboard
- ANR Stream Engineer
- US Army Corps of Engineers

**BENEFIT SCORE = 6****PROJECT TIMELINE**

- 1) 2021 – 2024 construction seasons
- 2) See MRGP

**Install Back-up Power at Critical Facilities:** Generators are emergency equipment that provide a secondary source of power to a facility. Wallingford has identified two critical facilities in need of back-up power.

**ADDRESSED HAZARDS****All Hazards****Lead Party**Selectboard – Town Office  
Schoolboard – Elementary School**Type of Project**

Infrastructure

**COMMUNITY LIFELINES TARGETED****Energy**  
Primary Lifeline**Food, Water, Shelter****Area of Impact**

- 1) Town Office (local emergency operations center)
- 2) Elementary School (local shelter)

**FUNDING SOURCES**

- Local funding
- FEMA HMGP

**PARTNERSHIPS**

- None

**BENEFIT SCORE = 6****PROJECT TIMELINE**

- 1) 2023 construction season
- 2) 2025 construction season

**Routinely Clear Debris from Low-Lying Bridge Support Bracing:** Regular maintenance will help structures continue to function properly and not create a hazard during a flood event. Wallingford has identified one (1) low-lying bridge.

**ADDRESSED HAZARDS****Flooding****Lead Party**

Road Commissioner

**Type of Project**

Infrastructure

**COMMUNITY LIFELINES TARGETED****Safety & Security****Transportation**  
Primary Lifeline**Area of Impact**

Bridge (B59) on Creek Road – the center support collects debris

**FUNDING SOURCES**

- Local funding

**PARTNERSHIPS**

- Selectboard
- ANR Stream Engineer
- US Army Corps of Engineers

**BENEFIT SCORE = 5****PROJECT TIMELINE**

As needed

**Establish Vegetative Buffers in Riparian Areas, Stabilize Stream Banks, Restore Incised Reaches,**

**Remove Berms and/or Accumulated Debris to Restore Flood Capacity:** Wallingford will work with the Rutland Natural Resources Conservation District to identify areas for collaboration to pursue these actions, especially those in the 2009 Mill River Corridor Management Plan.

**ADDRESSED HAZARDS****Flooding****Lead Party**

Selectboard

**Type of Project**

Natural Systems Protection

**COMMUNITY LIFELINES TARGETED****Safety & Security**  
Primary Lifeline**Transportation****Area of Impact**

- 1) Mill River Corridor
- 2) Roaring Brook at Vermont Railway crossing (near Fire Station)

**FUNDING SOURCES**

- Local funding
- VTrans Better Roads
- VANR Water Quality Grants

**PARTNERSHIPS**

- Road Commissioner
- Rutland NRCD
- ANR Stream Engineer
- US Army Corps of Engineers

**PROJECT TIMELINE**

Assemble a Selectboard-appointed committee to work with the Rutland Natural Resource Conservation District to identify areas for collaboration in Jan 2021.

**Educate Property Owners about Emerald Ash Borer and Keep the Ditches Clean Campaign:**

Wallingford will undertake education and awareness efforts on 1) the Emerald Ash Borer and the impacts of infestation and 2) the importance of keeping the municipal ditches free of yard waste and other debris.

**ADDRESSED HAZARDS****Flooding****Invasive Species****Lead Party**

Selectboard

**Type of Project**

Education and Awareness

**COMMUNITY LIFELINES TARGETED****Safety & Security****Transportation**  
Primary Lifeline**Area of Impact**

Town-wide

**FUNDING SOURCES**

- Local funding

**PARTNERSHIPS**

- Tree Warden

**BENEFIT SCORE = 6****PROJECT TIMELINE**

Fall 2020 – Keep the Ditches Clean educational outreach in *Wallingford Standard*

Spring 2021 – Emerald Ash Borer educational outreach in *Wallingford Standard*

## Process for Incorporating Plan Requirements into Other Planning Mechanisms

---

For Wallingford 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 the Town will incorporate this Plan into other plans, programs, and procedures:

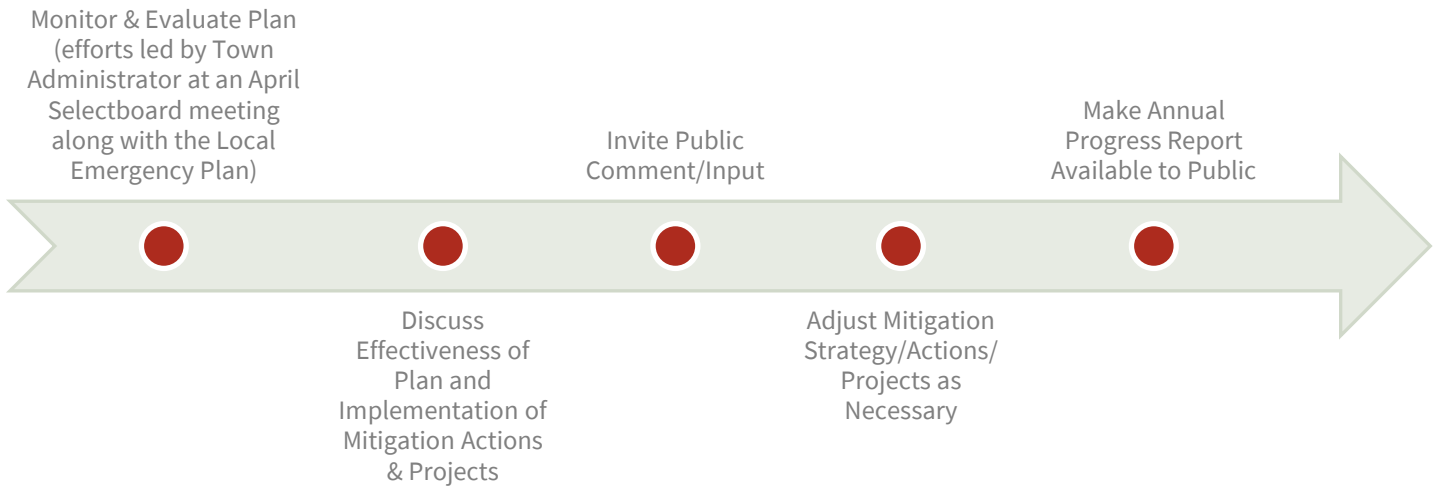
- The Selectboard will work with the Road Commissioner to incorporate risk assessment and hazard mitigation goals into capital planning efforts and improvement programs.
- The Planning Commission will integrate the hazard mitigation goals for disaster resiliency into the goals and objectives of the next updates to the Town Plan and Zoning and Flood Hazard Area Regulations, which are currently underway with a target completion date of 2021.
- The Road Commissioner will implement several mitigation infrastructure projects (e.g., upsize perennial and drainage culverts in flood-prone areas, re-work roadside ditches) through existing plans (2019 Road Stormwater Management Plan for hydrologically-connected road segments).
- The Selectboard (or an appointed committee) will work with the Rutland Natural Resources Conservation District to identify opportunities to collaborate on addressing the hazard mitigation projects identified in the 2009 River Corridor Management Plan for the Mill River.
- The results of the 2019 Wallingford Stormwater Master Planning process identified and refined designs for several potential sites that could have an impact on water quality and flood risk reduction throughout the Town. The Selectboard will develop a schedule for funding and completing the recommended projects. In 2020, the Rutland NRCD received a Design/Implementation Block Grant to complete 100% design for the stormwater project at the Wallingford Elementary School.

## 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 starting in 2022 in accordance with the following process:



The status (e.g., in progress, complete) of each mitigation 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.

### Updating

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

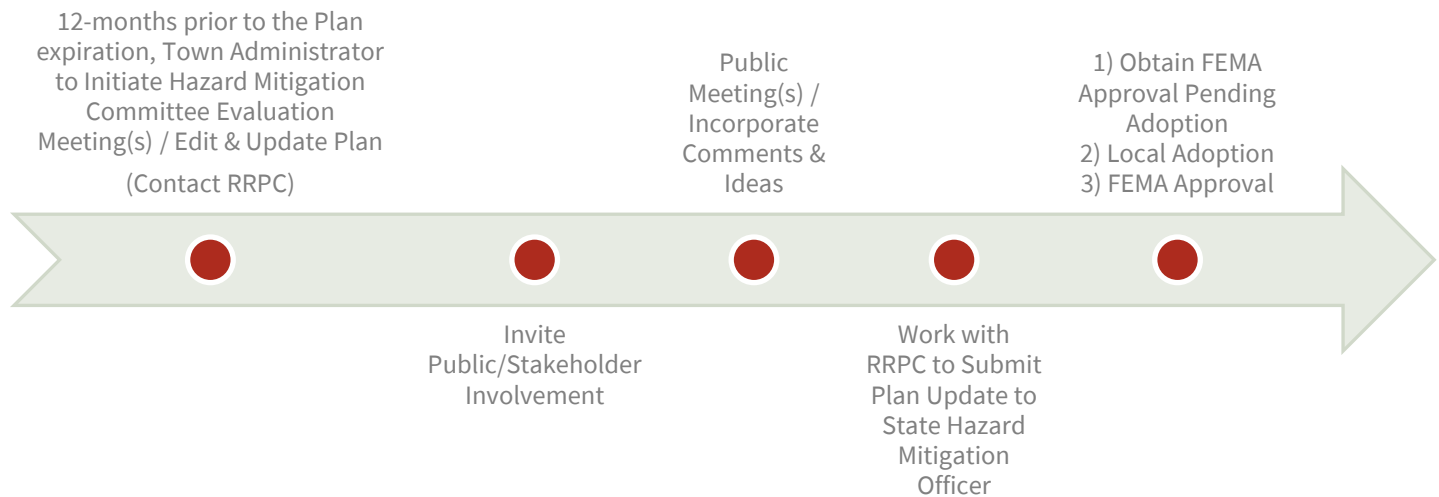


Table 7: Mitigation Action Status

Mitigation Action	2022	2023	2024	2025	2026
<b>Local Plans and Regulations</b>					
Plan for and Maintain Adequate Road and Debris Clearing Capabilities					
Update Road Erosion and Culvert Inventories					
Plan for Bridge Repairs					
Manage Development in Erosion Hazard Areas with River Corridor Bylaws					
<b>Structure and Infrastructure Projects</b>					
Stabilize Outfalls					
Re-work Roadside Ditches					
Routinely Clean and Repair Stormwater Infrastructure					
Remove Hazardous Trees in Road ROW					
Install Green Stormwater Management Practices					
Adequately Size Drainage and Perennial Stream Culverts in Flood-Prone Areas					
Install Back-up Power at Critical Facilities					
Routinely Clear Debris from Low-Lying Bridge Support Bracing					
<b>Natural Systems Protection</b>					
Stabilize Stream Banks					
Establish Vegetative Buffers in Riparian Areas					
Remove Berms					
Restore Incision Areas					
Remove Accumulated Debris to Restore Flood Capacity					
<b>Education and Awareness Programs</b>					
Keep the Ditches Clean Campaign					
Emerald Ash Borer Educational Outreach					



**CERTIFICATE OF ADOPTION**  
**TOWN OF Wallingford, Vermont Selectboard**  
**A RESOLUTION ADOPTING THE Wallingford, Vermont 2020 Local Hazard Mitigation Plan**

WHEREAS, the Town of Wallingford has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of the hazards profiled in the **2020 Wallingford, 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 Wallingford has developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for its **2020 Wallingford, 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 Wallingford; and

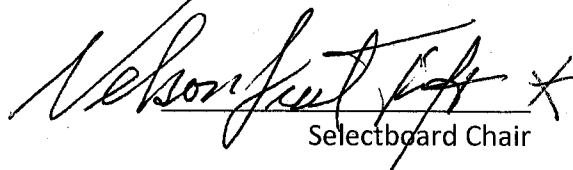
WHEREAS, the **Plan** recommends several hazard mitigation actions (projects) that will provide mitigation for specific natural hazards that impact the Town of Wallingford with the effect of protecting people and property from loss associated with those hazards; and

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

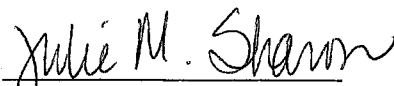
RESOLVED by Town of Wallingford Selectboard:

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

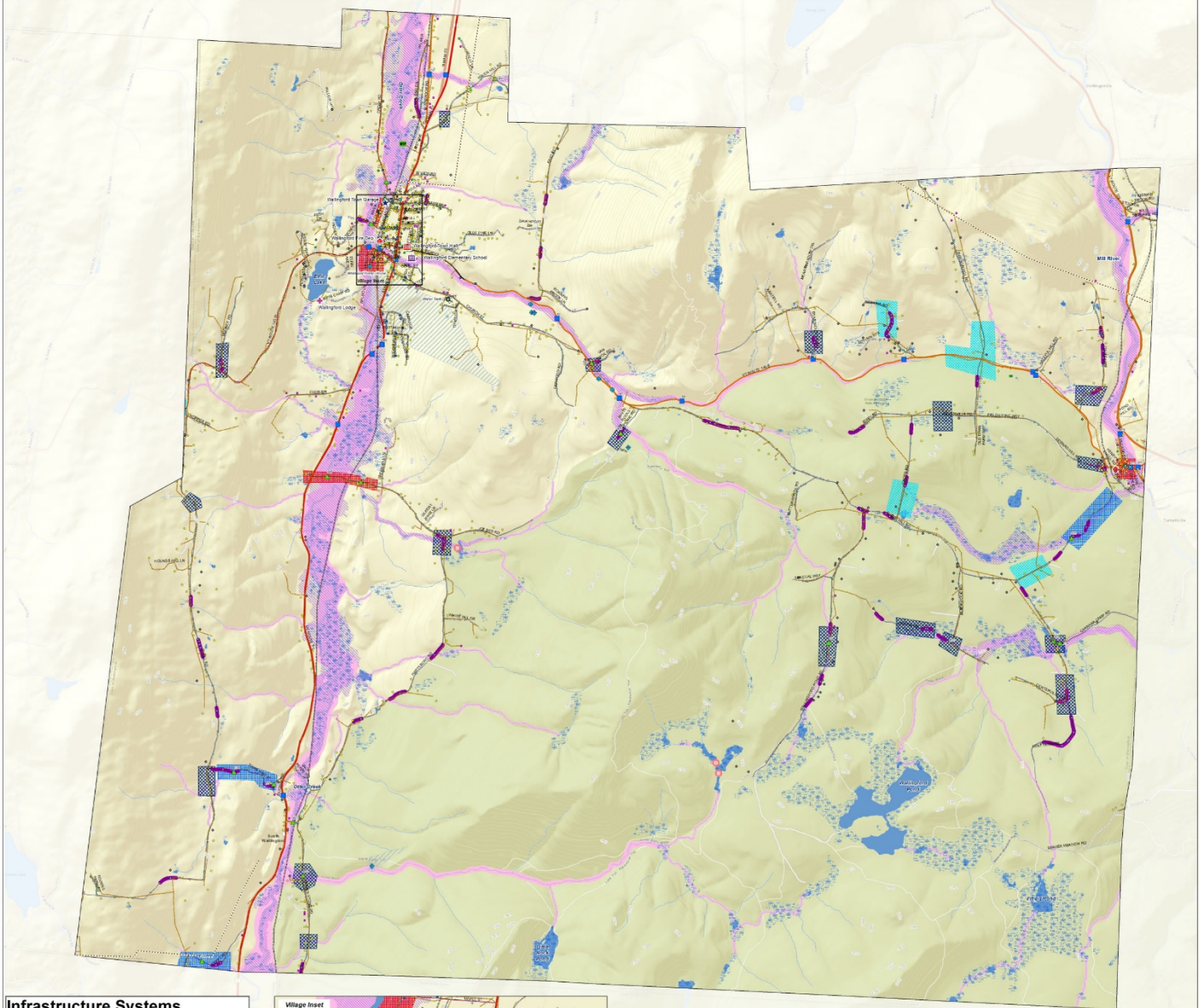
IN WITNESS WHEREOF, the undersigned have affixed their signature and the corporate seal of the Town of Wallingford this 15<sup>th</sup> day of February 2021.

  
Selectboard Chair

ATTEST

  
Town Clerk

# Wallingford, Vermont: Local Natural Hazards and Vulnerabilities Map



**Infrastructure Systems**

**Power**

- Substation
- Green Mountain Power Overhead Line
- VT Electric Transmission Line Corridors

**Water**

- Hydrant
- Well
- Water Tank
- MRGP Outfall
- Wastewater Treatment Plant
- Source Protection Area - Groundwater

**Transportation**

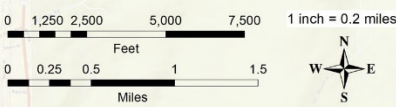
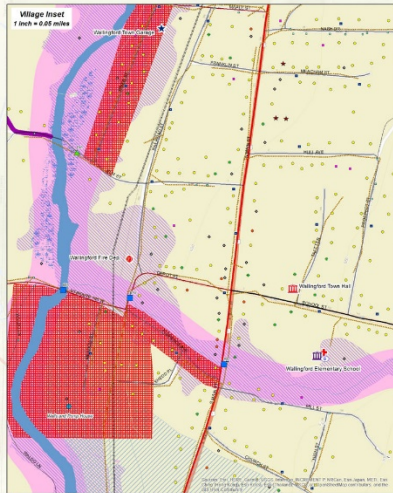
- Wallingford Culvert Inventory (2019)

**Bridges**

- State Bridge or Culvert
- Town Bridge

**Roads**

- US Highway
- State Highway
- Town Highway Class 1
- Town Highway Class 2
- Town Highway Class 3
- Town Highway Class 4
- Private



**Road Erosion Inventory**  
**Municipal Roads General Permit**  
 Does Not Meet Standard (as of July 2019)

**Structures**

- Cemetery
- Commercial
- All Other Structures

**Residential**

- Mobile Home
- Condominium
- Other Residential
- Multi-Family Residential
- Single Family Residential

**Critical Facilities**

- Wallingford Elementary School
- Wallingford Town Garage
- Wallingford Fire Stations

**Emergency Operations Center**

- Primary EOC - Wallingford Town Hall: 75 School St.
- Alternate EOC - Wallingford Elementary School: 126 School St.

**Emergency Shelters**

- Primary Shelter - Wallingford Elementary School: 126 School St.
- Alternate Shelter - Wallingford Lodge: 386 Boys Camp Rd.

**Local Hazards**

- Fluvial Erosion
- Inundation
- Flash Flooding / Washouts
- Areas of Drifting Snow



**Natural Resources**

- Vermont Significant Wetland Inventory
- Rivers and Streams
- FEMA Special Flood Hazard Area
- River Corridor Small Streams(50 ft setback)
- Vermont River Corridor
- Lakes, Ponds, & Major Rivers

## 2015 Mitigation Actions and Projects

Hazards Mitigated	Mitigation Action	Local Leadership	Funding Resources	Target Start	Target End	2020 Status
Flooding	Relocate Fire District #1 building at 120 Railroad St. which is in flood hazard area	Fire District #1 Prudential Committee	Grants, loans, Fire District, HMPG	5/2015	12/2020	Not complete – not a current priority
Flooding	Replace culverts: two culverts on West Hill Road (24" each); three culverts on Sugar Hill Road (1 – 36" and 2 – 18'). Upon annual review, additional culverts will be added to the list to be replaced.	Road Commissioner	Local funds; culvert budget was increased from \$2,000 in FY15 to \$2,800 for FY16	5/2015	12/2020	Complete - replaced culverts on West Hill Road and Sugar Hill Road; Annual review of culvert inventory to prioritize replacements remains a priority
All emergency situations: flooding, storm- related power outages, hazardous materials incidents	Install fuel tanks, portable generators, and wiring needed for portable generators in Town Hall (designated Emergency Operations Center) and Wallingford Elementary School (designated Emergency Shelter).	Selectboard	Local Funds	12/2018	12/2020	Not complete – remains a priority
Hazardous Materials Incidents	Install arms on all railroad crossings	Selectboard	State and Vermont Railway funding	12/2015	12/2020	This is not a natural hazard so is no longer addressed in this Plan.

## 2015 Preparedness Actions and Projects

Hazards Mitigated	Preparedness Action	Local Leadership	Funding Resources	Target Start	Target End	2020 Status
Flooding	Examine current zoning and flood hazard ordinances and develop recommendations.	Local planning commission	State funding: Municipal Planning Grant	5/2015	12/2015	This action is underway – the Zoning Regulations are being updated with a targeted completion date of 2021
Highway and Railroad accidents; hazardous materials incidents	Continue evacuation/emergency preparedness drills with vulnerable populations	Local Planning Commission is doing this on an ongoing basis.	Local funds	8/2015	No end date; Annually	This is not a natural hazard so is no longer addressed in this Plan.
Hazardous Materials Incidents	Training for EMS responders	Fire Districts, Police, EMS	State Public Safety grants	5/2015	No end date; Annually	This is not a natural hazard so is no longer addressed in this Plan.

Hazards Mitigated	Preparedness Action	Local Leadership	Funding Resources	Target Start	Target End	2020 Status
All hazards	Examine current Town Plan and ensure that identified hazard areas and needed strategies are addressed	Selectboard and Planning Commission	State funding such as Municipal Planning Grant.	1/2016	3/2018	This action is underway – the Town Plan is being updated with a targeted completion date of 2021
All emergency situations: flooding, storm-related power outages, hazardous materials incidents	Obtain Red Cross approval of other town emergency shelters	Town Hall is Red Cross-approved. Training volunteers still needs to be done.	Local funds; Red Cross	12/2015	12/2017	Not complete – remains a priority
All hazards	Incorporate proposed strategies into Annual Budget; amended to delete CIP which town does not have.	Selectboard	Local funds	12/2015	12/2020	Ongoing – remains a priority

**COVID-19 UPDATE**

- The SB approved a COVID-19 Control Plan as mandated by the state. The Plan features requirements for visitors, including mandatory face masks, use of hand sanitizers, safe distancing practices, appointments for researchers, and a limit on the total number of people (employees and visitors) inside Town Hall at any one time. And of course, anyone feeling ill or those who have been exposed to COVID-19 or those who have been in close contact to anyone with the virus are not allowed in the building. Those municipal employees whose jobs allow them to work remotely will continue to do so.
- Elfin Lake will NOT be open to the public this year per orders of the Selectboard on May 4, 2020. There will be NO lifeguards, concessions or public restrooms.
- The Great Elfin Lake 5K race has been cancelled for this summer.

**Selectboard Meeting Highlights**

**06/01.** The Selectboard approved the road commissioner's request to purchase a culvert for Centerville Road; appointing Charlie Woods as temp road foreman in S. Lanfear's absence; reviewed a report of voter approved funds and their separate bank accounts; deferred decision on unused budget monies until the 7/6 meeting; reviewed the Investment Policy and semi-annual Investment Report; approved the state- mandated COVID-19 Control Plan; approved a maintenance chore list for the Lake this summer; approved the acceptance of appliances and construction debris at the Transfer Station, voted not to run the Summer Program this year; tabled a decision on holding a basketball tournament; voted not to hold Wallingford Day this summer as it would draw crowds; approved the annual agreement with NEMRC for assessor services; agreed to include review of the Driveway Policy at the next meeting; agreed to continue municipal meetings via Zoom; took no action on Recreation Committee appointments until a public forum is held to gather community input on bike trails at Stone Meadow; and approved employees carrying over unused vacation time as a result of COVID-19.

**06/15.** The Selectboard tabled the paving bids until the next meeting when the Road Commissioner can attend; approved next year's contract with the Sheriff Department; agreed to go out to bid on the new basketball court rehab; denied a request for new trees for Elfin Lake; approved the Conservation and Energy Committees meeting at Town Hall; reviewed the energy audit list for energy efficiency improvements at Town Hall; agreed to send out the annual letter to owners of unlicensed dogs; tabled a decision to apply for a grant for a stormwater master plan until feedback is received from WFD #1 and MRUUSD personnel; appointed Elaine Warzocha as Auditor; approved having the road crew spread chloride on East Street this week; approved a payout of some grandfathered Combined Time Off to C. Woods; approved a temporary increase for C. Woods who will assume the road foreman post in S. Lanfear's absence; and approved paying Summer Rec Directors L. Cotrupi and L. Roundy for work related to the summer program.

**Wallingford Local Hazard Mitigation Plan**

The Town of Wallingford's Local Hazard Mitigation Plan (LHMP) must be updated every five years. A committee comprised of Selectboard members Nelson Tift and Bruce Duchesne, Road Foreman Steve Lanfear, Road Commissioner Phil Baker, Town Clerk and Treasurer Julie Sharon, Town Administrator Sandi Switzer, and Wallingford Volunteer Fire Dept. Fire Chief Michael Hughes will work with Steffanie Bourque, Emergency Management Planner with the Rutland Regional Planning Commission (RRPC), on the update. A Kick-Off Meeting was held on June 9.

The purpose of the LHMP is to assist the Town in identifying natural hazards facing our community, ranking them according to local vulnerabilities, and then identify strategies to reduce risks from vulnerabilities of highest concern.

As the committee works through the update process expected to take several months, public hearings will be scheduled to seek input from residents and business owners alike. Your participation would be greatly appreciated. In the meantime, if you have any immediate questions or comments, please contact me and I will share your input with committee members.

The planning process will include; a Project Kick-Off Meeting with Planning Team; Compile Hazards Information & Complete Vulnerability Assessment; Present Hazard Identification & Vulnerability Assessment in Public Meeting; Develop Mitigation Strategy; Present Mitigation Strategy in Public Meeting; Submit Plan to Vermont Emergency Management (VEM) and Revise if Needed; Submit Plan to FEMA, Revise if Needed, and Adopt Plan.

The plan is expected to be finalized late fall.

Submitted by Sandi Switzer, LHMP Committee Member  
townadmin@wallingfordvt.com

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**Wallingford Local Hazard Mitigation Plan**

The Town of Wallingford's Local Hazard Mitigation Plan (LHMP) is in the process of being updated as required by FEMA every five years. A committee comprised of Selectboard members Nelson Tift and Bruce Duchesne, Highway Department employees Steve Lanfear and Charlie Woods, Town Clerk and Treasurer Julie Sharon, Town Administrator Sandi Switzer, and Wallingford Volunteer Fire Dept. Fire Chief Michael Hughes has been working with Steffanie Bourque, Emergency Management Planner with the Rutland Regional Planning Commission (RRPC), on the update.

The purpose of the LHMP is to assist the Town in identifying natural hazards facing our community, ranking them according to local vulnerabilities, and then identify strategies to reduce risks from vulnerabilities of highest concern.

The draft document was shared with the Planning Commission on August 12 for review and commentary and then submitted to the full Selectboard on August 17. Residents are being invited to review the LHMP and submit written comments to the Selectboard by September 8. A hard copy of the draft document is available at Town Hall. Citizens may also view it online by visiting the Rutland Regional Planning Commission's website <https://www.rutlandrpc.org/> or the Town of Wallingford's municipal website <https://www.wallingfordvt.com/documents>.

Written comments may be submitted to: Town of Wallingford, 75 School Street, Wallingford, VT 05773, Attn: Town Administrator or emailed to [townadmin@wallingfordvt.com](mailto:townadmin@wallingfordvt.com).

The plan is expected to be finalized late fall.

Submitted by Sandi Switzer, LHMP Committee Member  
[townadmin@wallingfordvt.com](mailto:townadmin@wallingfordvt.com)

**Christopher J. Book**  
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**Back-yard Library Plant Sale**  
**Saturday, September 12**  
**9:00 a.m. to Noon**

Sponsored by The Friends of the  
Gilbert Hart Library

All proceeds go to purchase new books

Beautiful Gardener's Fall Basket Raffle  
Tickets: \$5 each  
Call Sabra at 259-6010 for tickets

### Selectboard Meeting Highlights

**10/05.** Board members reviewed estimates secured by Tree Warden Steve Pytlik for removal of trees on N Main St. If they are in the state ROW, it would be VTrans' responsibility; otherwise, it's the landowners. Matter delayed until VTrans officials respond. Road Commissioner Baker supports acquiring road salt from American Rock Salt at \$70/ton up to 500 tons.

Ralph Corbo expressed concern regarding military refueling training missions in the skies above East Wallingford, citing a recent training incident in CA and the potential threat to citizens near those training missions. He asked the Board to contact the Congressional delegation with concerns. Mr. Corbo will draft a letter for Board review and possible endorsement.

There was a discussion regarding the Energy Committee's energy efficiency upgrade recommendations for Town Hall and the need to paint the exterior trim. A notice seeking a handy person will be posted on Front Porch Forum for the air sealing need with painting insulation projects delayed until next year.

Changes were made to the insurance coverage limits on the VLCT PACIF Renewal form. The ordinance to lower the speed limit on East St to 25 m.p.h. was approved. No action taken on the Road Commissioner's requests for No Thru sign on Church Street. Discussion on basketball court resurfacing and line striping near the new No Parking area by Cumberland Farms.

**10/19.** The Board approved a \$5,000 grant awarded by the Center for Tech & Civic Life for election-related expenses; accepted the resignation of Erika Berner on the DRB as she is now the Zoning Administrator; appointed David Castonguay to the Energy Committee; reviewed the quarterly financials; approved up to \$200 in expense for Rec Committee/Halloween scavenger hunt; directed the DRB to recommend a member replacement; reviewed 2 state bridge inspection reports; denied the town digging test pits at WES as part of Stormwater Mgt. design project; and referred Sidewalk grant opportunities to the Wallingford Fire District.

### **Wallingford Local Hazard Mitigation Plan**

The Town of Wallingford's Local Hazard Mitigation Plan (LHMP) must be updated every five years as required by FEMA. A committee comprised of Selectboard members Nelson Tift and Bruce Duchesne, Highway Department employees Steve Lanfear and Charlie Woods, Town Clerk & Treasurer Julie Sharon, Road Commissioner Phil Baker, Town Administrator Sandi Switzer, and Wallingford Fire Chief Michael Hughes has nearly completed that update. The group has been working with Steffanie Bourque, Emergency Management Planner with the Rutland Regional Planning Commission (RRPC), throughout this process. The update is being funded by a \$7,612 FEMA grant.

The purpose of the LHMP is to assist the Town in identifying natural hazards facing our community, ranking them according to local vulnerabilities, and then identify strategies to reduce risks from vulnerabilities of highest concern.

The draft document was shared with the Planning Commission, residents and the full Selectboard. Citizens may view it online by visiting RRPC's website <https://www.rutlandrpc.org/> or the Town of Wallingford's municipal website <https://www.wallingfordvt.com/documents/A> public hearing will be scheduled in November for citizen input. Please look for announcements on the municipal website and Front Porch Forum.

Submitted by Sandi Switzer, LHMP Committee Member  
townadmin@wallingfordvt.com

### **Town Grants Received in 2020!**

Local Government Expense Reimbursement (COVID) - \$2,531  
Local Hazard Mitigation Plan—\$7,612  
Grants In Aid – Hawkins, Parker and Van Wyck ditching and culverts - \$14,760  
VLCT PACIF Safety - \$946  
Better Roads – Hartsboro – ditching and culverts - \$16,137  
Municipal Planning Grant – Oddfellows Block \$22,000  
VTrans Structures Grant – West Hill \$18,046  
Election Administration Grant—\$5,000  
Municipal Records Digitization Grant—\$21,086  
Secretary of State's Expense Reimbursement (Secure Ballot Drop Box & Related Costs) - \$756

Note, other grant applications are pending, including a paving grant, a bridge grant, two Better Road grants for work on Mooney Road, West Hill Road, and White Rocks Picnic Road.

